Administrative Committee

Regular Meeting
~Agenda~

Laurie M. Hopkins
City Clerk

www.ci.moscow.id.us

208-883-7015

Monday, January 26, 2026 **4:00 PM** **Council Chambers**
206 E. Third St.

The Moscow Mayor, City Council and Staff welcome you to today's meeting. We appreciate and encourage public participation. For regular agenda items, an opportunity for public comment is sometimes provided after the staff report. However, the formality of procedures varies with the purpose and subject of the agenda item and limitations may be placed on the time allowed for comments. If you plan to address the Committee, you will find a list of "Tips for Addressing the Council" in the door pocket outside the City Council Chambers. Please note that council committee meetings are televised, videotaped and/or recorded. Links to view the City Council meeting live can be found on the City website and the City's YouTube channel. Thank you for your interest in City government.

REGULAR AGENDA

1. **Selection of Committee Chair and Vice Chair (ACTION ITEM)**

2. **Approval of Administrative Committee November 24, 2025 Minutes (ACTION ITEM) - Laurie M. Hopkins**

3. **Moscow Winterfest Alcohol Use Request in Entertainment District (ACTION ITEM) - Amanda Argona**
   The Moscow Chamber of Commerce + Visitor Center is hosting its annual Moscow Winterfest on Saturday, February 7, from 12 pm to 4 pm on Main Street between 3rd and 6th Streets. The applicant anticipates eight licensed beer and/or wine vendors and ten non-alcoholic and/or food vendors, along with a variety of outdoor games and activities for all ages. Warming fires may be provided at the event at the determination of the Moscow Volunteer Fire Department. The event has been reviewed and approved as of November 17, 2025. Following standard operating procedures for events with alcohol that are within the Entertainment District boundaries, Moscow Winterfest is requesting a temporary suspension of the open container law by resolution. Per Moscow City Code, Title 10, Chapter 1, Section 1-12; a draft resolution has been prepared for Administrative Committee for Council's consideration.
   PROPOSED ACTIONS: Recommend approval of the resolution allowing for the temporary suspension of the open container law within the event footprint of the Entertainment District for Moscow Winterfest for the duration of the event; or provide staff further direction.

4. **Public Art at Moscow Police Department (ACTION ITEM) - Megan Cherry**
   The Moscow Police Department, Arts staff, and the Moscow Arts Commission have developed a public art project concept to commemorate the 20th anniversary of an incident in Moscow, ID that greatly affected the lives of multiple law enforcement personnel and resulted in three civilian deaths as well as the loss of one officer's life. The sculptural artwork would be permanently installed in an alcove at the front of the MPD station at 155 Southview Ave. The installation would be complete in advance of the commemoration ceremony on May 19, 2027. Budgeted items include finalist honoraria, the artwork commission, lighting, and signage. The project is

now set to move into the submission phase upon approval of the RFQ and artist agreements by City Council. The project is slated for an initial submission period from February - March 2026, with a goal of completing installation by the end of April 2027.
PROPOSED ACTIONS: Recommend approval of the RFQ and proposed installation, or provide staff with further direction.

5. **Woodbury 1st Addition Final Replat and Final Major PUD Amendment (ACTION ITEM) - Mike Ray**

   On July 21, 2025, City Council conducted a public hearing and approved the preliminary subdivision replat and preliminary Major Planned Unit Development (PUD) Amendment for Woodbury 1st Addition with one condition. On November 26, 2025, the applicant submitted the final subdivision replat and final Major PUD Amendment to be reviewed by the Planning and Zoning Commission and City Council. After reviewing and comparing the preliminary replat and preliminary Major PUD Amendment that was approved with the final replat and final Major PUD Amendment, it is Staff's determination that the proposal is substantially consistent with the application that provided preliminary approval. The Planning and Zoning Commission reviewed the final subdivision replat and final Major PUD Amendment at their meeting on January 14, 2026, and recommended approval to City Council with no conditions.
   PROPOSED ACTIONS: Recommend approval of the Woodbury 1st Addition Final Replat and Final Major PUD Amendment; or recommend approval of the Woodbury 1st Addition Final Replat and Final Major PUD Amendment with conditions; or recommend denial of the Woodbury 1st Addition Final Replat and Final Major PUD Amendment; or provide staff further direction.

6. **Idaho Energy Efficiency & Conservation Block Grant Program Application (ACTION ITEM) - Alisa Anderson / Karl Riedinger**

   The Idaho Energy Efficiency and Conservation Block Grant (Idaho EECBG) provides competitive subawards to eligible cities and counties to promote energy efficiency, reduce costs, and support community growth, with funding managed by the Governor's Office of Energy and Mineral Resources (OEMR). The program is funded through the Infrastructure Investment and Jobs Act (IIJA), offering federal grants to states and tribes for local projects, with a second round announced to continue investing in energy-saving initiatives. Previous funding supported retrofits in municipal facilities, with applications due by February 4, 2026, and projects completing by September 1, 2026, with a maximum cost of $50,000 and no cost share required. The City staff is requesting approval to apply for a grant to purchase a $45,000 Mean Green "EVO" electric zero-turn lawn mower, which offers up to 8 hours of continuous operation, significantly reduces fuel and oil consumption, operates quietly at 78-82 db, and enhances safety and efficiency for the Parks Department by allowing early morning mowing free from noise disruption.
   PROPOSED ACTIONS: Recommend approval to apply for an Idaho Energy Efficiency & Conservation Block Grant in amount not to exceed $50,000 to purchase a Mean Green Mower or provide staff further direction.

7. **Membership and Mutual aid agreement to the Idaho Water/Wastewater Agency Response Network (IDWARN) (ACTION ITEM)- Justin Kilborn**

   IDWARN is a voluntary, statewide mutual aid network that allows water and wastewater utilities to request and provide personnel, equipment, and materials in response to emergency events such as natural disasters, major infrastructure failures, or other utility emergencies. The City of Moscow approved participation in the Idaho Water/Wastewater Agency Response Network (IDWARN) in April 2011. IDWARN has recently renewed and updated its mutual aid

agreement. The updated agreement formalizes the framework under which participating agencies may provide or request assistance and establishes the terms related to reimbursement, liability protections, and operational coordination. The renewed agreement has been reviewed by the City's legal counsel and was found to be sufficient, with no issues identified. Participation in IDWARN does not require payment of membership fees and does not obligate the City to respond to any request for assistance. The agreement preserves local control and allows the City to determine, on a case-by-case basis, whether resources are available and appropriate to deploy. When the City provides assistance to another agency, the agreement allows for reimbursement of eligible costs, including personnel time, equipment use, and materials. The agreement also establishes legal and liability protections designed to support emergency response activities and reduce risk to participating agencies. Continued participation in IDWARN is consistent with the City's prior approvals, current emergency response practices, and standard best practices within the water and wastewater utility industry. Maintaining this agreement strengthens the City's ability to both request and provide support during emergency situations, improving overall system resilience.

PROPOSED ACTIONS: Recommend authorization for the renewal of the Mutual Aid Agreement and continued membership in the Idaho Water/Wastewater Agency Response Network (IDWARN); or provide staff with further direction.

8. **Task Order No. 27 Moscow Water Reclamation Facility (WRF) – Effluent Filtration, Dewatering System, and Disinfection System Improvements (ACTION ITEM) - Evan Timar**

   Task Order No.27, pursuant to the Master Agreement for Professional Services between City of Moscow and J-U-B Engineers, consists of design phase and bidding services for the effluent filtration improvements, dewatering system improvements, and disinfection system scrubber replacement. The dewatering system and the gas scrubber are original pieces of equipment installed during the Phase II facility upgrades in 1996 and are now well beyond their intended service life. Each of these systems plays an essential role in keeping the facility operating safely and reliably. The effluent filtration system helps reduce the amount of phosphorus released into the receiving waters, protecting water quality and meeting regulatory limits. The dewatering system removes water from residual solids so they can be handled and disposed of efficiently. The disinfection system scrubber is a critical safety system that treats air in the event of a chlorine or sulfur dioxide gas release, helping protect staff, the public, and the environment. Together, these systems support continuous, safe, and compliant plant operations. Implementing the upgrades recommended in the 2020 Water Reclamation Facility Plan will reduce operational risk, improve system reliability, and ensure the facility can continue to meet current and future regulatory requirements.

   PROPOSED ACTIONS: Recommend acceptance of the Agreement in the amount of $1,204,300 or provide staff with further direction.

9. **Comprehensive Water and Sewer System Plans Project (ACTION ITEM) - Tyler Palmer**

   As part of the management of the City of Moscow's public water and sewer utilities, it is necessary to perform a periodic review of the existing Public Drinking Water and Sewer Conveyance Systems and to assess the system's needs to resolve existing issues and meet long term growth, rehabilitation, and capacity demands. The State of Idaho Department of Environmental Quality (IDEQ) requires Public Drinking Water and Sewer Systems to prepare and update their "System Facilities Plan" periodically. The most recent comprehensive plans were adopted and approved in 2011 (sewer) and 2012 (water). The City of Moscow entered into a professional services agreement (PSA) to update the City's Comprehensive Water and Sewer Conveyance System Plans with HDR Engineering, Inc. The PSA tasked HDR to provide a

review of the existing systems, identify system inadequacies, and detail system improvements to resolve deficiencies and meet future growth needs. The updated Plans, before you today, will serve as the management and business plan for the water and sewer utilities covering policies, operations, water quality and supply, water rights, and system improvements. They provide a detailed utilities work plan for the next decade, identify long-term needs and opportunities, and outline strategies for utility management for the next 50 years. Following adoption by the council, the Plans will be submitted to IDEQ for approval.
PROPOSED ACTIONS: Recommend adoption of the updated Comprehensive Water and Sewer System Plans, or provide staff further direction.

ADJOURN

NOTICE: It is the policy of the City of Moscow that all City-sponsored public meetings and events are accessible to all people. If you need assistance in participating in this meeting or event due to a disability under the ADA, please contact the City's ADA Coordinator by phone at (208) 883-7600, TDD (208) 883-7019, or by email at adacoordinator@ci.moscow.id.us at least 48 hours prior to the scheduled meeting or event to request an accommodation. The City of Moscow is committed to ensuring that all reasonable accommodation requests are fulfilled.

Administrative Committee

Regular Meeting
~Minutes~

www.ci.moscow.id.us

Laurie M. Hopkins
City Clerk

208.883.7015

Monday, November 24, 2025	**4:00 PM**	**Council Chambers 206 E. Third St.**

The meeting was called to order at 4:00 p.m.
PRESENT: Sandra Kelly, Hailey Lewis
ABSENT: Bryce Blankenship, Drew Davis, Julia Parker
OTHERS: Council-elect Evan Holmes
STAFF: Bill Belknap, Mia Bautista, Alisa Anderson, Megan Cherry, Mike Ray, Cody Riddle, Laurie M. Hopkins

REGULAR AGENDA

1. **Approval of Administrative Committee October 27, 2025 Minutes (ACTION ITEM) - Laurie M. Hopkins**

The minutes were approved as presented.

2. **Access Agreement-City of Moscow and New Saint Andrews College (ACTION ITEM) - Cody Riddle**

   City Staff is recommending approval of an agreement that will allow New Saint Andrews College (NSA) access across unimproved City property adjacent to the college building at 112 N. Main Street. The access easement will allow NSA to improve a non-conforming parking lot that has historically served tenants of the building.

   PROPOSED ACTIONS: Recommend approval of the access easement; or provide staff with further direction.

Riddle introduced the item as written above. The city property is just over 3,500 square feet and meant to be part of the streetscape. The purpose of the easement is for a service drive which would provide conforming parking spaces. The draft agreement has an initial term of 20 years and includes exclusive use in support of the academic institution. The annual payment would be $1,200 with 3% annual escalation. NSA is responsible for all improvements and maintenance with two years to complete. The City has two years to complete the landscaping once NSA's improvements are complete.

Lewis asked about landscaping cost. Belknap said the City envisioned this area being part of the downtown beautification project. He didn't think it would be difficult to plan for the cost. Lewis asked if the off-street parking conditions of the CUP that was granted in 2017 are being met, why is this coming up now. Riddle said both areas are non-conforming and the required parking is scattered throughout the neighborhood. This provides them assurance for the next 20 years and relying on less off-street parking. Kelly felt it didn't make sense as it is just more parking. Belknap said this would allow some of the off-site parking spaces closer to the use, minimizing the impact on the surrounding areas. Kelly felt there would just be more parking spaces and those that were parking there, won't be able to now. Belknap said the CUP had a requirement of off-street parking to mitigate the impact on the downtown public parking. This is an opportunity to have parking on site to achieve that goal. Riddle said it would not function as a two-way service drive without using some of the city property.

Kelly asked about the landscaping plan and loss of parking spaces. Belknap said the area was part of the 2015 beautification plan and has not yet been designed. The area does not have recognized parking spaces and the City has wanted to see that area landscaped, not a parking lot.

Lewis asked if 20 years was standard? Belknap said given the scale of investment it makes sense to be 20 years.

Lewis and Kelly felt it should go before the full council with no recommendation.

3. City Shop Public Art Project (ACTION ITEM) - Megan Cherry

In anticipation of the construction of the new City Shop facility, the Moscow Arts Commission (MAC) discussed and voted to recommend installation of a mural. Arts staff conducted budget research by analyzing factors such as the cost per square foot and project scope in 10 calls for mural artwork posted between 2024 - 2025 in the United States. The $55,000 project budget, proposed to be funded by the 1% for Arts fund, will accommodate $36,000 to construct a wall with integrated lighting to serve as a permanent mural location; $6000 to be paid to a painting contractor to complete site prep, priming, and anti-graffiti clear coat; $1000 honoraria for up to three design finalists; and an artwork commission honorarium of $10,000. The project is now set to move into the submission phase upon approval of the RFQ and artist agreements by City Council. At present, the project is slated for an initial submission period from January - February 2026, with the goal of completing installation at the end of September 2026.

PROPOSED ACTIONS: Recommend approval of the RFQ and proposed installation, or provide staff with further direction.

Cherry provided a timeline of the project. A survey was sent to the public and Public Works staff in the summer of 2025. Staff received 37 public responses with 31 of them in favor of art at the city shop. Comments regarding subject matter included animals and/or nature, city shop equipment and the Palouse landscape. The project would be a concrete wall between the two gates on Polk Street and would include lighting. There is 390 sf of printable mural space. Cherry referenced the budget as written above.

Lewis pointed out in response to a couple public comments about paving rather than art, the public art projects are paid for from a separate and specific art fund and not street funds. Lewis asked why build a wall when there is a building that art could be placed upon. Cherry said the MAC had a robust discussion and felt there was a lot of chain link and felt aesthetically, they would like to address that. The shop will have new metal siding which is not conducive to painting.

Kelly said she is a big fan of murals and looking forward to it.

The Committee recommended approval and that it be placed on the Council consent agenda.

4. PUBLIC MEETING: Proposed Lot Division Located at 1026 North Mountain View Road (ACTION ITEM) - Mike Ray

The applicant, Church and Church Inc, is requesting a lot division to create three lots of approximately 11,792 square feet, 12,501 square feet, and 12,496 square feet in size from an existing 36,789 square foot parcel located at 1026 North Mountain View Road. An existing single-family dwelling, 1026 Mountain View Road, will remain on the newly created westernmost lot and will be located 21.9 feet from its new eastern lot line. The subject property is located in the Low-Density Single-Family Residential (R-1) Zoning District. Within the R-1 Zoning District, lots are required to be a minimum of 9,600 square feet in size and have a minimum lot width of 80 feet. All three proposed lots meet the

minimum lot area and width requirements of the R-1 Zone, and the existing single-family dwelling will meet all setback requirements. Property owners within 600 feet of the property have been notified of the proposed division and a sign was posted seven (7) days prior to the public meeting date.

PROPOSED ACTIONS: Recommend approval of the lot division request with no conditions; or recommend approval of the lot division request with conditions; or recommend denial of the lot division request; or provide staff further direction.

Ray introduced the item as written above. Both council members spoke on congestion in the area and the blind corner. The new lots would not be able to back out onto the street because Mountain View is an arterial.

Kelly asked for any public comment.

Marshall Comstock (Moscow), said he owns property just south of the proposal. The easement staff mentioned is the sewer for his property. The terms of the easement say that area must not have structures built on it in case of future maintenance. He wanted to be sure this was noted on the final plat. With the reconstruction of Mountain View, the road elevation was raised. The proposed lot division is five feet lower than the existing sidewalk. His property is also five feet below the sidewalk. He is worried about stormwater provision requirements and flooding onto his property. Belknap said there should be catch basins on both sides of the street on the 90-degree bend. The footing and roof drains will be reviewed at the permitting process. Comstock said there is an existing well on Lot 2 and doesn't know how many of the homes will hook up to that. He also has an existing well and wants to be sure that if three of these homes were connected to the existing well that it doesn't harm his well. Belknap said the city does not regulate the irrigation side of wells; the Department of Water Resources does.

Belknap said there will not be a final plat per se. There will be a record of survey recording with the new lots and then in the future when it comes for development there will be engineering plans for frontage improvements or for the lot development. At the time of permit issuance, staff reviews everything related to stormwater to ensure that the foundation drains and roof drains are connected appropriately. Comstock thanked staff and committee members for answering questions and hearing concerns. He does not object to the lot division.

Bill Church, applicant, is happy to answer questions. The Committee had no questions.

Kelly said with all the concerns and questions on the record, she is comfortable with placing the item on the consent agenda. Lewis was concerned about traffic.

The Committee recommended approval and that it be placed on the Council consent agenda.

5. Proposed Lot Line Adjustment between 505 and 517 South Jackson Street (ACTION ITEM) - Mike Ray

The applicants, Jackson Street LLC and New Saint Andrews College Inc, are requesting a lot line adjustment between two properties located at 505 and 517 South Jackson Street. The proposed lot line adjustment would increase the lot size of 517 South Jackson Street by approximately 344 square feet by bringing the northwest corner of the site further north 5.5 feet, thereby squaring off the lot and reflecting the historic use of the area by Jackson Street LLC. 505 South Jackson Street will be approximately 3,353 square feet and 517 South Jackson Street will be 9,966 square feet following the lot line adjustment. There will be no change to the current parking lot use at 505 South Jackson Street. Both properties are part of the Cox's Lots subdivision and located in the Central Business (CB) Zoning District. There is no minimum lot size, setbacks, or parking requirements within the CB Zone. The

proposed lot line adjustment meets all zoning code requirements.

PROPOSED ACTIONS: Recommend approval of the lot line adjustment request with no conditions; or recommend approval of the lot line adjustment request with conditions; or recommend denial of the lot line adjustment request; or provide staff further direction.

Ray introduced the item as written above. The members had no concerns or questions about this change. The Committee recommended approval and that it be placed on the Council consent agenda.

6. Moscow Police Department – Annual Small Grant Requests and Awards (ACTION ITEM) – Alisa Anderson

The Moscow Police Department (MPD) annually secures grants to support equipment purchases, traffic enforcement, and safety programs that promote community policing and public safety. These include the Bulletproof Vest Partnership, which provides custom-fitted vests to officers, and the Traffic Enforcement Grant from the Idaho Transportation Department, funding high-visibility enforcement efforts like seatbelt and impaired driving campaigns. Additionally, MPD participates in a Law Enforcement grant from the Idaho Office of Drug Policy to prevent underage drinking and drug use through checks, patrols, and educational partnerships with the University of Idaho. These grants enhance officer safety, foster community collaboration, and enable targeted enforcement and prevention initiatives across Moscow. The MPD is requesting approval of the funding requests and awards for small grants applied for in an amount not to exceed a combined total of $50,000 for the FY2026 fiscal year.

PROPOSED ACTIONS: Recommend approval of funding requests and awards for small grants applied for by the Moscow Police Department not to exceed a combined total of $50,000 for the FY2026 fiscal year, or provide staff further direction.

Anderson introduced the item as written above. The City receives a 50% reimbursement rate on the vests. The traffic enforcement grant will provide five special emphasis patrols as well as a special event that can be added later. The partnership provides education on campus about drugs and alcohol. The City is not eligible to apply for the step grant this year. The $50,000 still allows some room for some special mobilizations.

The Committee recommended approval and that it be placed on the Council consent agenda.

7. America250 in Idaho Celebration Fund Grant Request (ACTION ITEM) - Alisa Anderson

America250 in Idaho is a multi-year statewide celebration leading up to the 250th anniversary of the United States in 2026, with efforts supported by the Idaho Office of the Governor, the Idaho State Historical Society, and other agencies. Designated from 2024 to 2027, this period encourages Idahoans to reflect on their history, strengthen community ties, and honor American ideals through various events and projects. The Celebration Fund offers grants of up to $2,500 to help local communities create themed celebrations such as parades, art, exhibits, and festivals, particularly around July 4th, 2026. The application process is open until December 31, 2025, with no local match required, and requires a support letter from local officials. For Moscow, staff has prepared a grant proposal for banners to enhance the city's festivities, supporting the broader effort to commemorate America's milestone anniversary.

PROPOSED ACTIONS: Recommend approval to submit a grant request for $2,500 to the Idaho A250 Celebration Fund to purchase street banners or provide staff further direction.

Anderson introduced the item as written above. Belknap said the intent is to promote the anniversary with the street banners and the Latah County Historical Society events with the over Main Street banner.

DRAFT

Kelly is glad the City is just supporting the other events.

Lewis is happy the city found a way to suggest something that we could get more than a single use from.

The Committee recommended approval and that it be placed on the Council regular agenda to help with promotion of the event.

ADJOURN

The meeting closed at 5:00 pm

DRAFT

COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, January 26, 2026

AGENDA ITEM TITLE

Moscow Winterfest Alcohol Use Request in Entertainment District (ACTION ITEM) - Amanda Argona

RESPONSIBLE STAFF

Amanda Argona, Community Events Manager

ADDITIONAL PRESENTER(S)

DESCRIPTION

The Moscow Chamber of Commerce + Visitor Center is hosting its annual Moscow Winterfest on Saturday, February 7, from 12 pm to 4 pm on Main Street between 3rd and 6th Streets. The applicant anticipates eight licensed beer and/or wine vendors and ten non-alcoholic and/or food vendors, along with a variety of outdoor games and activities for all ages. Warming fires may be provided at the event at the determination of the Moscow Volunteer Fire Department. The event has been reviewed and approved as of November 17, 2025. Following standard operating procedures for events with alcohol that are within the Entertainment District boundaries, Moscow Winterfest is requesting a temporary suspension of the open container law by resolution. Per Moscow City Code, Title 10, Chapter 1, Section 1-12; a draft resolution has been prepared for Administrative Committee for Council's consideration.

REVIEWED BY

PROPOSED ACTIONS

PROPOSED ACTIONS: Recommend approval of the resolution allowing for the temporary suspension of the open container law within the event footprint of the Entertainment District for Moscow Winterfest for the duration of the event; or provide staff further direction.

STAFF RECOMMENDATION

Recommend approval of the resolution allowing for the temporary suspension of the open container law within the event footprint of the Entertainment District for Moscow Winterfest for the duration of the event.

OTHER RESOURCES

FISCAL IMPACT

PERSONNEL IMPACT

ATTACHMENTS

1. Resolution 2026 - Moscow Winterfest_final

RESOLUTION NO. 2026-

A RESOLUTION OF THE CITY OF MOSCOW, A MUNICIPAL CORPORATION OF THE STATE OF IDAHO, TO ALLOW FOR THE TEMPORARY VENDING OF BEER AND WINE AND EXEMPTION TO THE OPEN CONTAINER PROHIBITION IN THE ENTERTAINMENT DISTRICT UNDER SPECIFIC REGULATIONS AND UNDER CERTAIN LIMITED CONDITIONS PURSUANT TO MOSCOW CITY CODE 10-1-12; PROVIDING THIS RESOLUTION TO BE EFFECTIVE UPON ITS PASSAGE AND APPROVAL.

WHEREAS, Moscow City Code Title 9, Chapter 6, Section 6-35 and Title 9, Chapter 8, Section 8-17 prohibit any person from selling, serving, giving away, dispensing, consuming or carrying any beer or wine in open containers on or in any public street, highway, alley, lane, sidewalk, public or private parking lot, conveyance, or primary and secondary school facility in the City of Moscow, Idaho (hereinafter "City") except in accordance with specific regulations adopted by the Council by Resolution; and

WHEREAS, The Entertainment District is defined in Moscow City Code Title 10, Chapter 1, Section 1-12 as an exemption to the Open Containers Prohibition (hereinafter "The Entertainment District") with Council approval; and

WHEREAS, Moscow Chamber of Commerce + Visitor Center (hereinafter "the Event Sponsor") desires to have its sponsored event, Moscow Winterfest (hereinafter "the Permitted Event"), in The Entertainment District (see Attachment "A"); and

WHEREAS, the Permitted Event (see Attachment "B") is an event sponsored by the Event Sponsor, intended to promote family and community fellowship; and

WHEREAS, Council wishes to allow for the vending and responsible consumption of beer and wine under certain conditions, contained herein and during limited hours during the Permitted Event; and

WHEREAS, Council wishes to prohibit the sale and consumption of liquor during the Permitted Event; and

WHEREAS, Council believes the regulations contained herein are appropriate; and

WHEREAS, Council believes that the specific regulations contained herein balance health and safety concerns of citizens with the desire to promote responsible use of alcoholic beverages; and

WHEREAS, nothing contained in this Resolution is intended to waive other laws and regulations applicable to the sale and consumption of alcohol within City limits (including a requirement for a catering permit; a beer and wine permit for benevolent, charitable and public purpose events; or a winery sponsored event permit); and

WHEREAS, nothing contained within this Resolution is intended to endorse or support any particular belief, philosophy, or political position of the Event Sponsor or of the Permitted Event, and/or its affiliates, associations, contributors, supporters, participants, etc.;

NOW, THEREFORE, BE IT RESOLVED by the Mayor and City Council of the City of Moscow, Idaho that all matters stated above are found to be true and correct and are incorporated herein by reference as if copied in their entirety and shall be adopted with the following:

SPECIFIC REGULATIONS ON THE SALE AND CONSUMPTION OF BEER AND WINE DURING MOSCOW WINTERFEST:

Intent:

This Resolution is intended to allow the sale and consumption of beer and wine only (not liquor), pursuant to these specific regulations and is not intended to amend or expand the Moscow City Code or any other applicable law or regulation beyond the scope of the particulars of this Resolution or beyond the hours of the Permitted Event. Other than as specifically provided herein, park, sanitary, health, litter, police, fire, sidewalk café, alcohol vending, and other laws and regulations shall be unaffected by this Resolution. This Resolution is not a waiver of any State, County, or local requirement of a permit or licensure related to sales and/or distribution of alcohol including a requirement for a catering permit; a beer and wine permit for benevolent, charitable and public purpose events; or a winery sponsored event permit. This Resolution shall not establish precedent nor shall it apply to any event other than the Permitted Event held on the 7th day of February, 2026, from 12:00 p.m. to 4:00 p.m.

Liability, Insurance and Safety:

1. No less than ten (10) days prior to the Permitted Event at which the licensed vendors will sell beer and/or wine, the Event Sponsor shall deliver to the Community Events Division one (1) copy of written proof that the licensed vendors have current, paid up, off-premise liquor liability insurance or special event insurance in an amount not less than One Million Dollars ($1,000,000) combined single limits.
2. No less than ten (10) days prior to the first activity of the Permitted Event herein described, the Event Sponsor shall deliver to the Community Events Division one (1) copy of written proof that the Permitted Event has obtained current, paid up, general liability insurance or special event insurance in an amount not less than One Million Dollars ($1,000,000) combined single limits. City shall be named as an additional insured on the insurance policy of the Event Sponsor. Such general liability insurance or special event insurance policy shall be primary to any other insurance related to these events and to that of any potential party subject to a claim related to the Permitted Event.
3. The Moscow Police Chief or designee is hereby empowered to order the immediate cessation of all activities allowed under this Resolution at any time they reasonably determine that it is in the best interest of City to do so. There shall be no appeal from a determination by the Moscow Police Chief or designee to terminate all or part of the Permitted Event.

Vendor:

1. There shall be no more than eight (8) licensed vendors selling beer and/or wine at the Permitted Event.
2. All beer and wine shall be sold only by a licensed vendor.

3. Every licensed vendor, shall obtain and shall comply with all alcohol related laws and regulations, including, but not limited to, the City requirement of a City catering permit; a State beer and wine permit for benevolent, charitable, or public purpose events; or a winery sponsored event permit.
4. The name, address, telephone number, alcohol license permit number of every licensed vendor, and proof of insurance covering the vendor's activities (as required herein) shall be provided to the Community Events Division no less than ten (10) days prior to the Permitted Event at which such licensed vendor shall sell beer and/or wine.
5. The City shall play no role in determining which vendors shall be selected to sell alcoholic beverages during the Permitted Event, unless it is a City sponsored event.
6. The Event Sponsor shall provide at least two (2) persons to check proper identification for those who shall be sold beer and/or wine during the Permitted Event. These persons shall be clearly identified and shall be stationed at a central identification checking station where they shall issue one (1) wristband per individual twenty-one (21) years of age or older.
7. The Event Sponsor shall provide at least two (2) law enforcement officers or two (2) guards from a recognized private security firm to provide security for the Permitted Event. Such officers or guards shall be clearly identified as such and shall be on duty at all times beer and/or wine is being served during the Permitted Event. The Chief of Police shall make the determination of whether law enforcement officers are required and in the event the Chief of Police approves the use of a private security firm, the Event Sponsor shall obtain written permission for use of said private security firm by the Chief of Police or designee.
8. The Event Sponsor and City both specifically understand and acknowledge that the Event Sponsor shall be solely responsible for any and all liability resulting from action or inaction, and/or negligence, and/or gross negligence by security provided by the Event Sponsor for the Permitted Event.

Sales and Consumption:

1. No less than ten (10) days prior to the Permitted Event at which the licensed vendors will sell beer and/or wine, the Event Sponsor shall deliver to the Community Events Division a finalized site map which shall be drawn to show the location, dimension of, and relative distance between the following within The Entertainment District: (a) the beer and wine sales area; and (b) the boundaries where the beer and wine shall be consumed. Said site design and any subsequent alterations shall be approved in writing by Moscow Deputy City Administrator – Community Development or their designee, and by the Moscow Chief of Police prior to the Permitted Event.
2. All beer and wine sales and dispensing shall take place within the area designated by the Event Sponsor and as shown on the site map required by this Resolution.
3. The Event Sponsor shall include an identification checking station and its general location on Event Site Map.
4. No person shall be allowed to purchase beer and/or wine other than within the area designated for beer and wine sales and dispensing as shown on the map required by this Resolution and only persons with a designated wristband shall be allowed to purchase, possess, and consume beer and/or wine.
5. All beer and wine shall be dispensed in and consumed from the designated Event container.
6. Every occupant within The Entertainment District shall provide identification to law enforcement officers or City employees at any point in time or location when requested to do so.

7. No person under twenty-one (21) years of age shall be allowed to wear the designated wristband at any time during the Permitted Event.
8. A sign shall be prominently posted at or near the area designated for beer and wine sales and dispensing stating that service to persons under twenty-one (21) years of age is prohibited.
9. Beer and wine shall be sold only within the designated area in The Entertainment District only between the hours of 12:00 p.m. and 4:00 p.m. local time on the 7th day of February, 2026, during the Permitted Event.
10. Beer and wine shall be consumed only within The Entertainment District between the hours of 12:00 p.m. and 4:00 p.m. local time on the 7th day of February, 2026, during the Permitted Event.
11. No person shall carry or consume any alcoholic beverage within The Entertainment District which is not purchased or dispensed from the licensed vendors at the Permitted Event. Consumption of alcohol outside of The Entertainment District, in any public street, highway, alley, lane, sidewalk, public or private parking lot, conveyance, or primary and secondary school facility in the City of Moscow, shall be considered a violation of the City's open container ordinance.

Fee:

The Event Sponsor shall submit to the Community Events Division, within ten (10) days of the event, any remaining required fees established by Council that is associated with this Resolution.

Failure To Comply:

Failure to comply with this Resolution shall expose any such person to all relevant civil and criminal consequences and may result in denial of subsequent applications for alcohol permits in public rights-of-way for a period of no less than five (5) years.

PASSED on Motion by the Following Vote:

	Aye	Nay	Abstain	Absent
Drew Davis	_____	_____	_____	_____
Sandra Kelly	_____	_____	_____	_____
Bryce Blankenship	_____	_____	_____	_____
Evan Holmes	_____	_____	_____	_____
Sage McCetich	_____	_____	_____	_____
Scott Sumner	_____	_____	_____	_____

ADOPTED by the City Council of the City of Moscow, Idaho and **APPROVED** by the Mayor of the City of Moscow, Idaho this ____ day of _____, 2026.

_____
Hailey Lewis, Mayor

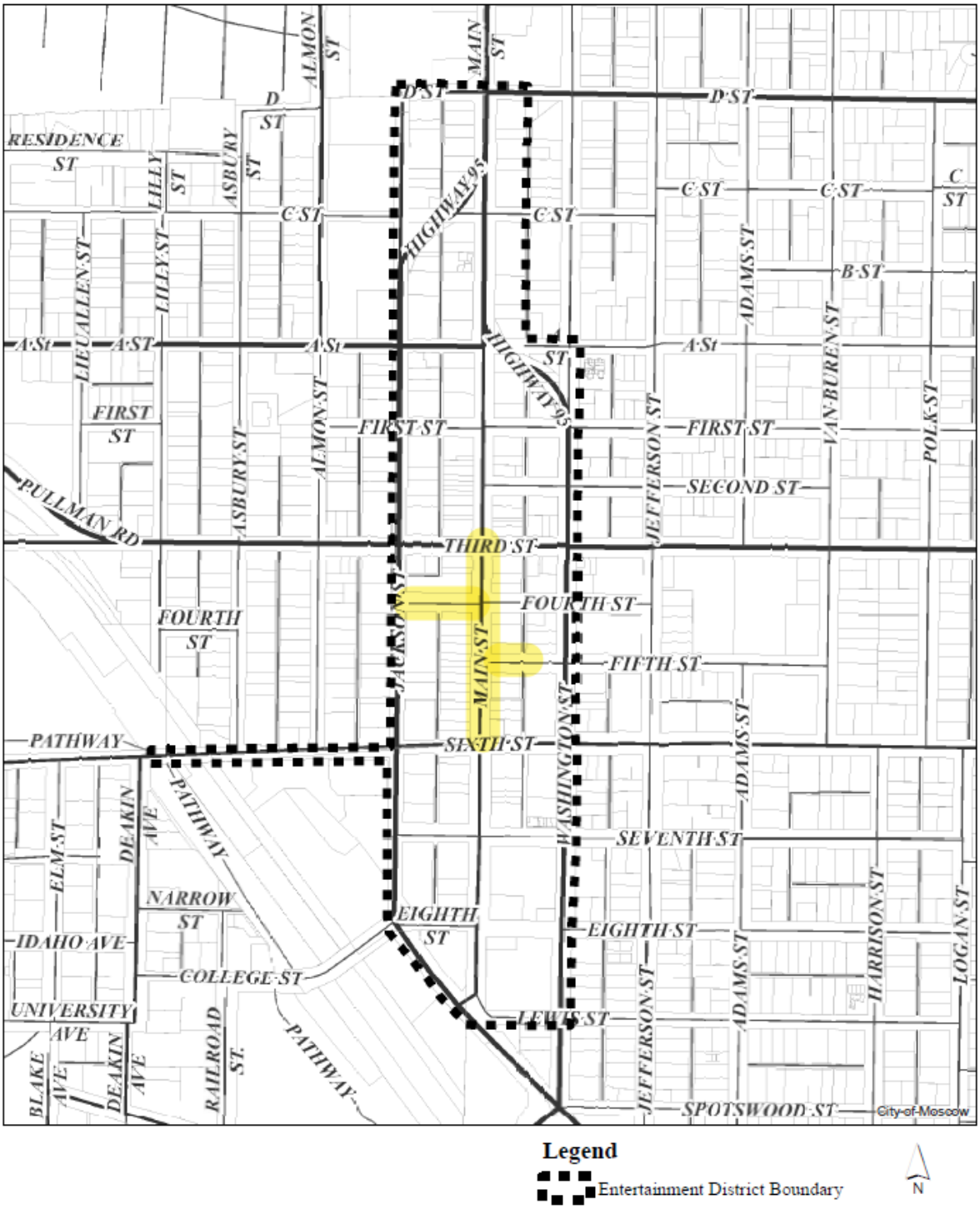
CERTIFICATION and ATTESTATION. I hereby certify that the above is a true copy of a Resolution passed at a regular meeting of the City Council, City of Moscow, held on _____ _____, 2026, and attest to the Mayor's signature.

_____
Laurie M. Hopkins, City Clerk

DRAFT

Attachment "A"

Exhibit 'A' - Entertainment District Boundary



Attachment "B"

City of Moscow Community Events Division
EVENT APPLICATION

Thank you for your interest in organizing/sponsoring an Event in the City of Moscow!
Events by local citizens add to the cultural wealth of our town and may range from fun runs to political marches, neighborhood block parties to street fairs.

Submit completed forms electronically or physically to the Community Events office: communityevents@ci.moscow.id.us or 221 East 2nd Street, Moscow. All applications must be legible.

The City reserves the right to request additional information reasonably necessary to make a fair determination as to issuance of a permit. Permits are issued on a first-come, first-served basis. According to Moscow City Code Title10, Chapter 17, Section 17-4, event applications for regular or recurring events must be submitted at least sixty (60) days and not more than one hundred eighty (180) days before the proposed date of the event. Event applications for single, non-recurring events must be submitted at least ten (10) days and not more than one hundred eighty (180) days before the proposed date of the event.

Events with alcohol are to be submitted at least two (2) months prior to the event date to allow for adequate review and presentation to Administrative/Public Works and Finance Committee and City Council. Administrative/Public Works and Finance Committee meets on the 2nd and 4th Monday of each month and City Council meets on the 1st and 3rd Monday of each month pending no holiday delays or rescheduling of meetings. Please note this form and the information provided by you on this form is a public record pursuant to the Idaho Public Records Act under Title 74, Chapter 1 of the Idaho Code.

1. Name of Event: Moscow Winterfest
2. Event Date(s): Feb. 7 2026
3. Event Location: Main Street from 3rd - 6th
4. Are you requesting a street closure for Event? Yes (●) No ( )

If yes, provide street closure location(s). List cross streets, intersections, building addresses, etc. Include these details on your site map (see item 27.)
Main St. from 3rd - 6th, 5th street from Main to alley. First bay of Jackson Street lot.

5. Do you require parking restrictions for the Event? Yes (X) No ( )

If yes, list parking restrictions (i.e. no parking on day of event, parking restricted to a particular area, etc.).
No parking in event footprint day of.

6. Street Closure set-up/Load-in time: 9:00 AM Event(s) Start time: 12:00 PM
7. Event(s) End time: 4:00 PM Street Closure take-down/Load-out time: 6:00 PM
8. Is this a recurring Event (i.e. every 1st Thurs. or every Sat. May thru Oct.)? Yes ( ) No (●)
9. Is this an annual Event? Yes (●) No ( )
10. Are you planning on having refreshments and/or food? Yes (●) No ( )

EVENT APPLICATION – LAST UPDATED January 6, 2025 Page 1 of 8

If yes, describe your waste and recycling plan. Applicants are responsible for removing all waste from their event footprint and disposing of properly, including emptying permanent trash receptacles in the downtown area. Dumpsters located downtown are for private use.

We will have staff and event volunteers empty city trash cans throughout the event. Additionally we will provide extra recycling and trash bins throughout the event.

11. Are you planning on serving alcohol/having alcohol available for purchase at the Event?

Yes (●) **(continue to Q.12)** No (○) **(skip to Q.14)**

All events with alcohol are required to have a Catering Permit. This process is to be handled by your licensed alcohol Vendor.

Catering Permit applications are to be submitted to the City Clerk/Deputy City Clerk for approval.

12. Is the Event taking place in the public right-of-way (i.e. sidewalks, streets, etc.) within the City of Moscow Entertainment District? The Entertainment District allows for a temporary suspension of the Open Container law by Resolution of the City Council. See page 6 for a map of the Entertainment District.

Yes (●) **(continue to Q.13)** No (○) **(skip to item B.)**

13. Are the Event organizers interested in pursuing a temporary suspension of the Open Container law by City Council Resolution?

Yes (●) **(see item A.)** No (○) **(skip to item B.)**

A. Event organizers pursuing a temporary suspension by City Council Resolution of the Open Container law for their Event within the public right-of-way of the Entertainment District boundaries must satisfy the following conditions with their Event listed below, in addition to any requirements detailed in the Moscow City Code, as set forth by City Council Resolution, and/or Catering Permit:

- ■ Include an identification checking station and its general location on Event Site Map. Identification checking station shall include a minimum of two (2) persons to check proper identification. These persons shall be clearly identified and be responsible for the issuance of wristbands denoting attendees are of legal drinking age.
- ■ Submit the Alcohol Use Application and $100 non-refundable fee upon approval of Event.
- ■ Be present at City of Moscow Administrative Committee and City Council meetings regarding authorization of alcohol at Event by Resolution.
- ■ Post signage and waste receptacles at Event entry and exit points. Signage to clearly state "No Alcohol Permitted Beyond this Area". Additional requirements may be mandated by City Council Resolution.

B. Event organizers requesting for alcohol use for their Event that takes place in the public right-of-way NOT within the Entertainment District boundaries must satisfy the following conditions with their Event, in addition to following any requirements set forth by Resolution and/or Catering Permit. This option is also available to Event organizers who are NOT pursuing a temporary suspension by City Council Resolution of the Open Container law:

- ☐ Include the location and estimated size of the beer garden on Event Site Map. Please note: barricades required for beer gardens are 8' in length.
- ☐ Complete and submit a Barrier Use Contract with this application.
- ☐ Submit the Alcohol Use Application and $100 non-refundable fee upon approval of Event.
- ☐ Be present at City of Moscow Administrative/Public Works and Finance Committee and City Council meetings regarding authorization of alcohol at Event by Resolution.

Upon approval from Council, remaining Event fees will be due, and applicant's vendor(s) are required to submit a Catering Permit application to the City Clerk/Deputy City Clerk. Any additional required paperwork outlined by the City Council Resolution and/or this process will also be due upon approval.

14. Are you planning on having a band or music? Yes (X) No ( )

If yes, describe below any recording equipment, sound amplification equipment, etc. Submit a completed **Noise Exemption Permit Request** with this Event application.

Live music and DJ with speaker.

15. Approximate number of persons, animals, and/or vehicles comprising the Event, the type(s) of animals and description of vehicles, and approximate number of participants and spectators in viewing attendance:

No more than 8 alcohol vendors
No more than 10 food vendors
No more than 15 Activity hosts
Up to 2,000 attendees

16. Do you plan on having banners, signs, or other attention-getting devices in the Event? Yes (•) No ( )

17. Do you plan on using any designated public facilities or infrastructure for the Event? Yes (•) No ( )
If yes, list public facilities or infrastructure (i.e. public restrooms, picnic shelters, stages, etc.).

Friendship Square bathrooms, Friendship Square, City electric outlets.

18. Are you requesting additional City Police services for escort services, traffic, and/or crowd control?
Yes ◯ No ◉

If yes, contact City of Moscow Police Department at 208-883-7059 to discuss and see attached Fee Schedule.

19. Please use this area to include more detail or attach additional pages for additional information about Event that is pertinent for us to know.

20. Organization Sponsoring Event: Moscow Chamber of Commerce + Visitor Center
21. Organization Address: 411 S. Main Street
22. Organization Officers/Authorized Representatives: Noelle Borkowski, Sam Martinet
23. Individual Responsible for Event Organization: Noelle Borkowski
24. Individual's Address: 411 S. Main Street
25. Individual's Day, Message, or Cell Phone Number: 208-997-8124
26. Individual's E-mail: marketing@moscowchamber.com
27. City reserves the right to alter your route if the City determines the proposed route will require significant City services and/or severely limit transit opportunities in high traffic areas. Applicant understands and agrees that the City is reserving that right? If answers no, application may be denied. Yes ◉ No ◯
28. **Submit a Site Map with this application.** Event Applications without a Site Map will not be processed. Details on a Site Map may include but are not limited to locations of desired street closures, walking routes, assembly points, start and finish points, locations of food and beverage vendors, stages, service areas, etc. A blank map of downtown Moscow is available on page 7.
29. **Residential Neighborhood Block Parties:** Provide Proof of Insurance (Requirement may be waived at Discretion of City).
30. **All other Event Types (except Public Assembly):** Provide Proof of Insurance (Required – Certificate of Insurance must include the City of Moscow as an Additional Insured and list $500,000 as the minimum amount of general liability or $1,000,000 if alcohol is included.)

City of Moscow Community Events Division
EVENT APPLICATION

HOLD HARMLESS AGREEMENT:

The applicant/group/organization (hereinafter "SPONSOR"), through its duly and specifically authorized agents, hereby releases City of Moscow, Idaho (hereinafter "CITY") and agrees, contracts and covenants not to bring suit and agrees to defend, hold harmless, and indemnify CITY, its officers, employees, agents and representatives from any and all claims, costs, judgments, awards, or liability to any person, including claims by SPONSOR's own agents, officers, employees and representatives, to which SPONSOR might otherwise be immune, arising from the Community Event, Block Party, Public Assembly, Parade or Sidewalk Walking Parade scheduled to occur as indicated on this application (hereinafter "Event"), including any Street Closure permitted under the terms of CITY's Policy on Street Closure. No SPONSOR shall be required to indemnify or hold harmless CITY for claims, actions and demands that arise out of CITY's sole negligence. Inspection, review and/or acceptance by CITY of any activity performed by or during the Event, or any activity or non-activity by CITY Police Officers or other officers, employees, agents or representatives of CITY, shall not be grounds for avoidance of any of the covenants of defense, indemnification or hold harmless by SPONSOR on behalf of CITY.

SPONSOR acknowledges it will abide by any and all Federal, State, or City of Moscow Public Health Directives and/or Regulations in effect at the time of the Event. SPONSOR agrees to comply with any and all Federal, State, or City of Moscow Public Health Directives and/or Regulations in effect at the time of the Event and ensure that all participants comply with said Directives and/or Regulations in effect at the time of the Event. SPONSOR agrees that if CITY determines she/he/they and/or any participant is not in compliance with said Directives and/or Regulations in effect at the time of the Event, CITY reserves the right to revoke the Event permit.

I, SPONSOR, certify under penalty of perjury pursuant to the law of the State of Idaho, that (1) I have read the foregoing Hold Harmless Agreement, understand it and agree with its contents and conditions; (2) I either have had an opportunity to speak with legal counsel or opted not to seek legal counsel prior to either signing this Agreement or electronically signing this Agreement by selecting the box below; and (3) understand that the terms of this Agreement are contractually and legally binding and that no verbal statement to the contrary, by any person, can void or alter the terms of this Agreement. I, SPONSOR, certify under penalty of perjury pursuant the law of the State of Idaho that the foregoing is true and correct and that I have the authority to bind the group or organization, if applicable, to this Agreement.

NAME: _____ **DATE:** 11/12/2025

EVENT SPONSOR ELECTRONIC SIGNATURE:

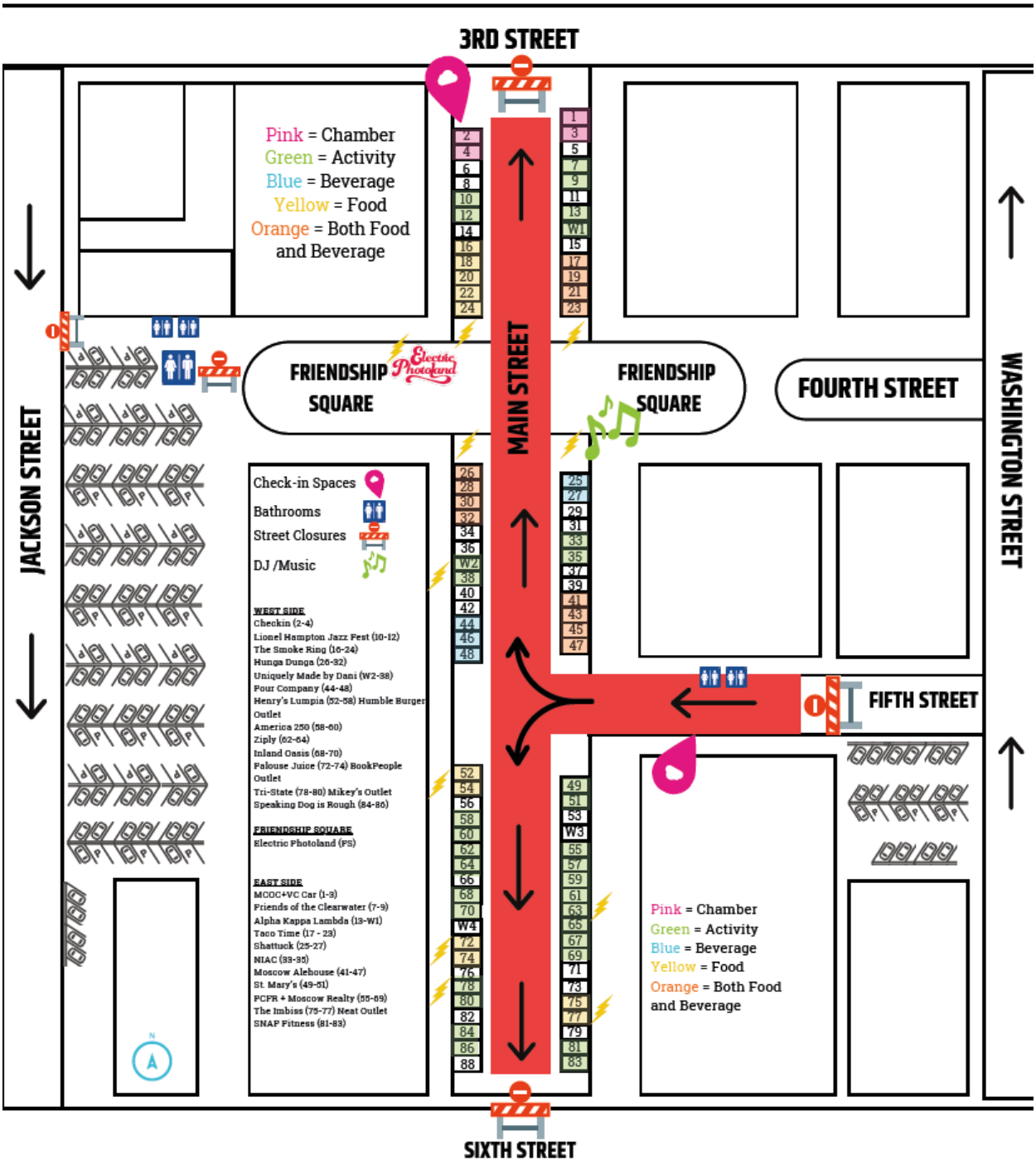
☑ By checking this box as an electronic signature, **I agree, declare, and certify under penalty of perjury pursuant to the law of the State of Idaho, that the foregoing is true and correct. I agree to all the terms and conditions** that apply to the Community Event /Residential Neighborhood Block Party/Public Assembly/Street Parade/Sidewalk/Pathway Event, Permitting Process, and Hold Harmless Agreement. **I certify under penalty of perjury pursuant to the law of the State of Idaho that I have authority to bind the group or organization, if applicable, to this Agreement.** I am signing this document utilizing an alternative manner of providing an electric signature through agreeing to and checking the above box and understand this electronic signature is valid and binding upon me to the same force and effect as a handwritten signature.

EVENT SPONSOR NON-ELECTRONIC SIGNATURE: _____
(Required only if printing and submitting in person)

The information on this form is Public Record and may be posted to a public website.
Moscow City Code Title 10, Chapter 17 is available from the City Clerk at PO Box 9203, Moscow, ID, 83843, or on the City's web page at https://www.ci.moscow.id.us/393/City-Code.

FOR OFFICE USE ONLY

☐ Community Event without alcohol	☒ Community Event with alcohol	☐ Street Parade Event
☐ Sidewalk/Pathway Event (fun runs, trail runs, walk-a-thons)	☐ Public Assembly – no fee (march, picket, rally, demonstration, etc.)	☐ Residential Neighborhood Block Party Event
Date App Rec'd: 11/12/25	Fees Due: $311 (153 - alcohol 167 - street closure 41 - permit)	Fees Paid: _____


3RD STREET
Pink = Chamber
Green = Activity
Blue = Beverage
Yellow = Food
Orange = Both Food and Beverage
JACKSON STREET
FRIENDSHIP SQUARE
Electric Photoland
MAIN STREET
FRIENDSHIP SQUARE
FOURTH STREET
WASHINGTON STREET
Check-in Spaces
Bathrooms
Street Closures
DJ /Music
WEST SIDE
Checkin (2-4)
Lionel Hampton Jazz Fest (10-12)
The Smoke Ring (16-24)
Hunga Dunga (26-32)
Uniquely Made by Dani (W2-38)
Pour Company (44-48)
Henry's Lumpia (52-58) Humble Burger Outlet
America 250 (58-60)
Ziply (62-64)
Inland Oasis (68-70)
Palouse Juice (72-74) BookPeople Outlet
Tri-State (78-80) Mikey's Outlet
Speaking Dog is Rough (84-86)
FRIENDSHIP SQUARE
Electric Photoland (PS)
EAST SIDE
MCOC+VC Car (1-3)
Friends of the Clearwater (7-9)
Alpha Kappa Lambda (13-W1)
Taco Time (17 - 23)
Shattuck (25-27)
NIAC (33-35)
Moscow Alehouse (41-47)
St. Mary's (49-51)
PCFR + Moscow Realty (55-69)
The Imbiss (75-77) Neat Outlet
SNAP Fitness (81-83)
FIFTH STREET
Pink = Chamber
Green = Activity
Blue = Beverage
Yellow = Food
Orange = Both Food and Beverage
SIXTH STREET

NOISE EXEMPTION PERMIT REQUEST

Moscow City Code 10-11-2

(Please allow at least three business days in which to process this request)

Requested Event Date(s): 2/7/2026 Begin time: 12:00PM End time: 4:00 PM

Event Location: Main Street, 3rd to 6th

Amplified Music (DJ, party, etc.) ◯ No ◉ Yes

Alcoholic Beverages Available ◯ No ◉ Yes - Purchaser: multiple vendors
(Marking this box does not mean your request will be denied) (If hosted or catered, name of serving organization)

Live Band Performing ◯ No ◉ Yes - Group: TBD

Describe the event: ~~A family friendly 1980s apres ski themed block~~ party

(use back of this form if more space is needed)

Name of requesting person/Group/Organization: Moscow Chamber of Commerce + Visitor Center

Person responsible for Group or Organization: Noelle Borkowski, Sam Martinet

Requesting Person's Address: 411 S. Main Street

Phone Number: 2089978124 Email Address: marketing@moscowChamber.com
Daytime phone number is required *Permits will be returned by email unless otherwise requested*

Responsible person available **AT AND DURING** this event: Noelle Borkowski

Cell- or contact-phone during event. 208-997-8124

Your signature is unconditional acceptance of all terms and conditions. This permit may be modified or revoked by City at any time if permit conditions are violated. Please note that this form and the information you provide on this form is a public record pursuant to the Idaho Public Records Act under Title 74, Chapter 1 of the Idaho Code. Read the following carefully:

The applicant/group/organization hereby agrees to indemnify and hold harmless City of Moscow, Idaho from all claims, actions and demands of any kind whatsoever related to and/or arising out of the activity(ies) specified in this application and does hereby accept all risk and responsibility for any damage(s) stemming from such activity. Every Applicant requesting a noise Exemption Permit shall cooperate with law enforcement by adjusting the noise level in the event of any citizen complaint(s). In the event of non-compliance, law enforcement may revoke this permit. No applicant/group/organization shall be required to indemnify or hold harmless City of Moscow, Idaho for claims, actions and demands that arise out of City's sole negligence.

Requesting Person's Signature: _____ Date: 11/12/2025

◉ APPROVED ◯ DENIED

Date permit valid: 02/07/2025 Hours permit valid: 12PM - 4PM

Noise level (dba) shall not exceed 85dba at ◉ source at ◯ property line

Other Conditions: None

_____

Police Chief or Designee (208) 883-7054

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 1/2/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: Amanda Nelson
Troy Insurance Agency, Inc 207 S Main Street PO Box 8984 Moscow ID 83843	PHONE (A/C, No, Ext): (208) 882-2814 FAX (A/C, No): (208) 743-3542 E-MAIL ADDRESS: amtroy@troyins.com
	INSURER(S) AFFORDING COVERAGE / NAIC #
	INSURER A: United States Liability Insurance Compa / 25895
INSURED Moscow Chamber of Commerce 411 South Main St Moscow ID 83843	INSURER B:
	INSURER C:
	INSURER D:
	INSURER E:
	INSURER F:

COVERAGES **CERTIFICATE NUMBER:** 2025-2026 LIABILITY **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE / X OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: X POLICY / PRO-JECT / LOC OTHER:	X		NBP1563070	1/30/2025	1/30/2026	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG Liquor Liability	$ 1,000,000 $ 100,000 $ 5,000 $ $ 2,000,000 $ $ Included
A	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS / SCHEDULED AUTOS X HIRED AUTOS / X NON-OWNED AUTOS			NBP1563070	1/30/2025	1/30/2026	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) [blank]	$ Included in CGL $ $ $ $
A	X UMBRELLA LIAB / X OCCUR EXCESS LIAB / CLAIMS-MADE DED / X RETENTION $			CUP1567801	1/30/2025	1/30/2026	EACH OCCURRENCE AGGREGATE [blank]	$ 1,000,000 $ 1,000,000 $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	N/A					PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	 $ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CITY OF MOSCOW IS LISTED AS ADDITIONAL INSURED ON THE GENERAL LIABILITY POLICY REFERENCED ABOVE WHERE REQUIRED BY WRITTEN CONTRACT FOR THE FOLLOWING EVENTS:

MOSCOW WINTERFEST, FEBRUARY 2025
CAMP MOSCOWANNA, JUNE 2025
MOSCOWBERFEST, AUGUST 2025
ALL EVENTS TAKING PLACE IN THE CITY OF MOSCOW, IDAHO 83843.

CERTIFICATE HOLDER

CITY OF MOSCOW
206 E 3RD ST
MOSCOW, ID 83843

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Amanda Nelson/AMNELS

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ACORD 25 (2014/01)
INS025 (201401)

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MOSCOW
Winterfest

MOSCOW
Winterfest

Community Events Division Event Application Review

Moscow Winterfest — 2/7/2026 — 12-4pm

Event Name — **Date(s)/Time(s)**

DEPARTMENT/DIVISION DESIGNEE — **EVENT(S) APPROVED/DENIED**

Moscow Police Department — (●) Approve ( ) Deny

Officer presence required? ( ) Yes (●) No ( ) N/A — **Officers available?** (●) Yes ( ) No ( ) N/A

Dan Ellinwood

Moscow Volunteer Fire Department — (●) Approve ( ) Deny

David Schott

Parks and Recreation Department — (●) Approve ( ) Deny

Kyle Raines

Community Development-Engineering Division — (●) Approve ( ) Deny

Ty Thompson

Public Works-Environmental Services Division — (●) Approve ( ) Deny

Steve Shulte

Public Works-Streets Department — (●) Approve ( ) Deny

Street closure required? (●) Yes ( ) No ( ) N/A — **ITD permit required?** ( ) Yes* (●) No ( ) N/A

*Application will remain pending until ITD grants applicant a permit

Time of street closure? 9am (Start) 6pm (End) — **Fees?** $167.00

Daytime ( ) Nightime (●)

Amanda Reyes

City Clerk/Deputy City Clerk

City of Moscow
Community Events Division
ALCOHOL USE APPLICATION

Date received: 1/9/26 Date fee paid: 1/9/26

Required for Events requesting Alcohol Use in the Moscow Downtown Central Business Zoning District or a Moscow Parks Facility. City Council has the right to deny this application, but applicants may still move forward with their approved Event without alcohol.

Timeline for requesting Alcohol Use:

1. At least two months prior to Event, applicant submits Event Application or Parks Reservation for review.
2. Upon approval of Application or Reservation, applicant submits:
   a. Alcohol Use application
   b. Pays $103 non-refundable Alcohol Use fee
   c. Name(s) of licensed alcohol provider(s)
   d. Events in a Moscow Park Facility also include:
      i. Location of the beer/wine garden during the event with size dimensions, entry and exit points, and serving location. Provide as much detail as possible.
3. Staff drafts a Resolution according to the Event and communicates with applicant on security and insurance requirements.
4. Applicant must be present at Administrative Committee meeting (meetings are held on the 2nd and 4th Mondays of each month pending no holiday delays).
5. Applicant must be present at City Council meeting (meetings are held on the 1st and 3rd of each month pending no holiday delays).
6. Upon approval, applicant pays any remaining fees.

Event Name: Moscow Winterfest **Event Date(s):** 2/7/2026

Event Location: Main Street Moscow, from 3rd to 6th, including the intersection of 5th

Event Start time: 12:00 PM **Event End time:** 4:00 PM

Individual responsible per Event Application/Parks Reservation: Noelle Borkowski

By signing this Alcohol Use application, applicant understands that their Event may not have alcohol unless approved by City Council, and that City Council has the right to deny Alcohol Use applications. Applicant also understands that the $103 fee is non-refundable regardless of the decision issued by City Council.

1.9.26

Signature of Individual responsible for Event ***Date***

Alcohol Use application last updated January 6, 2026

The information on this form is Public Record and may be posted to a public website.

CITY OF MOSCOW
206 E. THIRD
MOSCOW, ID 83843
208-883-7000

PERMIT NUMBER: CE2026-01
EVENT DATE: Saturday, February 7, 2026
EVENT TIME: 12 pm – 4 pm

THIS IS TO CERTIFY THAT
Moscow Chamber of Commerce + Visitor Center
Moscow Winterfest
Noelle Borkowski
411 S. Main St.
Moscow, ID 83843

IS HEREBY GRANTED A CITY OF MOSCOW COMMUNITY EVENT PERMIT FOR THE LOCATION NAMED BELOW WITHIN THE CORPORATE LIMITS OF THE CITY OF MOSCOW, IN CONFORMITY WITH THE PROVISIONS OF CHAPTER 17, TITLE 10 OF THE MOSCOW CITY CODE.

PERMIT TYPE: Community Event with Alcohol

PERMIT LOCATION: Downtown Moscow, Main Street from 3rd to 6th, including 5th St. to Alley and first bay of Jackson Street Parking Lot.

I,_____, CERTIFY UNDER PENALTY OF PERJURY PURSUANT TO THE LAWS OF THE STATE OF IDAHO, THAT THE FOREGOING IS TRUE AND CORRECT. I AGREE TO ALL THE TERMS AND CONDITIONS OF MOSCOW CITY CODE TITLE 10, CHAPTER 17 PARADE; PUBLIC ASSEMBLY AND RESOLUTION 2015-05 POLICY AND PROCEDURES FOR RIGHT-OF-WAY PERMITS. DAMAGE TO ANY PUBLIC IMPROVEMENTS ARE THE RESPONSIBILITY OF THE PERMIT HOLDER.

ISSUED THIS____DAY OF_____, 2026

_____ _____
(SIGNATURE OF LICENSEE) *DATE* *(SIGNATURE OF STAFF)* *DATE*

COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, January 26, 2026

AGENDA ITEM TITLE

Public Art at Moscow Police Department (ACTION ITEM) - Megan Cherry

RESPONSIBLE STAFF

Megan Cherry, Arts Program Manager

ADDITIONAL PRESENTER(S)

DESCRIPTION

The Moscow Police Department, Arts staff, and the Moscow Arts Commission have developed a public art project concept to commemorate the 20th anniversary of an incident in Moscow, ID that greatly affected the lives of multiple law enforcement personnel and resulted in three civilian deaths as well as the loss of one officer's life. The sculptural artwork would be permanently installed in an alcove at the front of the MPD station at 155 Southview Ave. The installation would be complete in advance of the commemoration ceremony on May 19, 2027. Budgeted items include finalist honoraria, the artwork commission, lighting, and signage. The project is now set to move into the submission phase upon approval of the RFQ and artist agreements by City Council. The project is slated for an initial submission period from February - March 2026, with a goal of completing installation by the end of April 2027.

REVIEWED BY

City Attorney, Moscow Police Chief, Moscow Arts Commission

PROPOSED ACTIONS

PROPOSED ACTIONS: Recommend approval of the RFQ and proposed installation, or provide staff with further direction.

STAFF RECOMMENDATION

Recommend approval of the RFQ and proposed installation.

OTHER RESOURCES

FISCAL IMPACT

The project cost is proposed to be expended from the 1% for the Arts fund.

PERSONNEL IMPACT

This project will represent an investment of time on behalf of Arts and MPD staff, with additional potential requests for support from Parks, Facilities, and Engineering.

ATTACHMENTS

1. 2027_MPD Station_RFQ with Site Details
2. 2027_Artist TBD_Design Contract MPD Station_final with attachment
3. 2027_Artist TBD_Artwork Commission Police Station_final with attachments

Moscow Police Station

Moscow, ID

Project Description

The City of Moscow and the Moscow Arts Commission ("MAC") invite artists and artist teams to submit qualifications for a three-dimensional artwork to be installed at the Moscow Police Station. The artwork will be installed in an alcove near the entrance of the facility, located at 155 Southview Ave, Moscow ID.

Project Theme

Police work is handed from one officer to the next at the end of watch, an enduring legacy of service that connects all those who serve in law enforcement. This artwork will honor the tradition of community policing and inspire past, current, and future MPD officers, whose sense of family extends to include the community members in their care.

Not only do police officers protect the vulnerable, but they also accept the dangers that can come from this important work. All police officers and their immediate families reckon with the unknown, the uncertainty of risks and fortuitous surprises that may come during a shift. Police work is often a joyful act of service, and sometimes, sadly, a gift of life itself for the safety of the community. This artwork commemorates the multitude of effects experienced by officers and their families after the end of watch.

The artwork dedication will be central to the commemoration of the 20th anniversary of an incident in Moscow, ID that greatly affected the lives of multiple law enforcement personnel and resulted in three civilian deaths as well as the loss of one officer's life. The impacts of such an event last far beyond the end of watch. This artwork will dignify the physical, mental, and emotional work that goes on long after a shift, a retirement, or after a loss of life in the line of duty.

Iconography

Law enforcement has a rich visual and conceptual tradition. Symbols of this field include the bald eagle and sheepdog. The 5-pointed star is often used as an emblem of a department's core values. Additionally, the flag at half-staff is a universally-recognized statement of mourning for victims of local tragedies along with the passing of public officials at state and national levels.

These traditional symbols may be useful as an introductory point of reference for the artist's conceptual development, but imagery specific to the incident commemorated by this artwork centers on the clock tower. Officers on the scene report that the chiming of the clock tower marked time though the nightmarish day, serving as both a comfortingly predictable structure and a haunting memento mori. The clock tower was memorialized in the MPD patch design in 2022. In the design, the hands of the clock are set to 1:49, echoing the badge number of Lee Newbill, the officer killed in the line of duty that day.

About Moscow Police Department

MPD Mission

The Moscow Police Department's mission is to provide public safety services that are designed to fairly, efficiently, and effectively prevent crime and safeguard lives and property. We will provide professional police services by inviting public participation, resulting in a community atmosphere where citizens are free of unnecessary regulation and are treated with dignity and respect. Our personnel will maintain high ethical standards, training, and professional development. Our goal is to provide a community that is safe, secure, and a pleasant place to live and visit.

MPD Philosophy

The department employs a community-oriented policing philosophy to improve the quality of life through community partnerships and problem-solving approaches. Our core values consist of Service, Pride, Integrity, Compassion, and Excellence. We are a state-accredited agency and adhere to all the comprehensive professional standards and best practices of contemporary law enforcement organizations as recognized by the Idaho Chiefs of Police Association.

Budget

The artist honorarium for the mural installation is not to exceed $85,000. Included in this budget are the artist's fee, insurance, travel, fabrication, engineering, materials, installation, documentation, and all other costs accrued by the artist specific to this project. The artist honorarium does not include costs associated with lighting and signage. These processes will be completed and paid by the City of Moscow.

Eligibility

Artists eighteen (18) years-of-age and older from the United States are eligible for this project. Preference may be given to artists who live in Latah County, Nez Perce County, or those who are Nez Perce or Coeur d'Alene tribal members and/or have a significant Idaho economic presence, with secondary preference given to those artists who live in Asotin County or Whitman County. Artists are eligible regardless of race, color, religion, national origin, gender, marital or familial status, physical or mental disability, sexual orientation, and gender expression or identity. Artist teams are eligible to apply, including teams of artists from multiple disciplines. Selection panelists and their immediate family members are not eligible for participation. No artist sitting on a Selection Panel may submit a proposal for the project for which the Selection Panel was formed.

Artwork Design Parameters

This call is open to representational artworks made from materials that convey a message of strength and permanence. The artwork should have a visually commanding presence within the space, with a minimum height of 14'. The artwork will be accessioned into the City of Moscow's permanent collection and is anticipated to last a minimum of 30 years. All materials used to complete this project must be designed for exposure to year-round exterior conditions with minimal maintenance requirements. This site cannot accommodate kinetic, digital, or sound-based elements, highly reflective surfaces, or any artwork that incorporates water.

Important Dates (subject to change)

February – March 2026	RFQ Submission Period
May 2026	Finalists create site-specific proposals for Selection Panel review
August 2026	Selected Artist Announcement
April 2027	Installation Deadline

Submission and Selection

Round #1 of the selection process welcomes the submission of artist qualifications and examples of past work. These materials will be evaluated by the Selection Panel, which will then recommend three finalists to create site-specific proposals. Each of the finalists will be required to enter into an agreement for creating the site-specific design and will receive a $1000 honorarium which is anticipated will be used towards travel expenses, food, design fees, lodging, and any and all expenses related to the creation of artist's proposal and presentation. No site-specific designs will be reviewed or considered in Round #1 of the submission process.

Round #2 will consider the merits of finalist proposals. The Selection Panel will make a recommendation to the MAC, which will recommend an artist/artist team and design to City Council. Upon approval by City Council, all finalists will be notified of the decision. The selected artist will finalize the design based on any notes from the Selection Panel and complete a contract with the City for the completion of the sculpture.

Round #1 Submission Requirements & Selection Criteria

1. **Letter of Interest**
2. **Resume**
3. **Work Samples**
   Include up to 6 photographs of no fewer than 2 projects of a similar or larger scale.
4. **Selection Criteria**
   Artist Qualifications
   a. The artist's letter articulates interest in pursuing this project as well as describing its relevance to their artistic practice.
   b. The artist's letter of interest reveals an understanding of and connection to the public art site and project description.
   c. The artist's resume reveals a record of practice in the art field, including public art commissions.
   d. The applicant submits photographs of at least 2 completed public art projects of similar or larger scale.
   e. The artist's past work reveals aesthetic, conceptual, and technical expertise.

Round #2 Submission Requirements & Selection Criteria

1. **Site-specific Design**
   Include up to five renderings of the proposed site-specific design, preferably overlaid on photographs of the site and shown at the proposed scale.
2. **Artist Statement**
   Describe connections between the design and the project description, site, and Moscow community as well as contextualizing the project within the artist's larger body of work.
3. **Professional References**
   Provide a minimum of two and no more than three professional references who can address the artist's level of professionalism, effectiveness at communication, previous success with the execution of mural projects, ability to meet deadlines and stay on budget.
4. **Presentation**
   Present a presentation of the proposed site-specific design to the Selection Panel either in person or via virtual conference.
5. **Selection Criteria**

   Artist Qualifications

   a. The artist provides a minimum of two references who confirm the artist's professionalism in communication and previous success in the execution of mural projects.
   b. The artist references confirm the artist's ability to meet deadlines and the ability to stay on budget.

   Conceptual Quality and Originality

   a. The proposed design is original to the presenting artist.
   b. The design is unique (i.e. edition of one), rather than a mass-produced item or image.
   c. The artist articulates the connections between the proposed design and the project description as well as the project site and the Moscow community.

   Form

   a. The proposed design reveals mastery of formal craftsmanship.
   b. The scale of the proposed design is appropriate to the site.
   c. The colors used, if any, are chosen with an awareness of local educational institutions as well as their athletic rivals.
   d. The proposal aligns with the project's design parameters and does not present a hazard to public safety.

   Content and Context

   a. The content of the proposed design aligns with the project description.
   b. The content of the proposed design is relevant to the City of Moscow's values, culture, and people.
   c. The proposed design reflects the architectural, historical, geographical, geological, and/or socio-cultural context of the site.
   d. The proposed design serves to activate or enhance the intended location.
   e. The proposed design has the potential to expand the formal and conceptual range of the Public Art collection.
   f. The artwork's subject matter and content is appropriate for public exhibition and does not contain advertising, religious references, obscenity, sexual content, violence, negative imagery, or convey political partisanship.

Selection Panel

The Arts Manager will coordinate recommendation of selection panelists with the Mayor and Council. MAC will consider the guidelines hereinbelow, requests by individuals, and staff recommendations. Selection Panel members shall serve at the appointment of the Mayor.

Selection Panels will be comprised of at least the following:

1. Voting members:
    a. Moscow Police Chief (1)
    b. Current and/or retired MPD officers (3)
    c. Moscow Council member or designee (1)
    d. MAC member (1)
    e. Artist not involved with the public art project (1)
2. Non-voting members:
    a. Arts Manager (Selection Panel facilitator)
    b. Project architect, landscape architect, interior designer, or engineer
    c. City staff members acting in a technical advisory capacity

Length of term. Each Selection Panel member serves through the completion of one (1) public art project. No artist sitting on a Selection Panel may submit a proposal for the project for which the Selection Panel was formed. MAC members shall declare a conflict of interest if a project comes before the Selection Panel from which they or a member of their household or business could financially benefit. MAC members shall also declare a conflict of interest if a person with whom they share a household or whom they professionally represent has a matter to be considered by the Selection Panel. Such person shall recuse themselves from any participation in any process for the project the Selection Panel is considering. No member of the project's architect or landscape architect, interior designer, or engineering firm may apply for a public art project being designed by that firm.

Selection Panel Procedures and Responsibilities

1. Moscow Arts Manager will hold an orientation for the Selection Panel. The orientation may include a presentation of works currently in the public art collection, review of program guidelines, orientation to the specific project; and/or a review of any goals already established by the participating department and the Moscow Arts Manager and MAC.
2. Review all submissions pertaining to the public art project using the published criteria.
3. Approve all recommendations by a majority vote of the full Selection Panel.
4. The Selection Panel will make recommendations on finalists and their work to the Arts Manager. MAC members on the Selection Panel will report the Panel's recommendation to the Commission during a regular meeting, after which the MAC will vote to recommend an action on the project to City Council.
5. The Arts Manager will generate a project report to present to the Mayor and Council for final approval.
6. The City reserves the option of making no recommendation from submitted applications and may require reopening of the request for qualifications or may propose other methods of selection, if no proposal is accepted.
7. The Selection Panel must always adhere to the requirements of Moscow City Code Title 5, Chapter 18 and the Public Art Guidelines adopted by City Council.

Moscow Police Station

Moscow, ID

About Moscow, ID

Moscow is settled on the rolling hills of the Palouse, a rich landscape long inhabited by the Nimiipuu (Nez Perce), Palus (Palouse), and Schitsu'umsh (Coeur d' Alene) tribes indigenous to the region. The City of Moscow was incorporated on July 12, 1887, and its modern history is rooted in agriculture; the surrounding region produces top-quality wheat and pulses. The presence of farming in the community goes far beyond commerce, however, as grain silos and other architectural features announce agricultural endeavor as part of the community's aesthetic identity.

Moscow is home to the University of Idaho, a land grant institution established in 1889. School spirit influences the atmosphere of the city, imbuing it with the balance of gravitas and celebration that characterizes educational experience. University arts programs like the Lionel Hampton Jazz Festival and the Prichard Art Gallery have greatly contributed to Moscow's identity as a cultural center. The community is rich not only in visual and performing arts events, but also in recreational and culinary opportunities. Residents and visitors alike enjoy the Palouse landscape at recreational features like Moscow Mountain and the Bill Chipman Palouse Trail, followed by tastes of the region at area restaurants, wineries, breweries and the Moscow Farmers Market.

City of Moscow Public Art

Public art is at the heart of Moscow's creative culture, and with a collection including works by local and regional artists, its public spaces reflect the Inland Northwest's tradition of artistic excellence. The City of Moscow Arts Department and the Moscow Arts Commission (MAC) share a mission to enrich the community by celebrating and cultivating the expressions of all forms of art and culture. The MAC has fostered artistic excellence and public access to the arts in the city since its founding on October 2, 1978. Programming includes curation of exhibition space at the Third Street Gallery inside City Hall, a biennial Mayor's Arts Awards, Moscow Poet Laureate programming, and a comprehensive public art program.

The City of Moscow's acquisition of public art began in the 1980s and is supported by a 1%-for-the-Arts fund established in 2004. A Public Art Master Plan, adopted in 2015, guides the incorporation of new works into the City's landscape. Stewardship of the collection is a collaborative effort, with artistic advice from the MAC, direction from City Council, and operational details managed by Arts Department staff. The Public Art program aims to reflect the character of Moscow by fostering relationships between individuals and institutions in the community. Whether part of the University, business community, or the agricultural tradition, the City's creative partners generate aesthetic excellence, civic identity, and economic strength by supporting the arts.

The Public Art collection is currently comprised of more than 220 temporary and permanent features. Temporary artworks include vinyl-wrapped utility boxes and bus shelters as well as a sculpture garden featuring artworks on loan to the City. Artworks in the permanent collection range from mosaic murals and sculptures-in-the-round to framed pieces in the Portable Collection. Each new piece in the permanent collection joins others by celebrated regional artists including Harold Balazs, David Govedare, Miles Pepper, Robert Horner, Melissa Cole, J. Casey Doyle, Jay Rasgorshek, and artist team Jennifer Corio and Dave Frei.

Moscow is a community rich with diversity of thought, inhabited by minds open to possibility and creative interpretation. As such, the Public Art program not only celebrates the artist as a professional and valued business partner, but also welcomes a broad range of appearances, media, and art-making processes into its collection.

Moscow Police Station

Moscow, ID

Site Details

155 Southview Ave. Moscow, ID

Moscow Police Station

Moscow, ID

ARTWORK COMMISSION FINALIST
AGREEMENT FOR SITE-SPECIFIC DESIGN
FOR PUBLIC ART PROJECT
2027 SCULPTURE AT MOSCOW POLICE STATION

THIS ARTWORK COMMISSION FINALIST AGREEMENT FOR SITE-SPECIFIC DESIGN FOR PUBLIC ART PROJECT 2027 SCULPTURE AT MOSCOW POLICE STATION (hereinafter "Agreement"), is made and entered into this _____ day of _____, 2026, by and between Artist TBD, Address TBD, (hereinafter "ARTIST"), and City of Moscow, Idaho, a municipal corporation of the State of Idaho, 206 East Third Street, Moscow, Idaho, 83843 (hereinafter "CITY").

WHEREAS, CITY wishes to hire an artist to create one (1) site-specific design proposal for a public art project to be installed at the Moscow Police Station located at 155 Southview Avenue, Moscow, Idaho (hereinafter "Project"); and

WHEREAS, ARTIST and CITY wish to enter into an Agreement regarding the ARTIST's expenses to prepare and present a site-specific design for the Project;

NOW THEREFORE, the Parties agree that all matters stated above are found to be true and correct and are incorporated herein by reference as if copied in their entirety and shall be adopted with the following:

1. Duration: This Agreement shall become effective on the date signed above and shall remain in effect until satisfactory performance of all services is completed, unless terminated for breach or as provided in this Agreement.

2. Scope of Work: ARTIST shall complete the site-specific design and supporting materials as described in the RFQ, included as Attachment "A" and incorporated herein by this reference, by the TBDth day of TBD, 2026, and shall perform all tasks set out in the "Round #2 Submission Requirements & Selection Criteria" section of Attachment "A".

3. Compensation:

   A. ARTIST shall receive an honorarium in the amount of One Thousand Dollars ($1,000) to be used toward travel expenses, food, any design fees, lodging, and all expenses related to the creation of ARTIST's proposal and presentation. This amount shall constitute full compensation for all services, materials, and fees to be furnished and performed by ARTIST as described in Scope of Work.

   B. Payment shall be made in one (1) installment to be paid after fulfillment of the terms of this Agreement. Following Moscow Arts Commission and Council approval of a design, if ARTIST's design is the selected design, ARTIST shall complete an artwork commission agreement with a total project budget not to exceed Eighty-Five Thousand Dollars ($85,000).

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4. Termination of Agreement: This Agreement may be terminated by ARTIST upon thirty (30) days' written notice. If ARTIST terminates, ARTIST shall forfeit the honorarium provided and reimburse CITY the full amount paid to ARTIST, if any. CITY may terminate this Agreement for any reason by providing written notification to ARTIST.

5. Independent Contractor: The contracting Parties warrant by their signatures that no employer/employee relationship is established between ARTIST and CITY by the terms of this Agreement. It is understood by the Parties hereto that ARTIST is an independent contractor and as such neither they nor their employees, if any, are employees of CITY for purposes of tax, retirement system, or social security (FICA) withholding.

6. Conflict of Interest: ARTIST covenants presently to have no interest in and shall not acquire any interest, direct or indirect, in the Project, which would conflict in any manner or degree with the performance of their services hereunder. ARTIST further covenants that, in performing this Agreement, to employ no person who has any such interest.

7. Changes in Regulations. ARTIST is to perform work under the current Federal, State, and local laws and regulations in full force and effect at the date of this Agreement.

8. Public Funds for Abortion Act: Pursuant to Idaho Code Title 18 Chapter 87, ARTIST certifies that they are not an abortion provider or an affiliate of any abortion providers and does not, and will not for the duration of the Agreement, authorize the use of state facilities or public funds for abortion related activity.

9. Non-discrimination: ARTIST shall not discriminate against any employee or applicant for employment on the basis of race, creed, color, religion, gender, gender expression or identity, pregnancy, national origin, ancestry, age (40 and older), marital or familial status, veteran status, mental or physical disability, sex, sexual orientation, genetic information, or any other basis prohibited by Federal, State or local law.

10. Modification and Assignability of Agreement: This Agreement and its attachment contain the entire Agreement between the Parties, and no statements, promises, or inducements made by either Party, or agents of either Party, are valid or binding unless contained herein. This Agreement may not be enlarged, modified, or altered except upon written Agreement signed by the Parties hereto. ARTIST may not subcontract or assign their rights (including the right to compensation), or duties arising hereunder, without the prior written consent and express authorization of CITY. Any such consultant, subcontractor or assignee shall be bound by all of the terms and conditions of this Agreement as if named specifically herein.

11. Special Warranty: ARTIST warrants that nothing of monetary value has been given, promised or implied as remuneration or inducement to enter into this Agreement. ARTIST declares that no improper personal, political or social activities have been used or attempted in an effort to influence the outcome of the competition, discussion, or negotiation leading to the award of this Agreement. Any such activity by ARTIST shall make this Agreement null and void. ARTIST further warrants that all materials and goods supplied under this

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Agreement shall be of good merchantable quality and that all services will be performed in a good skillful manner. ARTIST acknowledges that they will be liable for any breach of this warranty.

12. Costs and Attorney Fees: In the event either Party incurs legal expenses to enforce the terms and conditions of this Agreement, the prevailing Party is entitled to recover reasonable attorney's fees and other costs and expenses, whether the same are incurred with or without suit.

13. Jurisdiction and Venue: It is agreed that this Agreement shall be construed under and governed by the laws of the State of Idaho. In the event of litigation concerning it, it is agreed that proper venue shall be the District Court of the Second Judicial District of the State of Idaho, in and for the County of Latah.

14. Binding on Agents, Subcontractors, and Successors: CITY and ARTIST each bind themselves, their partners, agents, subcontractors, successors, assigns, and legal representatives to the other Party to this Agreement and to the partners, agents, subcontractors, successors, assigns, and legal representatives of such other Party with respect to all covenants of this Agreement.

15. Severability of Provisions: The terms of this Agreement shall be deemed severable. Whenever possible, each provision of this Agreement will be interpreted in a manner as to be effective and valid under applicable law. However, if any provision of this Agreement or the application of any provision to any Party or circumstance will be prohibited by or invalid under applicable law, that provision will be ineffective to the extent of the prohibition or invalidity without invalidating the remainder of the provisions of this Agreement or the application of the provision to other parties or other circumstances.

16. Notice:

    A. CITY's Representative. Communication with CITY shall be to City of Moscow Arts Manager, 206 East Third Street, Moscow, Idaho, 83843, email mcherry@ci.moscow.id.us. The Arts Manager or designee shall examine the documents of the work as necessary, and shall render decisions related thereto in a timely manner so as to avoid unreasonable delays.

    B. Communication to ARTIST shall be to:
    Artist TBD
    Address TBD
    Email TBD
    Phone TBD

17. Insurance: If selected, ARTIST will sign an agreement that details the terms of the Artwork to be installed at the Moscow Police Station, which will include, but not be limited to, the following:

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A. Insurance Required. ARTIST and any subcontractor or agent shall maintain automobile insurance and statutory workers compensation insurance, employer's liability and comprehensive general liability insurance coverage, all as required by law.

B. General Liability. ARTIST shall provide, at ARTIST's expense, general liability insurance with limits of not less than One Million Dollars ($1,000,000) per occurrence, combined single limit bodily injury and property damage, covering ARTIST's work in installing the Artwork, which shall be in force for no less than fifteen (15) days prior to ARTIST commencing work, until completion and final acceptance of the Artwork by CITY.

C. Worker's Compensation and Employer Liability Insurance. Worker's compensation insurance shall be provided to cover any employees involved in producing the Artwork in such amounts required by Idaho law for all work performed in Idaho or in such amounts as may be required by Idaho law.

D. CITY as Additional Insured and Term of Insurance. On all insurance policies required under this Agreement other than auto, CITY shall be named as an additional insured and the policy shall provide it may not be cancelled or reduced in coverage, except upon thirty (30) days' prior written notice to CITY. Any cancellation of insurance, other than auto, without appropriate replacement in the amounts and terms set forth herein, shall constitute grounds for termination of this Agreement. Each type of insurance required by the agreement ARTIST will sign if ARTIST is selected shall be in force for no less than fifteen (15) days prior to ARTIST commencing the Project until completion and final acceptance of the Artwork by CITY.

E. ARTIST to provide Certificates of Insurance to CITY. ARTIST shall ensure that CITY is provided a Certificate of Insurance for each insurance policy required by the agreement ARTIST will sign if selected.

F. Contractors and Subcontractors. ARTIST shall ensure that all contractors, subcontractors and agents of ARTIST provide the insurance required herein and that each such contractor, subcontractor and agent shall provide CITY a certificate of insurance and shall name CITY as an additional insured on the Project, and shall provide documentation of any agreement between ARTIST and contractor(s)/subcontractor(s) relative to the Project.

18. Indemnification: ARTIST waives any and all claims and recourse against CITY, including the right of contribution for loss and damage to persons or property arising from, growing out of, or in any way connected with or incident to ARTIST's performance of this Agreement, except for liability arising out of the sole negligence of CITY or its officers, agents, or employees. Further, ARTIST shall indemnify, hold harmless, and defend CITY against any and all claims, demands, damages, costs, expenses, or liability arising out of ARTIST's performance of this Agreement, except for liability arising out of the sole negligence of CITY or its officers, agents, or employees.

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In addition to other rights granted CITY by this Agreement, ARTIST shall defend, indemnify, and hold harmless CITY, its officers, agents, and employees, from and against any and all losses, lawsuits, actions, claims, judgments for damages, or any injuries or damages received or sustained by any person, persons, or property, and losses, expenses and other costs including litigation costs and attorney's fees arising out of, resulting from, or in connection with the acts and/or any performances, activities, errors or omissions by ARTIST or their subcontractors; or on account of or in consequence of any neglect in safeguarding the work; or because of any act or omission, neglect, or misconduct of ARTIST or their subcontractors; or because of any claims or amounts recovered from any infringements of patent, trademark or copyright; or from any claims or amounts arising or recovered under the Worker's Compensation Act or any other law, ordinance, order, or decree.

19. Risk of Loss: ARTIST shall take such measures as are reasonably necessary to protect the Project from loss or damage until ARTIST has completed delivery to CITY of all materials specified herein and ownership is transferred to CITY, which shall occur when delivery is complete.

20. Copyright:

A. Copyright and Publication of Materials. ARTIST shall retain the copyright and all other rights in and to the Project, provided that CITY is hereby granted an irrevocable license to graphically reproduce (through photography or otherwise) the images of the Project without CITY cost, expense or payment to ARTIST, including but not limited to, the Project proposal and all preliminary studies, models and maquettes thereof that have been delivered to and accepted by CITY, and to authorize third parties to graphically reproduce (through photography or otherwise) any and all of the same, as are desired by CITY, for municipal (e.g., education, public information, etc.) purposes. On each such reproduction, ARTIST shall be acknowledged, using designations provided by ARTIST, to be the creator of the original Project thereof, provided that reproductions of any preliminary studies, models and maquettes shall not be identified as or represented to be the finished Project. The rights granted by this provision shall survive the expiration or earlier termination of this Agreement.

B. Waiver of Rights Under Visual Artists Rights Act of 1990. ARTIST understands and agrees that, as to ARTIST's rights in the work of art, the provisions of this Agreement shall supersede the provisions of the Visual Artists Rights Act of 1990 ("VARA"), 17 U.S.C. § 101 et. seq., as amended, including but not limited to § 106A(a) and § 113(d), as to the work of art, and that execution of this Agreement by ARTIST shall constitute a waiver by ARTIST, as permitted in 17 U.S.C. § 106A(e), as amended, of any and all rights or protections in the work of art, and any uses of the work of art whatsoever, set out in or otherwise granted by 17 U.S.C. § 101, et. seq., as amended, including, but not limited to, § 106A(a) or § 113(d), or otherwise in the nature of "Droit Moral" under which artists claim an interest in their work. ARTIST understands that, despite CITY's commitment not to intentionally damage, alter or modify the work of art without the prior written approval of ARTIST, alterations to the site and/or removal of the work of

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art from the site may subject the work of art to destruction, distortion, mutilation or other modification, by reason of such site alterations or its removal.

21. Ownership: The Project shall be a limited edition of one (1), unique, singular design, as described herein. ARTIST shall not reproduce the Project elsewhere and shall not utilize the design for forming or shaping a similar artwork elsewhere. ARTIST warrants that, unless otherwise set forth in writing, the Project will be an original, in that the Project owes its creation or origin to ARTIST and is not the product of copying another's work in any manner. Furthermore, ARTIST warrants and represents that ARTIST has not previously published the Project which is transferred by and the subject of this Agreement and that ARTIST is the sole owner of all rights therein. Except as provided in this Agreement, upon final acceptance by CITY, acceptance of the Project delivery and final payment to ARTIST, CITY shall own the Project. ARTIST hereby expressly waives any right, title or interest in the artwork created for the Project. ARTIST understands that this waiver includes waiver of the exclusive rights of reproduction, adaptation, publication, performance, and display.

22. Use: CITY agrees to make a reasonable effort to notify ARTIST of CITY's intent, if any, to use or adapt materials developed for the Project following completion of the Project.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the date indicated above.

I, Artist TBD, certify under the penalty of perjury pursuant to the law of the State of Idaho, that the foregoing is true and correct. If I am signing this document utilizing an electronic signature, I understand that this electronic signature is valid and binding upon me to the same force and effect as a handwritten signature.

ARTIST

_____
Artist TBD

CITY

_____
Hailey Lewis, Mayor

ATTEST:

_____
Laurie M. Hopkins, City Clerk

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Project Description

The City of Moscow and the Moscow Arts Commission ("MAC") invite artists and artist teams to submit qualifications for a three-dimensional artwork to be installed at the Moscow Police Station. The artwork will be installed in an alcove near the entrance of the facility, located at 155 Southview Ave, Moscow ID.

Project Theme

Police work is handed from one officer to the next at the end of watch, an enduring legacy of service that connects all those who serve in law enforcement. This artwork will honor the tradition of community policing and inspire past, current, and future MPD officers, whose sense of family extends to include the community members in their care.

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These traditional symbols may be useful as an introductory point of reference for the artist's conceptual development, but imagery specific to the incident commemorated by this artwork centers on the clock tower. Officers on the scene report that the chiming of the clock tower marked time though the nightmarish day, serving as both a comfortingly predictable structure and a haunting memento mori. The clock tower was memorialized in the MPD patch design in 2022. In the design, the hands of the clock are set to 1:49, echoing the badge number of Lee Newbill, the officer killed in the line of duty that day.

About Moscow Police Department

MPD Mission

The Moscow Police Department's mission is to provide public safety services that are designed to fairly, efficiently, and effectively prevent crime and safeguard lives and property. We will provide professional police services by inviting public participation, resulting in a community atmosphere where citizens are free of unnecessary regulation and are treated with dignity and respect. Our personnel will maintain high ethical standards, training, and professional development. Our goal is to provide a community that is safe, secure, and a pleasant place to live and visit.

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MPD Philosophy

The department employs a community-oriented policing philosophy to improve the quality of life through community partnerships and problem-solving approaches. Our core values consist of Service, Pride, Integrity, Compassion, and Excellence. We are a state-accredited agency and adhere to all the comprehensive professional standards and best practices of contemporary law enforcement organizations as recognized by the Idaho Chiefs of Police Association.

Budget

The artist honorarium for the mural installation is not to exceed $85,000. Included in this budget are the artist's fee, insurance, travel, fabrication, engineering, materials, installation, documentation, and all other costs accrued by the artist specific to this project. The artist honorarium does not include costs associated with lighting and signage. These processes will be completed and paid by the City of Moscow.

Eligibility

Artists eighteen (18) years-of-age and older from the United States are eligible for this project. Preference may be given to artists who live in Latah County, Nez Perce County, or those who are Nez Perce or Coeur d'Alene tribal members and/or have a significant Idaho economic presence, with secondary preference given to those artists who live in Asotin County or Whitman County. Artists are eligible regardless of race, color, religion, national origin, gender, marital or familial status, physical or mental disability, sexual orientation, and gender expression or identity. Artist teams are eligible to apply, including teams of artists from multiple disciplines. Selection panelists and their immediate family members are not eligible for participation. No artist sitting on a Selection Panel may submit a proposal for the project for which the Selection Panel was formed.

Artwork Design Parameters

This call is open to representational artworks made from materials that convey a message of strength and permanence. The artwork should have a visually commanding presence within the space, with a minimum height of 14'. The artwork will be accessioned into the City of Moscow's permanent collection and is anticipated to last a minimum of 30 years. All materials used to complete this project must be designed for exposure to year-round exterior conditions with minimal maintenance requirements. This site cannot accommodate kinetic, digital, or sound-based elements, highly reflective surfaces, or any artwork that incorporates water.

Important Dates (subject to change)

February – March 2026	RFQ Submission Period
May 2026	Finalists create site-specific proposals for Selection Panel review
August 2026	Selected Artist Announcement
April 2027	Installation Deadline

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Submission and Selection

Round #1 of the selection process welcomes the submission of artist qualifications and examples of past work. These materials will be evaluated by the Selection Panel, which will then recommend three finalists to create site-specific proposals. Each of the finalists will be required to enter into an agreement for creating the site-specific design and will receive a $1000 honorarium which is anticipated will be used towards travel expenses, food, design fees, lodging, and any and all expenses related to the creation of artist's proposal and presentation. No site-specific designs will be reviewed or considered in Round #1 of the submission process.

Round #2 will consider the merits of finalist proposals. The Selection Panel will make a recommendation to the MAC, which will recommend an artist/artist team and design to City Council. Upon approval by City Council, all finalists will be notified of the decision. The selected artist will finalize the design based on any notes from the Selection Panel and complete a contract with the City for the completion of the sculpture.

Round #1 Submission Requirements & Selection Criteria

1. **Letter of Interest**
2. **Resume**
3. **Work Samples**
   Include up to 6 photographs of no fewer than 2 projects of a similar or larger scale.
4. **Selection Criteria**
   Artist Qualifications
   a. The artist's letter articulates interest in pursuing this project as well as describing its relevance to their artistic practice.
   b. The artist's letter of interest reveals an understanding of and connection to the public art site and project description.
   c. The artist's resume reveals a record of practice in the art field, including public art commissions.
   d. The applicant submits photographs of at least 2 completed public art projects of similar or larger scale.
   e. The artist's past work reveals aesthetic, conceptual, and technical expertise.

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Round #2 Submission Requirements & Selection Criteria

1. **Site-specific Design**
   Include up to five renderings of the proposed site-specific design, preferably overlaid on photographs of the site and shown at the proposed scale.
2. **Artist Statement**
   Describe connections between the design and the project description, site, and Moscow community as well as contextualizing the project within the artist's larger body of work.
3. **Professional References**
   Provide a minimum of two and no more than three professional references who can address the artist's level of professionalism, effectiveness at communication, previous success with the execution of mural projects, ability to meet deadlines and stay on budget.
4. **Presentation**
   Present a presentation of the proposed site-specific design to the Selection Panel either in person or via virtual conference.
5. **Selection Criteria**

   Artist Qualifications

   a. The artist provides a minimum of two references who confirm the artist's professionalism in communication and previous success in the execution of mural projects.
   b. The artist references confirm the artist's ability to meet deadlines and the ability to stay on budget.

   Conceptual Quality and Originality

   a. The proposed design is original to the presenting artist.
   b. The design is unique (i.e. edition of one), rather than a mass-produced item or image.
   c. The artist articulates the connections between the proposed design and the project description as well as the project site and the Moscow community.

   Form

   a. The proposed design reveals mastery of formal craftsmanship.
   b. The scale of the proposed design is appropriate to the site.
   c. The colors used, if any, are chosen with an awareness of local educational institutions as well as their athletic rivals.
   d. The proposal aligns with the project's design parameters and does not present a hazard to public safety.

   Content and Context

   a. The content of the proposed design aligns with the project description.
   b. The content of the proposed design is relevant to the City of Moscow's values, culture, and people.
   c. The proposed design reflects the architectural, historical, geographical, geological, and/or socio-cultural context of the site.
   d. The proposed design serves to activate or enhance the intended location.
   e. The proposed design has the potential to expand the formal and conceptual range of the Public Art collection.
   f. The artwork's subject matter and content is appropriate for public exhibition and does not contain advertising, religious references, obscenity, sexual content, violence, negative imagery, or convey political partisanship.

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Selection Panel

The Arts Manager will coordinate recommendation of selection panelists with the Mayor and Council. MAC will consider the guidelines hereinbelow, requests by individuals, and staff recommendations. Selection Panel members shall serve at the appointment of the Mayor.

Selection Panels will be comprised of at least the following:

1. Voting members:
    a. Moscow Police Chief (1)
    b. Current and/or retired MPD officers (3)
    c. Moscow Council member or designee (1)
    d. MAC member (1)
    e. Artist not involved with the public art project (1)
2. Non-voting members:
    a. Arts Manager (Selection Panel facilitator)
    b. Project architect, landscape architect, interior designer, or engineer
    c. City staff members acting in a technical advisory capacity

Length of term. Each Selection Panel member serves through the completion of one (1) public art project. No artist sitting on a Selection Panel may submit a proposal for the project for which the Selection Panel was formed. MAC members shall declare a conflict of interest if a project comes before the Selection Panel from which they or a member of their household or business could financially benefit. MAC members shall also declare a conflict of interest if a person with whom they share a household or whom they professionally represent has a matter to be considered by the Selection Panel. Such person shall recuse themselves from any participation in any process for the project the Selection Panel is considering. No member of the project's architect or landscape architect, interior designer, or engineering firm may apply for a public art project being designed by that firm.

Selection Panel Procedures and Responsibilities

1. Moscow Arts Manager will hold an orientation for the Selection Panel. The orientation may include a presentation of works currently in the public art collection, review of program guidelines, orientation to the specific project; and/or a review of any goals already established by the participating department and the Moscow Arts Manager and MAC.
2. Review all submissions pertaining to the public art project using the published criteria.
3. Approve all recommendations by a majority vote of the full Selection Panel.
4. The Selection Panel will make recommendations on finalists and their work to the Arts Manager. MAC members on the Selection Panel will report the Panel's recommendation to the Commission during a regular meeting, after which the MAC will vote to recommend an action on the project to City Council.
5. The Arts Manager will generate a project report to present to the Mayor and Council for final approval.
6. The City reserves the option of making no recommendation from submitted applications and may require reopening of the request for qualifications or may propose other methods of selection, if no proposal is accepted.
7. The Selection Panel must always adhere to the requirements of Moscow City Code Title 5, Chapter 18 and the Public Art Guidelines adopted by City Council.

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About Moscow, ID

Moscow is settled on the rolling hills of the Palouse, a rich landscape long inhabited by the Nimiipuu (Nez Perce), Palus (Palouse), and Schitsu'umsh (Coeur d' Alene) tribes indigenous to the region. The City of Moscow was incorporated on July 12, 1887, and its modern history is rooted in agriculture; the surrounding region produces top-quality wheat and pulses. The presence of farming in the community goes far beyond commerce, however, as grain silos and other architectural features announce agricultural endeavor as part of the community's aesthetic identity.

Moscow is home to the University of Idaho, a land grant institution established in 1889. School spirit influences the atmosphere of the city, imbuing it with the balance of gravitas and celebration that characterizes educational experience. University arts programs like the Lionel Hampton Jazz Festival and the Prichard Art Gallery have greatly contributed to Moscow's identity as a cultural center. The community is rich not only in visual and performing arts events, but also in recreational and culinary opportunities. Residents and visitors alike enjoy the Palouse landscape at recreational features like Moscow Mountain and the Bill Chipman Palouse Trail, followed by tastes of the region at area restaurants, wineries, breweries and the Moscow Farmers Market.

City of Moscow Public Art

Public art is at the heart of Moscow's creative culture, and with a collection including works by local and regional artists, its public spaces reflect the Inland Northwest's tradition of artistic excellence. The City of Moscow Arts Department and the Moscow Arts Commission (MAC) share a mission to enrich the community by celebrating and cultivating the expressions of all forms of art and culture. The MAC has fostered artistic excellence and public access to the arts in the city since its founding on October 2, 1978. Programming includes curation of exhibition space at the Third Street Gallery inside City Hall, a biennial Mayor's Arts Awards, Moscow Poet Laureate programming, and a comprehensive public art program.

The City of Moscow's acquisition of public art began in the 1980s and is supported by a 1%-for-the-Arts fund established in 2004. A Public Art Master Plan, adopted in 2015, guides the incorporation of new works into the City's landscape. Stewardship of the collection is a collaborative effort, with artistic advice from the MAC, direction from City Council, and operational details managed by Arts Department staff. The Public Art program aims to reflect the character of Moscow by fostering relationships between individuals and institutions in the community. Whether part of the University, business community, or the agricultural tradition, the City's creative partners generate aesthetic excellence, civic identity, and economic strength by supporting the arts.

The Public Art collection is currently comprised of more than 220 temporary and permanent features. Temporary artworks include vinyl-wrapped utility boxes and bus shelters as well as a sculpture garden featuring artworks on loan to the City. Artworks in the permanent collection range from mosaic murals and sculptures-in-the-round to framed pieces in the Portable Collection. Each new piece in the permanent collection joins others by celebrated regional artists including Harold Balazs, David Govedare, Miles Pepper, Robert Horner, Melissa Cole, J. Casey Doyle, Jay Rasgorshek, and artist team Jennifer Corio and Dave Frei.

Moscow is a community rich with diversity of thought, inhabited by minds open to possibility and creative interpretation. As such, the Public Art program not only celebrates the artist as a professional and valued business partner, but also welcomes a broad range of appearances, media, and art-making processes into its collection.

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Site Details

155 Southview Ave. Moscow, ID

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Moscow Police Station

Moscow, ID

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ARTWORK COMMISSION AGREEMENT FOR
PUBLIC ART PROJECT 2027
SCULPTURE AT MOSCOW POLICE STATION

THIS ARTWORK COMMISSION AGREEMENT FOR PUBLIC ART PROJECT 2027 SCULPTURE AT MOSCOW POLICE STATION (hereinafter "Agreement"), is made and entered into this _____ day of _____, 2026, by and between Artist TBD (hereinafter "ARTIST") and City of Moscow, Idaho, a municipal corporation of the State of Idaho, 206 East Third Street, Moscow, Idaho, 83843 (hereinafter "CITY").

WHEREAS, CITY invited artists and artist teams to submit qualifications for a mural to be installed at the Moscow Police Station located at 155 Southview Avenue, Moscow, Idaho; see RFQ included as Attachment "A" (hereinafter "Project") and incorporated herein by this reference; and

WHEREAS, CITY's Selection Panel recommended finalists to take part in submitting site-specific designs for the Project; and

WHEREAS, CITY, after completing its review and selection process of all site-specific design proposals, has determined that ARTIST's proposal, as detailed in Attachment "B" and incorporated herein by this reference, meets the selection criteria and would best serve the needs of CITY for the Project; and

WHEREAS, ARTIST and CITY wish to enter into an Agreement regarding the Project;

NOW THEREFORE, the Parties to this Agreement, in consideration of the mutual covenants and stipulations set out herein, agree that all matters stated above are found to be true and correct and are incorporated herein by reference as if copied in their entirety and shall be adopted with the following:

1. Duration: This Agreement shall become effective on the date indicated above and shall remain in effect until satisfactory performance of all services is completed, unless terminated for breach or as provided in this Agreement.

2. Scope of Work:

   A. Description of Artwork. [Artwork title and description pending] (hereinafter "Artwork") see Attachment "B".

   B. Time of Performance. ARTIST shall coordinate commencement and installation of the Artwork with CITY Arts Manager and shall have the Artwork completed no later than April 30, 2027. ARTIST shall immediately notify CITY of any delay which occurs or which is anticipated to occur so that arrangements can be made to complete the Artwork for the Project as close to the completion date of April 30, 2027 as reasonably possible and should an extension be needed that the Project is to be completed no later than May

12, 2027. Date of delivery and installation may be extended, for a reasonable amount of time, due to circumstances and events beyond control of CITY and/or ARTIST, due to unforeseen circumstances, or upon written Agreement by the Parties.

C. Consultation with CITY. If requested by CITY, ARTIST shall, prior to fabrication and/or installation of the Artwork, meet with CITY to review the proposed Artwork and ensure that it can be maintained over the period of its lifetime without extraordinary expense, and that it comports with the design as submitted to CITY.

D. ARTIST shall only use materials impervious to environmental degradation, as specified in the approved design. If ARTIST desires to use alternate sculptural materials or coatings, ARTIST shall get written pre-approval for said materials from the Arts Manager.

E. ARTIST shall complete a Commission Artwork Detailed Report provided by CITY once installation of the Artwork is complete.

3. Services:

A. Quality of Services: ARTIST's standard of service under this Agreement shall be of the level of quality performed by professionals regularly rendering this type of service. Determination of acceptable quality shall be made solely by the CITY.

B. CITY Review of Services: ARTIST's services shall, at all times, be subject to CITY's general review and approval. ARTIST shall confer with CITY periodically during the progress of ARTIST's services, and shall prepare and present such information and materials as may be pertinent, necessary or requested by CITY to determine the adequacy of the services of ARTIST's progress. Upon reasonable prior notice to ARTIST, CITY and its elected officials, officers, employees and agents shall have the right to make reasonable inspections and reviews of ARTIST's progress with respect to the services.

4. Compensation:

A. ARTIST shall receive an amount not to exceed Eighty-Five Thousand Dollars ($85,000). This amount may be used for travel expenses, food, any design fees, lodging, and all expenses related to the creation of ARTIST's Artwork installation. This amount shall constitute full compensation for all services, materials and fees to be performed and furnished by ARTIST pursuant to this Agreement.

B. Payment shall be made in three (3) installments:

First Installment of Twenty-Five Thousand Dollars ($25,000) shall be paid after City approves the design and technical components of the Project, which includes ARTIST having the design stamped by a design professional licensed in Idaho. Paid at the time of the execution of this Agreement.

Second Installment of Twenty-Five Thousand Dollars ($25,000) shall be paid after the Project has reached fifty percent (50%) completion, as determined by CITY based on photographs of the Artwork in progress as well as verbal consultation with ARTIST.

Third and Final Installment of Thirty-Five Thousand Dollars ($35,000) shall be paid after completion of the Project and CITY's receipt of the Commissioned Artwork Detailed Report.

5. Termination:

A. Termination of Agreement. This Agreement may be terminated by ARTIST upon thirty (30) days' written notice, should CITY fail to substantially perform in accordance with its terms through no fault of ARTIST. CITY may terminate this Agreement upon thirty (30) days' written notice without cause and without further liability to ARTIST except as designated by this section.

B. Termination of Project. If any portion of the Project, covered by this Agreement, shall be suspended, abated, abandoned, or terminated by CITY, at no fault of ARTIST, CITY and ARTIST agree ARTIST will be compensated for the work completed in an amount to be agreed upon by the Parties. If any portion of the Project, covered by this Agreement, shall be suspended, abated, abandoned, or terminated by CITY due to ARTIST failure to perform under the terms of this Agreement, CITY will determine what, if any, additional compensation may be provided to ARTIST or any cost of reimbursement from ARTIST to CITY for payment made to ARTIST upon execution of this Agreement.

6. CITY Responsibilities:

A. CITY's Responsibility for Special Costs and Rights-of-Way. CITY shall pay for all costs for obtaining licenses and permits that may be required by Federal, State, and local authorities; and shall be responsible for securing necessary land, easements, and rights-of-way where applicable.

B. Data of Record. CITY shall make available to ARTIST all technical data of record in CITY's possession, including maps, surveys, architectural plans and drawings, and other information required by ARTIST relating to the Project.

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7. General Terms:

A. Independent Contractor: The contracting Parties warrant by their signatures that no employer/employee relationship is established between ARTIST and CITY by the terms of this Agreement. It is understood by the Parties hereto that ARTIST is an independent contractor and as such neither ARTIST nor any of ARTIST's employees

are employees of CITY for purposes of tax, retirement system, or social security (FICA) withholding.

B. Conflict of Interest: ARTIST covenants that they presently have no interest and shall not acquire any interest, direct or indirect, in the Project which would conflict in any manner or degree with the performance of their services hereunder. ARTIST further covenants that, in performing this Agreement, they shall employ no person who has any such interest.

C. Changes in Regulations: ARTIST is to perform their work under the current Federal, State, and local laws and regulations in full force and effect at the date of this Agreement.

D. Public Funds for Abortion Act: Pursuant to Idaho Code Title 18 Chapter 87, ARTIST certifies that they will not use the funds received pursuant to this Agreement for abortion related activity pursuant to Idaho Code § 18-8705.

E. Non-discrimination: ARTIST shall not discriminate against any employee or applicant for employment on the basis of race, creed, color, religion, gender, gender identity, pregnancy, national origin, ancestry, age (40 and older), marital or familial status, veteran status, disability, sex, sexual orientation, genetic information, or any other basis prohibited by local, state, or federal law.

F. Modification and Assignability of Agreement: This Agreement and its attachments contain the entire Agreement between the Parties, and no statements, promises, or inducements made by either Party, or agents of either Party, are valid or binding unless contained herein. This Agreement may not be enlarged, modified, or altered except upon written Agreement signed by the Parties hereto. ARTIST may not subcontract or assign rights (including the right to compensation) or duties arising hereunder without the prior written consent and express authorization of CITY. Any such consultant, subcontractor or assignee shall be bound by all of the terms and conditions of this Agreement as if named specifically herein.

G. Special Warranty: ARTIST warrants that nothing of monetary value has been given, promised or implied as remuneration or inducement to enter into this Agreement. ARTIST declares that no improper personal, political or social activities have been used or attempted in an effort to influence the outcome of the competition, discussion, or negotiation leading to the award of this Agreement. Any such activity by ARTIST shall make this Agreement null and void. ARTIST further warrants that all materials and goods supplied under this Agreement shall be of good merchantable quality and that all services will be performed in a good skillful manner. ARTIST acknowledges that they will be liable for any breach of this warranty.

H. Costs and Attorney Fees: In the event either Party incurs legal expenses to enforce the terms and conditions of this Agreement, the prevailing Party is entitled to recover

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reasonable attorney's fees and other costs and expenses, whether the same are incurred with or without suit.

I. Jurisdiction and Venue: It is agreed that this Agreement shall be construed under and governed by the laws of the State of Idaho. In the event of litigation concerning it, it is agreed that proper venue shall be the District Court of the Second Judicial District of the State of Idaho, in and for the County of Latah.

J. Binding on Agents, Subcontractors, and Successors: CITY and ARTIST each bind themselves, their partners, agents, subcontractors, successors, assigns, and legal representatives to the other Party to this Agreement and to the partners, agents, subcontractors, successors, assigns, and legal representatives of such other Party with respect to all covenants of this Agreement.

K. Non-Appropriations: This Agreement is contingent upon CITY receiving the necessary funding to cover the obligations of CITY. In the event that such funding is not received or appropriated, then, and in that event, CITY's obligations under this Agreement shall cease and each Party shall be released from further performance under this Agreement without any liability to the other Party, and ARTIST shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder.

L. Severability of Provisions: The terms of this Agreement are severable. Whenever possible, each provision of this Agreement will be interpreted in a manner as to be effective and valid under applicable law. However, if any provision of this Agreement or the application of any provision to any Party or circumstance will be prohibited by or invalid under applicable law, that provision will be ineffective to the extent of the prohibition or invalidity without invalidating the remainder of the provisions of this Agreement or the application of the provision to other parties or other circumstances.

M. Notice:

1. Communication with CITY shall be to City of Moscow Arts Manager, 206 East Third Street, Moscow, Idaho, 83843, email mcherry@ci.moscow.id.us. The Arts Manager or designee shall examine the documents of the work as necessary, and shall render decisions related thereto in a timely manner so as to avoid unreasonable delays.

2. Communication to ARTIST shall be to Artist TBD, Address TBD, Email TBD.

N. Insurance:

1. Insurance Required. ARTIST and any subcontractor or agent shall maintain automobile insurance and statutory workers compensation insurance, employer's liability and comprehensive general liability insurance coverage, all as required by law.

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2. General Liability. ARTIST shall provide, at ARTIST's expense, general liability insurance with limits of not less than One Million Dollars ($1,000,000) per occurrence, combined single limit bodily injury and property damage, covering ARTIST's work in fabricating, transporting, and installing the Artwork, which shall be in force for no less than fifteen (15) days prior to ARTIST's commencing work, until completion and final acceptance of the Artwork by CITY.

3. Worker's Compensation and Employer Liability Insurance. Worker's compensation insurance shall be provided to cover any employees involved in producing the Artwork in such amounts required by Idaho law for all work performed in Idaho or in such amounts as may be required by Idaho law.

4. CITY as Additional Insured and Term of Insurance. On all insurance policies required under this Agreement other than auto, CITY shall be named as an additional insured and the policy shall provide it may not be cancelled or reduced in coverage, except upon thirty (30) days prior written notice to CITY. Any cancellation of insurance, other than auto, without appropriate replacement in the amounts and terms set forth herein, shall constitute grounds for termination of this Agreement. Each type of insurance required by this Agreement shall be in force for no less than fifteen (15) days prior to ARTIST's commencing the Project until completion and final acceptance of the Artwork by CITY.

5. ARTIST to provide Certificates of Insurance to CITY. ARTIST shall insure that CITY is provided a Certificate of Insurance for each insurance policy required by this Agreement.

6. Contractors and Subcontractors. ARTIST shall insure that all contractors, subcontractors and agents of ARTIST provide the insurance required herein and that each such contractor, subcontractor and agent shall provide CITY a certificate of insurance and shall name CITY as an additional insured on the Project, and shall provide documentation of any agreement between ARTIST and contractor(s)/subcontractor(s) relative to the Project.

O. Hold Harmless:

1. Indemnification. ARTIST waives any and all claims and recourse against CITY, including the right of contribution for loss and damage to persons or property arising from, growing out of, or in any way connected with or incident to ARTIST's performance of this Agreement, except for liability arising out of the sole negligence of CITY or its officers, agents, or employees. Further, ARTIST shall indemnify, hold harmless, and defend CITY against any and all claims, demands, damages, costs, expenses, or liability arising out of ARTIST's performance of this Agreement.

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In addition to other rights granted CITY by this Agreement, ARTIST shall defend, indemnify, and hold harmless CITY, its officers, agents, and employees, from and against any and all losses, lawsuits, actions, claims, judgments for damages, or any injuries or damages received or sustained by any person, persons, or property, and losses, expenses and other costs including litigation costs and attorney's fees arising out of, resulting from, or in connection with the acts and/or any performances, activities, errors or omissions by ARTIST or their subcontractors; or on account of or in consequence of any neglect in safeguarding the work; or because of any act or omission, neglect, or misconduct of ARTIST or their subcontractors; or because of any claims or amounts recovered from any infringements of patent, trademark or copyright; or from any claims or amounts arising or recovered under the Worker's Compensation Act or any other law, ordinance, order, or decree.

2. Risk of Loss. ARTIST shall take such measures as are reasonably necessary to protect the Artwork and materials being used by ARTIST to create the Artwork from loss or damage until ARTIST has completed delivery to CITY of all materials specified herein and ownership is transferred to CITY, which shall occur when installation is complete.

P. Copyright:

1. Copyright and Publication of Materials. ARTIST shall retain the copyright and all other rights in and to the Artwork, provided that CITY is hereby granted an irrevocable license to graphically reproduce (through photography or otherwise) the image of the Artwork without CITY cost, expense or payment to ARTIST, including but not limited to, the Artwork proposal and all preliminary studies, models and maquettes thereof that have been delivered to and accepted by CITY, and to authorize third parties to graphically reproduce (through photography or otherwise) any and all of the same, as are desired by CITY, for municipal purposes, which may include but are not limited to education and public information. On each such reproduction, ARTIST shall be acknowledged, using designations provided by ARTIST, to be the creator of the original Artwork thereof, provided that reproductions of any preliminary studies, models and maquettes shall not be identified as or represented to be the finished Artwork. The rights granted by this provision shall survive the expiration or earlier termination of this Agreement.

2. Waiver of Rights Under Visual Artists Rights Act of 1990. ARTIST understands and agrees that, as to ARTIST's rights in the Artwork, the provisions of this Agreement shall supersede the provisions of the Visual Artists Rights Act of 1990 ("VARA"), 17 U.S.C. § 101 et. seq., as amended, including but not limited to § 106A(a) and § 113(d), as to the Artwork, and that execution of this Agreement by ARTIST shall constitute a waiver by ARTIST, as permitted in 17 U.S.C. § 106A(e), as amended, of any and all rights or protections in the Artwork, and any uses of the Artwork whatsoever, set out in or otherwise granted by 17 U.S.C. §

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101, et. seq., as amended, including but not limited to § 106A(a) or § 113(d), or otherwise in the nature of "Droit Moral" under which artists claim an interest in their work. ARTIST understands that, despite the CITY's commitment not to intentionally damage, alter or modify the Artwork without the prior written approval of ARTIST, alterations to the site and/or removal of the Artwork from the site may subject the Artwork to destruction, distortion, mutilation or other modification, by reason of such site alterations or its removal.

3. Ownership. The Artwork shall be a limited edition of one (1), unique, artwork that is a three-dimensional sculpture [Artwork title pending] as described herein. ARTIST shall not reproduce the Artwork elsewhere or allow the Artwork to be reproduced elsewhere. ARTIST warrants that, unless otherwise set forth in writing, the Artwork will be an original, in that the Artwork owes its creation or origin to ARTIST and is not the product of copying another's work in any manner. Furthermore, ARTIST warrants and represents that ARTIST has not previously published the Artwork which is transferred by and the subject of this Agreement and that ARTIST is the sole owner of all rights therein. Except as provided in this Agreement, upon final acceptance and acceptance of Artwork, installation, and final payment to ARTIST, CITY shall own the Artwork. ARTIST hereby expressly waives any right, title or interest in the Artwork created for the Project. ARTIST understands that this waiver includes waiver of the exclusive rights of reproduction, adaptation, publication, performance and display.

Q. Notification of Use: CITY agrees to make a reasonable effort to notify ARTIST of CITY's intent, if any, to use or adapt materials developed for the Project following completion of the Project.

R. Deaccession: CITY may deaccession the Artwork at any time and in any manner as deemed appropriate by CITY.

S. Post-Installation Repairs, Maintenance, or Alterations:

1. ARTIST shall not be responsible or liable for any damage to the Artwork, its surfaces, or environment caused by personnel of CITY or its employees or agents, visitors, members of the general public or others beyond the control of ARTIST.

2. ARTIST shall not be responsible or liable for any damages to the Artwork caused by extremely adverse weather conditions, acts of God, vandalism, or other acts abnormal to the site beyond the control of ARTIST.

3. CITY may provide basic maintenance, restoration and repairs as it deems necessary. CITY will assume cost for repairs upon expiration of the one (1) year warranty period set forth in this Agreement through the end of the sculpture installation period which is anticipated to be a minimum of 30 years from the time of installation. Whenever practical and fiscally possible, ARTIST shall be given an opportunity to perform and/or act as consultant for the repair or restoration of

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the Artwork, for which ARTIST shall be entitled to reasonable compensation, provided CITY directs the repair or restoration. In the event that the Artwork is damaged or destroyed, CITY, in its sole discretion, may restore the Artwork or choose not to restore the Artwork, subject to receipt of any insurance proceeds and other funds sufficient for the repair or restoration.

T. Warranty: Upon final acceptance of the Artwork, ARTIST warrants that the Artwork shall be free from defects in materials and workmanship, including inherent vice. ARTIST shall, for a period of one (1) year from final acceptance of the Artwork by CITY, correct any such defects at ARTIST's own expense. "Inherent vice" refers to a quality within the material or materials that comprise the Artwork, which, either alone or in combination with other materials used in the Artwork or reacting to the environment, results in the tendency of the Artwork to destroy itself. Upon written notification of a defect in materials or workmanship, ARTIST shall have sixty (60) days to commence repairs. ARTIST shall conclude the repairs within a reasonable time.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed as of the date indicated above.

I, Artist TBD, certify under the penalty of perjury pursuant to the law of the State of Idaho, that the foregoing is true and correct. If I am signing this Agreement utilizing an electronic signature, I understand that this electronic signature is valid and binding upon me to the same force and effect as my handwritten signature.

ARTIST

By: _____
Artist TBD

CITY

City of Moscow, Idaho

_____
Hailey Lewis, Mayor

ATTEST:

_____
Laurie M. Hopkins, City Clerk

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Project Description

The City of Moscow and the Moscow Arts Commission ("MAC") invite artists and artist teams to submit qualifications for a three-dimensional artwork to be installed at the Moscow Police Station. The artwork will be installed in an alcove near the entrance of the facility, located at 155 Southview Ave, Moscow ID.

Project Theme

Police work is handed from one officer to the next at the end of watch, an enduring legacy of service that connects all those who serve in law enforcement. This artwork will honor the tradition of community policing and inspire past, current, and future MPD officers, whose sense of family extends to include the community members in their care.

Not only do police officers protect the vulnerable, but they also accept the dangers that can come from this important work. All police officers and their immediate families reckon with the unknown, the uncertainty of risks and fortuitous surprises that may come during a shift. Police work is often a joyful act of service, and sometimes, sadly, a gift of life itself for the safety of the community. This artwork commemorates the multitude of effects experienced by officers and their families after the end of watch.

The artwork dedication will be central to the commemoration of the 20th anniversary of an incident in Moscow, ID that greatly affected the lives of multiple law enforcement personnel and resulted in three civilian deaths as well as the loss of one officer's life. The impacts of such an event last far beyond the end of watch. This artwork will dignify the physical, mental, and emotional work that goes on long after a shift, a retirement, or after a loss of life in the line of duty.

Iconography

Law enforcement has a rich visual and conceptual tradition. Symbols of this field include the bald eagle and sheepdog. The 5-pointed star is often used as an emblem of a department's core values. Additionally, the flag at half-staff is a universally-recognized statement of mourning for victims of local tragedies along with the passing of public officials at state and national levels.

These traditional symbols may be useful as an introductory point of reference for the artist's conceptual development, but imagery specific to the incident commemorated by this artwork centers on the clock tower. Officers on the scene report that the chiming of the clock tower marked time though the nightmarish day, serving as both a comfortingly predictable structure and a haunting memento mori. The clock tower was memorialized in the MPD patch design in 2022. In the design, the hands of the clock are set to 1:49, echoing the badge number of Lee Newbill, the officer killed in the line of duty that day.

About Moscow Police Department

MPD Mission

The Moscow Police Department's mission is to provide public safety services that are designed to fairly, efficiently, and effectively prevent crime and safeguard lives and property. We will provide professional police services by inviting public participation, resulting in a community atmosphere where citizens are free of unnecessary regulation and are treated with dignity and respect. Our personnel will maintain high ethical standards, training, and professional development. Our goal is to provide a community that is safe, secure, and a pleasant place to live and visit.

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MPD Philosophy

The department employs a community-oriented policing philosophy to improve the quality of life through community partnerships and problem-solving approaches. Our core values consist of Service, Pride, Integrity, Compassion, and Excellence. We are a state-accredited agency and adhere to all the comprehensive professional standards and best practices of contemporary law enforcement organizations as recognized by the Idaho Chiefs of Police Association.

Budget

The artist honorarium for the mural installation is not to exceed $85,000. Included in this budget are the artist's fee, insurance, travel, fabrication, engineering, materials, installation, documentation, and all other costs accrued by the artist specific to this project. The artist honorarium does not include costs associated with lighting and signage. These processes will be completed and paid by the City of Moscow.

Eligibility

Artists eighteen (18) years-of-age and older from the United States are eligible for this project. Preference may be given to artists who live in Latah County, Nez Perce County, or those who are Nez Perce or Coeur d'Alene tribal members and/or have a significant Idaho economic presence, with secondary preference given to those artists who live in Asotin County or Whitman County. Artists are eligible regardless of race, color, religion, national origin, gender, marital or familial status, physical or mental disability, sexual orientation, and gender expression or identity. Artist teams are eligible to apply, including teams of artists from multiple disciplines. Selection panelists and their immediate family members are not eligible for participation. No artist sitting on a Selection Panel may submit a proposal for the project for which the Selection Panel was formed.

Artwork Design Parameters

This call is open to representational artworks made from materials that convey a message of strength and permanence. The artwork should have a visually commanding presence within the space, with a minimum height of 14'. The artwork will be accessioned into the City of Moscow's permanent collection and is anticipated to last a minimum of 30 years. All materials used to complete this project must be designed for exposure to year-round exterior conditions with minimal maintenance requirements. This site cannot accommodate kinetic, digital, or sound-based elements, highly reflective surfaces, or any artwork that incorporates water.

Important Dates (subject to change)

February – March 2026	RFQ Submission Period
May 2026	Finalists create site-specific proposals for Selection Panel review
August 2026	Selected Artist Announcement
April 2027	Installation Deadline

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Submission and Selection

Round #1 of the selection process welcomes the submission of artist qualifications and examples of past work. These materials will be evaluated by the Selection Panel, which will then recommend three finalists to create site-specific proposals. Each of the finalists will be required to enter into an agreement for creating the site-specific design and will receive a $1000 honorarium which is anticipated will be used towards travel expenses, food, design fees, lodging, and any and all expenses related to the creation of artist's proposal and presentation. No site-specific designs will be reviewed or considered in Round #1 of the submission process.

Round #2 will consider the merits of finalist proposals. The Selection Panel will make a recommendation to the MAC, which will recommend an artist/artist team and design to City Council. Upon approval by City Council, all finalists will be notified of the decision. The selected artist will finalize the design based on any notes from the Selection Panel and complete a contract with the City for the completion of the sculpture.

Round #1 Submission Requirements & Selection Criteria

1. **Letter of Interest**
2. **Resume**
3. **Work Samples**
   Include up to 6 photographs of no fewer than 2 projects of a similar or larger scale.
4. **Selection Criteria**
   Artist Qualifications
   a. The artist's letter articulates interest in pursuing this project as well as describing its relevance to their artistic practice.
   b. The artist's letter of interest reveals an understanding of and connection to the public art site and project description.
   c. The artist's resume reveals a record of practice in the art field, including public art commissions.
   d. The applicant submits photographs of at least 2 completed public art projects of similar or larger scale.
   e. The artist's past work reveals aesthetic, conceptual, and technical expertise.

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Round #2 Submission Requirements & Selection Criteria

1. **Site-specific Design**
   Include up to five renderings of the proposed site-specific design, preferably overlaid on photographs of the site and shown at the proposed scale.
2. **Artist Statement**
   Describe connections between the design and the project description, site, and Moscow community as well as contextualizing the project within the artist's larger body of work.
3. **Professional References**
   Provide a minimum of two and no more than three professional references who can address the artist's level of professionalism, effectiveness at communication, previous success with the execution of mural projects, ability to meet deadlines and stay on budget.
4. **Presentation**
   Present a presentation of the proposed site-specific design to the Selection Panel either in person or via virtual conference.
5. **Selection Criteria**

   Artist Qualifications

   a. The artist provides a minimum of two references who confirm the artist's professionalism in communication and previous success in the execution of mural projects.
   b. The artist references confirm the artist's ability to meet deadlines and the ability to stay on budget.

   Conceptual Quality and Originality

   a. The proposed design is original to the presenting artist.
   b. The design is unique (i.e. edition of one), rather than a mass-produced item or image.
   c. The artist articulates the connections between the proposed design and the project description as well as the project site and the Moscow community.

   Form

   a. The proposed design reveals mastery of formal craftsmanship.
   b. The scale of the proposed design is appropriate to the site.
   c. The colors used, if any, are chosen with an awareness of local educational institutions as well as their athletic rivals.
   d. The proposal aligns with the project's design parameters and does not present a hazard to public safety.

   Content and Context

   a. The content of the proposed design aligns with the project description.
   b. The content of the proposed design is relevant to the City of Moscow's values, culture, and people.
   c. The proposed design reflects the architectural, historical, geographical, geological, and/or socio-cultural context of the site.
   d. The proposed design serves to activate or enhance the intended location.
   e. The proposed design has the potential to expand the formal and conceptual range of the Public Art collection.
   f. The artwork's subject matter and content is appropriate for public exhibition and does not contain advertising, religious references, obscenity, sexual content, violence, negative imagery, or convey political partisanship.

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Selection Panel

The Arts Manager will coordinate recommendation of selection panelists with the Mayor and Council. MAC will consider the guidelines hereinbelow, requests by individuals, and staff recommendations. Selection Panel members shall serve at the appointment of the Mayor.

Selection Panels will be comprised of at least the following:

1. Voting members:
    a. Moscow Police Chief (1)
    b. Current and/or retired MPD officers (3)
    c. Moscow Council member or designee (1)
    d. MAC member (1)
    e. Artist not involved with the public art project (1)
2. Non-voting members:
    a. Arts Manager (Selection Panel facilitator)
    b. Project architect, landscape architect, interior designer, or engineer
    c. City staff members acting in a technical advisory capacity

Length of term. Each Selection Panel member serves through the completion of one (1) public art project. No artist sitting on a Selection Panel may submit a proposal for the project for which the Selection Panel was formed. MAC members shall declare a conflict of interest if a project comes before the Selection Panel from which they or a member of their household or business could financially benefit. MAC members shall also declare a conflict of interest if a person with whom they share a household or whom they professionally represent has a matter to be considered by the Selection Panel. Such person shall recuse themselves from any participation in any process for the project the Selection Panel is considering. No member of the project's architect or landscape architect, interior designer, or engineering firm may apply for a public art project being designed by that firm.

Selection Panel Procedures and Responsibilities

1. Moscow Arts Manager will hold an orientation for the Selection Panel. The orientation may include a presentation of works currently in the public art collection, review of program guidelines, orientation to the specific project; and/or a review of any goals already established by the participating department and the Moscow Arts Manager and MAC.
2. Review all submissions pertaining to the public art project using the published criteria.
3. Approve all recommendations by a majority vote of the full Selection Panel.
4. The Selection Panel will make recommendations on finalists and their work to the Arts Manager. MAC members on the Selection Panel will report the Panel's recommendation to the Commission during a regular meeting, after which the MAC will vote to recommend an action on the project to City Council.
5. The Arts Manager will generate a project report to present to the Mayor and Council for final approval.
6. The City reserves the option of making no recommendation from submitted applications and may require reopening of the request for qualifications or may propose other methods of selection, if no proposal is accepted.
7. The Selection Panel must always adhere to the requirements of Moscow City Code Title 5, Chapter 18 and the Public Art Guidelines adopted by City Council.

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About Moscow, ID

Moscow is settled on the rolling hills of the Palouse, a rich landscape long inhabited by the Nimiipuu (Nez Perce), Palus (Palouse), and Schitsu'umsh (Coeur d' Alene) tribes indigenous to the region. The City of Moscow was incorporated on July 12, 1887, and its modern history is rooted in agriculture; the surrounding region produces top-quality wheat and pulses. The presence of farming in the community goes far beyond commerce, however, as grain silos and other architectural features announce agricultural endeavor as part of the community's aesthetic identity.

Moscow is home to the University of Idaho, a land grant institution established in 1889. School spirit influences the atmosphere of the city, imbuing it with the balance of gravitas and celebration that characterizes educational experience. University arts programs like the Lionel Hampton Jazz Festival and the Prichard Art Gallery have greatly contributed to Moscow's identity as a cultural center. The community is rich not only in visual and performing arts events, but also in recreational and culinary opportunities. Residents and visitors alike enjoy the Palouse landscape at recreational features like Moscow Mountain and the Bill Chipman Palouse Trail, followed by tastes of the region at area restaurants, wineries, breweries and the Moscow Farmers Market.

City of Moscow Public Art

Public art is at the heart of Moscow's creative culture, and with a collection including works by local and regional artists, its public spaces reflect the Inland Northwest's tradition of artistic excellence. The City of Moscow Arts Department and the Moscow Arts Commission (MAC) share a mission to enrich the community by celebrating and cultivating the expressions of all forms of art and culture. The MAC has fostered artistic excellence and public access to the arts in the city since its founding on October 2, 1978. Programming includes curation of exhibition space at the Third Street Gallery inside City Hall, a biennial Mayor's Arts Awards, Moscow Poet Laureate programming, and a comprehensive public art program.

The City of Moscow's acquisition of public art began in the 1980s and is supported by a 1%-for-the-Arts fund established in 2004. A Public Art Master Plan, adopted in 2015, guides the incorporation of new works into the City's landscape. Stewardship of the collection is a collaborative effort, with artistic advice from the MAC, direction from City Council, and operational details managed by Arts Department staff. The Public Art program aims to reflect the character of Moscow by fostering relationships between individuals and institutions in the community. Whether part of the University, business community, or the agricultural tradition, the City's creative partners generate aesthetic excellence, civic identity, and economic strength by supporting the arts.

The Public Art collection is currently comprised of more than 220 temporary and permanent features. Temporary artworks include vinyl-wrapped utility boxes and bus shelters as well as a sculpture garden featuring artworks on loan to the City. Artworks in the permanent collection range from mosaic murals and sculptures-in-the-round to framed pieces in the Portable Collection. Each new piece in the permanent collection joins others by celebrated regional artists including Harold Balazs, David Govedare, Miles Pepper, Robert Horner, Melissa Cole, J. Casey Doyle, Jay Rasgorshek, and artist team Jennifer Corio and Dave Frei.

Moscow is a community rich with diversity of thought, inhabited by minds open to possibility and creative interpretation. As such, the Public Art program not only celebrates the artist as a professional and valued business partner, but also welcomes a broad range of appearances, media, and art-making processes into its collection.

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Site Details

155 Southview Ave. Moscow, ID

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Moscow Police Station

Moscow, ID

DRAFT

Attachment “B”
ARTIST Proposal

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COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, January 26, 2026

AGENDA ITEM TITLE

Woodbury 1st Addition Final Replat and Final Major PUD Amendment (ACTION ITEM) - Mike Ray

RESPONSIBLE STAFF

Michael Ray, Assistant CD Director/Planning Manager

ADDITIONAL PRESENTER(S)

DESCRIPTION

On July 21, 2025, City Council conducted a public hearing and approved the preliminary subdivision replat and preliminary Major Planned Unit Development (PUD) Amendment for Woodbury 1st Addition with one condition. On November 26, 2025, the applicant submitted the final subdivision replat and final Major PUD Amendment to be reviewed by the Planning and Zoning Commission and City Council. After reviewing and comparing the preliminary replat and preliminary Major PUD Amendment that was approved with the final replat and final Major PUD Amendment, it is Staff's determination that the proposal is substantially consistent with the application that provided preliminary approval. The Planning and Zoning Commission reviewed the final subdivision replat and final Major PUD Amendment at their meeting on January 14, 2026, and recommended approval to City Council with no conditions.

REVIEWED BY

Planning and Zoning Commission

PROPOSED ACTIONS

PROPOSED ACTIONS: Recommend approval of the Woodbury 1st Addition Final Replat and Final Major PUD Amendment; or recommend approval of the Woodbury 1st Addition Final Replat and Final Major PUD Amendment with conditions; or recommend denial of the Woodbury 1st Addition Final Replat and Final Major PUD Amendment; or provide staff further direction.

STAFF RECOMMENDATION

Recommend approval of the Woodbury 1st Addition Final Replat and Final Major PUD Amendment.

OTHER RESOURCES

FISCAL IMPACT

PERSONNEL IMPACT

ATTACHMENTS

1. Staff Memo
2. Final Application Materials
3. Engineering Memo
4. P&Z Minutes
5. Council Minutes and RCS

6. Preliminary Materials

City of Moscow
Community Development

Memo

To: City Council

From: Mike Ray, AICP
Planning Manager

Date: January 21, 2026

Re: Woodbury Final Replat and Final Major PUD Amendment Review

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On June 25, 2025 the Planning & Zoning Commission conducted a public hearing to consider the request of Woodbury Land, LLC for a Major Planned Unit Development (PUD) Amendment and a Preliminary Subdivision Replat of the existing 21.73-acre Woodbury 1st Addition Subdivision which is generally located north of Slonaker Drive, east of Arborcrest Road, and south of Trail Road. After reviewing the proposed application and considering public testimony, the Planning & Zoning Commission recommended approval of the Major Planned Unit Development (PUD) Amendment with no conditions and recommended approval of the preliminary subdivision replat with one condition:

1. The applicant shall be required to update the existing stormwater report for the subdivision and include any mitigation actions necessary to ensure that the stormwater facilities will have no downstream adverse impacts subject to the approval of the City Engineer.

City Council then conducted a public hearing on July 21, 2025, and approved the Major PUD Amendment with no conditions, and approved the preliminary subdivision replat with the same condition recommended by the Planning and Zoning Commission.

On November 26, 2025, the applicant submitted the Final Subdivision Replat and Final Major PUD Amendment to be reviewed by the Planning and Zoning Commission and City Council. Staff has reviewed the final replat and final major PUD amendment for conformance with the required condition and consistency with the preliminary approvals. Below is an analysis of the required condition and other aspects of the project that have been modified:

Condition #1: The applicant shall be required to update the existing stormwater report for the subdivision and include any mitigation actions necessary to ensure that the stormwater facilities will have no downstream adverse impacts subject to the approval of the City Engineer.

Response: The Engineering Department determined that the existing stormwater report accounted for more impervious surface than what is being proposed, therefore the existing stormwater facilities are adequate to serve the proposed amendments.

Preliminary Plat and PUD: The preliminary replat and PUD increased the total number of lots in the Woodbury 1st Addition Subdivision from 78 to 107, which resulted in the addition of 29 lots. A prior minor PUD amendment which was approved on April 9, 2025, reduced the total number of lots from 79 to 78. As a result, the preliminary amendment resulted in the addition of 28 lots compared to the

original development approval. The final replat and final major PUD amendment include the same number of lots as the preliminary replat and preliminary major PUD amendment.

Parking: The preliminary PUD included an on-street and off-street parking space count as part of the Woodbury parking plan. The applicant had estimated the number of on-street parking spaces at 130 in this first phase. The public off-street parking spaces were reduced to 17 from the 25 that were approved in the existing PUD. However, the applicant had proposed to construct 41 temporary parking spaces adjacent to Rosemary Lane to provide public parking for the Town Center lots, which would be monitored for usage with the goal of increasing, sustaining, or reducing off-street parking in future phases. The applicant has now decided to create 45 permanent angled parking spaces surrounding the Central Park in lieu of the 41 temporary spaces. This should alleviate the concern for additional parking in the Town Center.

Street Names: The applicant has chosen to rename a couple of the private streets in the development. Park Place is proposed to be Village Place and Southwick Court has changed to Primrose Court.

Primrose Court Carports: Out of potential demand for covered parking in Primrose Court, the applicant has added a number of carports that are constructed in the same architectural character as the dwellings. Each of the nine single family dwellings in Primrose Court is proposed to have at least one covered carport.

Northern Woodbury Drive Road Section: The northern 1.5 block section of Woodbury Drive adjacent to the Town Center is proposed to contain concrete pavers for the sidewalks instead of typical concrete slabs. Since Woodbury Drive is a public street, the City Council will need to approve this deviation from the standard construction drawings. The Engineering Department is concerned with the settling of the concrete pavers creating ADA issues and the City's long-term maintenance of the pavers. If the Council chooses to approve the concrete pavers, it would be Staff's recommendation that the pavers be installed upon a layer of concrete to prevent settling and that the developer enter into an agreement which requires the long-term maintenance of the pavers to be the responsibility of the developer.

Recommendation: After reviewing and comparing the preliminary replat and preliminary major PUD amendment that was approved with the final replat and final major PUD amendment, it is Staff's determination that the proposal is substantially consistent with the application that provided preliminary approval. The final replat and final major PUD amendment adequately incorporates the required condition, and any changes have been minor. Therefore, it is Staff's recommendation that the Council approve the final replat and final major PUD amendment for Woodbury 1st Addition with no conditions. The Planning and Zoning Commission reviewed the final subdivision replat and final Major PUD Amendment at their meeting on January 14, 2026, and recommended approval to City Council with no conditions. This item has been scheduled for review before the City Council at their February 2, 2026, regularly scheduled meeting.

CITY OF MOSCOW
COMMUNITY
DEVELOPMENT
Ph: 208-883-7035
504 S. Washington Street
jfleischman@ci.moscow.id.us
mray@ci.moscow.id.us

For City Use Only			
	Date Received		
Dept	Fee Type	Fees	Paid
CDV	Application Fee	$490.50 plus $30.25/lot	
	Receipt Number		

APPLICATION FOR FINAL PLANNED UNIT DEVELOPMENT (PUD)

(Please type or print plainly with blue ink.)

APPLICANT:

Name: Woodbury Land, LLC Phone: (208) 596-5555

Address: 1004 Dairy Lane, Moscow, ID 83843 Email: mark@wintzcompany.com, ray@wintzcompany.com

OWNER: (if other than applicant)

Name: _____ Phone: _____

Address: _____ Email: _____

PROPERTY:

1. Proposed PUD Name: Woodbury
2. Address(es) or Parcel Number(s): see attached

AUTHORIZATION:

Describe any changes in design or construction since approval of the Preliminary PUD:

see attached

CONDITIONS OF APPROVAL:

The Moscow Planning and Zoning Commission ("Commission") for a Type 1 PUD application or City Council for a Type 2 PUD application may impose required modifications or conditions as part of the approval pursuant to MCC 4-7-10, including but not limited to, (1) minimizing adverse impact on other development; (2) controlling the sequence and timing of development; (3) controlling the duration of development; (4) assuring that development is maintained properly; (5) designating the exact location and nature of development; (6) requiring the provision for onsite or offsite public facilities or services; (7) requiring more restrictive standards than those generally required in an ordinance; and/or (8) requiring mitigation of effects of the proposed PUD upon delivery of services by any political subdivision, including school districts, providing services within the planning jurisdiction.

Received 01-06-2026

COMPLIANCE:

1. The Final PUD process is intended to give the Zoning Administrator, the Commission, or the City Council, an opportunity to determine whether the proposed development conforms to the intent of the preliminary approval. The applicant is required to detail any proposed development agreements, condominium agreements, deed restrictions, or other commitments needed to assure adherence to the proposed development plan, and to provide final plans indicating how conditions or modifications imposed at preliminary approval will be met.
2. If the final proposal is substantially unchanged from the application provided for preliminary approval, and if it adequately incorporates all required conditions or modifications, it may be acted on by majority vote of the Commission and/or City Council as a regular agenda item at a regularly scheduled meeting. The deciding body may grant final approval, may grant final approval with minor modifications or conditions, or may deny the application.
3. If the proposal differs significantly from the proposal discussed at earlier public hearings beyond those changes required as conditions of the preliminary approval, or if conditions or modifications are contemplated which differ significantly from those presented at earlier hearings, then a new public hearing must be conducted by the Commission or City Council prior to final project approval.
4. In the event of failure to comply with the approved PUD plans or with any of the conditions imposed upon the PUD project, such permit shall be immediately revoked and shall be automatically null and void.

REVOCATIONS:

If building permits pertaining to an approved PUD, consistent with any proposed phasing, are not obtained within eighteen (18) months of the final PUD approval, such final PUD approval shall be immediately revoked and shall be automatically null and void. The applicant may request a one (1) time extension of a final PUD approval not to exceed one (1) year. Such request shall be in writing and shall be approved by the applicable decision-making body prior to expiration of the original PUD approval or such approval shall not be granted.

The following items must be submitted with this application before it will be processed:

1. Application Fees
2. Site Plan, drawn to scale
3. Floor Plans, drawn to scale
4. Elevation Drawings and/or Renderings, drawn to scale
5. Evidence of clear title to any lands to be conveyed or reserved for parks, scenic ways, playgrounds, schools, public buildings, or other public purposes.
6. Final plans showing location of water, sewer, drainage and all other utilities, and plans for street improvements and grading.
7. Final phasing plan.

I understand this information is a public record and may be posted to a public website. I declare and certify under penalty of perjury pursuant to the law of the State of Idaho that the foregoing is true and correct and that I have legal authority to submit this application.

Signature of Applicant

1/6/26
Date

Signature of Property Owner (if different)

Date

Received 01-06-2026

Description of Changes

Woodbury – Application for Final PUD

Summary of Purpose – Increase the number of homes by creating 30 additional lots for a total of 107 lots from an existing lot count of 87.

Rationale - Housing has become less affordable than ever before. At Woodbury we are actively working to make the adjustments necessary, without compromising our commitment to architectural quality, to do what we can to make homeownership possible. If we are committed to Quality and we want to lower the Cost then that only leaves Size as a variable to work with.

- Primrose Court – Blk 3, Lots 21, 22, 23 and 24
  - Redesign four single family lots into nine single family detached homes ranging from 1100 s.f. to 1500 s.f.. One covered parking space (carport) per home will be included.
  - Purpose - This redesign is being proposed in an effort to reduce the cost of housing without reducing the quality. Target buyer is mature singles and empty-nesters.
- Willows – Blk 3, Lots 31 and 32
  - Combine two single family lots and redesign into four single family detached homes.
  - Purpose – Create four lots from what was originally two lots in order to reduce the cost of the homes and allow first-time buyers or young families to purchase at Woodbury.
- Central Park Townhomes – Blk 3, lots 35– 39
  - Redesign five duplex lots into 14 townhomes and one large single family on the corner of Slonaker and Village Place.
  - Purpose – Originally planned as five duplex lots or 10 townhomes, the redesign of the block clarified the intent to make these individually owned townhomes, reduce costs by creating the mews.
    - The four townhomes on the west side of the walkway have given up some of their backyard in order to plot four small homes or mews – under 1000 square feet – that face the alley reducing the cost of the townhomes and creating the even more affordable mews. Townhomes on the west side of the walkway and the six mews have one assigned off-street parking place.

Received 01-06-2026

- The four townhomes on the east side of the walking path have backyards with two car garages. Two "mews" were plotted along and will take access from the walkway running from Cottage Lane to Village Place.

- Town Center – Blk 2, Lots 17,18 and 19 –
  - Redesign three wider lots into nine narrower storefront lots (Neighborhood Business)
  - Purpose – These large lots were originally intended to be designed to appear and function as the narrow 1890's downtown facades that we are familiar with in our downtown in Moscow, except on a 7/8ths scale. We are proposing that the buildings be legally separated so that they are less expensive for any one reduced section to be built upon, architecturally embellished, owned and maintained.

- Town Center – Blk 3, Lot 34
  - Redesign into four attached storefront /live work properties
  - Note: NB zone extends into the four townhomes and four mews to the east of Blk 3, Lot 34.
  - Purpose – The reduction in size of both yard area and building square feet will create more affordable live-work opportunities.

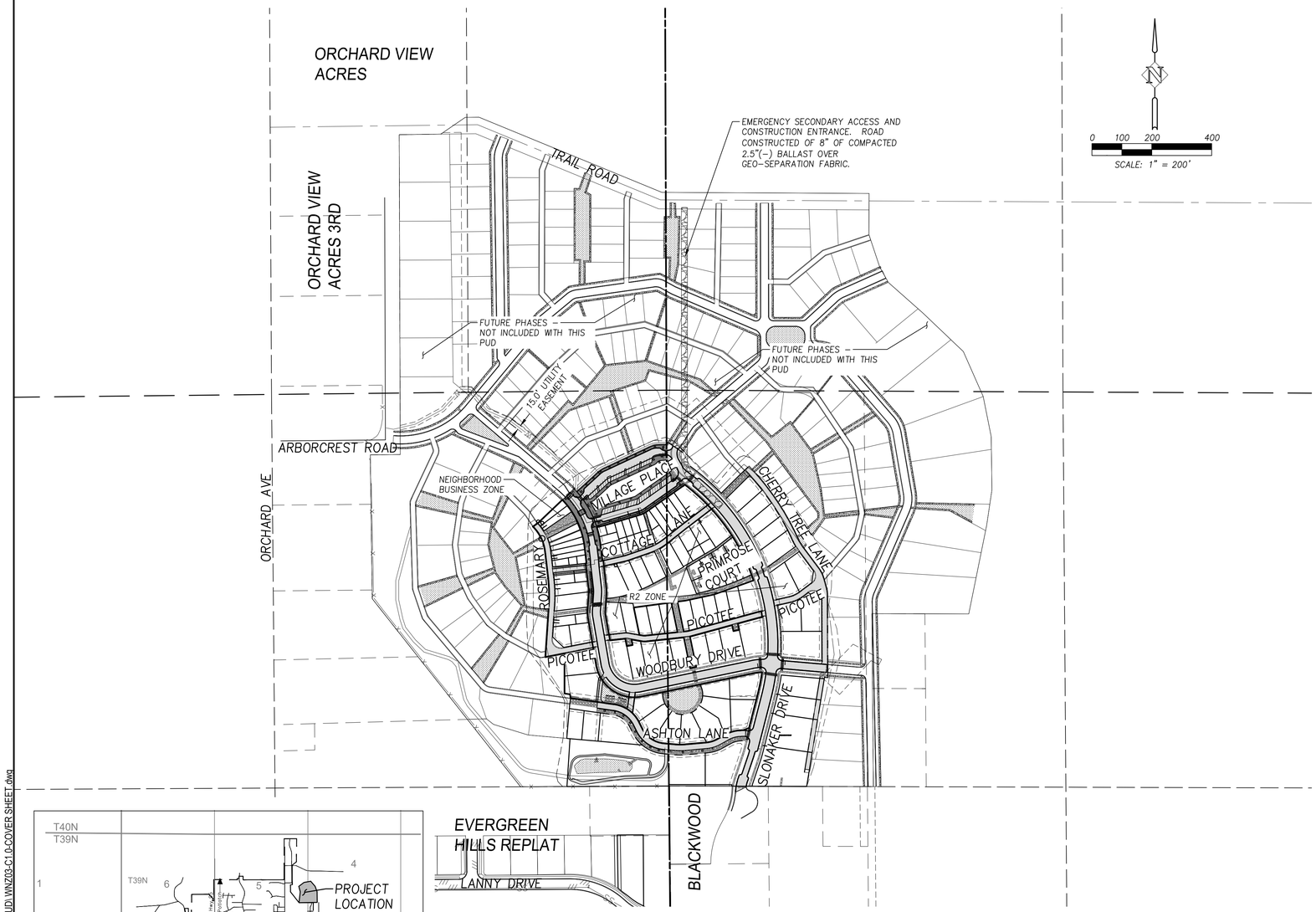
- Central Park – Parking – Add 40 spaces on the inner ring to support the NB and future uses in the north and east side such as an Inn and a church respectively.

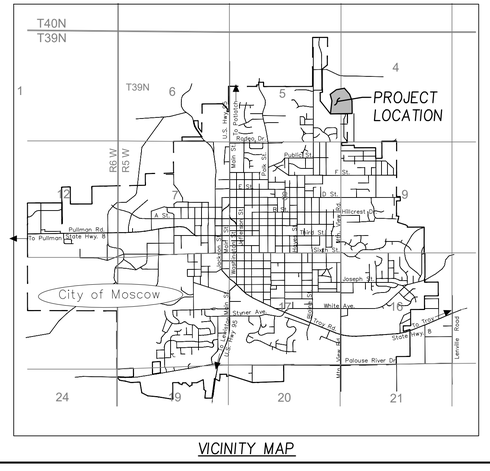
- Woodbury Drive – Blk 2, Lots 13 – 16
  - Redesign four lots into four attached townhomes, recreation lot for indoor pickle ball court and two detached small homes on the south side of Picotee.
    - Purpose – Create architecturally exceptional small homes that are financially accessible to singles, couples and small families. This also fits into the overarching plan to densify the land use/site plan as one approaches the town center.
- Pickleball Court – This is an important amenity for the homeowners in Woodbury. We plan to start with a court and no building and construct the building within two years. We think the indoor space will be very popular during our relatively long winters, etc.

Received 01-06-2026

WOODBURY 2025 FINAL PUD

NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5 OF TOWNSHIP 39 NORTH, RANGE 5 WEST, B.M., LATAH COUNTY, STATE OF IDAHO





VICINITY MAP

OWNER
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, ID 83843

LAND AREAS
GROSS LAND: 12.74 ACRES
RIGHT OF WAY: 0.53 ACRES
TRACTS: 4.26 ACRES
NET LOTS: 7.48 ACRES

DEVELOPER
MARK WINTZ
WINTZ COMPANY LLC
1004 DAIRY LANE
MOSCOW, ID 83843
208.596.5555

SITE ADDRESS
SLONAKER DRIVE
MOSCOW, ID 83843

ENGINEER
SYNTIER ENGINEERING, INC
ATTN: SCOTT SUMNER, P.E.
405 SE BRELSFORD DR, STE C
PULLMAN, WA 99163
TEL: 509.339.6187
CELL: 208.596.7912
E–MAIL: SCOTT@SYNTIERENGR.COM

LAND SURVEYOR
SYNTIER ENGINEERING, INC
JASON VON LINDERN, PLS

FLOOD ZONE DESIGNATIONS
FLOOD ZONE C
PANEL NUMBER 160086 0240 D
PANEL 240 OF 275

LAND USE ZONING
MEDIUM DENSITY RESIDENTIAL – R3
NEIGHBORHOOD BUSINESS – NB

LEGAL DESCRIPTION OF REPLATTED WOODBURY PLAT

BLOCKS 1 AND 2, LOTS 8, 10–12, 21–40 OF BLOCK 3, LOTS 2 AND 3 OF BLOCK 4, TRACTS A, B, C, D, E, G, H, J, AND I, ALL OF WOODBURY FIRST ADDITION TO THE CITY OF MOSCOW, AS SHOWN BY THE RECORDED PLAT, INSTRUMENT NUMBER 630759, RECORDS OF LATAH COUNTY, IDAHO.

TOGETHER WITH ALL THAT PORTION OF ASHTON LANE, WOODBURY 1ST ADDITION, AS SHOWN BY THE RECORDED PLAT, INSTRUMENT NUMBER 630759, RECORDS OF LATAH COUNTY, IDAHO, LYING WEST OF A LINE PARALLEL TO AND 30.00 FEET DISTANT FROM THE CENTERLINE OF SLONAKER DRIVE AND EAST OF THE WEST LINE OF SAID ADDITION.

TOGETHER WITH THE EASTERLY 3 FEET OF WOODBURY DRIVE, AS PLATTED ON WOODBURY FIRST ADDITION, INSTRUMENT NUMBER 630759, LYING NORTH OF AN EXTENSION OF THE SOUTH LINE OF LOT 34, BLOCK 3 SAID WOODBURY FIRST ADDITION.

TOGETHER WITH THE WESTERLY 3 FEET OF WOODBURY DRIVE, AS PLATTED ON WOODBURY FIRST ADDITION, INSTRUMENT NUMBER 630759, LYING NORTH OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID WOODBURY DRIVE BEING SOUTH 06°38'21" EAST A DISTANCE OF 2.60 FEET FROM THE SOUTHEAST CORNER OF LOT 17, BLOCK 2 OF WOODBURY FIRST ADDITION;

THENCE NORTH 83°55'13" EAST A DISTANCE OF 3.00 FEET TO THE TERMINUS OF THIS LINE.

TOGETHER WITH THE UNPLATTED PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, LATAH COUNTY IDAHO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 10, BLOCK 2, WOODBURY FIRST ADDITION, AS SHOWN BY THE RECORDED PLAT, INSTRUMENT NUMBER 630759, RECORDS OF SAID LATAH COUNTY;

THENCE ALONG AN EXTENSION OF THE SOUTH LINE OF SAID LOT 10 NORTH 82°01'03" WEST A DISTANCE OF 18.73 FEET;

THENCE NORTH 00°00'02" EAST A DISTANCE OF 134.11 FEET TO THE NORTHWEST CORNER OF LOT 11 OF SAID BLOCK 2;

THENCE SOUTH 07°43'37" EAST A DISTANCE OF 137.97 FEET ALONG THE WEST LINES OF SAID LOTS 10 AND 11 TO THE **POINT OF BEGINNING**.

CONTAINING: 534,481 SQUARE FEET OR 12.27 ACRES OF LAND, MORE OR LESS.

SHEET INDEX

1	C1.0	COVER SHEET
2	C1.1	FINAL PHASING PLAN
3	C2.0	SLONAKER STA 10+00 TO STA 24+00
4	C2.1	WOODBURY STA 25+00 TO STA 32+00
5	C2.2	ASHTON STA 72+50 TO STA 79+50
6	C2.3	PRIMROSE COURT SITE PLAN
7	C2.4	VILLAGE PLACE SITE PLAN
8	C2.5	ROAD SECTIONS AND DETAILS
9	C3.0	OVERALL GRADING PLAN
10	C4.0	OVERALL UTILITY PLAN

COVER SHEET
WOODBURY 2025 FINAL PUD

SynTier Engineering, Inc.
405 SE Brelsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED 15124 STATE OF IDAHO SCOTT A SUMNER

DESIGNED:	DRAWN:	CHECKED:	DATE:
SAS	SAS	SAS	JANUARY 5, 2026

REVISIONS

NO.	DESCRIPTION	DATE

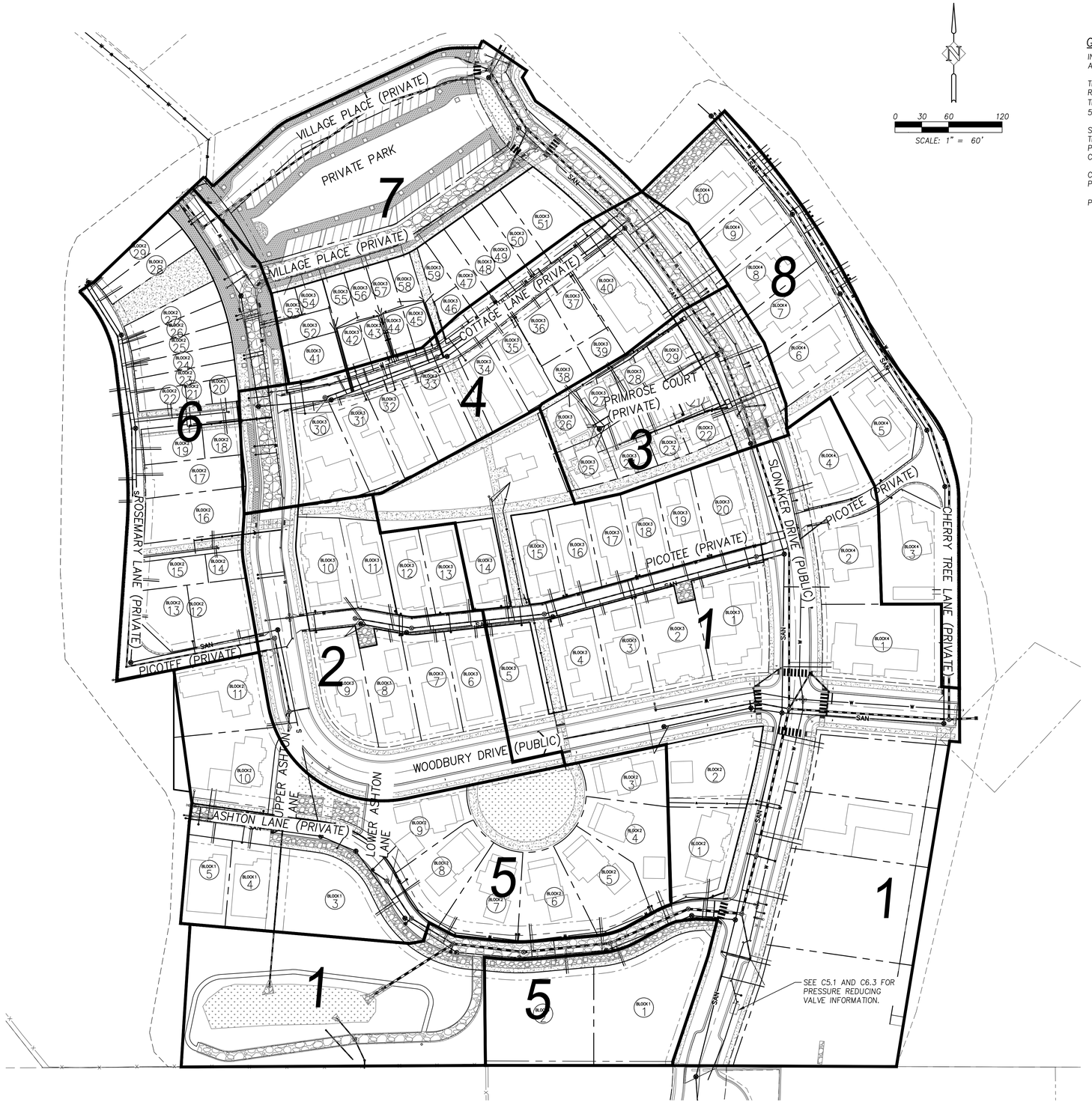
SHEET NO.
C1.0
1 OF 10

JOB NO.
WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development\WNZ03-DWGS\Sheets\WNZ03-FINAL PUD\WNZ03-C1.0-COVER SHEET.dwg

Received 01-06-2026



GENERAL PHASING NOTES

INSTALL END OF ROADWAY MARKERS AND DEAD END SIGN PER CITY STANDARD No. 16 AT THE END OF PAVING FOR EACH PHASE.

TEMPORARY ACCESS ROADS AND TURNAROUNDS WILL BE COMPLETED WITH T-POSTS WITH REFLECTORS AT THE BEGINNING AND ENDING OF EACH ROAD OR TURNAROUND AND ON THE SIDES AT 100' SPACING. T-POSTS WILL BE INSTALLED SO THAT THEY ARE SPACED 50' APART ALTERNATING SIDES.

SUBDIVISION CONSTRUCTION TRAFFIC MAY ONLY ACCESS THE SUBDIVISION BY WAY OF TRAIL ROAD. CONCRETE BARRIERS WILL BE INSTALLED AT THE END OF EACH COMPLETED PHASE TO PROHIBIT SUBDIVISIONS CONSTRUCTION TRAFFIC TO UTILIZE THE PREVIOUS CONSTRUCTED PHASE ROADS.

CBU MAILBOXES TO BE COORDINATED WITH AND INSTALLED PER MOSCOW USPS FOR EACH PHASE.

PAVING TO BE COMPLETED A MINIMUM OF 20' BEYOND PHASE LINES FOR EACH PHASE.

PHASING AND SEWER SYSTEM NOTE

CITY OF MOSCOW SANITARY SEWER SYSTEM IS ABLE TO SERVE PHASE 1 OF THIS DEVELOPMENT. FUTURE PHASES BEYOND THE PHASE 1 BOUNDARY ARE REQUIRED TO CONNECT THE SANITARY SEWER MAIN IN THE INTERSECTION OF SLONAKER DRIVE AND LANNY LANE TO THE WEST AND CONNECT TO THE SANITARY SEWER MAIN IN LANNY LANE.

PHASING AND WATER SYSTEM NOTE

CITY OF MOSCOW WATER SYSTEM IS ABLE TO SERVE PHASE 1 OF THIS DEVELOPMENT. PRIOR TO FUTURE PHASES, THE DEVELOPER IS REQUIRED TO VERIFY THAT FUTURE PHASES BEYOND THE PHASE 1 BOUNDARY ARE ABLE TO SERVED BY THE CITY OF MOSCOW.

FINAL PHASING PLAN
WOODBURY 2025 FINAL PUD

SYNTIER Engineering, Inc.
405 SE Brelsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED 16180 STATE OF IDAHO SCOTT A SUMNER 1/5/26

DESIGNED:	SAS
DRAWN:	SAS
CHECKED:	SAS
DATE:	JANUARY 5, 2026

DATE	NO.	DESCRIPTION

REVISIONS

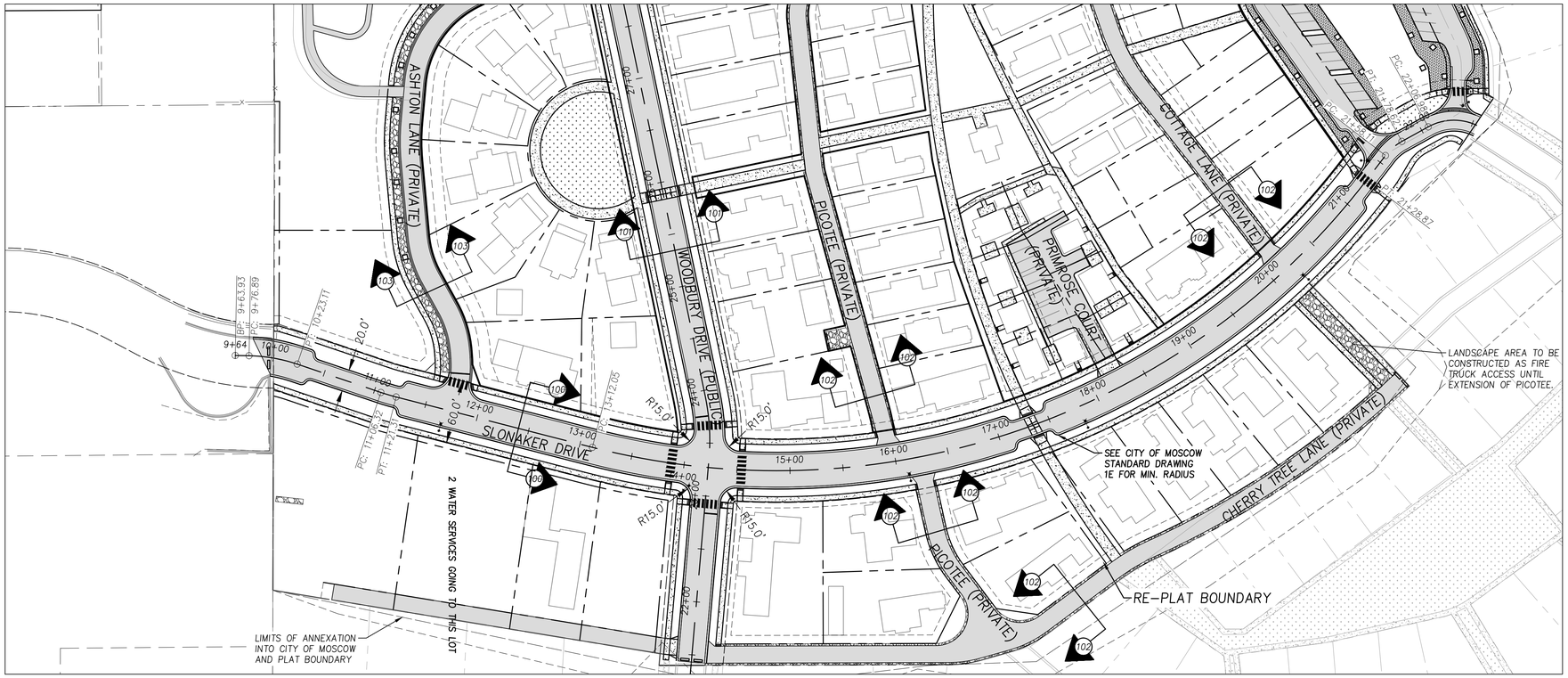
SHEET NO.
C1.1
2 OF 10

JOB NO. WNZ-03

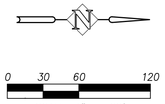
MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development)\WNZ03-DWGS\Sheets\WNZ03-FINAL PUD\ WNZ03-C1.1-Phase 3 & 4 Phasing Plan.dwg

Received 01-06-2026



SLONAKER DRIVE PLAN



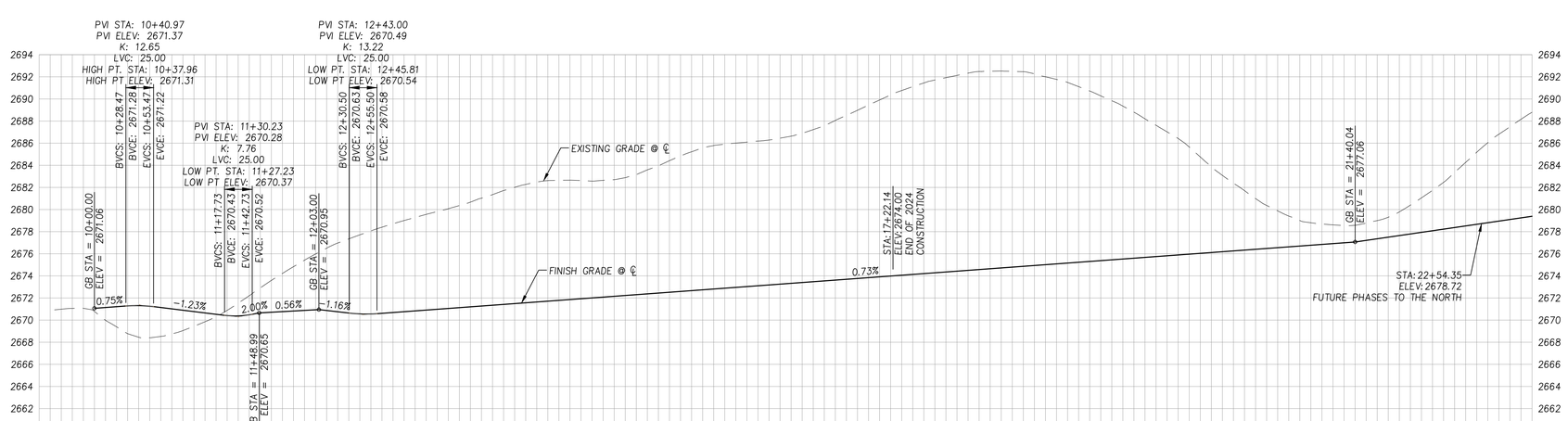
PLAT NOTES

(100) CONSTRUCT 34' WIDE RESIDENTIAL STREET SECTION PER MODIFIED CITY OF MOSCOW STANDARD DRAWING 1B, SHEET C2.4.

(101) CONSTRUCT LOCAL STREET PER CITY OF MOSCOW STANDARD DRAWING 1A, SHEET C2.4.

(102) CONSTRUCT PRIVATE ALLEY PER TYPICAL ALLEY SECTION, SHEET C2.4.

(103) CONSTRUCT STREET PER ASHTON LANE ROAD SECTION, SHEET C2.4.



SLONAKER DRIVE PROFILE

SCALE: 1" = 60' (HORIZ.)
1" = 6' (VERT.)

SLONAKER STA 10+00 TO STA 24+00
WOODBURY 2025 FINAL PUD

SYNTIER Engineering, Inc.
408 SE Bielsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED 15706 STATE OF IDAHO SCOTT A SUMNER 1/5/26

DESIGNED:	DRAWN:	CHECKED:	DATE:
SAS	SAS	SAS	JANUARY 5, 2026

REVISIONS

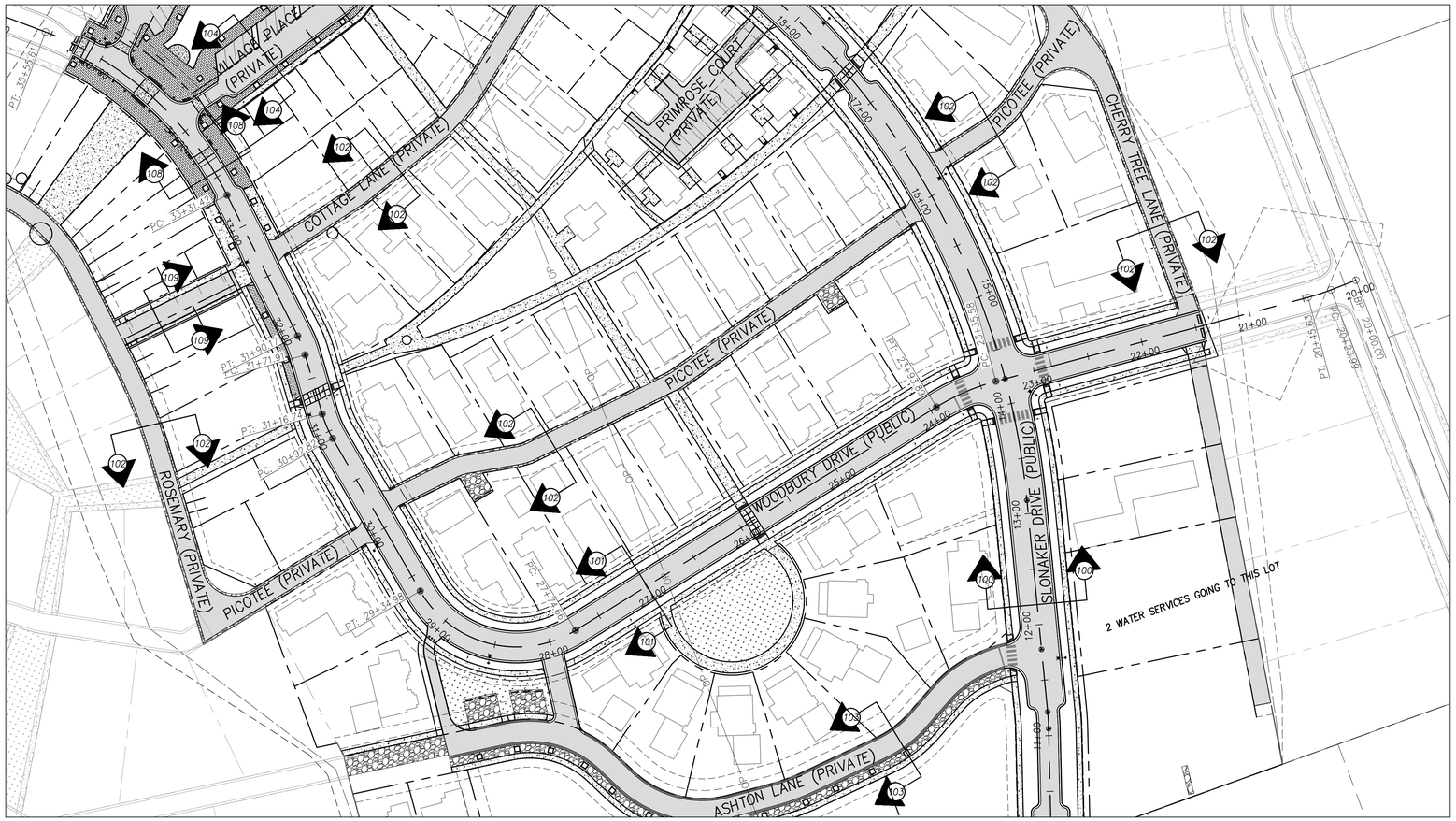
NO.	DESCRIPTION	DATE

SHEET NO.
C2.0
3 OF 10
JOB NO. WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development\WNZ03-DWGS\Sheets\WNZ03-FINAL PUD_WNZ03-C2.0-SLONAKER STA 10+00 TO STA 24+00.dwg

Received 01-06-2026



0 30 60 120

SCALE: 1" = 60'

CONSTRUCTION NOTES

(100) CONSTRUCT 34' WIDE RESIDENTIAL STREET SECTION PER MODIFIED CITY OF MOSCOW STANDARD DRAWING 1B, SHEET C2.4.

(101) CONSTRUCT LOCAL STREET PER CITY OF MOSCOW STANDARD DRAWING 1A, SHEET C2.4.

(102) CONSTRUCT PRIVATE ALLEY PER TYPICAL ALLEY SECTION, SHEET C2.4.

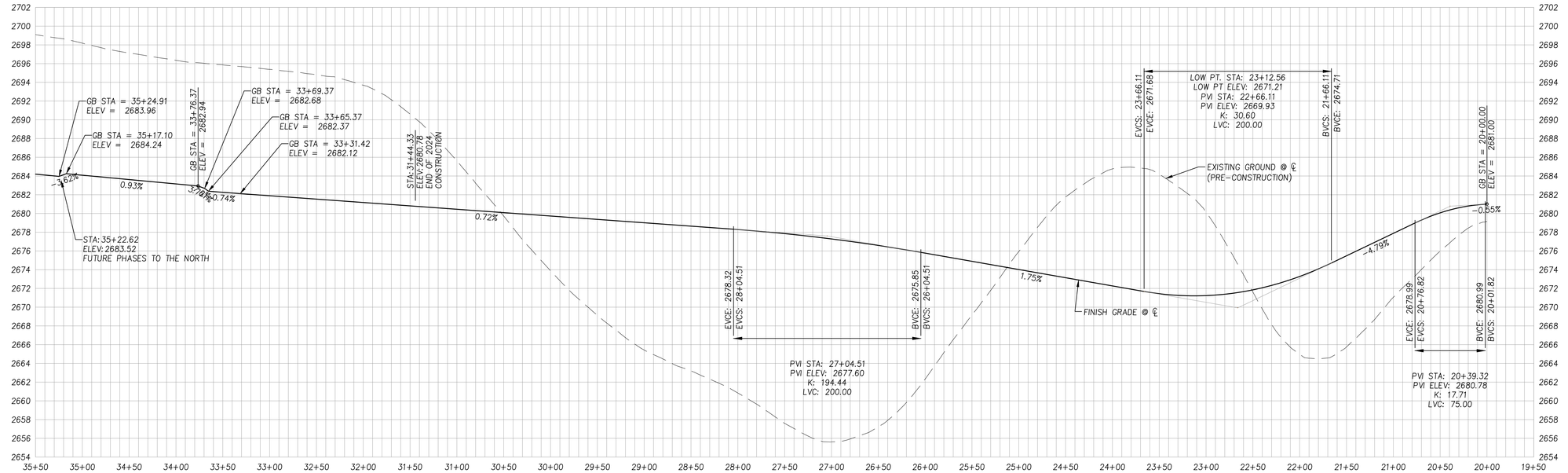
(103) CONSTRUCT STREET PER ASHTON LANE ROAD SECTION, SHEET C2.4.

(104) CONSTRUCT ONE WAY LOOP PER VILLAGE PLACE ROAD SECTION, SHEET C2.4.

(108) CONSTRUCT LOCAL STREET PER NORTHERN WOODBURY DRIVE ROAD SECTION, SHEET C2.4

(109) CONSTRUCT STREET PER COTTAGE CONNECT ROAD SECTION, SHEET C2.4

WOODBURY DRIVE PLAN



WOODBURY DRIVE PROFILE

SCALE: 1" = 60' (HORIZ.)
1" = 6' (VERT.)

WOODBURY STA 25+00 TO STA 32+00
WOODBURY 2025 FINAL PUD

SYNTIER Engineering, Inc.
405 SE Bretsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED 15706 STATE OF IDAHO SCOTT A SUMNER 1/5/26

DESIGNED:	SAS
DRAWN:	SAS
CHECKED:	SAS
DATE:	JANUARY 5, 2026

NO.	DATE	DESCRIPTION

REVISIONS

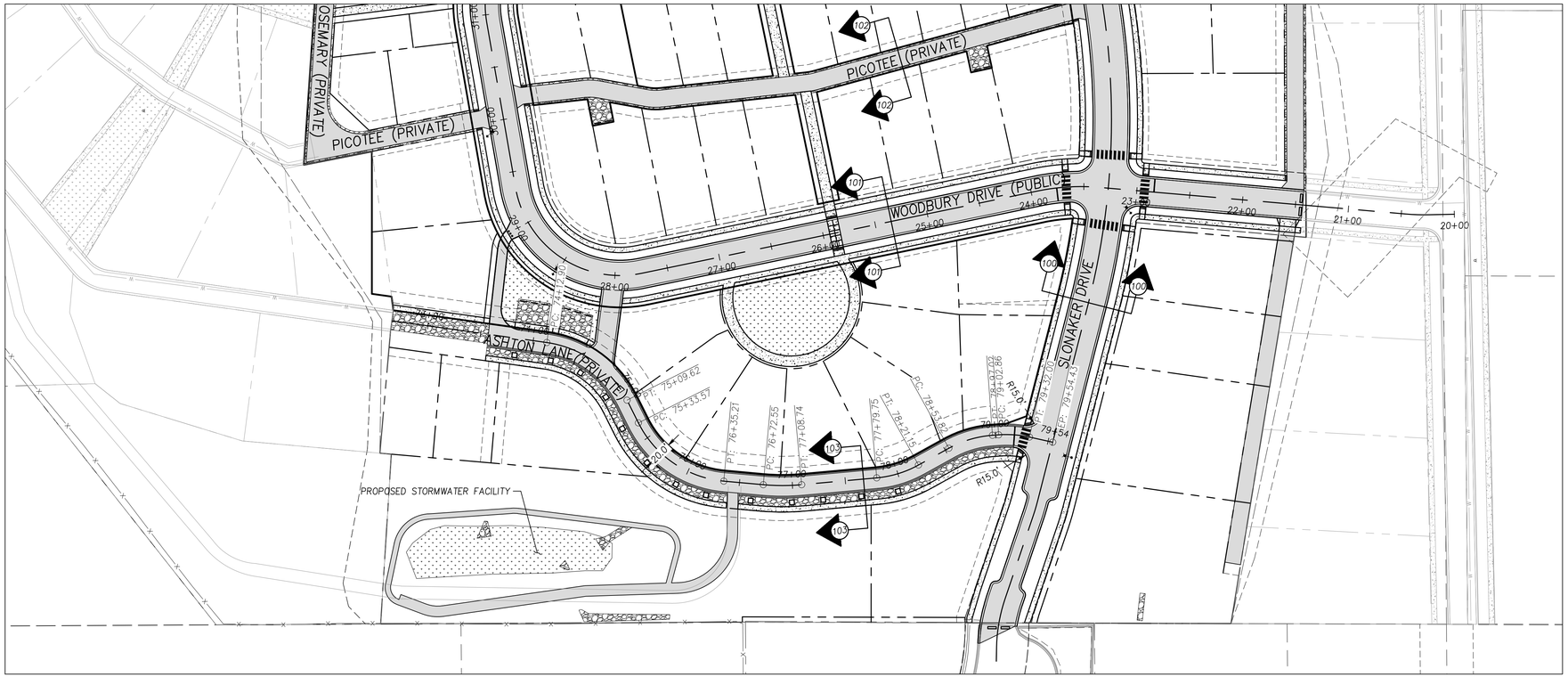
SHEET NO.
C2.1
4 OF 10

JOB NO. WNZ-03

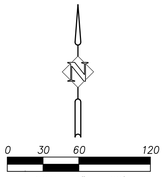
MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development\WNZ03-DWGS\Sheets\WNZ03-FINAL PUD\WNZ03-C2.1-WOODBURY STA 25+00 TO STA 32+00.dwg

Received 01-06-2026



ASHTON LANE PLAN



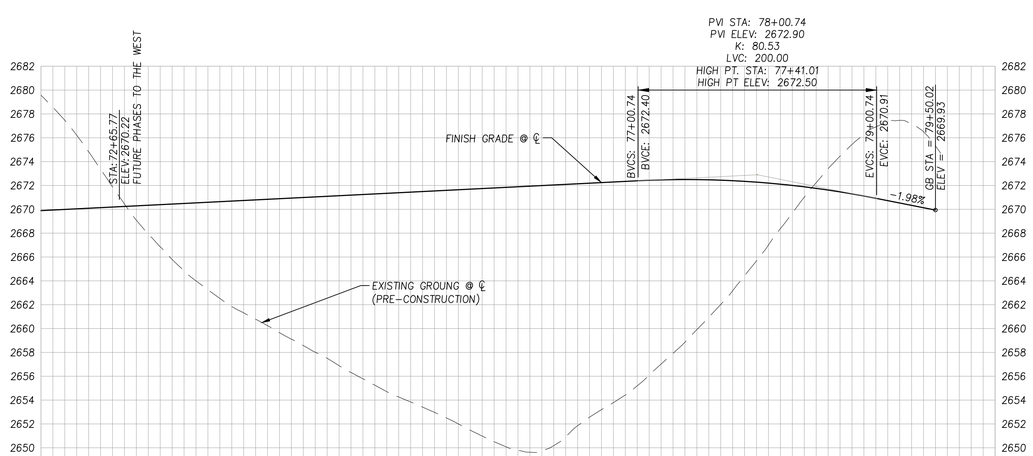
CONSTRUCTION NOTES

(100) CONSTRUCT 34' WIDE RESIDENTIAL STREET SECTION PER MODIFIED CITY OF MOSCOW STANDARD DRAWING 1B, SHEET C2.4.

(101) CONSTRUCT LOCAL STREET PER CITY OF MOSCOW STANDARD DRAWING 1A, SHEET C2.4.

(102) CONSTRUCT PRIVATE ALLEY PER TYPICAL ALLEY SECTION, SHEET C2.4.

(103) CONSTRUCT STREET PER ASHTON LANE ROAD SECTION, SHEET C2.4.



ASHTON LANE PROFILE

SCALE: 1" = 60' (HORIZ.)
1" = 6' (VERT.)

ASHTON STA 72+50 TO STA 79+50
WOODBURY 2025 FINAL PUD

SYNTIER Engineering, Inc.
408 SE Bretsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER
LICENSED
16176
STATE OF IDAHO
SCOTT A SUMNER
11/26/25

DESIGNED:	DRAWN:	CHECKED:	DATE:
SAS	SAS	SAS	NOVEMBER 26, 2025

REVISIONS

NO.	DESCRIPTION	DATE

SHEET NO.
C2.2
5 OF 10
JOB NO.
WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development)\WNZ03-DWGS\Sheets\WNZ03-FINAL PUD_WNZ03-C2.2-ASHTON STA 72+50 TO STA 79+50.dwg

Received 11-26-2025

PRIMROSE COURT SITE PLAN
WOODBURY 2025 FINAL PUD

SYNTIER Engineering, Inc.
408 SE Bielsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED 16180 STATE OF IDAHO SCOTT A SUMNER

DESIGNED:	DRAWN:	CHECKED:	DATE:
SAS	SAS	SAS	JANUARY 5, 2026

NO.	DESCRIPTION	DATE

REVISIONS

SHEET NO.
C2.3
6 OF 10

JOB NO. WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development)\WNZ03-DWGS\Sheets\WNZ03-FINAL PUD\ WNZ03-C2.3- SOUTHWICK SITE PLAN.dwg

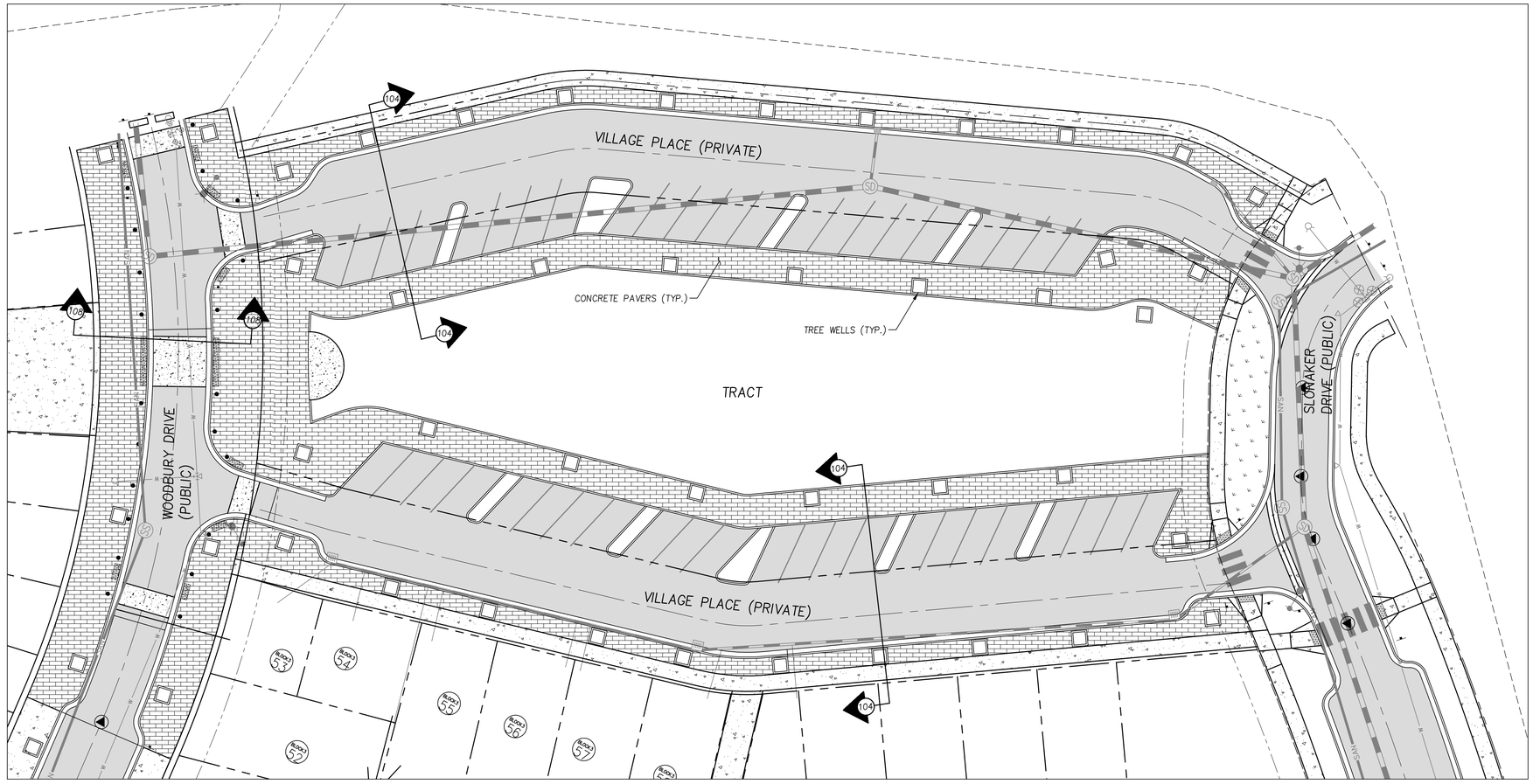
Received 01-06-2026

CONSTRUCTION NOTES

104 CONSTRUCT ONE WAY LOOP PER VILLAGE PLACE ROAD SECTION, SHEET C2.4.

108 CONSTRUCT LOCAL STREET PER NORTHERN WOODBURY DRIVE ROAD SECTION, SHEET C2.4

0 10 20 40
SCALE: 1" = 20'



VILLAGE PLACE SITE PLAN
WOODBURY 2025 FINAL PUD

SynTier Engineering, Inc.
405 SE Brelsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED 16186 STATE OF IDAHO SCOTT A SUMNER 1/5/26

DESIGNED:	SAS
DRAWN:	SAS
CHECKED:	SAS
DATE:	JANUARY 5, 2026

DATE	NO.	DESCRIPTION

REVISIONS

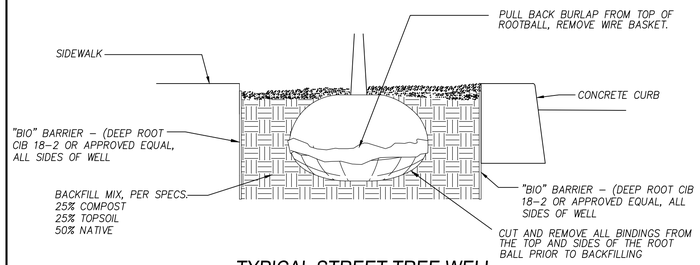
SHEET NO.
C2.4
7 OF 10

JOB NO. WNZ-03

MOSCOW, IDAHO

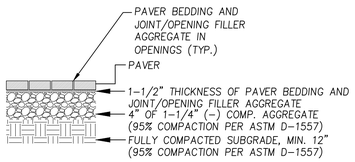
P:\WNZ-03 (Slonaker Development)\WNZ03-DWGS\Sheets\WNZ03-FINAL PUD\WNZ03-C2.4-PARK PLACE SITE PLAN.dwg

Received 01-06-2026



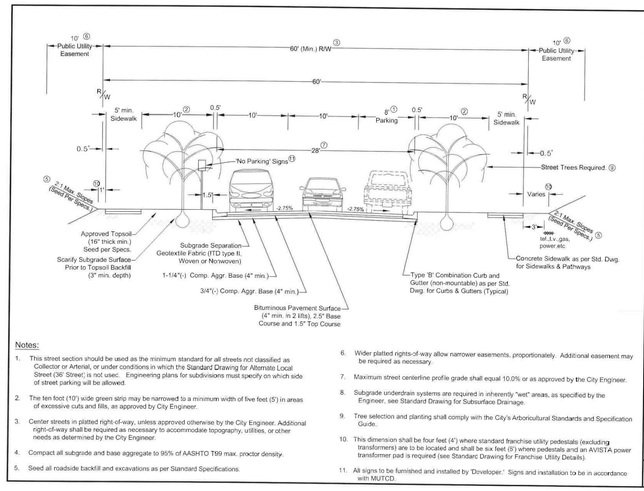
TYPICAL STREET TREE WELL

N.T.S.



PAVER TYPICAL SECTION

N.T.S.



Notes:

1. This street section should be used as the minimum standard for all streets not classified as Collector or Arterial, or under conditions in which the Standard Drawing for Alternate Local Street (36' Street) is not usec. Engineering plans for subdivisions must specify on which side of street parking will be allowed.
2. The ten foot (10') wide green strip may be narrowed to a minimum width of five feet (5') in areas of excessive cuts and fills, as approved by City Engineer.
3. Center streets in platted right-of-way, unless approved otherwise by the City Engineer. Additional right-of-way shall be required as necessary to accommodate topography, utilities, or other needs as determined by the City Engineer.
4. Compact all subgrade and base aggregate to 95% of AASHTO T99 max. proctor density.
5. Seed all roadside backfill and excavations as per Standard Specifications.
6. Wider platted rights-of-way allow narrower easements, proportionately. Additional easement may be required as necessary.
7. Maximum street centerline profile grade shall equal 10.0% or as approved by the City Engineer.
8. Subgrade underdrain systems are required in inherently "wet" areas, as specified by the Engineer, see Standard Drawing for Subsurface Drainage.
9. Tree selection and planting shall comply with the City's Arboricultural Standards and Specification Guide.
10. This dimension shall be four feet (4') where standard franchise utility pedestals (excluding transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).
11. All signs to be furnished and installed by 'Developer.' Signs and installation to be in accordance with MUTCD.

REVISIONS: DATE 2-4-2021 — DESCRIPTION: Switched sheets 1a and 1b

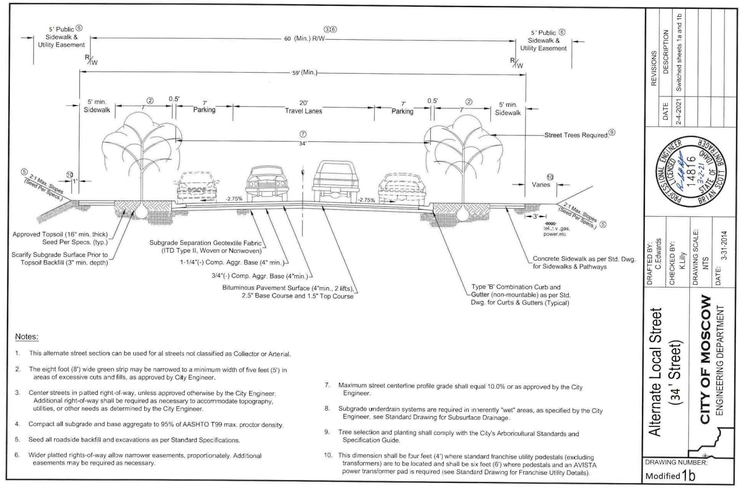
PROFESSIONAL ENGINEER LICENSED 14816 STATE OF IDAHO SCOTT A SUMNER 3-31-14

DRAFTED BY: C.Eckards | CHECKED BY: K.Lily | DRAWING SCALE: NTS | DATE: 3-31-2014

Local Street (28' Street)

CITY OF MOSCOW ENGINEERING DEPARTMENT

DRAWING NUMBER: 1a



Notes:

1. This alternate street section can be used for al streets not classified as Collector or Arterial.
2. The eight foot (8') wide green strip may be narrowed to a minimum width of five feet (5') in areas of excessive cuts and fills, as approved by City Engineer.
3. Center streets in platted right-of-way, unless approved otherwise by the City Engineer. Additional right-of-way shall be required as necessary to accommodate topography, utilities, or other needs as determined by the City Engineer.
4. Compact all subgrade and base aggregate to 95% of AASHTO T99 max. proctor density.
5. Seed all roadside backfill and excavations as per Standard Specifications.
6. Wider platted rights-of-way allow narrower easements, proportionately. Additional easements may be required as necessary.
7. Maximum street centerline profile grade shall equal 10.0% or as approved by the City Engineer.
8. Subgrade underdrain systems are required in inherently "wet" areas, as specified by the City Engineer, see Standard Drawing for Subsurface Drainage.
9. Tree selection and planting shall comply with the City's Arboricultural Standards and Specification Guide.
10. This dimension shall be four feet (4') where standard franchise utility pedestals (excluding transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).

REVISIONS: DATE 2-4-2021 — DESCRIPTION: Switched sheets 1a and 1b

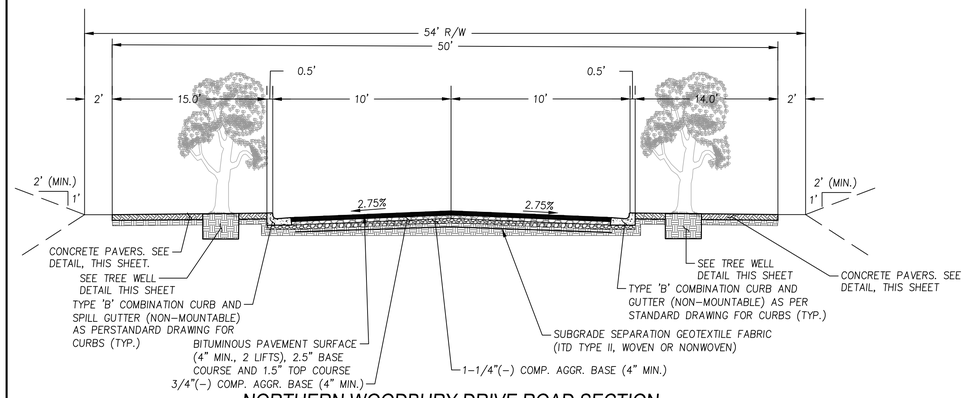
PROFESSIONAL ENGINEER LICENSED 14816 STATE OF IDAHO SCOTT A SUMNER 3-31-14

DRAFTED BY: C.Eckards | CHECKED BY: K.Lily | DRAWING SCALE: NTS | DATE: 3-31-2014

Alternate Local Street (34 Street)

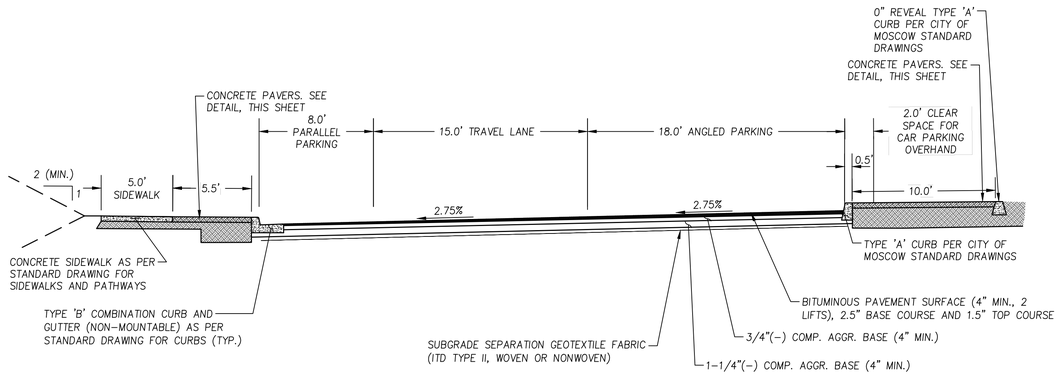
CITY OF MOSCOW ENGINEERING DEPARTMENT

DRAWING NUMBER: Modified 1b



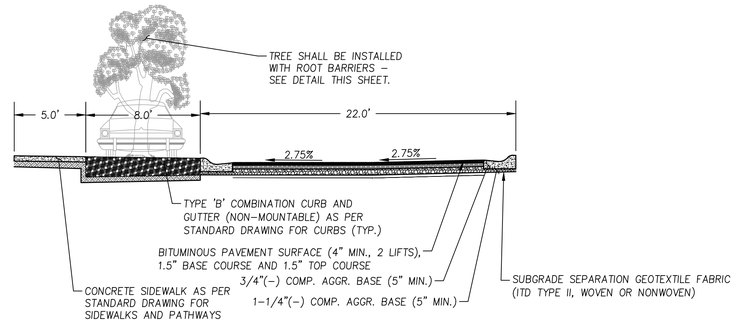
NORTHERN WOODBURY DRIVE ROAD SECTION

N.T.S.



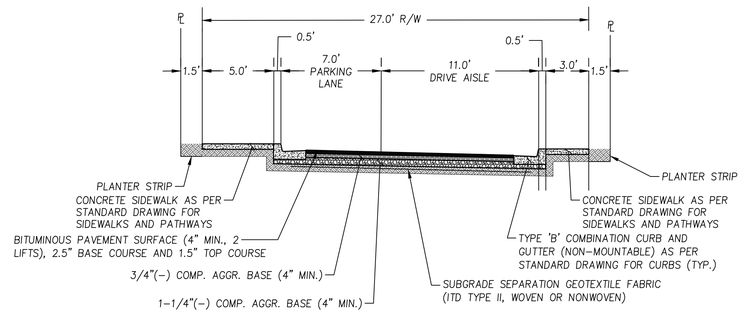
VILLAGE PLACE ROAD SECTION

SCALE: 1"=5'



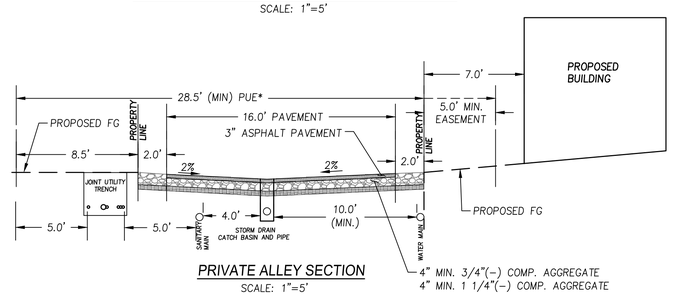
ASHTON LANE ROAD SECTION

SCALE: 1"=5'



COTTAGE CONNECT ROAD SECTION

SCALE: 1"=5'



PRIVATE ALLEY SECTION

SCALE: 1"=5'

ROAD SECTIONS AND DETAILS

WOODBURY 2025 FINAL PUD

MOSCOW, IDAHO

SynTierEngineering, Inc.
405 SE Bretsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED 16186 STATE OF IDAHO SCOTT A SUMNER 1-5-26

DESIGNED: SAS | DRAWN: SAS | CHECKED: SAS | DATE: JANUARY 5, 2026

REVISIONS

NO.	DESCRIPTION	DATE

SHEET NO. C2.5

8 OF 10

JOB NO. WNZ-03

P:\WNZ-03 (Stonaker Development)\WNZ03-DWGS\Sheets\WNZ03-FINAL PUD\ WNZ03-C2.4-ROAD SECTIONS.dwg

Received 01-06-2026

FUTURE PHASES – NOT INCLUDED WITH THIS PUD

15.0' UTILITY EASEMENT

VILLAGE PLACE (PRIVATE)

VILLAGE PLACE (PRIVATE)

WOODBURY DRIVE (PUBLIC)

COTTAGE LANE (PRIVATE)

SLONAKER DRIVE (PUBLIC)

CHERRY TREE LANE (PRIVATE)

PRIMROSE COURT (PRIVATE)

ROSEMARY (PRIVATE)

PICOTEE (PRIVATE)

PICOTEE (PRIVATE)

WOODBURY DRIVE (PUBLIC)

SLONAKER DRIVE (PUBLIC)

ASHTON LANE (PRIVATE)

LIMITS OF CONSTRUCTION AS OF 2024

STORMWATER DETENTION FACILITY (CONSTRUCTED)

FUTURE PHASES – NOT INCLUDED WITH THIS PUD

N

0 30 60 120

SCALE: 1" = 60'

OVERALL GRADING PLAN
WOODBURY 2025 FINAL PUD

SYNTIER Engineering, Inc.
408 SE Bielsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED 15136 STATE OF IDAHO SCOTT A SUMNER

DESIGNED:	SAS
DRAWN:	SAS
CHECKED:	SAS
DATE:	JANUARY 5, 2026

REVISIONS

NO.	DATE	DESCRIPTION

SHEET NO.

C3.0

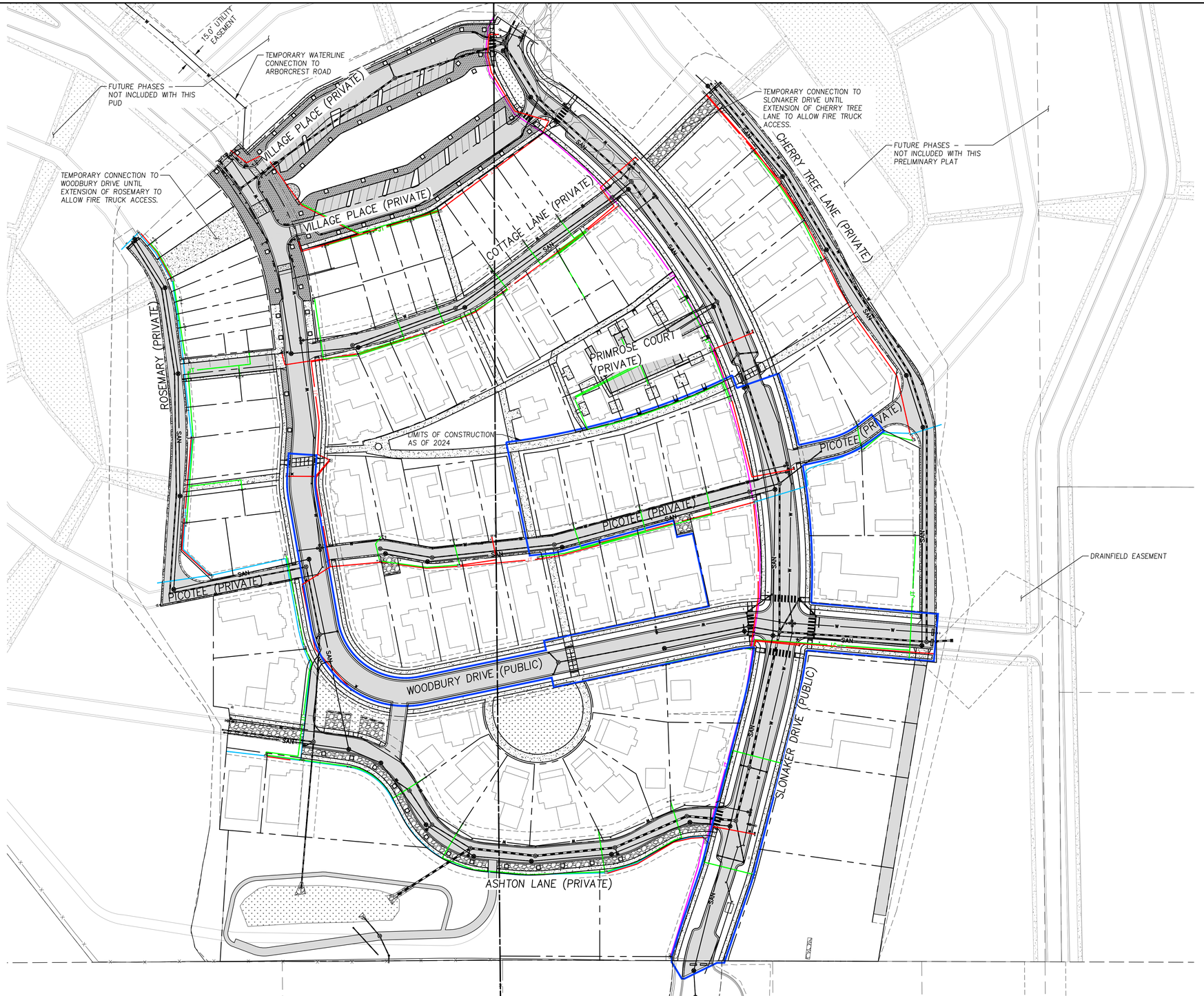
9 OF 10

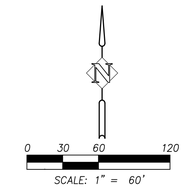
JOB NO. WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development)\WNZ03-DWGS\Sheets\WNZ03-FINAL PUD\ WNZ03-C3.0-OVERALL GRADING.dwg

Received 01-06-2026





LEGEND

- STORMWATER MAIN
- WATERMAIN
- SANITARY SEWER MAIN
- 3 PHASE 3" JOINT UTILITY TRENCH
- 3 PHASE 2" JOINT UTILITY TRENCH
- SINGLE PHASE 3" JOINT UTILITY TRENCH
- SINGLE PHASE 2" JOINT UTILITY TRENCH

OVERALL UTILITY PLAN
WOODBURY 2025 FINAL PUD

SYNTIER Engineering, Inc.
408 SE Bielsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED 15170 STATE OF IDAHO SCOTT A SUMNER

DESIGNED:	DRAWN:	CHECKED:	DATE:
SAS	SAS	SAS	JANUARY 5, 2026

NO.	DESCRIPTION	DATE

REVISIONS

SHEET NO.
C4.0
10 OF 10

JOB NO. WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development\WNZ03-DWGS\Sheets\WNZ03-FINAL PUD\ WNZ03-C4.0-UTILITY PLAN.dwg

Received 01-06-2026

LUP2025-0036

WOODBURY
PHASE 1 SITE MODIFICATIONS

WINTZ COMPANY/ DECEMBER 2, 2025

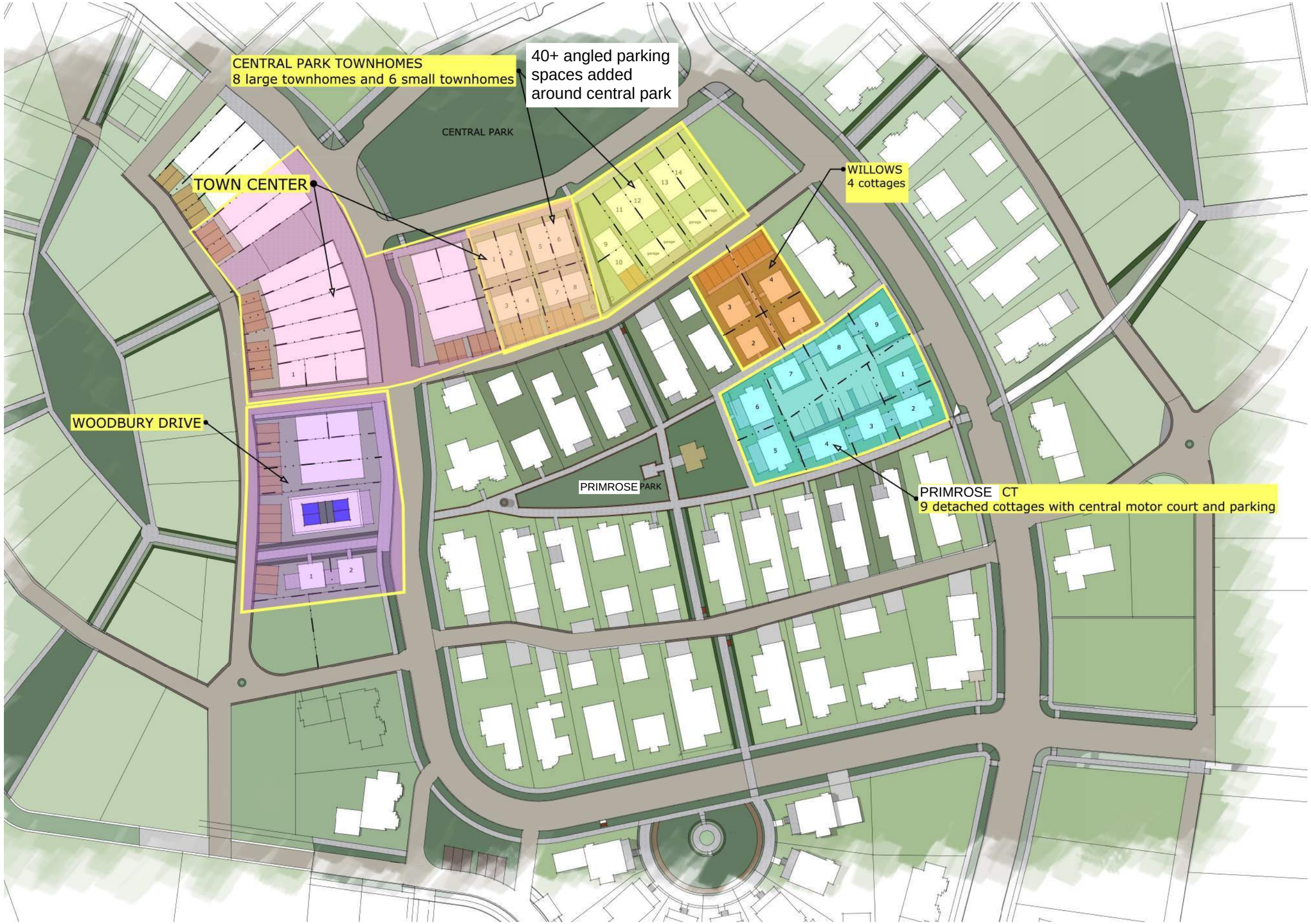
Received 12-02-2025

WOODBURY SITE OVERVIEW

SITE OVERVIEW

Received 12-02-2025

WOODBURY PHASE 1 MODIFICATIONS



PHASE 1

Received 01-06-2026

WOODBURY PHASE 1 PARKING PLAN

Parking stall count:

A. Public street parking spaces (blue): 148 spaces
   -Central Park parking - 40 spaces
   Total public: 188 spaces
B. Designated parking spaces (orange): 58

N

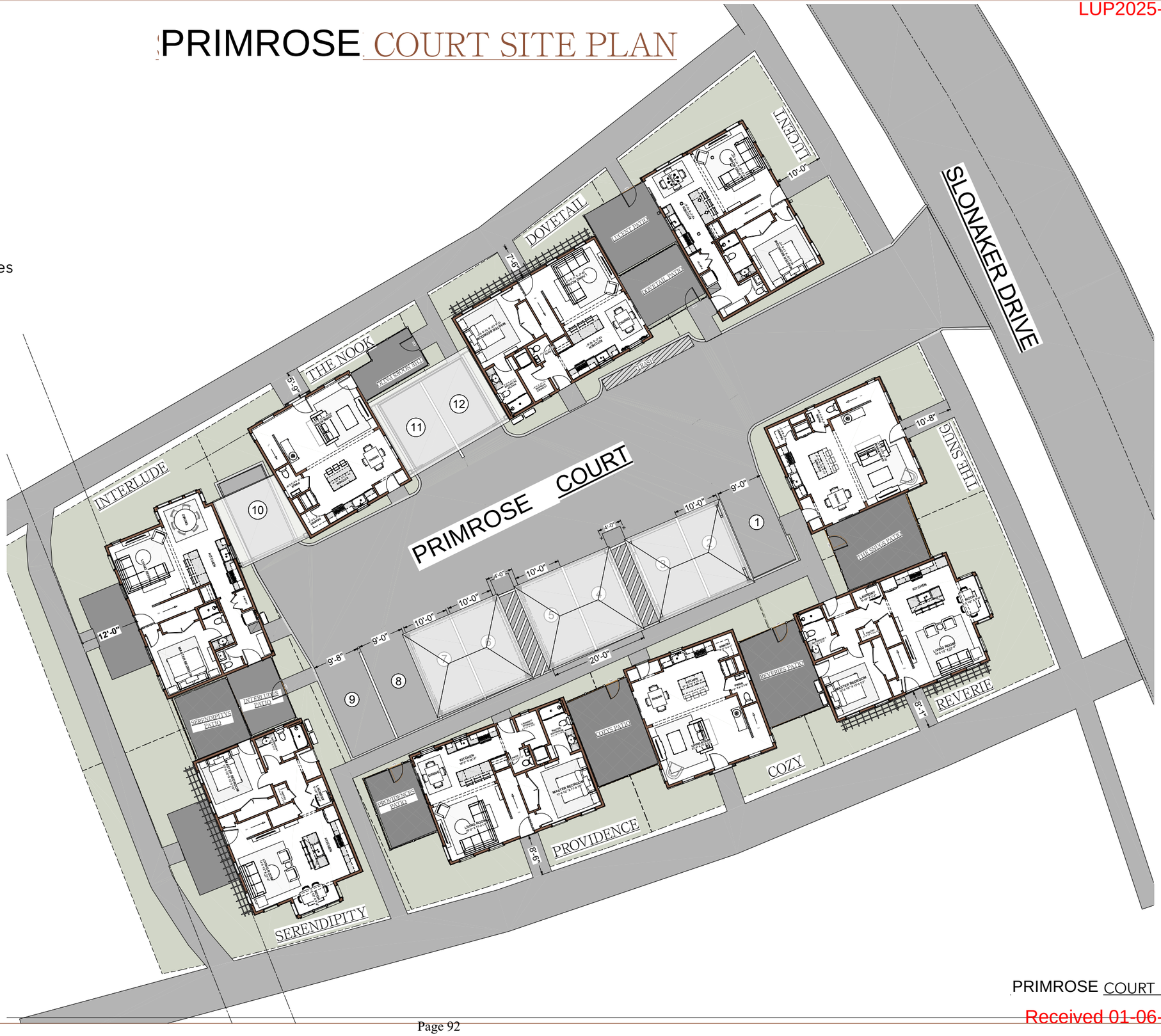
PHASE 1

Received 12-02-2025

PRIMROSE COURT SITE PLAN

PRIMROSE COURT SETBACKS:
Front facing walkway: 2'
Sides: 5'
Rear: 5'
Homes fronting Slonaker: 5'
Maintain minimum of 10' between structures

PARKING:
12 parking spots provided.
One designated parking space per unit
and three additional stalls to be assigned.
Parking stalls are between 9' & 10' wide and 18' or 20' long.



PRIMROSE COURT - 9 UNITS

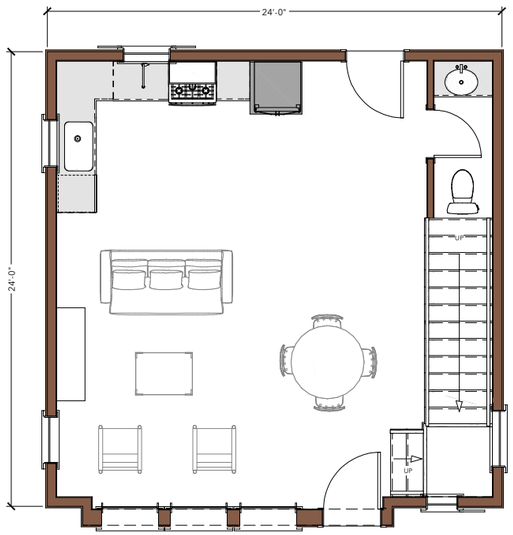
Received 01-06-2026

LUP2025-0036

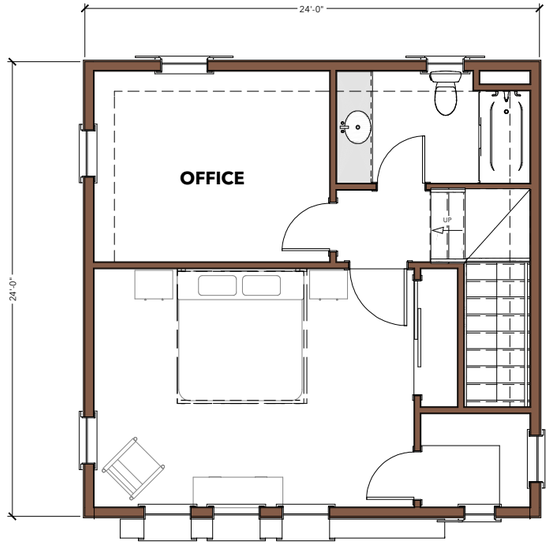
PRIMROSE COURT TYP. FLOOR PLANS

3) 24X24 UNITS

1ST FLOOR

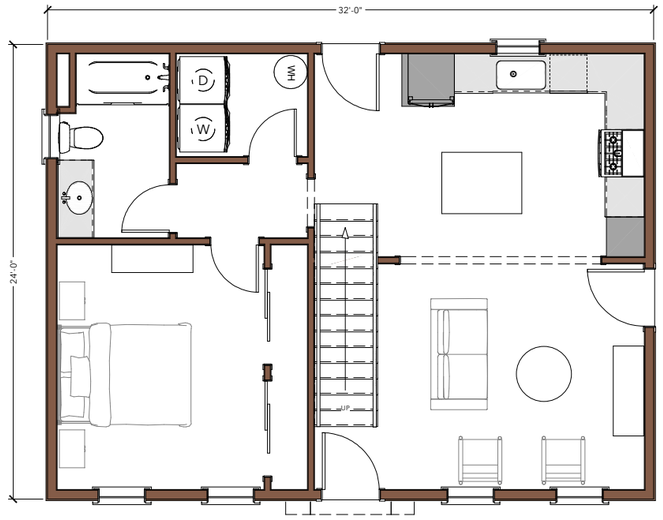


2ND FLOOR

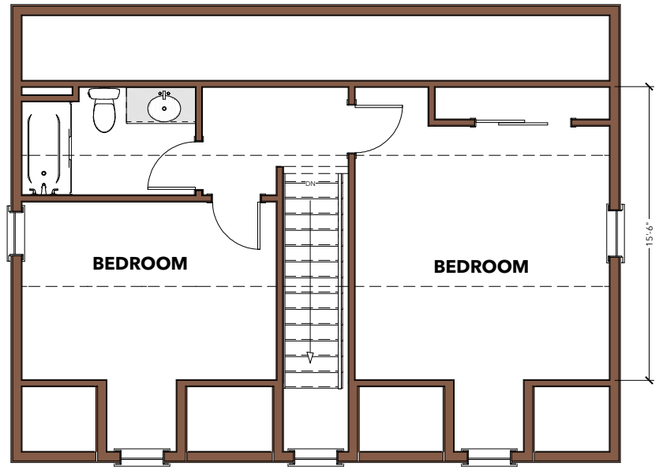


6) 24X32 UNITS

1ST FLOOR



2ND FLOOR



In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

Received 01-06-2026

PRIMROSE COURT RENDER

In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

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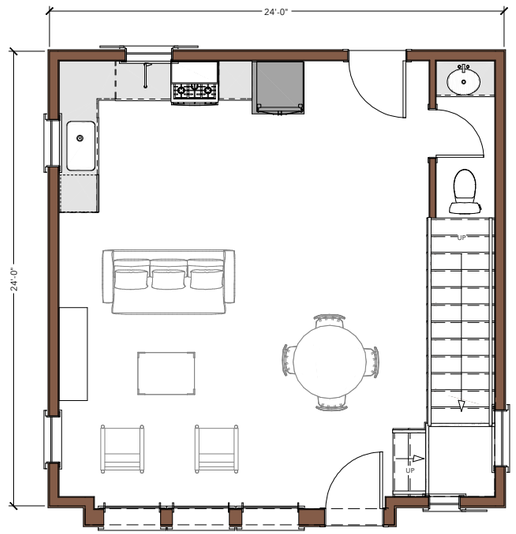
THE WILLOWS SITE PLAN - FOUR COTTAGES

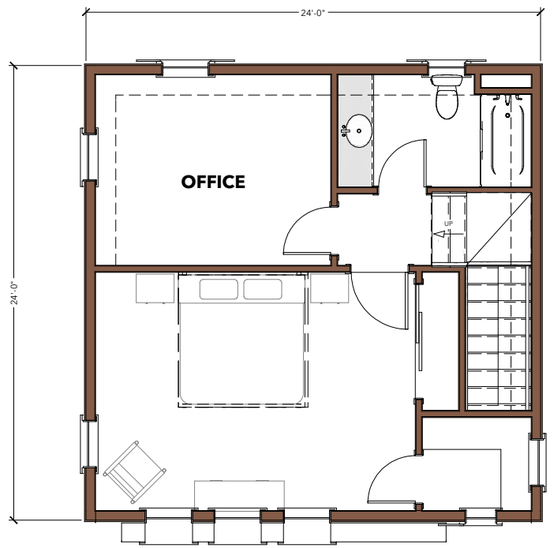
Footprint and elevations similar to PRIMROSE Court

3) 24X24 UNITS

1ST FLOOR



2ND FLOOR



In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

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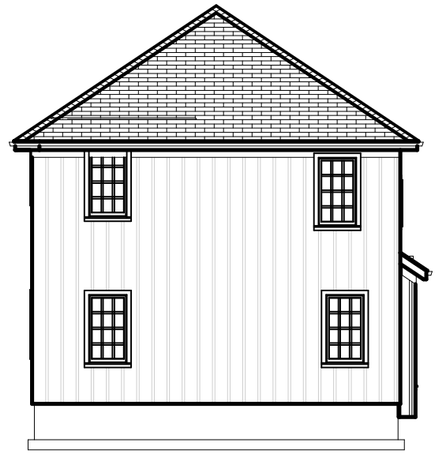
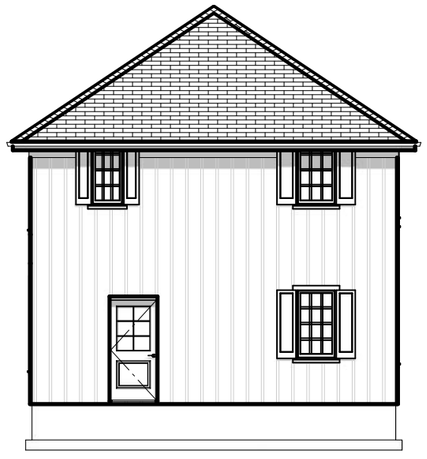
LUP2025-0036

THE WILLOWS ELEVATIONS - FOUR COTTAGES

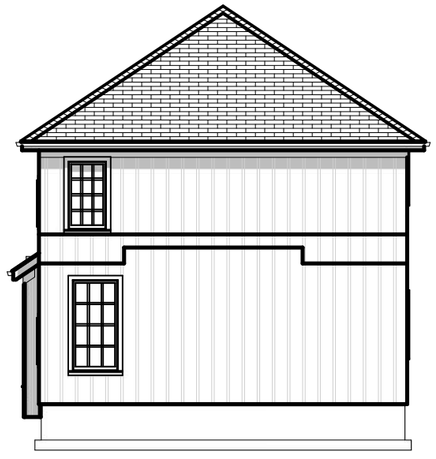
EXTERIOR ELEVATION FRONT



EXTERIOR ELEVATION LEFT



EXTERIOR ELEVATION BACK



EXTERIOR ELEVATION RIGHT

In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

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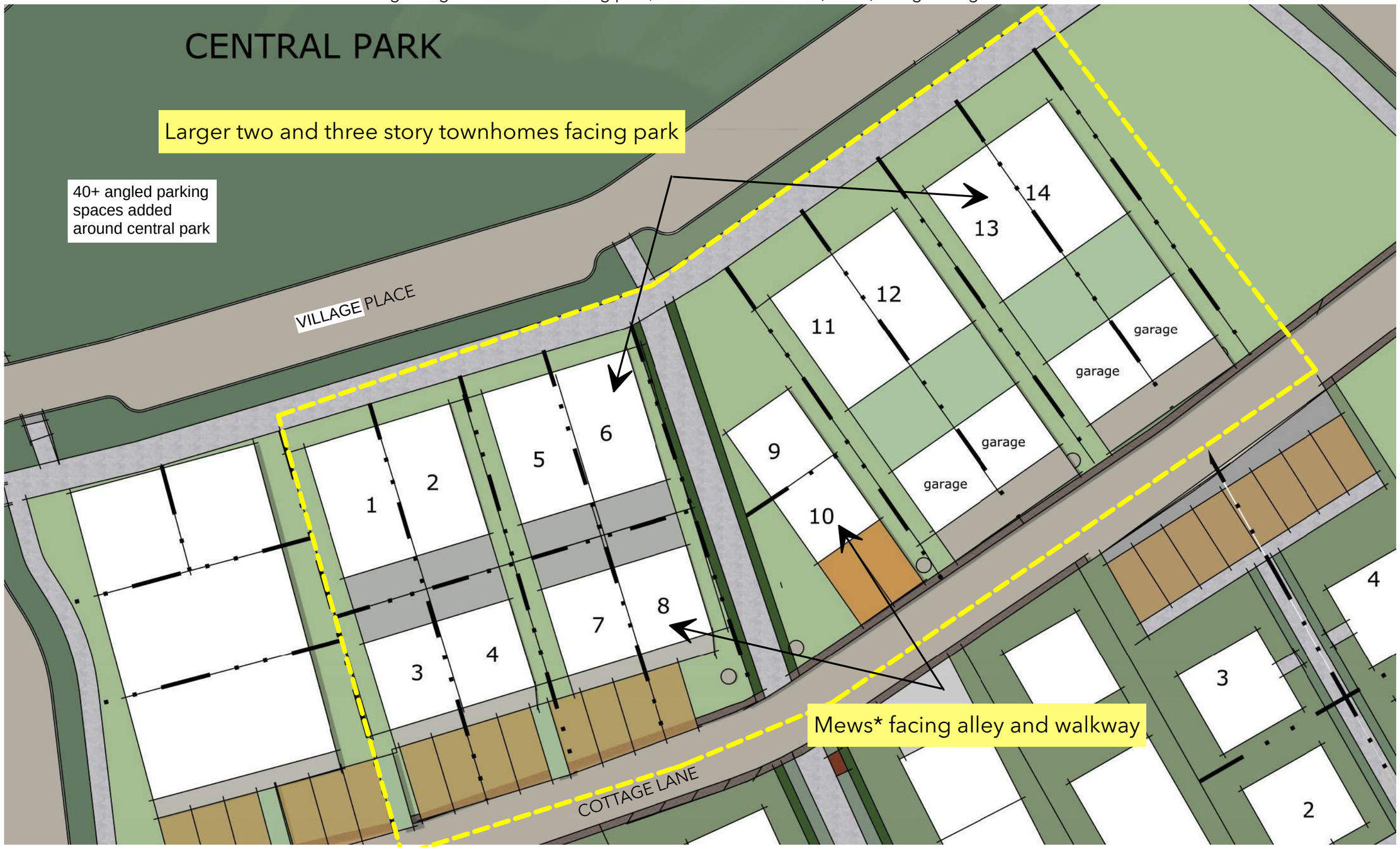
CENTRAL PARK TOWNHOMES SITE PLAN

Eight larger townhomes facing park, six small townhomes (Mews) along Cottage Lane



*Mews – (Old England) - A row or street of houses that have been converted from stables into small homes. Mews have become popular as conversion projects for a select few who want to live in an attractive neighborhood at a more affordable price.

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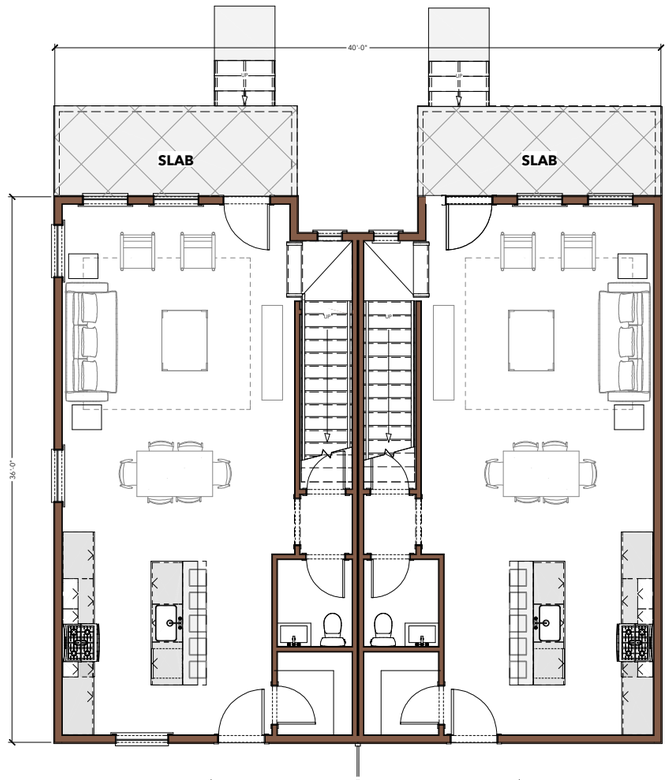
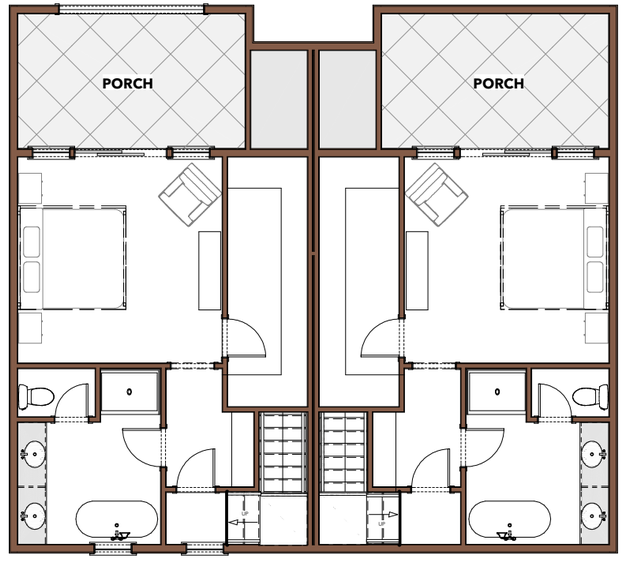
TOWNHOMES - TYPICAL FLOOR PLANS



1ST FLOOR

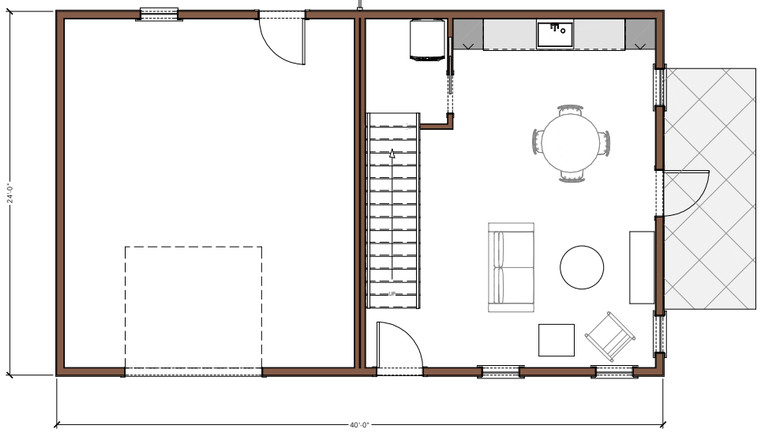
2ND FLOOR

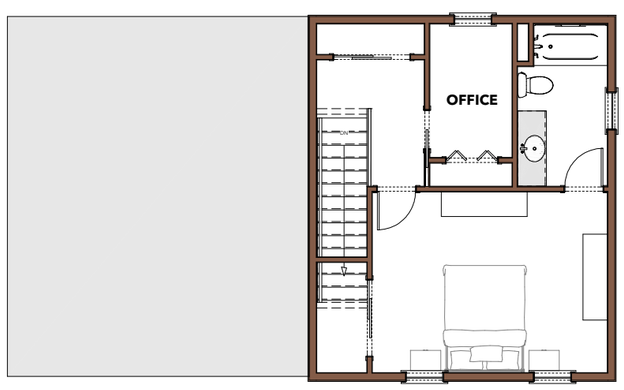


3RD FLOOR

example of townhome
with garage

example of townhome
with second unit





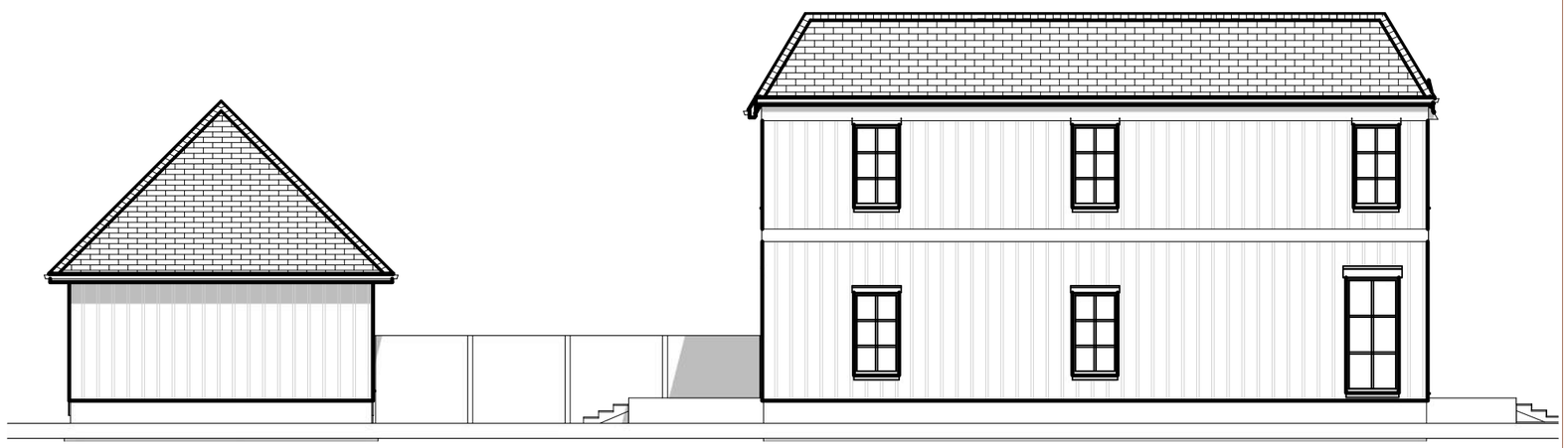
In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

Received 12-02-2025

LUP2025-0036

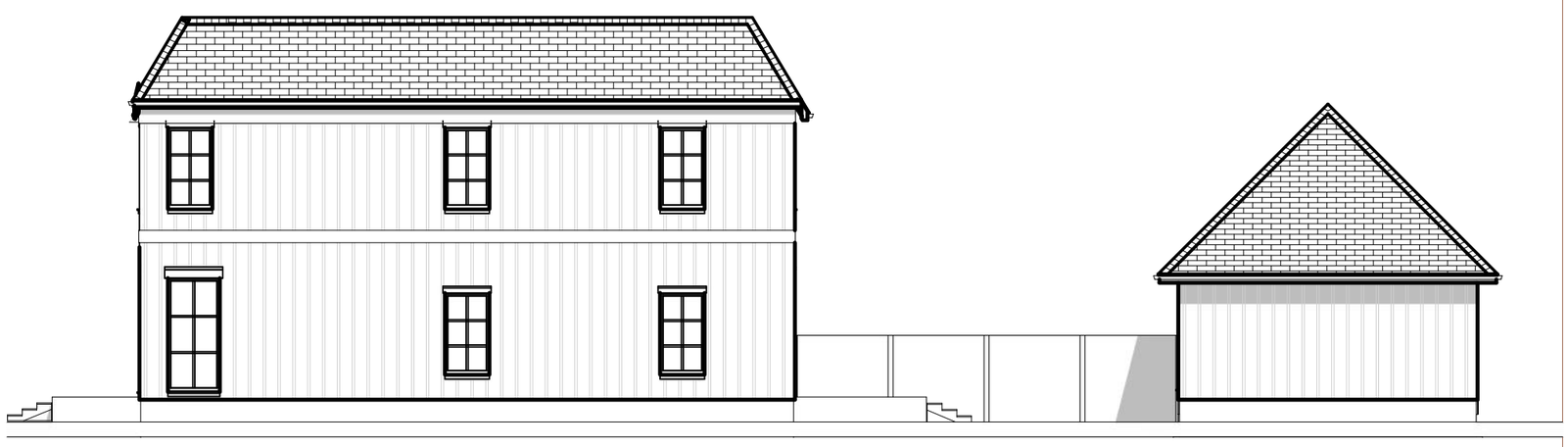
TOWNHOMES - EXAMPLE ELEVATIONS

FRONT



RIGHT

BACK



LEFT

In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

Received 12-02-2025

TOWN CENTER SITE PLAN

Awnings

Narrow Storefronts

Local retailers

Neighborhood business will consist of retail or offices on the ground floor with offices or apartments above.
Building heights range from two to three stories.

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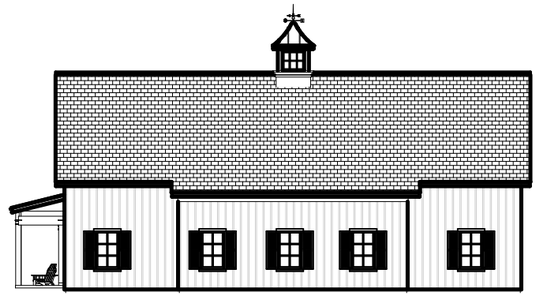
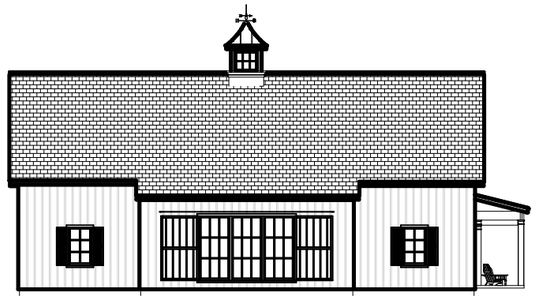
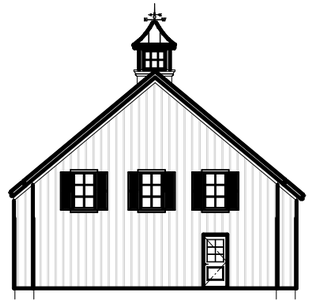
WOODBURY DR. TOWNHOMES, RECREACTION & COTTAGES

TOWNHOMES - SIMILAR TO CENTRAL PARK TOWNHOMES







INDOOR PICKLEBALL COURT

COTTAGES SIMILAR TO **PRIMROSE** COURT 24'X24' COTTAGES

Received 01-06-2026

Lot Type	Uses	Average Lot Size	Minimum Setbacks			Off Street Parking	Encroachments or Exceptions
			Front	Sides	Rear		
Village - Neighborhood Business	**SF Attached, SF Detached, Neighborhood Business**	400+	0'	0'	0'	Minimum of 1 unassigned off-street space	None
Small Lots outside NB zone - Adjoining or across a street from NB	SF attached and detached	400+	0'	0'	0'	Minimum of 1 assigned off-street space provided by parking pad, carport or garage	
Cottage Lots	Single Family Detached	4,800 +	5'	5'	5	Minimum 2 off-street spaces provided by parking pad, carport or garage.	Garages doors shall be set back to 7'. At front, side and side street setbacks, porches, bays and appendages may encroach up to 3'.
Garden Lots	Single Family Detached	6,600 +	5'	5'	5'	Minimum 1 enclosed and 1 additional off-street space provided by parking pad, carport or garage.	Garages doors shall be set back to 7'. At front, side and side street setbacks, porches, bays and appendages may encroach up to 3'.
Estate Lots	Single Family Detached	16,000 +	5'	**5'**	5'	Minimum 2 enclosed and off-street spaces	
Carriage Houses - ADUs	Accessory Units	Above or attached to a garage or house or standing alone.	Same as zone in which it is located			1 additional off-street space required for ADU's over 600 sf	None

Note: Eaves are permitted to encroach into setbacks and required open space subject to building code requirements.

Summary of Lot Specifications - PUD Amendment - Spring 2025

Received 01-06-2026

WOODBURY

Mike Ray, AICP
504 S. Washington
Moscow, ID 83843

5.13.25

See below
No longer needed or required.

Re: Woodbury – Parking in the NB Zone

Temp Parking on west side Rosemary Lane. This gravel strip or an equally accessible parking lot with equivalent capacity will be used for two purposes:

1. Dedicated Parking - Individual units, within the NB zone, shall be provided with a minimum of one parking space per dwelling. There are presently 30 parking spaces serving the NB zone. If the number of dwelling units increases from 30 to, for example, 42, Then 12 additional spaces from within the NB Temp Parking Area shall be dedicated and assigned to those units within the NB Zone so that each dwelling unit with the NB Zone shall have a minimum of one parking space.

   This obligation to provide these set-aside spaces shall not be fulfilled until permanent spaces in successive phases have been created and assigned.

2. Public Parking - Parking spaces remaining after the NB Zone has assigned their minimum shall be used for public parking. The demand for parking shall be monitored for adequacy and shall be increased , sustained or reduced accordingly in successive phases, the goal being to provide adequately convenient parking for the NB Zone.

Best regards,

Mark Wintz

Mark Wintz
Woodbury Development, LLC

Mike, I would like to note that we have created 40+ parking places surrounding the Central Park precluding the need for the temp parking on Rosemary—
Please make this part of the file — MARK WINTZ

CITY OF MOSCOW
COMMUNITY
DEVELOPMENT
Ph.: 208-883-7035
504 S. Washington Street
jfleischman@ci.moscow.id.us
mray@ci.moscow.id.us

For City Use Only			
Date Received			
Dept	Fee Type	Fees	Paid
CDV	Application Fee	$506.00 plus $30.25/lot	
	Receipt Number		

APPLICATION FOR FINAL SUBDIVISION PLAT

(Please type or print plainly with blue ink.)

APPLICANT:

Name: Scott Sumner - SynTier Engineering Phone: 509-339-6187

Address: _____ Email: scott@syntierengr.com

OWNER: (if other than applicant)

Name: Woodbury Land LLC, Woodbury Development, Trail Family Trust, Roger Martinson, Michael Bray Phone: _____

Address: 1004 Dairy Lane, 1310 Youmans Lane, 1662 Picotee Cir, Moscow ID 83843, 2294 Steamboat Lp, Port Orchard WA 98366 Email: mark@wintzcompany.com levi@wintzcompany.com

ENGINEER/SURVEYOR:

Name: Scott Sumner - SynTier Engineering Phone: 509-339-6187

Address: 405 SE Brelsford Drive, Suite C, Pullman, WA 99163 Email: scott@syntierengr.com

Primary point of contact (select one): Applicant ☐ Owner ☐ Engineer/Surveyor ☑

PROPERTY:

1. Proposed Subdivision Name: RePlat of Woodbury 1st Addition
2. Address(es) or Parcel Number(s): _____
3. Legal Description: Please attach copy of full description.
4. Gross Area of all land involved: 10.83 acres, and/or 471,941 sq. ft.
5. Total Net Area of land area, exclusive of proposed or existing public street and/or other public lands: 10.83 acres, and/or 471,941 square feet.
6. Total number of lots: 83 Average lot size: 5,686 sq. ft.

SEWER AND WATER MAIN OVERSIZING REIMBURSEMENT POLICY:

Oversizing of utilities will not be eligible for reimbursement from the City unless a written request is submitted to the City Engineer prior to approval of the project construction drawings and a written approval of such request is issued by the City Engineer.

Received 11-17-2025

FINAL PLAT CHECKLIST:

All final plats, including the legal description of the exterior boundary, shall be prepared in accordance with the Idaho Code. Final plats shall be drawn to a scale no larger than 1"=100' unless pre-approved by the City Engineer. The final plat drawing shall not be substantially different than the approved preliminary plat for the subdivision and shall contain the following information:

_____ 1. Name of subdivision and its location by section, township, range, and county, with drawing scale, date of submission, and north arrow.

_____ 2. Name, address, phone number, registration number and seal of the professional land surveyor preparing the plat, and name of subdivider and owners of property being platted.

_____ 3. Boundary lines of property being platted including bearings, distances and curve data based on an accurate survey in the field closing within the tolerances prescribed by Idaho Code; lines of departure and owners of unplatted adjoining property; and lots, blocks and names of adjoining subdivisions. Adjoining subdivision lots shall be shown with dashed lines.

_____ 4. Names and widths of all proposed streets; bearings, distances, and curve data of all street centerlines; location, width, purpose, and dimensions of easements; location and description of all property being dedicated for public use. All curves shall be described by central angle, radius, arc length, and chord bearing and distance.

_____ 5. Location, name, and widths of adjacent street rights-of-way, the location and width of adjacent public easements, and the location and purpose of any adjacent property previously dedicated for public use.

_____ 6. Lots and blocks with lots numbered consecutively within each block; bearings, distances, and curve data for each lot; the square footage of lots less than one acre in size or acreage of lots one acre or greater. Blocks shall be labeled consecutively. All curves shall be described by central angle, radius, arc length, and chord bearing and distance.

_____ 7. Location and description of all monuments, including found monuments. If interior monuments are not set at the time the plat is recorded (as allowed by Idaho Code), include a statement indicating the date which they shall be set. Said date shall be approved by the City Engineer.

_____ 8. Basis of bearing used to determine bearings shown on the plat.

_____ 9. Point of beginning of the subdivision with ties to the point of beginning from a minimum of two established corners of the Public Land Survey System (PLSS) in one or more of the sections containing the subdivision. List the recording numbers of the corner perpetuation and filing forms of the PLSS monuments. List horizontal coordinates for each PLSS monument and the point of beginning based on the Idaho Coordinate System West Zone. All coordinates' values shall be grid coordinates based on the North American Datum of 1983 (NAD83) and specified as such.

_____ 10. Street centerline monuments at each intersection, point of curvature, and point of tangency. Street monuments shall be constructed in accordance with City of Moscow Standard Specifications for street monuments. All other monuments shall be as prescribed by Idaho Code.

_____ 11. Signed certificate by the owners of the land containing a correct legal description of the land, with the statement containing their intentions to include the same in the plat, and make a dedication of all public rights-of-way, easements, and parkland. The owner(s)'s signatures upon the certificate shall be

Received 11-17-2025

notarized upon the plat by an officer duly authorized to take acknowledgements. If the property is being mortgaged, the signature of the mortgagee's representative is also required.

_____ 12. Signed certificate by the land surveyor, stating that the plat is correct and accurate, the land survey of the platted property was performed by them or under their direct supervision, the monuments indicated on the plat have been located as described, and the surveying and platting was done in accordance with Idaho Code. The statement shall be accompanied by the seal of the registered professional land surveyor, signed and dated. The surveyor shall in every case have a valid certificate of registration with the Idaho Board of Registration of Professional Engineers and Professional Land Surveyors.

_____ 13. Signed certificate by the City of Moscow Planning and Zoning Commission with date of approval.

_____ 14. Certificate stating that the City Council has approved the plat and accepts all public dedications as shown thereon. The certificate shall be signed by the Mayor and attested to by the City Clerk.

_____ 15. Certificate by the City Engineer that the plat conforms to the requirements of Title 50, Chapter 13, of the Idaho Code, and with the requirements of Moscow City Code Title 5, Chapter 1.

_____ 16. Signed certification by the subdivider stating the City of Moscow has agreed in writing to supply water to all the lots in the subdivision from the municipal water system.

_____ 17. Certificate signed and sealed by the Latah County Surveyor stating the plat and computations have been checked and the plat meets the requirements of Title 50, Chapter 13 of the Idaho Code.

_____ 18. Certificate of satisfaction of the sanitary restrictions, to be endorsed by the Latah County Recorder at the time of filing if the sanitary restrictions have been satisfied according to Idaho Code, Section 50-1326.

_____ 19. Certificate that taxes have been paid to date on the property to be signed by the Latah County Treasurer at the time of filing.

_____ 20. Certificate of recording, to be signed by the Latah County Recorder at the time of filing.

The following items must be submitted with this application before it will be processed:

1. Application fees
2. One full-sized Final Plat Map and one electronic copy.

I understand this information is a public record and may be posted to a public website. I declare and certify under penalty of perjury pursuant to the law of the State of Idaho that the foregoing is true and correct and that I have legal authority to submit this Application.

Signature of Applicant

11/17/25

Date

Signature of Property Owner (if different)

Date

Received 11-17-2025

LUP2025-0034

REPLAT OF WOODBURY FIRST ADDITION

BLOCK 1, BLOCK 2, AND A PORTION BLOCK 3, WOODBURY FIRST ADDITION,
LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF
SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5,
TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN,
CITY OF MOSCOW, LATAH COUNTY, IDAHO

ACKNOWLEDGMENTS:

STATE OF IDAHO)
) S.S.
COUNTY OF LATAH)

ON THIS _____DAY OF _____, 2025, BEFORE THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE AFORESAID STATE, PERSONALLY APPEARED BEFORE ME DAN MADER, GOVERNOR OF WOODBURY LAND, LLC, AN IDAHO LIMITED LIABILITY PARTNERSHIP, THE COMPANY THAT EXECUTED THE WITHIN AND FOREGOING INSTRUMENT; WHO ACKNOWLEDGED SAID EXECUTION TO BE THE FREE AND VOLUNTARY ACT OF SAID COMPANY FOR THE PURPOSES MENTIONED THEREIN AND STATED ON OATH THAT HE IS AUTHORIZED TO EXECUTE SAID INSTRUMENT AND THE SEAL AFFIXED (IF ANY) IS THE COMPANY SEAL OF SAID COMPANY.

_____
SIGNED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

_____
PRINTED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

MY COMMISSION EXPIRES _____

ACKNOWLEDGMENTS:

STATE OF IDAHO)
) S.S.
COUNTY OF LATAH)

ON THIS _____DAY OF _____, 2025, BEFORE THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE AFORESAID STATE, PERSONALLY APPEARED BEFORE ME BRIAN SCHMIDT, PRESIDENT OF JURGENS & CO., P.A., GOVERNOR OF WOODBURY LAND, LLC, AN IDAHO LIMITED LIABILITY PARTNERSHIP, THE COMPANY THAT EXECUTED THE WITHIN AND FOREGOING INSTRUMENT; WHO ACKNOWLEDGED SAID EXECUTION TO BE THE FREE AND VOLUNTARY ACT OF SAID COMPANY FOR THE PURPOSES MENTIONED THEREIN AND STATED ON OATH THAT HE IS AUTHORIZED TO EXECUTE SAID INSTRUMENT AND THE SEAL AFFIXED (IF ANY) IS THE COMPANY SEAL OF SAID COMPANY.

_____
SIGNED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

_____
PRINTED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

MY COMMISSION EXPIRES _____

ACKNOWLEDGMENTS:

STATE OF IDAHO)
) S.S.
COUNTY OF LATAH)

ON THIS _____DAY OF _____, 2025, BEFORE THE UNDERSIGNED, A NOTARY PUBLIC IN AND FOR THE AFORESAID STATE, PERSONALLY APPEARED BEFORE ME MARK WINTZ, MANAGER OF WINTZ COMPANY LLC, GOVERNOR OF WOODBURY LAND, LLC, AN IDAHO LIMITED LIABILITY PARTNERSHIP, THE COMPANY THAT EXECUTED THE WITHIN AND FOREGOING INSTRUMENT; WHO ACKNOWLEDGED SAID EXECUTION TO BE THE FREE AND VOLUNTARY ACT OF SAID COMPANY FOR THE PURPOSES MENTIONED THEREIN AND STATED ON OATH THAT HE IS AUTHORIZED TO EXECUTE SAID INSTRUMENT AND THE SEAL AFFIXED (IF ANY) IS THE COMPANY SEAL OF SAID COMPANY.

_____
SIGNED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

_____
PRINTED NOTARY PUBLIC IN AND FOR THE STATE OF IDAHO

MY COMMISSION EXPIRES _____

DESCRIPTION

BLOCKS 1 AND 2, LOTS 10, 11, 21–40 OF BLOCK 3, TRACTS A, B, C, D, E, G, H, J, AND I, ALL OF WOODBURY FIRST ADDITION TO THE CITY OF MOSCOW, AS SHOWN BY THE RECORDED PLAT, INSTRUMENT NUMBER 630759, RECORDS OF LATAH COUNTY, IDAHO.

EXCEPT THE SOUTH 5 FEET OF LOTS 1 AND 2, SAID BLOCK 1.

TOGETHER WITH THOSE PORTIONS OF WOODBURY DRIVE AND ASHTON LANE VACATED PER CITY OF MOSCOW ORDINANCE NO. 2025–07.

TOGETHER WITH THE UNPLATTED PORTION OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, LATAH COUNTY IDAHO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 10, BLOCK 2, WOODBURY FIRST ADDITION, AS SHOWN BY THE RECORDED PLAT, INSTRUMENT NUMBER 630759, RECORDS OF SAID LATAH COUNTY;

THENCE ALONG AN EXTENSION OF THE SOUTH LINE OF SAID LOT 10 NORTH 82°01'03" WEST A DISTANCE OF 18.73 FEET;

THENCE NORTH 00°00'02" EAST A DISTANCE OF 134.11 FEET TO THE NORTHWEST CORNER OF LOT 11 OF SAID BLOCK 2;

THENCE SOUTH 07°43'37" EAST A DISTANCE OF 137.97 FEET ALONG THE WEST LINES OF SAID LOTS 10 AND 11 TO THE POINT OF BEGINNING.

CONTAINING: 534,371 SQUARE FEET OR 12.27 ACRES OF LAND, MORE OR LESS.

DEDICATION:

KNOW ALL MEN BY THESE PRESENTS: THAT WOODBURY LAND, LLC., AN IDAHO LIMITED LIABILITY COMPANY, OWNER IN FEE SIMPLE, HAVE WITH THEIR FREE CONSENT AND IN ACCORDANCE WITH THEIR DESIRES CAUSED THE LAND HEREIN DESCRIBED TO BE SUBDIVIDED AND PLATTED AS WOODBURY 1ST ADDITION AND DO HEREBY ADOPT THE SURVEY OF SYNTIER ENGINEERING AS THE OFFICIAL SURVEY OF WOODBURY 1ST ADDITION; AND THEY DO HEREBY DEDICATE TO THE CITY OF MOSCOW AND THE PUBLIC USE FOREVER ALL PUBLIC RIGHTS–OF–WAY, ALLEYS, EASEMENTS, AND TRACT C AS PLATTED AND SHOWN HEREON; AND DO HEREBY CERTIFY THAT THEY ARE THE OWNER OF AND THE ONLY PARTY HAVING ANY INTEREST IN THE LANDS SO DIVIDED, AND THAT THE PROPERTY SHOWN HEREON IS NOT ENCUMBERED BY ANY DELINQUENT TAXES OR ASSESSMENTS; AND THAT THEY ARE AUTHORIZED TO SIGN THIS DEDICATION.

IN WITNESS WHEREOF WE HAVE SET OUR HANDS THIS ____ DAY OF _____, 2025.

BY:

_____
MARK WINTZ, MANAGER OF WINTZ COMPANY LLC,
GOVERNOR OF WOODBURY LAND, LLC

_____
BRIAN SCHMIDT, PRESIDENT OF JURGENS & CO., P.A.,
GOVERNOR OF WOODBURY LAND, LLC

_____
DAN MADER, GOVERNOR OF WOODBURY LAND, LLC

OWNER'S CONTACT INFORMATION

NAME: MARK WINTZ
ADDRESS: 1004 DAIRY LANE
MOSCOW, ID 83843
EMAIL: MARK@WINTZCOMPANY.COM
PHONE: 208.596.5555

SURVEYOR'S CONTACT INFORMATION

NAME: JASON VONLINDERN, PLS
ADDRESS: 405 SE BRELSFORD DRIVE, SUITE C
PULLMAN, WA 99163
EMAIL: WWW.SYNTIERENGR.COM
PHONE: 509.339.6187

RECORDER'S CERTIFICATE:

FILED FOR RECORD THIS _____ DAY OF _____ 20____,
AT _____M. IN BOOK _____ OF _____
AT PAGE _____ INSTRUMENT NUMBER _____
AT THE REQUEST OF _____
_____ LATAH COUNTY RECORDER
_____ DEPUTY

APPROVALS

1. APPROVAL OF THIS PLAT BY THE CITY OF MOSCOW CERTIFIES AGREEMENT TO ALLOW CONNECTION OF THE ABOVE DESCRIBED PROPERTY TO THE MUNICIPAL WATER SYSTEM AND SATISFIES SECTION 50–1334, IDAHO CODE.

EXAMINED AND APPROVED BY ACTION OF THE MOSCOW PLANNING AND ZONING COMMISSION AT A REGULAR MEETING WITH A QUORUM PRESENT THE ____ DAY OF _____, 2025.

_____
CHAIRMAN, PLANNING AND ZONING COMMISSION

EXAMINED AND APPROVED BY ACTION OF THE MOSCOW CITY COUNCIL AT A REGULAR MEETING WITH A QUORUM PRESENT THE _____ DAY OF _____, 2025. DEDICATION OF ALL PUBLIC STREETS, EASEMENTS, AND PARKLAND DESCRIBED ON THIS PLAT IS HEREBY ACCEPTED IN ACCORDANCE WITH SECTION 50–1313, IDAHO CODE.

_____ _____
CLERK MAYOR, CITY OF MOSCOW

EXAMINED AND APPROVED BY THE CITY ENGINEER THIS _____ DAY OF _____, 2025.

_____
CITY ENGINEER, CITY OF MOSCOW

EXAMINED AND APPROVED BY THE LATAH COUNTY SURVEYOR THIS _____ DAY OF _____, 2025.

_____
LATAH COUNTY SURVEYOR

I HEREBY CERTIFY THAT TAXES AND ASSESSMENTS ON PROPERTY SHOWN HEREON HAVE BEEN PAID FOR _____ AND PRECEDING YEARS AS OF THIS ____ DAY OF _____, 2025.

_____
LATAH COUNTY TREASURER

SANITARY RESTRICTIONS AS REQUIRED BY IDAHO CODE, TITLE 50, CHAPTER 13 HAVE BEEN SATISFIED BASED ON THE DEQ APPROVAL OF THE DESIGN PLANS AND SPECIFICATIONS AND THE CONDITIONS IMPOSED ON THE DEVELOPER FOR CONTINUED SATISFACTION OF THE SANITARY RESTRICTIONS. BUYER IS CAUTIONED THAT AT THE TIME OF THIS APPROVAL, NO DRINKING WATER OR SEWER/SEPTIC FACILITIES WERE CONSTRUCTED. BUILDING CONSTRUCTION CAN BE ALLOWED WITH APPROPRIATE BUILDING PERMITS IF DRINKING WATER OR SEWER FACILITIES HAVE SINCE BEEN CONSTRUCTED OR IF THE DEVELOPER SIMULTANEOUSLY CONSTRUCTING THOSE FACILITIES. IF THE DEVELOPER FAILS TO CONSTRUCT FACILITIES OR MEET THE OTHER CONDITIONS OF DEQ, THEN SANITARY RESTRICTIONS MAY BE REIMPOSED, IN ACCORDANCE WITH SECTION 50–1326, IDAHO CODE, BY THE ISSUANCE OF A CERTIFICATE OF DISAPPROVAL, AND NO CONSTRUCTION OF ANY BUILDING OR SHELTER REQUIRING DRINKING WATER OR SEWER/SEPTIC FACILITIES SHALL BE ALLOWED.

SANITARY RESTRICTION SATISFIED, TITLE 50, CHAPTER 13, IDAHO CODE.

_____ _____
NORTH CENTRAL HEALTH DISTRICT DATE

SURVEYOR'S CERTIFICATE:

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF IDAHO STATUTE 55–1904 AT THE REQUEST OF MARK WINTZ IN APRIL OF 2025.

12-5-25
JASON MICHAEL VONLINDERN, PLS 19293 DATE

PROFESSIONAL LAND SURVEYOR LICENSED 19293 STATE OF IDAHO JASON VONLINDERN

	By	Date
Surveyed	CBB	08/24
Drawn	TMH	04/25
Checked	JMV	11/25
Approved		
Accepted		

Scale: N/A
Date: December 5, 2025
Drawing Name
WNZ03–PLAT 2025.DWG
Sheet 1 of 5

SYNTIER Engineering, Inc.
405 SE Brelsford Drive, Suite C
Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

For:
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, IDAHO

REPLAT OF WOODBURY 1ST ADDITION
BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION OF BLOCK 4 OF WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

Received 12-05-2025

REPLAT OF WOODBURY FIRST ADDITION

BLOCK 1, BLOCK 2, AND A PORTION BLOCK 3, WOODBURY FIRST ADDITION,
LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF
SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5,
TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN,
CITY OF MOSCOW, LATAH COUNTY, IDAHO

RECORDER'S CERTIFICATE:

FILED FOR RECORD THIS _____ DAY OF _____ 20____,
AT _____M. IN BOOK _____ OF _____
AT PAGE _____ INSTRUMENT NUMBER _____
AT THE REQUEST OF _____
_____ LATAH COUNTY RECORDER
_____ DEPUTY

OFFICIAL DOCUMENTS:

R1 WARRANTY DEED INSTRUMENT NO. 618411, GRANTOR: TRAIL FAMILY, LLC, GRANTEE: WOODBURY LAND, LLC, 09/21/2021.
R2A CPFR INSTRUMENT NO. 321963 QUARTER CORNER, SECTIONS 5 & 4, 1982, SURVEYOR: TAGGART.
R2B CPFR INSTRUMENT NO. 449147 COMMON CORNER, SECTIONS 4, 5, 8, 9, 2000, SURVEYOR: KINNEY.
R3 WOODBURY 1ST ADDITION PLAT, INSTRUMENT NO. 630759, 2023, SURVEYOR: VONLINDERN.
R4 BLACKWOOD 1ST ADDITION PLAT, INSTRUMENT NO. 497958, 2005, SURVEYOR: HAMMOND.
R5 SURVEY FOR: DAVID TRAIL, INSTRUMENT NO. 464347, 2002, SURVEYOR: HODGE.
R6 SURVEY FOR: JOANNE REECE & BILL VOXMAN, INSTRUMENT NO. 579750, 2016, SURVEYOR: DUNN.

CORNER NOTES:

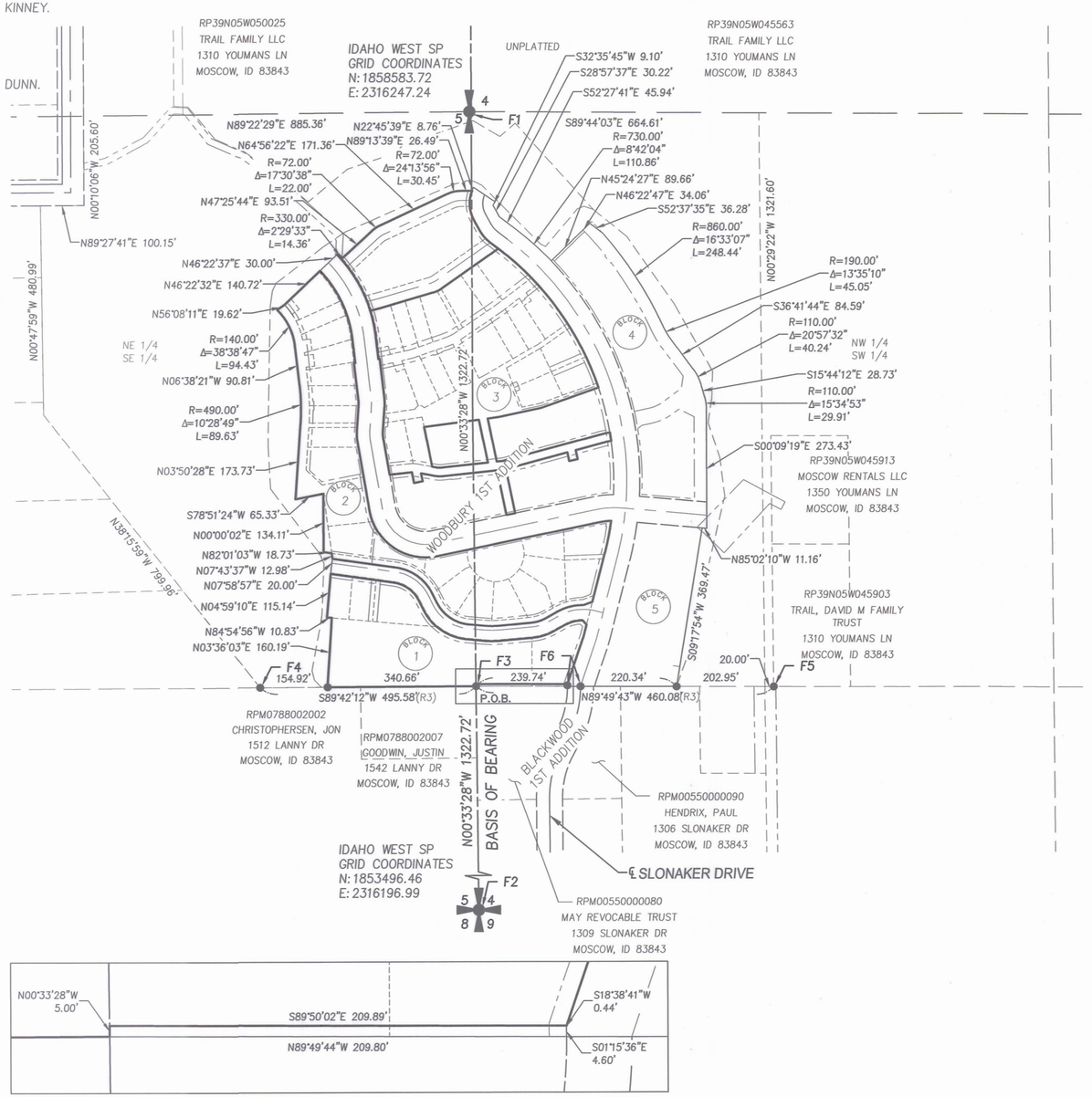
F1 FOUND 1" PIPE WITH A PLASTIC CAP MARKED "TAGGART 1768", PER R2A
F2 FOUND 5/8" REBAR WITH AN ALUMINUM CAP MARKED "T39N R5W BM, 4, 5, 8, 9 2000 PE/PLS 1969", PER R2B.
F3 FOUND 5/8" REBAR WITH A YELLOW PLASTIC CAP MARKED "HODGE 3003".
F4 FOUND 5/8" REBAR WITH AN ALUMINUM CAP MARKED "SURVEY MONUMENT, RIMROCK PLS 10162".
F5 FOUND 5/8" REBAR WITH NO CAP.
F6 FOUND 1/2" REBAR WITH CAP MARKED "PLS 2102".

SURVEYORS NARRATIVE:

1. WE ACCEPTED R3 AS THE BASIS OF THIS SURVEY.

LEGEND:

- REPLAT BOUNDARY LINE
- SECTION LINE
- 1/4 SECTION LINE
- 1/16 SECTION LINE
- PROPOSED LOT LINE
- PROPOSED EASEMENT
- EXISTING EASEMENT LINE
- SECTION CORNER AS NOTED
- 1/4 SECTION CORNER AS NOTED
- ● FOUND 5/8" REBAR WITH OPC MARKED "VONLINDERN, PLS 19293", PER (R3) UNLESS OTHERWISE NOTED SEE CORNER NOTES
- ○ SET 5/8" REBAR WITH OPC MARKED "VONLINDERN, PLS 19293"
- \+ CALCULATED ANGLE POINT, NOTHING SET
- (R1) RECORD INFORMATION SEE OFFICIAL DOCUMENTS
- OPC ORANGE PLASTIC CAP



PROFESSIONAL LAND SURVEYOR LICENSED 19293 STATE OF IDAHO JASON VONLINDERN

	By	Date
Surveyed	CBB	08/24
Drawn	TMH	04/25
Checked	JMV	11/25
Approved		
Accepted		

Scale: 1"=200'
Date: December 5, 2025
Drawing Name WNZ03-PLAT 2025.DWG
Sheet 2 of 5

SYNTIER Engineering, Inc.
405 SE Brelsford Drive, Suite C
Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

For:
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, IDAHO

REPLAT OF WOODBURY 1ST ADDITION
BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION OF BLOCK 4 OF WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

Received 12-05-2025

REPLAT OF WOODBURY FIRST ADDITION

BLOCK 1, BLOCK 2, AND A PORTION BLOCK 3, WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

RECORDER'S CERTIFICATE:

FILED FOR RECORD THIS _____ DAY OF _____ 20____
AT _____M. IN BOOK _____ OF _____
AT PAGE _____ INSTRUMENT NUMBER _____
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_____ LATAH COUNTY RECORDER
_____ DEPUTY

WOODBURY DRIVE (PUBLIC)

SLONAKER DRIVE (PUBLIC)

ASHTON LANE (VACATED)

BLACKWOOD 1ST ADDITION

MATCH SHEET 4

NOT A PART OF THIS REPLAT

SCALE: 1" = 40'

	By	Date
Surveyed	CBB	08/24
Drawn	TMH	04/25
Checked	JMV	11/25
Approved		
Accepted		

Scale: 1"=40'
Date: December 5, 2025
Drawing Name WN203-PLAT 2025.DWG
Sheet 3 of 5

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PROFESSIONAL LAND SURVEYOR LICENSED 19293 STATE OF IDAHO JASON VONLINDERN

Received 12-05-2025

REPLAT OF WOODBURY FIRST ADDITION

BLOCK 1, BLOCK 2, AND A PORTION BLOCK 3, WOODBURY FIRST ADDITION,
LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF
SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5,
TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN,
CITY OF MOSCOW, LATAH COUNTY, IDAHO

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_____ LATAH COUNTY RECORDER
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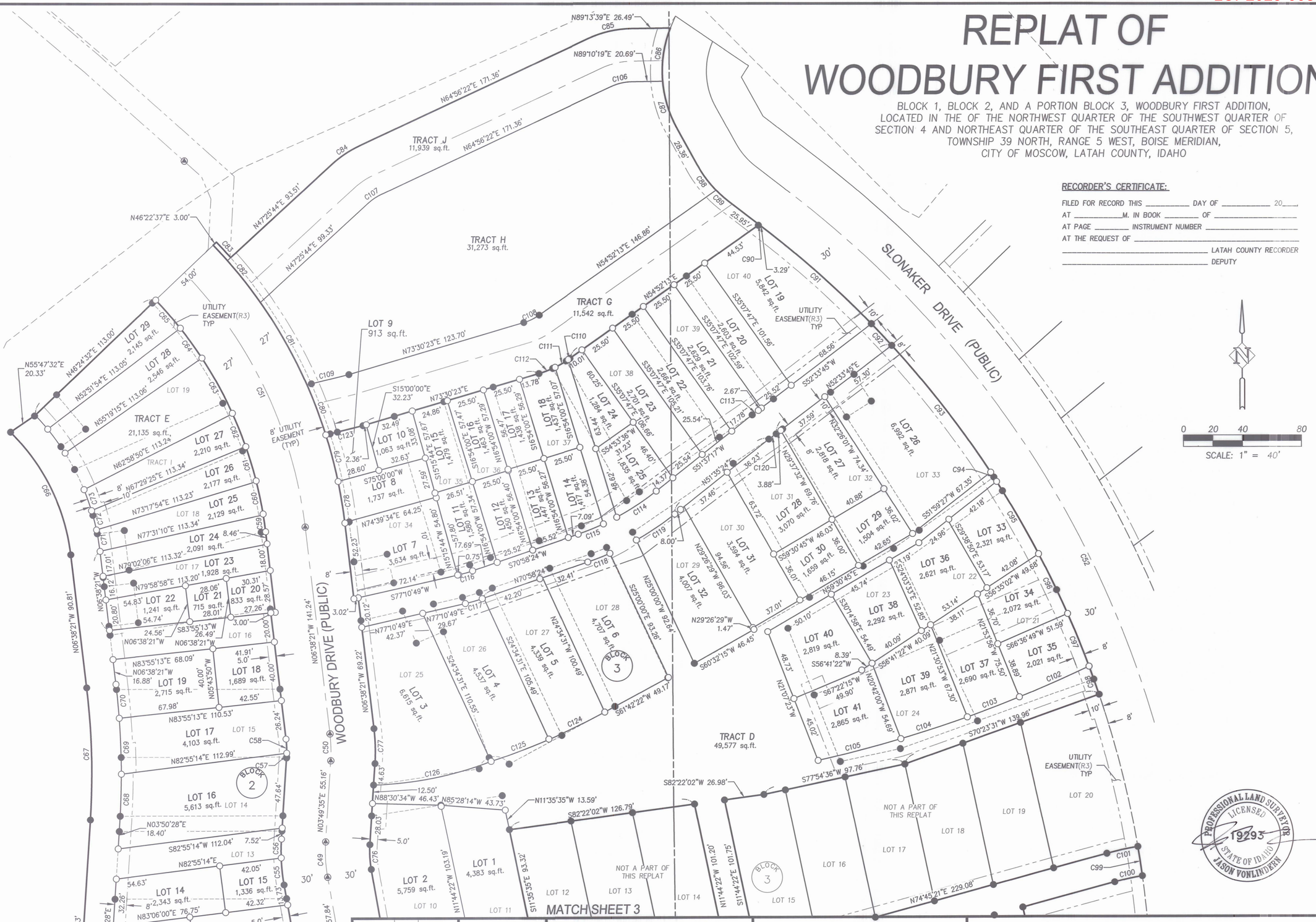
TRACT J
11,939 sq.ft.
TRACT H
31,273 sq.ft.
TRACT G
11,542 sq.ft.
TRACT E
21,135 sq.ft.,
TRACT I
TRACT D
49,577 sq.ft.
SLONAKER DRIVE (PUBLIC)
WOODBURY DRIVE (PUBLIC)
LOT 1 4,383 sq.ft.
LOT 2 5,759 sq.ft.
LOT 3 6,815 sq.ft.
LOT 4 4,537 sq.ft.
LOT 5 4,339 sq.ft.
LOT 6 4,707 sq.ft.
LOT 7 3,634 sq.ft.
LOT 8 1,737 sq.ft.
LOT 9 913 sq.ft.
LOT 10 1,063 sq.ft.
LOT 11 1,479 sq.ft.
LOT 12 1,450 sq.ft.
LOT 13 1,447 sq.ft.
LOT 14 1,447 sq.ft.
LOT 15 1,433 sq.ft.
LOT 16 1,433 sq.ft.
LOT 17 1,438 sq.ft.
LOT 18 1,433 sq.ft.
LOT 19 5,842 sq.ft.
LOT 20 2,603 sq.ft.
LOT 21 2,829 sq.ft.
LOT 22 2,684 sq.ft.
LOT 23 2,701 sq.ft.
LOT 24 1,284 sq.ft.
LOT 25 1,835 sq.ft.
LOT 26 8,992 sq.ft.
LOT 27 2,868 sq.ft.
LOT 28 3,070 sq.ft.
LOT 29 1,504 sq.ft.
LOT 30 1,659 sq.ft.
LOT 31 3,594 sq.ft.
LOT 32 4,007 sq.ft.
LOT 33 2,321 sq.ft.
LOT 34 2,072 sq.ft.
LOT 35 2,021 sq.ft.
LOT 36 2,621 sq.ft.
LOT 37 2,690 sq.ft.
LOT 38 2,292 sq.ft.
LOT 39 2,871 sq.ft.
LOT 40 2,819 sq.ft.
LOT 41 2,865 sq.ft.
LOT 22 1,241 sq.ft.
LOT 23 1,928 sq.ft.
LOT 24 2,091 sq.ft.
LOT 25 2,129 sq.ft.
LOT 26 2,177 sq.ft.
LOT 27 2,210 sq.ft.
LOT 28 2,546 sq.ft.
LOT 29 2,145 sq.ft.
LOT 21 715 sq.ft.
LOT 20 833 sq.ft.
LOT 19 2,715 sq.ft.
LOT 18 1,689 sq.ft.
LOT 17 4,103 sq.ft.
LOT 16 5,613 sq.ft.
LOT 15 1,336 sq.ft.
LOT 14 2,343 sq.ft.
LOT 13 3,508 sq.ft.
LOT 12 4,610 sq.ft.
BLOCK 2
BLOCK 3
N89°13'39"E 26.49'
N89°10'19"E 20.69'
N64°56'22"E 171.36'
N47°25'44"E 93.51'
N47°25'44"E 99.33'
N46°22'37"E 3.00'
N54°52'13"E 146.86'
N73°30'23"E 123.70'
S15°00'00"E 32.23'
N55°47'32"E 20.33'
N46°24'32"E 113.00'
N52°51'54"E 113.05'
N55°19'15"E 113.06'
N62°58'50"E 113.24'
N67°29'25"E 113.34'
N73°17'54"E 113.23'
N77°31'10"E 113.34'
N79°02'06"E 113.32'
N79°58'58"E 113.20'
N83°55'13"E 68.09'
N83°55'13"E 110.53'
N82°55'14"E 112.99'
N82°55'14"E 112.04'
N83°06'00"E 76.75'
N03°50'28"E 173.73'
N06°38'21"W 90.81'
N06°38'21"W 141.24'
N03°49'35"E 55.16'
N09°52'56"W 157.84'
S75°00'00"W 28.60'
S74°39'34"E 64.25'
S77°10'49"W 72.14'
S70°58'24"W 32.41'
S61°42'22"W 49.17'
S25°00'00"E 92.64'
S29°26'29"W 96.03'
S60°32'15"W 46.45'
S35°07'47"E 101.56'
S35°07'47"E 102.59'
S35°07'47"E 103.78'
S35°07'47"E 105.21'
S52°33'45"W 68.56'
S62°33'45"E 57.30'
S51°37'17"W 25.54'
S51°35'24"W 36.23'
S59°30'45"W 46.03'
S56°41'22"W 54.49'
S67°22'15"W 49.90'
S70°23'31"W 139.96'
S77°54'36"W 97.76'
S82°22'02"W 26.98'
S82°22'02"W 126.79'
N11°35'35"W 13.59'
N88°30'34"W 46.43'
N85°28'14"W 43.73'
N11°44'22"W 103.19'
S11°35'35"E 93.32'
N11°44'22"W 101.20'
S11°44'22"E 101.75'
N74°45'21"E 229.08'
N29°27'32"W 69.76'
N51°59'27"W 67.35'
N21°30'53"W 67.30'
N20°42'00"W 54.69'
N21°10'23"W 45.02'
N32°26'01"W 74.34'
N06°38'21"W 69.22'
N83°55'13"W 26.49'
N06°38'21"W 16.88'
N05°43'50"W 40.00'
N03°50'28"E 18.40'
N06°38'21"W 20.80'
N74°39'34"E 54.80'
N16°54'00"W 56.40'
N16°54'00"W 56.29'
N16°54'00"W 56.27'
N16°54'00"W 56.40'
N16°54'00"W 57.07'
N16°54'00"W 57.47'
N16°54'00"W 57.69'
N16°54'00"W 57.67'
N15°15'44"W 54.80'
N15°15'44"W 54.38'
N15°15'44"W 54.34'
N15°15'44"W 54.27'
N15°15'44"W 54.23'
N15°15'44"W 54.19'
N15°15'44"W 54.15'
N15°15'44"W 54.11'
N15°15'44"W 54.07'
N15°15'44"W 54.03'
N15°15'44"W 53.99'
N15°15'44"W 53.95'
N15°15'44"W 53.91'
N15°15'44"W 53.87'
N15°15'44"W 53.83'
N15°15'44"W 53.79'
N15°15'44"W 53.75'
N15°15'44"W 53.71'
N15°15'44"W 53.67'
N15°15'44"W 53.63'
N15°15'44"W 53.59'
N15°15'44"W 53.55'
N15°15'44"W 53.51'
N15°15'44"W

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C1	14.99	200.00	004°17'40"	N16°32'35"E	14.99
C2	110.85	700.00	009°04'23"	N09°51'34"E	110.73
C3	58.31	200.00	016°42'12"	S86°36'44"W	58.10
C4	160.32	100.00	091°51'26"	N55°48'39"W	143.69
C5	32.80	101.25	018°33'38"	N84°53'03"W	32.66
C6	43.19	100.00	024°44'56"	S73°26'51"W	42.86
C7	41.40	100.00	023°43'23"	S72°56'05"W	41.11
C8	36.19	200.00	010°22'07"	S89°58'50"W	36.14
C9	101.64	100.00	058°14'02"	N55°43'06"W	97.32
C10	94.73	100.00	054°16'37"	N54°52'45"W	91.23
C11	12.75	170.14	004°17'40"	S16°32'42"W	12.75
C12	32.40	75.00	024°44'56"	N73°26'51"E	32.14
C13	51.76	125.00	023°43'23"	N72°56'05"E	51.39
C14	40.72	225.00	010°22'07"	N89°58'50"E	40.66
C15	76.53	125.00	035°04'45"	S67°17'44"E	75.34
C16	50.52	125.00	023°09'17"	S38°10'43"E	50.17
C17	72.54	75.00	055°24'58"	S54°18'34"E	69.75
C18	69.64	110.00	036°16'33"	N63°52'47"W	68.49
C19	34.66	110.00	018°03'07"	N36°42'56"W	34.51
C20	52.70	90.00	033°32'49"	N43°22'30"W	51.95

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C21	38.78	90.00	024°41'12"	N72°29'31"W	38.48
C22	15.21	190.00	004°35'14"	N87°07'44"W	15.21
C23	19.17	190.00	005°46'53"	S87°41'13"W	19.16
C24	37.26	90.00	023°43'23"	S72°56'05"W	37.00
C25	20.07	110.00	010°27'09"	S66°17'57"W	20.04
C26	27.45	110.00	014°17'47"	S78°40'25"W	27.38
C27	7.18	111.25	003°41'52"	S87°41'03"W	7.18
C28	74.42	670.00	006°21'50"	S11°12'51"W	74.38
C29	27.16	170.00	009°09'12"	N82°50'14"E	27.13
C30	39.27	66.95	033°36'20"	N13°14'03"W	38.71
C31	35.08	66.95	030°01'18"	N18°34'46"E	34.68
C32	34.67	66.95	029°40'10"	N48°25'30"E	34.28
C33	35.33	66.95	030°14'14"	N78°22'42"E	34.92
C34	34.80	66.95	029°46'43"	S71°36'50"E	34.41
C35	34.55	66.95	029°34'02"	S41°56'27"E	34.17
C36	39.40	66.95	033°42'55"	S10°17'58"E	38.83
C37	25.70	130.00	011°19'35"	N83°55'26"E	25.66
C38	143.11	130.00	063°04'26"	S58°52'34"E	135.99
C39	15.50	35.00	025°22'16"	N19°05'37"E	15.37
C40	13.29	130.00	005°51'30"	S24°24'36"E	13.29

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C41	26.32	130.00	011°35'55"	S15°40'53"E	26.27
C42	2.46	40.00	003°31'20"	S85°28'32"W	2.46
C43	7.64	60.00	007°17'48"	N87°21'46"E	7.64
C44	9.63	60.00	009°11'44"	S84°23'28"E	9.62
C45	11.39	40.00	016°18'48"	S87°57'00"E	11.35
C46	6.38	40.00	009°08'15"	N79°19'29"E	6.37
C47	1.69	60.00	001°36'43"	S75°33'43"W	1.69
C48	17.08	60.00	016°18'46"	N87°56'59"W	17.03

RECORDER'S CERTIFICATE:

FILED FOR RECORD THIS _____ DAY OF _____ 20___,
AT _____M. IN BOOK _____ OF _____
AT PAGE _____ INSTRUMENT NUMBER _____
AT THE REQUEST OF _____
_____ LATAH COUNTY RECORDER
_____ DEPUTY

REPLAT OF WOODBURY FIRST ADDITION

BLOCK 1, BLOCK 2, AND A PORTION BLOCK 3, WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

PROFESSIONAL LAND SURVEYOR LICENSED 19295 STATE OF IDAHO JASON VONLINDERN

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C49	23.93	100.00	013°42'31"	N03°01'40"W	23.87
C50	18.27	100.00	010°27'56"	N01°24'23"W	18.24
C51	194.38	300.00	037°07'29"	N25°12'06"W	191.00
C52	816.82	700.00	066°51'27"	N19°01'58"W	771.26
C53	20.51	50.00	023°30'04"	N40°42'39"W	20.37
C54	43.74	50.00	050°07'27"	N03°53'53"W	42.36
C55	18.36	130.00	008°05'23"	S05°50'14"E	18.34
C56	12.75	130.00	005°37'07"	S01°01'01"W	12.74
C57	3.26	70.00	002°40'12"	N02°29'29"E	3.26
C58	9.52	70.00	007°47'45"	S02°44'29"E	9.52
C59	11.54	273.00	002°25'18"	S07°51'00"E	11.54
C60	23.00	273.00	004°49'38"	S11°28'28"E	22.99
C61	25.00	273.00	005°14'49"	S16°30'42"E	24.99
C62	24.00	273.00	005°02'13"	S21°39'13"E	23.99
C63	43.05	273.00	009°02'07"	S28°41'23"E	43.01
C64	24.95	273.00	005°14'13"	S35°49'32"E	24.94
C65	25.35	273.00	005°19'12"	S41°06'15"E	25.34
C66	94.43	140.00	038°38'47"	N25°57'45"W	92.65
C67	89.63	490.00	010°28'49"	N01°23'57"W	89.50
C68	32.34	510.02	003°38'00"	N02°01'26"E	32.34

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C69	37.81	510.02	004°14'53"	N01°55'00"W	37.81
C70	23.13	510.02	002°35'54"	N05°20'24"W	23.13
C71	14.68	160.00	005°15'29"	S09°16'07"E	14.68
C72	13.54	160.00	004°50'52"	S14°19'17"E	13.53
C73	15.11	160.00	005°24'43"	S19°27'05"E	15.11
C74	20.11	160.00	007°12'06"	N35°46'05"W	20.10
C75	12.61	160.00	004°31'01"	N41°37'39"W	12.61
C76	16.75	70.00	013°42'31"	N03°01'40"W	16.71
C77	23.75	130.00	010°27'56"	N01°24'23"W	23.71
C78	28.13	327.00	004°55'45"	N09°06'14"W	28.12
C79	32.72	327.00	005°43'59"	N14°26'06"W	32.71
C80	36.27	327.00	006°21'21"	N20°28'46"W	36.25
C81	64.26	327.00	011°15'33"	N29°17'13"W	64.16
C82	50.43	327.00	008°50'09"	N39°20'04"W	50.38
C83	14.36	330.00	002°29'33"	S42°30'18"E	14.35
C84	22.00	72.00	017°30'38"	N56°11'03"E	21.92
C85	30.45	72.00	024°13'56"	N77°03'21"E	30.22
C86	36.76	80.00	026°19'43"	S08°20'03"W	36.44
C87	33.69	80.00	024°07'48"	S16°53'43"E	33.44
C88	21.28	80.00	015°14'19"	S36°34'46"E	21.21

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C89	11.54	80.00	008°15'45"	S48°19'48"E	11.53
C90	0.68	72.00	000°32'37"	N54°35'55"E	0.68
C91	98.32	670.00	008°24'28"	S48°15'27"E	98.23
C92	20.10	670.00	001°43'09"	S43°11'38"E	20.10
C93	109.39	670.00	009°21'17"	S37°39'26"E	109.27
C94	7.53	670.00	000°38'39"	S32°39'27"E	7.53
C95	56.64	670.00	004°50'36"	S29°54'50"E	56.62
C96	45.29	670.00	003°52'24"	S25°33'20"E	45.67
C97	38.67	670.00	003°18'26"	S21°57'55"E	39.38
C98	20.17	670.00	001°43'30"	S19°26'57"E	20.23
C99	20.00	670.00	001°42'38"	N08°36'04"W	20.00
C100	19.23	190.00	005°47'53"	S77°39'18"W	19.22
C101	21.55	210.00	005°52'42"	S77°41'43"W	21.54
C102	51.65	889.80	003°19'32"	N66°22'05"E	51.83
C103	37.82	889.80	002°26'07"	N69°14'54"E	37.82
C104	47.41	889.80	003°03'09"	N71°59'32"E	47.40
C105	58.06	889.80	003°44'19"	N75°23'17"E	58.36
C106	15.23	36.00	024°13'56"	N77°03'21"E	15.11
C107	11.00	36.00	017°30'38"	N56°11'03"E	10.96
C108	11.71	36.00	018°38'10"	N64°11'18"E	11.66

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C109	29.25	6170.98	000°16'18"	N76°12'08"E	29.25
C110	1.38	72.00	001°05'57"	N55°25'12"E	1.38
C111	10.27	72.00	008°10'31"	N60°03'26"E	10.26
C112	11.76	72.00	009°21'41"	N68°49'33"E	11.75
C113	5.08	90.00	003°14'01"	S54°10'46"W	5.08
C114	32.16	180.00	010°14'14"	N56°44'23"E	32.12
C115	18.49	180.00	005°53'10"	S68°01'49"W	18.48
C116	9.75	90.00	006°12'25"	S74°04'37"W	9.75
C117	11.92	110.00	006°12'25"	N74°04'37"E	11.91
C118	16.14	200.00	004°37'31"	N68°39'39"E	16.14
C119	31.51	182.61	009°53'09"	N56°06'07"E	31.47
C120	6.21	110.00	003°14'01"	N54°10'46"E	6.21
C123	25.92	6206.98	000°14'21"	N76°10'43"E	25.92
C124	42.02	464.01	005°11'21"	S64°09'53"W	42.01
C125	42.11	464.01	005°12'01"	S69°21'34"W	42.10
C126	81.65	240.83	019°25'27"	S78°42'02"W	81.26

	By	Date
Surveyed	CBB	08/24
Drawn	TMH	04/25
Checked	JMV	11/25
Approved		
Accepted		

Scale: N/A
Date: December 5, 2025
Drawing Name WNZ03-PLAT 2025.DWG
Sheet 5 of 5

SYNTIER Engineering, Inc.
405 SE Brelsford Drive, Suite C
Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

For:
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, IDAHO

REPLAT OF WOODBURY 1ST ADDITION
BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION OF BLOCK 4 OF WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

Received 12-05-2025

City of Moscow
Engineering Dept.

Memo

To: Michael Ray, Planning Manager

From: Bob Buvel, Senior Civil Engineer

cc: Scott Bontrager, City Engineer; Jennifer Fleischman, Administrative Assistant – Capital Projects & Deputy City Clerk.

Date: 2026-01-8

Re: Woodbury 1st Addition Final Major PUD Amendment Resubmission

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During my review of the Woodbury plat, I initially recommended that the stormwater report be revised to reflect the proposed plat changes.

Subsequently, I discussed the plat revisions with the design engineer. During that conversation, we determined that the proposed plat revisions would not impact the stormwater report. This conclusion is based on the method used by the design engineer to calculate the post-development runoff coefficient. The design engineer used a method that assumes a post development for the entire subdivision rather than calculating the a waited average of the entire site.

The method used to calculate the post-development runoff coefficient is permitted under the City's stormwater ordinance. As a result, the previously identified concern regarding the stormwater report has been resolved.

Based on this information, I no longer believe that revisions to the Woodbury Stormwater Report are necessary.

Regards,

Robert H. Buvel III

Bob Buvel

Senior Civil Engineer

PLANNING & ZONING COMMISSION

Dennis Wilson
Commission Chair
P&Z@ci.moscow.id.us

Regular Meeting
~Minutes~

Mike Ray
Staff Liaison
208.883.7008

https://www.ci.moscow.id.us/457/Planning-Zoning-Commission

Wednesday **January 14, 2026**	**7:00 PM**	**Council Chambers** **206 E. Third Street**

Wilson called the meeting to order at 7:00 PM

MEMBERS PRESENT:	Dennis Wilson, Chair; Rich Beebe, Cole Mize, Nels Reese, Sue Scott, Victoria Seever
MEMBERS ABSENT:	Scott Gropp, Joel Hamilton
OTHERS:	Sage McCetich
STAFF:	Jennifer Fleischman, Mike Ray

REGULAR AGENDA

1. Approval of Minutes from December 10, 2025 (ACTION ITEM)
Seever moved for approval of the minutes as written, seconded by Scott. Roll Call Vote; Ayes: Beebe, Mize, Scott, Seever, Wilson (5). Nays: None. Abstentions: Reese (1). Motion carried.

2. Public Comment
Time limit 15 minutes. Members of the Public may speak to the Commission regarding matters NOT on the Agenda nor currently pending before the Planning and Zoning Commission. Please state your name and resident city for the record and limit your remarks to three (3) minutes.
None offered.

3. Election of Officers for 2026 (ACTION ITEM)
The Commission will need to nominate officers for 2026.
The Commissioners discussed who would like to be nominated for the 2026 Officer positions. All current officers are okay serving again for another year.

Scott moved to re-elect Dennis Wilson as Chair, Rich Beebe as Vice Chair, and Cole Mize as Second Vice Chair for the 2026 Planning & Zoning Commission. Seever seconded the motion. Roll Call Vote; Ayes: Beebe, Mize, Scott, Seever, Wilson (5). Nays: None. Abstentions: Reese (1). Motion carried.

Reese arrived at 7:07 PM

4. Proposed Final Subdivision Replat and Final Major Planned Unit Development Amendment for Woodbury 1st Addition (ACTION ITEM)
Proposed final Subdivision Replat and final Major Planned Unit Development Amendment for a 21.73-acre area to increase the total number of lots in the Woodbury 1st Addition Subdivision from 78 to 107, referred to as Woodbury 1st Addition Replat.
Ray presented the final subdivision replat and final major planned unit development (PUD) amendment as described above and recommended the Commission forward approval to City Council with no conditions. The proposed parking around the Central park area would take away from the green space, but that park is

DRAFT

not part of the Parkland Dedication as it is a private park. The applicant is requesting to use concrete pavers in the furnishing zone, which is a part of the sidewalk in the commercial area. This would need to be reviewed and approved by City Council. Concrete pavers are normally not allowed because of the chances of settling and becoming a tripping hazard as well as the maintenance is more extensive. There was a brief discussion about the merits of using or not using concrete pavers.

Seever moved to recommend approval to City Council of both the final replat and the final major PUD amendment of Woodbury 1st Addition, seconded by Beebe. Roll Call Vote; Ayes: Unanimous (6). Nays: None. Abstentions: None. Motion carried.

5. Potential Duplex Code Amendments (ACTION ITEM)

Over the past few years, the Community Development Department has received construction plans for duplex dwellings which have continued to evolve into multiple individual dwelling units intended to be rented as separate dwelling units and function as multiple family dwelling units. These two-family dwellings appear to be intentionally designed to avoid life safety, ADA accessibility, and off-street parking that would otherwise be required for multiple family dwelling units to protect the safety and welfare of the occupants of multi-family dwellings and mitigate the impacts of the use on the surrounding neighborhood. Staff recognizes that there is a need for additional housing within the City, but the need to protect the safety of the residents of these two-family dwellings and mitigate the impact upon adjacent properties requires greater regulation. Therefore, staff is proposing some code amendments for the Commission's consideration that will clarify existing definitions and apply some multi-family requirements to more than one single- or two-family dwelling upon a single lot.

Ray continued the discussion of a proposed code amendment for duplexes as described above, and provided some language that staff recommends could be included. No permanent structure part of the open space requirement would eliminate a picnic table cover, so it could be clarified in the code to allow that. There was a conversation about how the zoning code has been interpreted by applicants that is against code. The Commission recognized that life safety is the number one concern.

Seever moved, Scott seconded. Unanimous.

REPORTS

1. Transportation Commission meeting report.

The last meeting of the Transportation Commission was January 8th, in which they discussed two grant applications.

ANNOUNCEMENTS

The Commission welcomed the new Council Liaison Sage McCetich.

UPCOMING EVENTS/MEETINGS

The next Planning & Zoning Commission regular meeting is scheduled for January 28, 2026.

The meeting was adjourned at 7:55 PM

_____ _____

Dennis Wilson, Chair Date

DRAFT

Moscow City Council

Regular Meeting
~Minutes~

Laurie M. Hopkins
City Clerk

www.ci.moscow.id.us

208.883.7015

Monday, July 21, 2025	**7:00 PM**	**Council Chambers** **206 E. Third St.**

The meeting was called to order at 7:00 p.m.
PRESENT: Mayor Art Bettge, Bryce Blankenship, Sandra Kelly, Hailey Lewis, Julia Parker, Gina Taruscio
ABSENT: Drew Davis
STAFF: Bill Belknap, Mia Bautista, Bob Buvel, Mike Ray, Laurie M. Hopkins

PLEDGE OF ALLEGIANCE
Council President Parker led the Pledge of Allegiance.

CONSENT AGENDA

1. All Consent Items (ACTION ITEM)

A. Approval of Moscow City Council July 7, 2025 Minutes - Laurie M. Hopkins

B. Approval of Payment of Claims - Sarah Decker

C. Disbursement Report June 2025 - Sarah Decker

Staff presented the June 2025 Accounts Payable Report to the Public Works / Finance Committee on July 14th, 2025. The Committee received the report and recommended approval of the disbursement report.

ACTION: Accept the Disbursements Report for the month of June 2025.

D. Third Quarter Financial Report April 1, 2025 to June 30, 2025 for FY2025 - Sarah Decker

Staff presented the financial report for the third quarter of Fiscal Year 2025 (April 1, 2025 to June 30, 2025) to the Public Works/Finance Committee on July 14th, 2025. The Committee received the financial report and recommended approval as presented.

ACTION: Accept the FY2025 Third Quarter Financial Report.

E. Lola Clyde Park Development Grant Award Agreement - Alisa Anderson / Luke Hajda

In January 2023, staff submitted a grant application to the Idaho Department of Parks and Recreation (IDPR) under the Land and Water Conservation Program requesting assistance with the continued development of Lola Clyde Park. The proposed project includes frontage improvements, accessible paths/sidewalks, parking, lighting, and an internal pathway around the lower perimeter of the park property. In May 2023, staff were invited to present the request to the Land and Water Conservation Evaluation Committee in Boise. Shortly after, staff received notification that the request was approved to be submitted to the National Park Service (NPS) for approval of a grant request. On June 25, 2025, staff received the attached Letter of Award and State and Local Project Agreement from IDPR. The details of the funding and project elements are shown in Attachment F of the Agreement. The City will provide $170,000 of in-kind match, including surveying, engineering/design, and

construction inspection, in addition to $414,000 in cash for a total match of $584,000 (50% match requirement) with a grant award of $584,000 for construction with total project costs of $1,168,000. It is anticipated that engineering staff will complete the design of the project and advertise it for bidding in 2026, with construction anticipated for possibly as soon as next summer. This item was reviewed by the Public Works/Finance Committee on July 14, 2025, and recommended for approval.

ACTION: Accept the grant award and authorize execution of the required documents, including the State and Local Agreement for the Land and Water Conservation Fund from the Idaho Department of Parks and Recreation.

Kelly moved and Parker seconded to approve the consent agenda as presented. Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None. Motion carried.

REGULAR AGENDA

2. Mayors Appointments (ACTION ITEM)

Mayor Bettge presented to the City Council for consideration the appointment of Ashlyn Werner to the Sustainable Environment Commission. Kelly moved and Blankenship seconded approval of the appointment. Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None. Motion carried.

3. Public Comment (limit 15 minutes)

Nathan Tupper thanked the Mayor and council for the appointment to the FAHC back in May. He was deployed and wanted to come thank them in person.

4. PUBLIC HEARING: Woodbury 1st Addition Major Planned Unit Development Amendment and Replat (ACTION ITEM) - Mike Ray

The Woodbury 1st Addition is a 21.73-acre subdivision and Planned Unit Development (PUD) that received final approval from the City Council on October 17, 2022. The development includes 79 lots ranging from 3,823 to 16,321 square feet in size and is the first phase of a master-planned subdivision that has a new urbanist design. Slonaker Drive has been extended into the subdivision, and the infrastructure for the first phase of the subdivision has been constructed, which includes Woodbury Drive and Picotee Circle. There are currently approximately 15 single-family homes that are under various stages of construction. The applicant, Wintz Company, LLC, is now proposing a Major Planned Unit Development (PUD) Amendment and to replat a 12.27-acre portion of the existing Woodbury 1st Addition Subdivision to create 81 lots from the existing 52 lots. The proposed lots range from 715 square feet to 8,339 square feet in size. The proposed replat would increase the total number of lots in the Woodbury 1st Addition Subdivision from 78 to 107, resulting in an addition of 29 lots. A prior minor PUD amendment approved on April 9, 2025, reduced the total number of lots from 79 to 78. As a result, the proposed amendment would result in an addition of 28 lots compared to the original development approval. The City of Moscow Planning and Zoning Commission conducted a public hearing for the proposed Major Planned Unit Development Amendment and Preliminary Replat on June 25, 2025 and recommended approval with one condition.

PROPOSED ACTIONS: Conduct the public hearing upon the Major PUD Amendment and Preliminary Replat and upon consideration of any testimony presented:

1. Approve the Major PUD Amendment for Woodbury 1st Addition with no conditions and adopt the Planning and Zoning Commission Reasoned Statement of Relevant Criteria; or approve the Major PUD Amendment with conditions and direct staff to prepare a Reasoned Statement of Relevant Criteria; or reject the Major PUD Amendment and direct staff to prepare a Reasoned Statement of Relevant Criteria; or take other such action deemed appropriate.

2. If the Major PUD Amendment is approved, approve the Preliminary Replat for Woodbury 1st Addition with one condition and adopt the Planning and Zoning Commission Reasoned Statement of Relevant Criteria; or approve the Preliminary Replat with no conditions and direct staff to prepare a Reasoned Statement of Relevant Criteria; or reject the Preliminary Replat and direct staff to prepare a Reasoned Statement of Relevant Criteria; or take other such action deemed appropriate.

Mayor Bettge explained the procedure of a public hearing and opened it at 7:03 p.m. Ray introduced the item by providing a background of the property, conditions from the preliminary plat, and proposal. See attached presentation for details.

Parker asked about the 41 temporary parking stalls. Ray explained they are intended to be removed as future phases add permanent parking. Each residential lot is still required to provide two parking spaces. Parker expressed concern about reduced parking and potential water flow issues during fire events, particularly in the commercial zone. Ray said the building official would require fire suppression depending on the individual buildings proposed during the building permit process.

Taruscio supported smaller homes for affordability and felt the stormwater condition is a good approach. She shared concerns about parking and monitoring of the 41 stalls, especially near the neighborhood business area. Ray said monitoring could be addressed through reporting by the applicant as development progresses.

In response to Lewis, Belknap explained private stormwater retention is standard for commercial and multifamily development, while public systems serve public streets. The system was required to be private due to noncompliant gravel parking strips.

Blankenship also voiced parking concerns but felt water service impacts were minimal, noting that P&Z had significant discussion on the topic.

Ray noted that parkland dedication is proposed as a linear pathway on the southwest side of Phase II.

Mark Wintz (rural Moscow) is the applicant and spoke on his developments in California. He is concerned regarding parking as well so will keep an eye on it. There has been a radical jump in housing prices and he wants to provide affordable housing, however he doesn't want to compromise the quality of the home so instead reduced the size of houses. Wintz said his conversations with other similar developments around the country shows parking in residential does ok. It's the commercial section that could have the issues. As they get closer to development they will be able to find areas for little parking lots in areas where there are issues. They do have a potential concern regarding short term rentals but like the diversity it can bring.

Levi Wintz (Moscow, applicant) said short term rentals are allowed with the requirement of the owner must live on property, whether it be the main house or the accessory dwelling unit. They want to maximize every portion of the 80 acres and anticipate the growth then match each need as they develop each section. There are two off-street parking spots for every unit besides the smaller units. For 80 residential lots, there is 130 on-street parking spots in addition to the off-street parking.

Mayor Bettge asked for testimony in favor of the application.

Roger Martenson (Moscow) said he lives in this neighborhood and hasn’t regretted it. He looks forward to the commercial phase. He walks the neighborhood and for the most part doesn’t see speeding cars.

Mayor Bettge asked for testimony in opposition to the application.

Dave Lehmitz (Moscow) spoke on the Ponderosa water booster station and additional housing hooked to it; ongoing stormwater issues and lack of a DEQ permit; fire ladder trucks cannot make the corners in the neighborhood due to the radius and on-street parking will also cause issues; the agreement for infrastructure on Mountain View and how the invoices were not showing a 50/50 split; he didn't feel the bid process for capital projects was being followed.

Mayor Bettge asked for testimony of a general nature. Hearing none, he asked for rebuttal by the applicant. The applicant declined rebuttal. Mayor Bettge closed the public hearing at 8:18 p.m.

Blankenship asked staff to address fire access concerns raised by Mr. Lehmitz. Ray stated the Fire Marshal reviewed the plans and had no concerns. Ladder access is not required for buildings up to 30 feet to the eaves. Belknap noted existing conditions guide what can be built, and all fire code requirements will be reviewed at the permit stage. Design elements like radius and fire flow must comply with adopted codes based on the project layout.

Regarding stormwater, Ray said Mr. Lehmitz's photos were taken before infrastructure was in place, and grading can temporarily impact runoff. Buvel added the City acts as the state's representative for DEQ permitting and, once aware of the issue, required the appropriate permits.

Lewis asked about the bid process. Belknap explained it is common to reimburse developers for upsizing infrastructure beyond their project needs. This is addressed in development agreements and conditions of approval. The booster station was identified in 2012 as needing upgrades. Two low-interest state loans funded improvements. The upgraded station enables service to additional development phases. Staff has no concerns about service capacity; the booster was not specific to this project but benefits the larger area.

Lewis suggested reviewing the bid and reimbursement process for compliance. Belknap said staff is confident but can have the City Attorney review if needed.

Parker moved to approve the major PUD Amendment for Woodbury 1st Addition with no conditions and adopt the Planning and Zoning Commission Reasoned Statement of Relevant Criteria. Taruscio seconded. Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None. Motion carried.

Kelly moved to approve the Preliminary Replat for Woodbury 1st Addition with one condition and adopt the Planning and Zoning Commission Reasoned Statement of Relevant Criteria. Roll Call Vote: Ayes: Four (4). Nays: One (Lewis). Abstentions: None. Motion carried.

5. PUBLIC HEARING: Woodbury Addition Right-of-Way Vacation Request - Bob Buvel

On June 6, 2025, the City received an application requesting the re-plat of a portion of the Woodbury Addition to the City. The request was made by Wintz Company, LLC, who is the owner of the Woodbury Addition. Wintz Company, LLC is proposing to re-plat the area which requires the vacation of a portion of Woodbury Drive and all of Ashton Lane which are located within the re-plat area. According to Wintz Company, LLC, the proposed vacation of Ashton is to convert Ashton Lane from a one-way public street to a private two-way street. The vacation of the portion of Woodbury Drive would reduce the street to a fifty-four-foot (54') right-of-way to allow Woodbury Drive north of Midsummer (to be re-platted as Cottage Lane) to have a road section with larger curbside sidewalks and furniture zones more fitting to the neighborhood business zoning adjacent to the right-of-way. A vicinity map of the proposed vacation area is shown on the Notice of Public Hearing attached herein.

The notice of the hearing was advertised in the newspaper of record and mailed to properties within 300 feet of the subject ROW and all franchise and other utility providers were also provided notice.

PROPOSED ACTIONS: Conduct the public hearing and upon consideration of any testimony received, approve the vacation request by adoption of the Ordinance under suspension of the rules requiring three complete and separate readings and that the ordinance be read by title and published by summary; or consider the Ordinance on first reading; or deny the vacation request; or take such other action deemed appropriate.

Mayor explained the public hearing process and opened the hearing at 8:34 p.m.

Buvel introduced the item by going over the state statute requirements. There is a clause that the vacation does not eliminate any easements for utilities. Buvel detailed the information above.

Mark Wintz (Moscow) is the applicant and explained Ashton will have low traffic and low parking with sidewalks on one side. The Woodbury vacation is the town center area. He is trying to bring narrow streets which can be enchanting and a unique feel like streets in Europe.

Mayor Bettge asked for testimony in favor, opposition, and general. Hearing none, he closed the hearing at 8:42 p.m.

In response to Blankenship's question, Buvel said vacations don't come before the Council often but thinks it was Southgate 3rd Addition in 2021 where they were reworking their plat.

Parker moved to approve the vacation request by adoption of the Ordinance under suspension of the rules requiring three complete and separate readings and that the ordinance be read by title and published by summary. Taruscio seconded. Taruscio emphasized the importance of thoughtful design, flexibility, and a strong commitment to creating a high-quality place, and expressed hope that this approach continues through all phases of the development. Roll Call Vote: Ayes: Four (4). Nays: One (Lewis). Abstentions: None. Motion carried.

Mayor Bettge read Ordinance 2025-07 by title:
AN ORDINANCE OF THE CITY OF MOSCOW, IDAHO, A MUNICIPAL CORPORATION OF THE STATE OF IDAHO; PROVIDING FOR THE VACATION OF CERTAIN PUBLIC STREET RIGHTS-OF-WAY AND PUBLIC UTILITY EASEMENTS LOCATED WITHIN THE WOODBURY FIRST ADDITION AND LOCATED WITHIN THE CITY OF MOSCOW AND LEGALLY DESCRIBED IN SECTION 2 OF THIS ORDINANCE; PROVIDING THAT TITLE TO SAID VACATED PUBLIC STREET RIGHTS-OF-WAY AND PUBLIC UTILITY EASEMENTS SHALL VEST WITH THE OWNERS OF THE PROPERTY AS SPECIFIED IN SECTION 4 OF THIS ORDINANCE; PROVIDING THAT THE PROVISIONS OF THIS ORDINANCE BE DEEMED SEVERABLE; AND PROVIDING FOR THIS ORDINANCE TO BE IN FULL FORCE AND EFFECT FROM THE DATE OF ITS PASSAGE, APPROVAL, AND PUBLICATION ACCORDING TO LAW.

REPORTS

City Council

Moscow Volunteer Fire Department – Kelly said the department is moving along.
SMART Transit – Lewis said they are close to having the old service in a format they can use for historical statistics.
Moscow Arts Commission – Blankenship reported the Commission is working on upcoming projects and discussing the future mural at the City shop.
Planning & Zoning Commission – Blankenship reported they had a hearing for a future development.

Council members spoke on other meetings and events they attended including the Council budget workshop.

Mayor

Mayor Bettge said

ADJOURN

It was moved, seconded and mutually agreed upon to adjourn at 8:55 p.m.

Arthur D. Bettge, Mayor

ATTEST:

Laurie M. Hopkins, City Clerk

BEFORE THE CITY COUNCIL
OF THE CITY OF MOSCOW, COUNTY OF LATAH,
STATE OF IDAHO

REASONED STATEMENT OF RELEVANT CRITERIA AND STANDARDS

REASONED STATEMENT OF RELEVANT CRITERIA AND STANDARDS REGARDING A REQUEST FOR A MAJOR PLANNED UNIT DEVELOPMENT (PUD) AMENDMENT OF A TWENTY-ONE POINT SEVEN THREE (21.73) ACRE AREA GENERALLY LOCATED NORTH OF SLONAKER DRIVE, EAST OF ARBORCREST ROAD, AND SOUTH OF TRAIL ROAD, KNOWN AS THE WOODBURY 1ST ADDITION TO THE CITY OF MOSCOW, IDAHO.

WHEREAS, the applicant filed an application for a Major Planned Unit Development (PUD) Amendment, and preliminary replat on May 21, 2025; and

WHEREAS, this matter came before the Moscow Planning and Zoning Commission during a duly noticed public hearing on June 25, 2025; and

WHEREAS, this matter came before the Moscow City Council during a duly noticed public hearing on July 21, 2025; and

WHEREAS, having reviewed the application, including all exhibits entered, and having considered the issues presented by the applicant and the opponents:

THE MOSCOW CITY COUNCIL OF THE CITY OF MOSCOW, IDAHO, AFTER DUE DELIBERATION AND CONSIDERATION, HEREBY CONCLUDES:

I. RELEVANT FACTS AND CONCLUSIONS

1. The City Council considered the request pursuant to the City of Moscow 2019 Comprehensive Plan, City of Moscow Zoning Ordinance, the Local Land Use Planning Act, and other applicable development regulations.

2. The subject property is a twenty-one point seven three 21.73-acre property generally located north of Slonaker Drive, east of Arborcrest Road, and south of Trail Road.

3. The subject property is surrounded by primarily agricultural land to the west, north, and east. Single family subdivisions within Moscow City Limits are located to the south and include Picabu Estates, Blackwood 1st Addition, and Evergreen Hills Subdivisions to the south.

4. On September 20, 2021, the Moscow City Council approved the annexation, Comprehensive Plan land use designation, zoning designation, and PUD for the Woodbury 1st Addition with no conditions. The Council approved the preliminary plat for the Woodbury 1st Addition with the following three conditions recommended by the Planning and Zoning Commission:

1. A left turn lane from eastbound Mountain View onto Slonaker Drive shall be evaluated by the applicant to determine whether a turn lane is warranted and if so, the applicant shall be responsible for the construction of said turn lane.
2. In order to mitigate the increases in vehicular and pedestrian traffic on Mountain View Road as detailed in the applicant's Traffic Impact Study (TIS), the applicant shall be responsible for fifty percent (50%) of the construction costs associated with the installation of curbing, sidewalk and roadway widening in order to connect the existing pedestrian/bicycle facilities near the intersection of Slonaker Drive and Mountain View Road with the pedestrian/bicycle facilities on Mountain View Road near the Hamilton-Lowe Aquatics Center. The proposed roadway improvements shall only occur on one side of the roadway, which shall be determined by the City of Moscow Engineering Department.
3. Access shall be restricted to the subject property from Slonaker Drive to emergency services access only until all required public infrastructure is completed in accordance with the approved development agreement.

5. Woodbury 1st Addition received final plat and final PUD approval from the City Council on October 17, 2022.
6. The development includes 79 lots ranging from 3,823 to 16,321 square feet in size and is the first phase of a master-planned subdivision that has a new urbanist design.
7. Slonaker Drive has been extended into the subdivision and the infrastructure for the first phase of the subdivision has been constructed which includes Woodbury Drive and Picotee Circle. There are currently approximately 15 single-family homes that are under various stages of construction. Per the conditions of approval, improvements to Mountain View Road including road widening, curb, gutter, tree lawns, sidewalks, and a left turn lane onto Slonaker Drive were constructed in 2024.
8. Within the 2019 Moscow Comprehensive Plan, the subject property is currently designated as a combination of Auto-Urban Residential and Suburban Commercial.
9. Auto-Urban Residential (AU-R) designated areas,

   "contain predominantly single-family detached homes on lots ranging from 7,000 to 11,000 square feet in size and are more isolated from surrounding uses which may require residents to rely more on automobile transportation. This designation includes those areas generally anticipated to be developed for low- to moderate-density residential uses at densities between three to six units per acre which could include a mix of detached single-family, twinhome, and townhome residential dwellings. Appropriate current zoning for Auto-Urban Residential designated areas includes Low Density Residential (R-1), Moderate Density Single Family Residential (R-2) and Medium Density Residential (R-3) in order to include a mixture of attached and detached dwellings where appropriate."

10. Suburban Commercial (SC) designated areas are,

    "intended to provide local and neighborhood commercial services in a manner that is compatible within a residential neighborhood environment. Lands appropriate for this designation include areas in close proximity to higher-density residential development

and intersections of designated collector or arterial streets near residential development. Developments within these designated areas should include additional building scale and design standards (e.g., roof shape and materials, building height, setbacks, lighting, signage, etc., coupled with increased buffer yard requirements would better ensure compatibility). Developments within Suburban Commercial designated areas should limit the floor area ratios and require greater landscaping. Suburban Commercial designated areas are most appropriately zoned Neighborhood Business (NB)."

11. The subject property is currently designated as a combination of the Moderate Density, Single Family Residential (R-2) Zone and the Neighborhood Business (NB) Zone.

12. The adjacent properties immediately to the west, north, and east are within Latah County and are currently designated as Agriculture/Forestry (AF). Properties to the west adjacent to Orchard Ave within the City Limits are a combination of the Suburban Residential (SR), Farm Ranch (FR), and Moderate Density, Single Family Residential (R-2) Zoning Districts. The Picabu Estates, Blackwood 1st Addition, and Evergreen Hills Subdivisions to the south and southwest are currently designated as Low Density, Single Family Residential (R-1).

13. According to the City of Moscow Zoning Code, the R-2 Zone is a moderate density residential zone appropriate where the following circumstances are present:

    1. Single family dwellings predominate.
    2. The terrain is not harshly irregular and smaller lot sizes can be accommodated without extensive earthwork.
    3. Utilities and other public facilities are adequate for the densities allowed.
    4. Existing lot development patterns and policies embodied in the Plan will also guide application of this zoning district.

14. Uses permitted within the R-2 Zone include single-family residential dwellings, market and community gardens, group childcare facilities, and public parks and recreational facilities.

15. The minimum lot size for lots within the R-2 Zone is 7,000 sf and the minimum lot width is 60 feet (50 feet for lots with alley access). Front yard setbacks are a minimum of 20 feet, side setbacks are a minimum of 5 feet but both sides must equal 15 feet, street side setbacks are 15 feet, and rear setbacks are 20 feet.

16. The NB Zoning District is appropriately applied in the following circumstances:

    1. Where local commercial facilities will serve the everyday needs of a limited neighborhood area;
    2. Where activity levels associated with small scale office development can be accommodated or tolerated by surrounding land uses and existing public services;
    3. Where a neighborhood core is identified which is easily accessible by pedestrian or vehicular circulation; and
    4. Where such commercial development will result in minimal interference with residential uses in the vicinity of the NB Zoning District.

17. Uses permitted within the NB Zone include residential uses above or behind a commercial use on the property, community and market gardens, fitness centers, veterinary services, professional offices, restaurants, coffee and espresso stands, child care facilities, community/neighborhood centers, health care services, museums and art galleries, religious facilities, retail and personal services, off-street parking areas, and bed and breakfast inns.

18. The minimum lot size for single-family, two-family, and multi-family dwellings parcels within the NB Zone is 5,000 sf or 800 sf per dwelling unit, whichever is greater. Townhouse dwellings have a minimum lot size of 1,800 sf and twinhome dwellings require 2,250 square feet. The minimum lot width for single-family, two-family, and multi-family dwellings is 50 feet, 18 feet for townhouses, and 25 feet for twinhomes. Front yard setbacks are a minimum of 20 feet, side setbacks are a minimum of 10 feet, street side setbacks are 10 feet, and rear setbacks are 20 feet.

19. The existing Woodbury 1st Addition subdivision and PUD includes 79 lots ranging from 3,823 to 16,321 square feet in size and is the first phase of a master-planned subdivision that has a new urbanist design. The entire property that the owner wishes to develop is approximately 82 acres in size and extends from Slonaker Drive to the south, Arborcrest Road to the west, Trail Road to the north, and slightly to the east of Youmans Lane to the east. The entire concept is a master-planned community that includes a number of small neighborhoods that are linked by a combination of City and private streets. The community includes rear loaded garages, front porches, tree-lined streets, and a walkway system that will connect a number of small linear parks. Each home in the neighborhood is proposed to be unique, but also be of the same architectural style

20. There are four types of lots within the existing PUD: Village; Cottage; Garden; and Estate Lots. The Village lots are those that surround the Center Park and include the Neighborhood Business zoned lots. The Cottage lots are clustered in neighborhoods that surround the Village center. Garden lots are larger in size and surround the cottage neighborhoods. The Estate lots are the largest lots which are located on the perimeter of the development and are the only lots that don't have rear access via a private street.

21. The applicant has indicated that they wish to make some changes to the existing subdivision and PUD in order to construct houses which are more affordable. One way of doing that without affecting quality is to decrease the size of the lots, decrease the size of the dwellings which are constructed upon the lots, and allow for a variety of housing types. Therefore, the applicant is proposing a major PUD amendment to increase the number of lots from 79 to 107.

22. As part of the major PUD amendment, the applicant is proposing to replat a 12.27-acre portion of the existing Woodbury 1st Addition Subdivision which currently contains 52 lots. The replat proposal will increase the number of lots within the replat area to 81 lots, for a total of 107 in the entire subdivision.

23. Starting to the east with what is being referred to as Southwick Court, the proposal is to divide the existing four lots into nine lots which each contain one detached single-family dwelling. There are proposed to be three dwellings which are 1,152 sf in size and contain one bedroom and six dwellings which are 1,536 sf in size and contain three bedrooms. All of the dwellings in Southwick are proposed to be two stories in height and will surround a common parking area. Front setbacks are proposed to be 5 feet if facing Slonaker and 2 feet if facing the common walkway. Side and rear setbacks are proposed to be 5 feet, and there is proposed to be 10 feet of separation between dwellings.

24. Thirteen parking spaces are proposed which provides one parking space per dwelling and four additional spaces to be assigned. This equates to 1.5 parking spaces per dwelling unit, which would be a deviation from the current code requirements of 2 parking spaces per single

family dwelling. Given the proposed small size of the dwellings, the Council finds that the proposed requirement of 1.5 spaces per dwelling is adequate.

25. The next area of proposed changes is being referred to as The Willows and the proposal is to divide two existing lots into four lots. There is proposed to be one detached two-story dwelling of 1,152 sf in size containing one bedroom on each of the four lots. There is proposed to be 8 parking spaces which are accessed via Cottage Lane. This would allow for 2 parking spaces per dwelling unit.

26. The next area of the project where changes are being proposed is located between Cottage Lane and Park Place on a portion of the lots which surround the Central Park. This area is being referred to as the Central Park Townhomes and the proposal is to divide approximately 7 lots into 14 lots. There is proposed to be 8 larger townhouse units which each share a common wall with another dwelling unit. Each townhouse unit contains two to three bedrooms and will range from 2-3 stories in height. The 4 townhomes on the west side of the walkway have 4 small homes or what the applicant is referring to as "mews" which will face Cottage Lane.

27. The townhouses are approximately 2,160 sf in size and the "mews" are approximately 1,000 sf in size. The 4 townhomes and "mews" on the west side of the walkway will all have one off-street parking space, and these 8 lots are located within the Neighborhood Business (NB) Zone.

28. The 4 townhomes on the east side of the walking path have backyards with two car garages. Two additional "mews" are located along the walkway running from Cottage Lane to Park Place. The 2 "mews" will each have one parking space and the 4 townhouses each have 2-car garages.

29. The remainder of the Neighborhood Business (NB) zoned lots adjacent to Woodbury Drive are also proposed to be further divided from approximately 6 lots to 14 lots. The applicant is referring to this area of the development as the Town Center and has redesigned these wider lots into narrower storefront lots intended to resemble 1890's downtown facades with two to three story buildings which share common walls. The applicant has indicated that the division of the larger lots into smaller ones will allow for the buildings to be separated into fee simple ownership and less expensive to develop.

30. The existing lots were approved to allow any use that the NB Zone would permit and whatever structure would fit within the parameters of the PUD and NB Zone. There was not any detail provided on the type of structure or use which would be constructed on these NB lots. The applicant has now provided more detail on the type of structure that will be built and what uses will be targeted for the Town Center lots, which would consist of retail or offices on the ground floor with offices or dwelling units above. The number of dwellings units would need to comply with the base density requirements of the PUD, which are discussed later in this staff report.

31. There are currently 18 off-street parking spaces shown on the Town Center lots. The applicant is proposing that each dwelling unit that is constructed have one dedicated off-street parking space in these locations. In order to gauge the need for off-street parking for the buildings and uses constructed within the Town Center, the applicant is proposing 41 temporary parking spaces which are proposed to be constructed directly adjacent to

Rosemary Lane. Rosemary Lane is the north/south private street which provides rear access to the Town Center lots on the west side of Woodbury Drive.

32. The last area of proposed changes is located on Woodbury Drive directly south of the Town Center. Cottage Lane will now be extended across Woodbury Drive to connect to Rosemary Lane, which will separate the Town Center lots from the area being referred to as Woodbury Drive Townhomes, Recreation, and Cottages. The existing four lots in this area are proposed to be divided into four attached townhomes, a recreation lot where an indoor pickleball court would be constructed, and two attached cottages. The townhouses are proposed to be similar to the Central Park townhouse units which contain two to three bedrooms and will range from 2-3 stories in height. The applicant has provided 7 off-street parking spaces to serve the 4 townhouses being proposed in this area. The two cottages will be similar to the 24 ft by 24 ft cottages which are being proposed in Southwick Court and there will be 3 off-street parking spaces provided for the two cottages. The indoor pickleball court property has provided 4 public off-street parking spaces.

33. The minimum PUD base density of the R-2 Zone is 4.8 dwelling units per acre and the base density of the NB Zone is 24 dwelling units per acre. The proposed PUD has a density of 4.13 units per acre within the R-2 Zone, therefore no density bonuses are required. There is 1.18 acres of NB zoned land which equates to a base density of 28 dwelling units. The applicant has proposed 21 lots within the NB Zone, which are limited to a total of 28 dwelling units unless a density bonus is proposed as part of a future amendment.

34. The applicant has provided an on-street and off-street parking space count as part of their parking plan. On-street parking is provided on both sides of the Slonaker Drive and on one side of Woodbury Drive, Park Place, and Ashton Lane. The applicant has estimated the number of on-street parking spaces at 130 in this first phase. The public off-street parking spaces are proposed to be reduced to 17 from the 25 that were approved in the existing PUD. However, the applicant is proposing to construct 41 temporary parking spaces adjacent to Rosemary Lane in order to provide public parking for the Town Center lots, which will monitored for usage with the goal of increasing, sustaining, or reducing off-street parking in future phases. Staff is comfortable with this approach, as it will provide a gauge of the actual parking demand in the area and more off-street parking facilities could be recommended to be constructed in future phases of the development.

35. ADU's will remain permitted on all lots as long as setbacks can be met. Upon the Village, Cottage, and Estate lots, ADU's may be placed above a one, two, or three car garage or carport and have a maximum floor area of 750 square feet. On Garden lots the ADU may be placed above a garage or carport or be independent and have a maximum floor area of 1,200 square feet. The applicant is proposing that only ADUs over 600 square feet be required to provide 1 additional parking space on the lot.

36. The applicant is proposing to amend the setback requirements for the PUD in order to accommodate the range of different housing types. The cottage, garden, and estate lots are now proposed to have 5-foot setbacks on all sides. The lots within the NB Zone and also the small lots surrounding the NB Zone will have no setback requirements.

37. The primary point of access for the existing subdivision is Slonaker Drive. An emergency secondary access and construction entrance has been extended to the existing subdivision from Trail Road to the north. The secondary access road is constructed to an all-weather

driving surface width of 20 feet. Future phases of the entire development are planned to provide connections to Arborcrest Road, Trail Road, and Youmans Lane.

38. Slonaker Drive is a public local neighborhood street that connects to Lanny Lane which is designated as a collector and Mountain View Road which is designated as a minor arterial. Slonaker Drive is developed to a prior City street standard which is a 34-foot-wide paved section with two 10-foot travel lanes, curb, gutter, tree lawns, sidewalks and on-street parking on both sides of the street.

39. The only other public streets within the existing subdivision are Woodbury Drive and Ashton Lane. Woodbury Drive is constructed to the 28-foot paved street section with two 10-foot travel lanes, curb, gutter, tree lawns, and sidewalks on both sides of the street. On-street parking is located on only one side of the street and the tree lawn width has been reduced from 10 feet to 7 feet on Woodbury Drive.

40. Ashton Lane is currently proposed to be one-way and include a 5-foot sidewalk, 5-foot tree lawn, and curbing on both sides of the street. The roadway includes a 15-foot travel lane and an 8-foot parallel parking lane on one side. The applicant is proposing that Ashton Lane now be a private street and allow for two-way traffic with parking on one side of the street. The on-street parking would be accessed via a rolled curb and would be surfaced with compact gravel with street trees placed approximately 60 feet apart. The applicant has agreed to provide private catch basins at the south side of the street and slope the street to the south in order to alleviate concerns of gravel entering the City's stormwater system. Since the street would be private, the applicant would be responsible for all maintenance and snow removal.

41. The remainder of the streets within the existing subdivision are proposed to remain private streets which will be maintained by a homeowner association. The private street design includes a 16-foot paved roadway with 2-foot gravel shoulders on both sides of the street. The private streets provide primary vehicular access to many of the lots within the subdivision and also serve as emergency services access. The Fire Marshall has reviewed the private streets for sufficient access and the applicant has modeled the private street intersections for sufficient fire truck turning radiuses.

42. The only other change to the street network within Woodbury Subdivision is Woodbury Drive adjacent to the Town Center. To promote a more urban and walkable environment adjacent to the Town Center, the applicant is proposing that the street narrow down to two travel lanes with wide sidewalks on both sides of the street and trees within tree wells. The sidewalks would be 11.5 feet wide on the west side of the street and 9.5 feet on the east side. This street section would only apply to the portion of Woodbury Street adjacent to the Town Center.

43. The applicant had previously contracted with DKS Associates in Portland, Oregon, to conduct a traffic study of the impact of the proposed subdivision on existing roadways and primary intersections within the area. The intersections that were analyzed were the Mountain View Road/D Street intersection and the Mountain View Road/F Street intersection. The traffic impact study was conducted for the full buildout of the subdivision at an estimated 270 new single-family housing units. The traffic impact study concluded that the proposed subdivision is expected to result in minimal impacts to vehicle traffic conditions at the study intersections and meet City operating standards under all development scenarios. The study also concluded that no mitigations are needed to address potential project impacts to traffic conditions.

44. The City of Moscow Engineering Department has reviewed the traffic impact study and the proposed PUD amendment and determined that the additional lots will not have a significant impact on the level of service at the intersections that were analyzed. Mitigation along Mountain View Road for the full buildout of the subdivision was required upfront as part of the first phase of the development. Improvements to Mountain View Road including road widening, curb, gutter, tree lawns, sidewalks, and a left turn lane onto Slonaker Drive were constructed in 2024.

45. Water mains will continue to be extended throughout the subdivision from the existing main within Slonaker Drive and a temporary main connected to the main within Arborcrest. The City of Moscow Engineering Department has determined that the additional lots will have a negligible impact on domestic water demand in the area, however the addition of NB zoned lots with potential commercial uses may increase the fire flow demand in the subdivision. The water modeling report for the original plat was done prior to upgrades to the Ponderosa pump station and it recommended connecting to the main pressure zone in Slonaker as the Ponderosa station was insufficient to serve the development. After that water model analysis was completed, the City constructed a new pump station serving the Orchard Ave pressure zone and the Woodbury Addition was included in the potential service area of that pump station design. The developer has also constructed a connection to that pressure zone and installed a pressure reducing valve near the connection to the main pressure zone in Slonaker, expanding the Orchard Pressure Zone as intended in the new pump station design.

46. Flow tests of the system near the new commercial lots indicate an available fire flow of 3800 gpm. Fire Flow at that capacity should be sufficient to serve the majority of uses in the NB Zone. Any supply deficiencies for other uses can be mitigated by installing fire suppression systems in the building and/or constructing a building with a more fire-resistant building construction type.

47. Sanitary sewer is currently extended throughout the subdivision primarily within the public and private streets. Engineering has determined that the sanitary system as designed should be sufficient to serve the additional lots, however the additional demand will exacerbate the issue downstream of Slonaker and the planned Lanny Drive connection should be required with the next phase of the development.

48. Storm sewer has been piped and directed to a stormwater detention pond located at the southwest corner of the subdivision. The detention facilities of the proposed development will need to meet Moscow's Stormwater Runoff Control Standards which required the stormwater to be detained to the pre-development rate. Because of the increased density and subsequent increase in overall impervious area of the development, the Woodbury stormwater report will need to be revised and any necessary modifications to the existing detention pond will need to be completed with the next phase of the development.

49. The proposed subdivision falls under the requirements of the parkland dedication codes of the City. There is 10.98 acres of net developable area of platted R-2 Zoned property, which requires a 5% dedication. There is 0.72 acres of net developable area within the NB Zone which requires a 9% dedication. The total parkland dedication for the proposed subdivision is 26,746 sf or 0.61 acres. The applicant has previously submitted a letter proposing to defer the parkland dedication for phase 1 to phase 2 of the entire subdivision for a natural area comprised of 3.07 acres and a 1.14-acre area that totals 4.2 acres of open space that will include grading, a detention basin, and a ten-foot (10') wide gravel (pathway base) pathway

provided by the developer. It is anticipated the parkland dedication requirements for the entire subdivision would be approximately 2.3 acres +/-. Said 4.2 acres of parkland dedication, together with agreed upon improvements to the parkland property would satisfy all parkland dedication requirements for the entire Woodbury subdivision. The Council has previously approved the proposed deferral of the parkland dedication requirements for the subdivision and no changes are being proposed.

50. The applicant conducted two neighborhood meetings with affected property owners within 600 ft. of the subject property on January 15, 2025 and May 30, 2025 to discuss the proposal.

BASED ON THE ABOVE RELEVANT FACTS AND CONCLUSIONS, THE CITY COUNCIL OF THE CITY OF MOSCOW HEREBY FINDS THE FOLLOWING RELEVANT CRITERIA AND STANDARDS:

II. RELEVANT CRITERIA AND STANDARDS

1. **The proposed PUD is consistent with the Comprehensive Plan.** The proposed PUD amendment is consistent with the uses and densities designated within the 2019 Comprehensive Plan. The Suburban Commercial (SC) designation is intended to provide local and neighborhood commercial services in a manner that is compatible within a residential neighborhood environment. The Auto-Urban Residential (AU-R) designation provides low- to moderate-density residential uses at densities between three to six units per acre, which the proposed PUD meets. The proposed amendment also furthers a goal of the Comprehensive Plan to provide a mix of housing that meets the economic and lifestyle needs of the diverse population of Moscow. Therefore, the Council finds that the proposed PUD amendment is consistent with the Comprehensive Plan.
2. **The proposed PUD is consistent with the intents and purposes of this Chapter.** The proposed PUD amendment meets the intent of the PUD chapter to permit and encourage innovative, economical, and attractive development; which includes land uses which harmonize with natural features and constraints; which promotes efficient, innovative, economical, attractive, and environmentally sensitive development; and which efficiently phases and locates public and private services and facilities. The PUD is an innovative new urbanist themed development which utilizes public and private street to provide rear loaded garages, front porches, tree-lined streets, and a walkway system that will connect a number of small linear parks. The proposed PUD amendment introduces a wider range of building types which include townhouses, small lots, and small dwelling units. The purpose of the Neighborhood Business (NB) Zoning District is to provide commercial services which serve adjacent residential neighborhoods. The proposed amendment to create narrower NB lots will allow a mixture of different uses at the scale that is more developable.
3. **The proposed PUD is compatible with the character and uses in the surrounding area.** The proposed PUD amendment is consistent with the existing PUD and the surrounding area which is primarily a mixture of residential developments. The proposed PUD amendment provides for a range of lot sizes which are intended to provide a smooth transition from the existing neighborhoods at the edge of the proposed subdivision to the smaller lots near the Town Center.

4. **Public services and utilities are available or can be made available and are adequate to accommodate the proposed PUD.** The Engineering Department has indicated that water, sanitary sewer, and storm sewer systems are readily available in the area and can accommodate the proposed PUD amendment. Recent water pressure tests in the PUD indicate that the available fire flow is sufficient to serve the proposed amendment. The applicant will need to revise the existing Woodbury stormwater report and any necessary modifications to the existing detention pond will need to be completed with the next phase of the development. The Engineering Department has reviewed the previous Traffic Impact Study and determined that the additional lots won't have a significant impact on the Level of Service at the intersections that were analyzed. The improvements on Mountain View Road to mitigate the impact of the Woodbury Subdivision have already been constructed in 2024.

5. **The proposed PUD will not endanger the public health or safety.** There is no evidence that the proposed PUD amendment would have an impact on the public health and safety. The proposed PUD will help serve the need of providing a range of different housing types to meet the needs of a diverse population.

6. **The residential densities, proposed land uses, and design proposed within the PUD promote the innovative, efficient, economic and attractive development of the subject property.** The proposed PUD amendment expands on the original proposal of an innovative new urbanist themed master-planned community which utilizes public and private street to provide rear loaded garages, front porches, tree-lined streets, and a walkway system that will connect a number of small linear parks. The proposed combination of commercial and residential uses provides for a mixed-use area which promotes multi-modal transportation and walkability. The range of lot sizes and dwelling types accommodate the needs of a diverse population, while providing a transition from existing neighborhoods to the core of the development.

III. DECISION

Based on the above Reasoned Statement of Relevant Criteria, the City Council of the City of Moscow approves the Major Planned Unit Development (PUD) Amendment request for the Woodbury 1st Addition generally located north of Slonaker Drive, east of Arborcrest Road, and south of Trail Road with no conditions.

PASSED BY THE CITY COUNCIL OF THE CITY OF MOSCOW THIS 21st DAY OF JULY, 2025.

Arthur D. Bettge, Mayor

BEFORE THE CITY COUNCIL
OF THE CITY OF MOSCOW, COUNTY OF LATAH,
STATE OF IDAHO

REASONED STATEMENT OF RELEVANT CRITERIA AND STANDARDS

REASONED STATEMENT OF RELEVANT CRITERIA AND STANDARDS REGARDING A REQUEST FOR A PRELIMINARY SUBDIVISION REPLAT OF A TWELVE POINT TWO SEVEN (12.27) ACRE AREA GENERALLY LOCATED NORTH OF SLONAKER DRIVE, EAST OF ARBORCREST ROAD, AND SOUTH OF TRAIL ROAD, REFERRED TO AS THE REPLAT OF THE WOODBURY 1ST ADDITION TO THE CITY OF MOSCOW, IDAHO.

WHEREAS, the applicant filed an application for a Major Planned Unit Development (PUD) Amendment, and preliminary replat on May 21, 2025; and

WHEREAS, this matter came before the Moscow Planning and Zoning Commission during a duly noticed public hearing on June 25, 2025; and

WHEREAS, this matter came before the Moscow City Council during a duly noticed public hearing on July 21, 2025; and

WHEREAS, having reviewed the application, including all exhibits entered, and having considered the issues presented by the applicant and the opponents:

THE CITY COUNCIL OF THE CITY OF MOSCOW, IDAHO, AFTER DUE DELIBERATION AND CONSIDERATION, HEREBY CONCLUDES:

I. RELEVANT FACTS AND CONCLUSIONS

1. The City Council considered the request pursuant to the City of Moscow 2019 Comprehensive Plan, City of Moscow Zoning Ordinance, the Local Land Use Planning Act, and other applicable development regulations.

2. The subject property is a twelve point two seven 12.27-acre property generally located north of Slonaker Drive, east of Arborcrest Road, and south of Trail Road.

3. The subject property is surrounded by primarily agricultural land to the west, north, and east. Single family subdivisions within Moscow City Limits are located to the south and include Picabu Estates, Blackwood 1st Addition, and Evergreen Hills Subdivisions to the south.

4. On September 20, 2021, the Moscow City Council approved the annexation, Comprehensive Plan land use designation, zoning designation, and PUD for the Woodbury 1st Addition with no conditions. The Council approved the preliminary plat for the Woodbury 1st Addition with the following three conditions recommended by the Planning and Zoning Commission:

1. A left turn lane from eastbound Mountain View onto Slonaker Drive shall be evaluated by the applicant to determine whether a turn lane is warranted and if so, the applicant shall be responsible for the construction of said turn lane.
2. In order to mitigate the increases in vehicular and pedestrian traffic on Mountain View Road as detailed in the applicant's Traffic Impact Study (TIS), the applicant shall be responsible for fifty percent (50%) of the construction costs associated with the installation of curbing, sidewalk and roadway widening in order to connect the existing pedestrian/bicycle facilities near the intersection of Slonaker Drive and Mountain View Road with the pedestrian/bicycle facilities on Mountain View Road near the Hamilton-Lowe Aquatics Center. The proposed roadway improvements shall only occur on one side of the roadway, which shall be determined by the City of Moscow Engineering Department.
3. Access shall be restricted to the subject property from Slonaker Drive to emergency services access only until all required public infrastructure is completed in accordance with the approved development agreement.

5. Woodbury 1st Addition received final plat and final PUD approval from the City Council on October 17, 2022.
6. The development includes 79 lots ranging from 3,823 to 16,321 square feet in size and is the first phase of a master-planned subdivision that has a new urbanist design.
7. Slonaker Drive has been extended into the subdivision and the infrastructure for the first phase of the subdivision has been constructed which includes Woodbury Drive and Picotee Circle. There are currently approximately 15 single-family homes that are under various stages of construction. Per the conditions of approval, improvements to Mountain View Road including road widening, curb, gutter, tree lawns, sidewalks, and a left turn lane onto Slonaker Drive were constructed in 2024.
8. Within the 2019 Moscow Comprehensive Plan, the subject property is currently designated as a combination of Auto-Urban Residential and Suburban Commercial.
9. Auto-Urban Residential (AU-R) designated areas,

   "contain predominantly single-family detached homes on lots ranging from 7,000 to 11,000 square feet in size and are more isolated from surrounding uses which may require residents to rely more on automobile transportation. This designation includes those areas generally anticipated to be developed for low- to moderate-density residential uses at densities between three to six units per acre which could include a mix of detached single-family, twinhome, and townhome residential dwellings. Appropriate current zoning for Auto-Urban Residential designated areas includes Low Density Residential (R-1), Moderate Density Single Family Residential (R-2) and Medium Density Residential (R-3) in order to include a mixture of attached and detached dwellings where appropriate."

10. Suburban Commercial (SC) designated areas are,

    "intended to provide local and neighborhood commercial services in a manner that is compatible within a residential neighborhood environment. Lands appropriate for this designation include areas in close proximity to higher-density residential development

and intersections of designated collector or arterial streets near residential development. Developments within these designated areas should include additional building scale and design standards (e.g., roof shape and materials, building height, setbacks, lighting, signage, etc., coupled with increased buffer yard requirements would better ensure compatibility). Developments within Suburban Commercial designated areas should limit the floor area ratios and require greater landscaping. Suburban Commercial designated areas are most appropriately zoned Neighborhood Business (NB)."

11. The subject property is currently designated as a combination of the Moderate Density, Single Family Residential (R-2) Zone and the Neighborhood Business (NB) Zone.

12. The adjacent properties immediately to the west, north, and east are within Latah County and are currently designated as Agriculture/Forestry (AF). Properties to the west adjacent to Orchard Ave within the City Limits are a combination of the Suburban Residential (SR), Farm Ranch (FR), and Moderate Density, Single Family Residential (R-2) Zoning Districts. The Picabu Estates, Blackwood 1st Addition, and Evergreen Hills Subdivisions to the south and southwest are currently designated as Low Density, Single Family Residential (R-1).

13. According to the City of Moscow Zoning Code, the R-2 Zone is a moderate density residential zone appropriate where the following circumstances are present:

    1. Single family dwellings predominate.
    2. The terrain is not harshly irregular and smaller lot sizes can be accommodated without extensive earthwork.
    3. Utilities and other public facilities are adequate for the densities allowed.
    4. Existing lot development patterns and policies embodied in the Plan will also guide application of this zoning district.

14. Uses permitted within the R-2 Zone include single-family residential dwellings, market and community gardens, group childcare facilities, and public parks and recreational facilities.

15. The minimum lot size for lots within the R-2 Zone is 7,000 sf and the minimum lot width is 60 feet (50 feet for lots with alley access). Front yard setbacks are a minimum of 20 feet, side setbacks are a minimum of 5 feet but both sides must equal 15 feet, street side setbacks are 15 feet, and rear setbacks are 20 feet.

16. The NB Zoning District is appropriately applied in the following circumstances:

    1. Where local commercial facilities will serve the everyday needs of a limited neighborhood area;
    2. Where activity levels associated with small scale office development can be accommodated or tolerated by surrounding land uses and existing public services;
    3. Where a neighborhood core is identified which is easily accessible by pedestrian or vehicular circulation; and
    4. Where such commercial development will result in minimal interference with residential uses in the vicinity of the NB Zoning District.

17. Uses permitted within the NB Zone include residential uses above or behind a commercial use on the property, community and market gardens, fitness centers, veterinary services, professional offices, restaurants, coffee and espresso stands, childcare facilities, community/neighborhood centers, health care services, museums and art galleries, religious facilities, retail and personal services, off-street parking areas, and bed and breakfast inns.

18. The minimum lot size for single-family, two-family, and multi-family dwellings parcels within the NB Zone is 5,000 sf or 800 sf per dwelling unit, whichever is greater. Townhouse dwellings have a minimum lot size of 1,800 sf and twinhome dwellings require 2,250 square feet. The minimum lot width for single-family, two-family, and multi-family dwellings is 50 feet, 18 feet for townhouses, and 25 feet for twinhomes. Front yard setbacks are a minimum of 20 feet, side setbacks are a minimum of 10 feet, street side setbacks are 10 feet, and rear setbacks are 20 feet.

19. The existing Woodbury 1st Addition subdivision and PUD includes 79 lots ranging from 3,823 to 16,321 square feet in size and is the first phase of a master-planned subdivision that has a new urbanist design. The entire property that the owner wishes to develop is approximately 82 acres in size and extends from Slonaker Drive to the south, Arborcrest Road to the west, Trail Road to the north, and slightly to the east of Youmans Lane to the east. The entire concept is a master-planned community that includes a number of small neighborhoods that are linked by a combination of City and private streets. The community includes rear loaded garages, front porches, tree-lined streets, and a walkway system that will connect a number of small linear parks. Each home in the neighborhood is proposed to be unique, but also be of the same architectural style

20. There are four types of lots within the existing PUD: Village; Cottage; Garden; and Estate Lots. The Village lots are those that surround the Center Park and include the Neighborhood Business zoned lots. The Cottage lots are clustered in neighborhoods that surround the Village center. Garden lots are larger in size and surround the cottage neighborhoods. The Estate lots are the largest lots which are located on the perimeter of the development and are the only lots that don't have rear access via a private street.

21. The applicant has indicated that they wish to make some changes to the existing subdivision and PUD in order to construct houses which are more affordable. One way of doing that without affecting quality is to decrease the size of the lots, decrease the size of the dwellings which are constructed upon the lots, and allow for a variety of housing types. Therefore, the applicant is proposing a major PUD amendment to increase the number of lots from 79 to 107.

22. As part of the major PUD amendment, the applicant is proposing to replat a 12.27-acre portion of the existing Woodbury 1st Addition Subdivision which currently contains 52 lots. The replat proposal will increase the number of lots within the replat area to 81 lots, for a total of 107 in the entire subdivision.

23. Starting to the east with what is being referred to as Southwick Court, the proposal is to divide the existing four lots into nine lots which each contain one detached single-family dwelling. There are proposed to be three dwellings which are 1,152 sf in size and contain one bedroom and six dwellings which are 1,536 sf in size and contain three bedrooms. All of the dwellings in Southwick are proposed to be two stories in height and will surround a common parking area. Front setbacks are proposed to be 5 feet if facing Slonaker and 2 feet if facing the common walkway. Side and rear setbacks are proposed to be 5 feet, and there is proposed to be 10 feet of separation between dwellings.

24. Thirteen parking spaces are proposed which provides one parking space per dwelling and four additional spaces to be assigned. This equates to 1.5 parking spaces per dwelling unit, which would be a deviation from the current code requirements of 2 parking spaces per single

family dwelling. Given the proposed small size of the dwellings, the Council finds that the proposed requirement of 1.5 spaces per dwelling is adequate.

25. The next area of proposed changes is being referred to as The Willows and the proposal is to divide two existing lots into four lots. There is proposed to be one detached two-story dwelling of 1,152 sf in size containing one bedroom on each of the four lots. There is proposed to be 8 parking spaces which are accessed via Cottage Lane. This would allow for 2 parking spaces per dwelling unit.

26. The next area of the project where changes are being proposed is located between Cottage Lane and Park Place on a portion of the lots which surround the Central Park. This area is being referred to as the Central Park Townhomes and the proposal is to divide approximately 7 lots into 14 lots. There is proposed to be 8 larger townhouse units which each share a common wall with another dwelling unit. Each townhouse unit contains two to three bedrooms and will range from 2-3 stories in height. The 4 townhomes on the west side of the walkway have 4 small homes or what the applicant is referring to as "mews" which will face Cottage Lane.

27. The townhouses are approximately 2,160 sf in size and the "mews" are approximately 1,000 sf in size. The 4 townhomes and "mews" on the west side of the walkway will all have one off-street parking space, and these 8 lots are located within the Neighborhood Business (NB) Zone.

28. The 4 townhomes on the east side of the walking path have backyards with two car garages. Two additional "mews" are located along the walkway running from Cottage Lane to Park Place. The 2 "mews" will each have one parking space and the 4 townhouses each have 2-car garages.

29. The remainder of the Neighborhood Business (NB) zoned lots adjacent to Woodbury Drive are also proposed to be further divided from approximately 6 lots to 14 lots. The applicant is referring to this area of the development as the Town Center and has redesigned these wider lots into narrower storefront lots intended to resemble 1890's downtown facades with two to three story buildings which share common walls. The applicant has indicated that the division of the larger lots into smaller ones will allow for the buildings to be separated into fee simple ownership and less expensive to develop.

30. The existing lots were approved to allow any use that the NB Zone would permit and whatever structure would fit within the parameters of the PUD and NB Zone. There was not any detail provided on the type of structure or use which would be constructed on these NB lots. The applicant has now provided more detail on the type of structure that will be built and what uses will be targeted for the Town Center lots, which would consist of retail or offices on the ground floor with offices or dwelling units above. The number of dwellings units would need to comply with the base density requirements of the PUD, which are discussed later in this staff report.

31. There are currently 18 off-street parking spaces shown on the Town Center lots. The applicant is proposing that each dwelling unit that is constructed have one dedicated off-street parking space in these locations. In order to gauge the need for off-street parking for the buildings and uses constructed within the Town Center, the applicant is proposing 41 temporary parking spaces which are proposed to be constructed directly adjacent to

Rosemary Lane. Rosemary Lane is the north/south private street which provides rear access to the Town Center lots on the west side of Woodbury Drive.

32. The last area of proposed changes is located on Woodbury Drive directly south of the Town Center. Cottage Lane will now be extended across Woodbury Drive to connect to Rosemary Lane, which will separate the Town Center lots from the area being referred to as Woodbury Drive Townhomes, Recreation, and Cottages. The existing four lots in this area are proposed to be divided into four attached townhomes, a recreation lot where an indoor pickleball court would be constructed, and two attached cottages. The townhouses are proposed to be similar to the Central Park townhouse units which contain two to three bedrooms and will range from 2-3 stories in height. The applicant has provided 7 off-street parking spaces to serve the 4 townhouses being proposed in this area. The two cottages will be similar to the 24 ft by 24 ft cottages which are being proposed in Southwick Court and there will be 3 off-street parking spaces provided for the two cottages. The indoor pickleball court property has provided 4 public off-street parking spaces.

33. The minimum PUD base density of the R-2 Zone is 4.8 dwelling units per acre and the base density of the NB Zone is 24 dwelling units per acre. The proposed PUD has a density of 4.13 units per acre within the R-2 Zone, therefore no density bonuses are required. There is 1.18 acres of NB zoned land which equates to a base density of 28 dwelling units. The applicant has proposed 21 lots within the NB Zone, which are limited to a total of 28 dwelling units unless a density bonus is proposed as part of a future amendment.

34. The applicant has provided an on-street and off-street parking space count as part of their parking plan. On-street parking is provided on both sides of the Slonaker Drive and on one side of Woodbury Drive, Park Place, and Ashton Lane. The applicant has estimated the number of on-street parking spaces at 130 in this first phase. The public off-street parking spaces are proposed to be reduced to 17 from the 25 that were approved in the existing PUD. However, the applicant is proposing to construct 41 temporary parking spaces adjacent to Rosemary Lane in order to provide public parking for the Town Center lots, which will monitored for usage with the goal of increasing, sustaining, or reducing off-street parking in future phases. Staff is comfortable with this approach, as it will provide a gauge of the actual parking demand in the area and more off-street parking facilities could be recommended to be constructed in future phases of the development.

35. ADU's will remain permitted on all lots as long as setbacks can be met. Upon the Village, Cottage, and Estate lots, ADU's may be placed above a one, two, or three car garage or carport and have a maximum floor area of 750 square feet. On Garden lots the ADU may be placed above a garage or carport or be independent and have a maximum floor area of 1,200 square feet. The applicant is proposing that only ADUs over 600 square feet be required to provide 1 additional parking space on the lot.

36. The applicant is proposing to amend the setback requirements for the PUD in order to accommodate the range of different housing types. The cottage, garden, and estate lots are now proposed to have 5-foot setbacks on all sides. The lots within the NB Zone and also the small lots surrounding the NB Zone will have no setback requirements.

37. The primary point of access for the existing subdivision is Slonaker Drive. An emergency secondary access and construction entrance has been extended to the existing subdivision from Trail Road to the north. The secondary access road is constructed to an all-weather

driving surface width of 20 feet. Future phases of the entire development are planned to provide connections to Arborcrest Road, Trail Road, and Youmans Lane.

38. Slonaker Drive is a public local neighborhood street that connects to Lanny Lane which is designated as a collector and Mountain View Road which is designated as a minor arterial. Slonaker Drive is developed to a prior City street standard which is a 34-foot-wide paved section with two 10-foot travel lanes, curb, gutter, tree lawns, sidewalks and on-street parking on both sides of the street.

39. The only other public streets within the existing subdivision are Woodbury Drive and Ashton Lane. Woodbury Drive is constructed to the 28-foot paved street section with two 10-foot travel lanes, curb, gutter, tree lawns, and sidewalks on both sides of the street. On-street parking is located on only one side of the street and the tree lawn width has been reduced from 10 feet to 7 feet on Woodbury Drive.

40. Ashton Lane is currently proposed to be one-way and include a 5-foot sidewalk, 5-foot tree lawn, and curbing on both sides of the street. The roadway includes a 15-foot travel lane and an 8-foot parallel parking lane on one side. The applicant is proposing that Ashton Lane now be a private street and allow for two-way traffic with parking on one side of the street. The on-street parking would be accessed via a rolled curb and would be surfaced with compact gravel with street trees placed approximately 60 feet apart. The applicant has agreed to provide private catch basins at the south side of the street and slope the street to the south in order to alleviate concerns of gravel entering the City's stormwater system. Since the street would be private, the applicant would be responsible for all maintenance and snow removal.

41. The remainder of the streets within the existing subdivision are proposed to remain private streets which will be maintained by a homeowner association. The private street design includes a 16-foot paved roadway with 2-foot gravel shoulders on both sides of the street. The private streets provide primary vehicular access to many of the lots within the subdivision and also serve as emergency services access. The Fire Marshall has reviewed the private streets for sufficient access and the applicant has modeled the private street intersections for sufficient fire truck turning radiuses.

42. The only other change to the street network within Woodbury Subdivision is Woodbury Drive adjacent to the Town Center. To promote a more urban and walkable environment adjacent to the Town Center, the applicant is proposing that the street narrow down to two travel lanes with wide sidewalks on both sides of the street and trees within tree wells. The sidewalks would be 11.5 feet wide on the west side of the street and 9.5 feet on the east side. This street section would only apply to the portion of Woodbury Street adjacent to the Town Center.

43. The applicant had previously contracted with DKS Associates in Portland, Oregon, to conduct a traffic study of the impact of the proposed subdivision on existing roadways and primary intersections within the area. The intersections that were analyzed were the Mountain View Road/D Street intersection and the Mountain View Road/F Street intersection. The traffic impact study was conducted for the full buildout of the subdivision at an estimated 270 new single-family housing units. The traffic impact study concluded that the proposed subdivision is expected to result in minimal impacts to vehicle traffic conditions at the study intersections and meet City operating standards under all development scenarios. The study also concluded that no mitigations are needed to address potential project impacts to traffic conditions.

44. The City of Moscow Engineering Department has reviewed the existing traffic impact study and the proposed PUD amendment and determined that the additional lots will not have a significant impact on the level of service at the intersections that were analyzed. Mitigation along Mountain View Road for the full buildout of the subdivision was required upfront as part of the first phase of the development. Improvements to Mountain View Road including road widening, curb, gutter, tree lawns, sidewalks, and a left turn lane onto Slonaker Drive were constructed in 2024.

45. Water mains will continue to be extended throughout the subdivision from the existing main within Slonaker Drive and a temporary main connected to the main within Arborcrest. The City of Moscow Engineering Department has determined that the additional lots will have a negligible impact on domestic water demand in the area, however the addition of NB zoned lots with potential commercial uses may increase the fire flow demand in the subdivision. The water modeling report for the original plat was done prior to upgrades to the Ponderosa pump station and it recommended connecting to the main pressure zone in Slonaker as the Ponderosa station was insufficient to serve the development. After that water model analysis was completed, the City constructed a new pump station serving the Orchard Ave pressure zone and the Woodbury Addition was included in the potential service area of that pump station design. The developer has also constructed a connection to that pressure zone and installed a pressure reducing valve near the connection to the main pressure zone in Slonaker, expanding the Orchard Pressure Zone as intended in the new pump station design.

46. Flow tests of the system near the new commercial lots indicate an available fire flow of 3800 gpm. Fire Flow at that capacity should be sufficient to serve the majority of uses in the NB Zone. Any supply deficiencies for other uses can be mitigated by installing fire suppression systems in the building and/or constructing a building with a more fire-resistant building construction type.

47. Sanitary sewer is currently extended throughout the subdivision primarily within the public and private streets. Engineering has determined that the sanitary system as designed should be sufficient to serve the additional lots, however the additional demand will exacerbate the issue downstream of Slonaker and the planned Lanny Drive connection should be required with the next phase of the development.

48. Storm sewer has been piped and directed to a stormwater detention pond located at the southwest corner of the subdivision. The detention facilities of the proposed development will need to meet Moscow's Stormwater Runoff Control Standards which required the stormwater to be detained to the pre-development rate. Because of the increased density and subsequent increase in overall impervious area of the development, the Woodbury stormwater report will need to be revised and any necessary modifications to the existing detention pond will need to be completed with the next phase of the development.

49. The proposed subdivision falls under the requirements of the parkland dedication codes of the City. There is 10.98 acres of net developable area of platted R-2 Zoned property, which requires a 5% dedication. There is 0.72 acres of net developable area within the NB Zone which requires a 9% dedication. The total parkland dedication for the proposed subdivision is 26,746 sf or 0.61 acres. The applicant has previously submitted a letter proposing to defer the parkland dedication for phase 1 to phase 2 of the entire subdivision for a natural area comprised of 3.07 acres and a 1.14-acre area that totals 4.2 acres of open space that will include grading, a detention basin, and a ten-foot (10') wide gravel (pathway base) pathway

provided by the developer. It is anticipated the parkland dedication requirements for the entire subdivision would be approximately 2.3 acres +/-. Said 4.2 acres of parkland dedication, together with agreed upon improvements to the parkland property would satisfy all parkland dedication requirements for the entire Woodbury subdivision. The Council has previously approved the proposed deferral of the parkland dedication requirements for the subdivision and no changes are being proposed.

50. The applicant conducted two neighborhood meetings with affected property owners within 600 ft. of the subject property on January 15, 2025 and May 30, 2025 to discuss the proposal.

BASED ON THE ABOVE RELEVANT FACTS AND CONCLUSIONS, THE CITY COUNCIL OF THE CITY OF MOSCOW HEREBY FINDS THE FOLLOWING RELEVANT CRITERIA AND STANDARDS:

II. RELEVANT CRITERIA AND STANDARDS

1. **The proposed subdivision is in conformance with all applicable City Code requirements.** The proposed preliminary plat is consistent with and in conformance with the requirements and provisions of the Single Family, Moderate Density Residential (R-2) and the Neighborhood Business (NB) Zoning Districts, including lot area, dimensions and other relevant provisions. The applicant is concurrently going through the Major Planned Unit Development (PUD) Amendment process for all deviations in City Code requirements. The proposed preliminary replat is also in conformance with the general requirements of the Moscow Subdivision Ordinance including, but not limited to, the provision of the logical and orderly connection to the City's street network, public utilities, and the provision of public parkland.
2. **The proposed subdivision is in general conformance with the Comprehensive Plan.** The proposed preliminary plat is consistent with the City of Moscow Comprehensive Plan and provides for the logical and orderly development and extension of the City's street system. The extension of Slonaker Drive is consistent with the Thoroughfare Plan. The proposed lots sizes and densities are consistent with the proposed Comprehensive Plan Land Use designations of Auto-Urban Residential and Suburban Commercial.
3. **Public Services and utilities are available or can be made available and are adequate to accommodate the proposed subdivision.** The subject property has direct access to Slonaker Drive which is a local neighborhood street that connects to Lanny Lane which is designated as a collector and Mountain View Road which is designated as a minor arterial. The Engineering Department has indicated that water, sanitary sewer, and storm sewer systems are readily available in the area and can accommodate the proposed replat. Recent water pressure tests in the Woodbury 1st Addition Subdivision indicate that the available fire flow is sufficient to serve the proposed replat. The applicant will need to revise the existing Woodbury stormwater report and any necessary modifications to the existing detention pond will need to be completed with the next phase of the development. The Engineering Department has reviewed the previous Traffic Impact Study and determined that the additional lots won't have a significant impact on the Level of Service at the

intersections that were analyzed. The improvements on Mountain View Road to mitigate the impact of the Woodbury Subdivision have already been constructed in 2024

4. **The proposed subdivision will not be detrimental to the public health, safety, or general welfare.** There is no evidence that the proposed replat will have an impact on the public health and safety. The proposed replat will help serve the need for providing a range of different housing types to meet the needs of a diverse population.

III. DECISION

Based on the above Reasoned Statement of Relevant Criteria, the City Council of the City of Moscow approves the preliminary replat request for the twelve point two seven (12.27) acre property generally located north of Slonaker Drive, east of Arborcrest Road, and south of Trail Road with one condition:

1. The applicant shall be required to update the existing stormwater report for the Woodbury 1st Addition subdivision and include any mitigation actions necessary to ensure that the stormwater facilities will have no downstream adverse impacts subject to the approval of the City Engineer.

PASSED BY THE CITY COUNCIL OF THE CITY OF MOSCOW THIS 21st DAY OF JULY, 2025.

Arthur D. Bettge, Mayor

COMMUNITY DEVELOPMENT DEPARTMENT
STAFF REPORT

HEARING DATE: July 21, 2025

GENERAL INFORMATION

Hearing Body: City Council

Subject: Proposal for a Major Planned Unit Development (PUD) Amendment and a Preliminary Subdivision Replat of the Woodbury Subdivision, Generally Located North of Slonaker Drive, East of Arborcrest Road, and South of Trail Road within the City of Moscow. Permit Applications LUP2025-0015 and LUP2025-0016.

Attachments:

1. Notice of Public Hearing
2. Legal Descriptions
3. Planned Unit Development Application
4. Planned Unit Development Materials
5. Preliminary Plat Application
6. Preliminary Plat
7. Neighborhood Meeting Materials
8. Previously Approved Materials

Prepared by: Mike Ray, AICP – Planning Manager

STAFF REVIEW

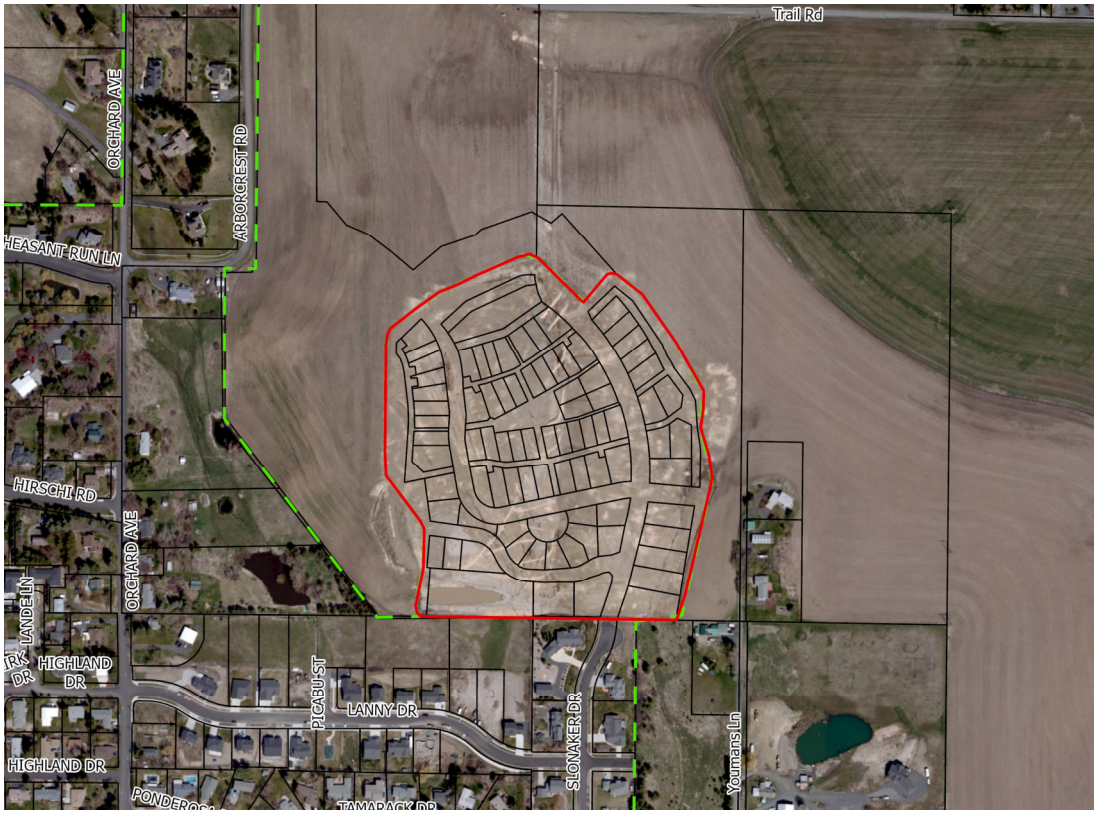
Proposal: The applicant, Wintz Company, LLC, is proposing a Major Planned Unit Development (PUD) Amendment of the existing 21.73-acre Woodbury 1st Addition Subdivision to increase the number of lots from 79 to 107, ranging from 715 square feet to 22,215 square feet in size. Also included in the proposal is the proposed Preliminary Replat of a 12.27-acre portion of the existing Woodbury 1st Addition Subdivision to create 81 lots from the existing 52 lots. The proposed lots range from 715 square feet to 8,339 square feet in size and the proposal is referred to as the Woodbury 1st Addition Replat. The proposed Replat would increase the total number of lots in the Woodbury 1st Addition Subdivision from 79 to 107.

Background: On September 20, 2021, the Moscow City Council approved the annexation, Comprehensive Plan land use designation, zoning designation, and PUD for the Woodbury 1st Addition with no conditions. The Council approved the preliminary plat for the Woodbury 1st Addition with the following three conditions recommended by the Planning and Zoning Commission:

1. A left turn lane from eastbound Mountain View onto Slonaker Drive shall be evaluated by the applicant to determine whether a turn lane is warranted and if so, the applicant shall be responsible for the construction of said turn lane.
2. In order to mitigate the increases in vehicular and pedestrian traffic on Mountain View Road as detailed in the applicant's Traffic Impact Study (TIS), the applicant shall be responsible for fifty percent (50%) of the construction costs associated with the installation of curbing, sidewalk and roadway widening in order to connect the existing pedestrian/bicycle facilities near the intersection of Slonaker Drive and Mountain View Road with the pedestrian/bicycle facilities on Mountain View Road near the Hamilton-Lowe Aquatics Center. The proposed roadway improvements shall only occur on one side of the roadway, which shall be determined by the City of Moscow Engineering Department.
3. Access shall be restricted to the subject property from Slonaker Drive to emergency services access only until all required public infrastructure is completed in accordance with the approved development agreement.

Woodbury 1st Addition received final plat and final PUD approval from the City Council on October 17, 2022. The development includes 79 lots ranging from 3,823 to 16,321 square feet in size and is the first phase of a master-planned subdivision that has a new urbanist design. Slonaker Drive has been extended into the subdivision and the infrastructure for the first phase of the subdivision has been constructed which includes Woodbury Drive and Picotee Circle. There are currently approximately 15 single-family homes that are under various stages of construction. Per the conditions of approval, improvements to Mountain View Road including road widening, curb, gutter, tree lawns, sidewalks, and a left turn lane onto Slonaker Drive were constructed in 2024.

Site and Area Land Use: The subject property is surrounded by primarily agricultural land to the west, north, and east. Single family subdivisions within Moscow City Limits are located to the south and include Picabu Estates, Blackwood 1st Addition, and Evergreen Hills Subdivisions to the south.



Vicinity Map

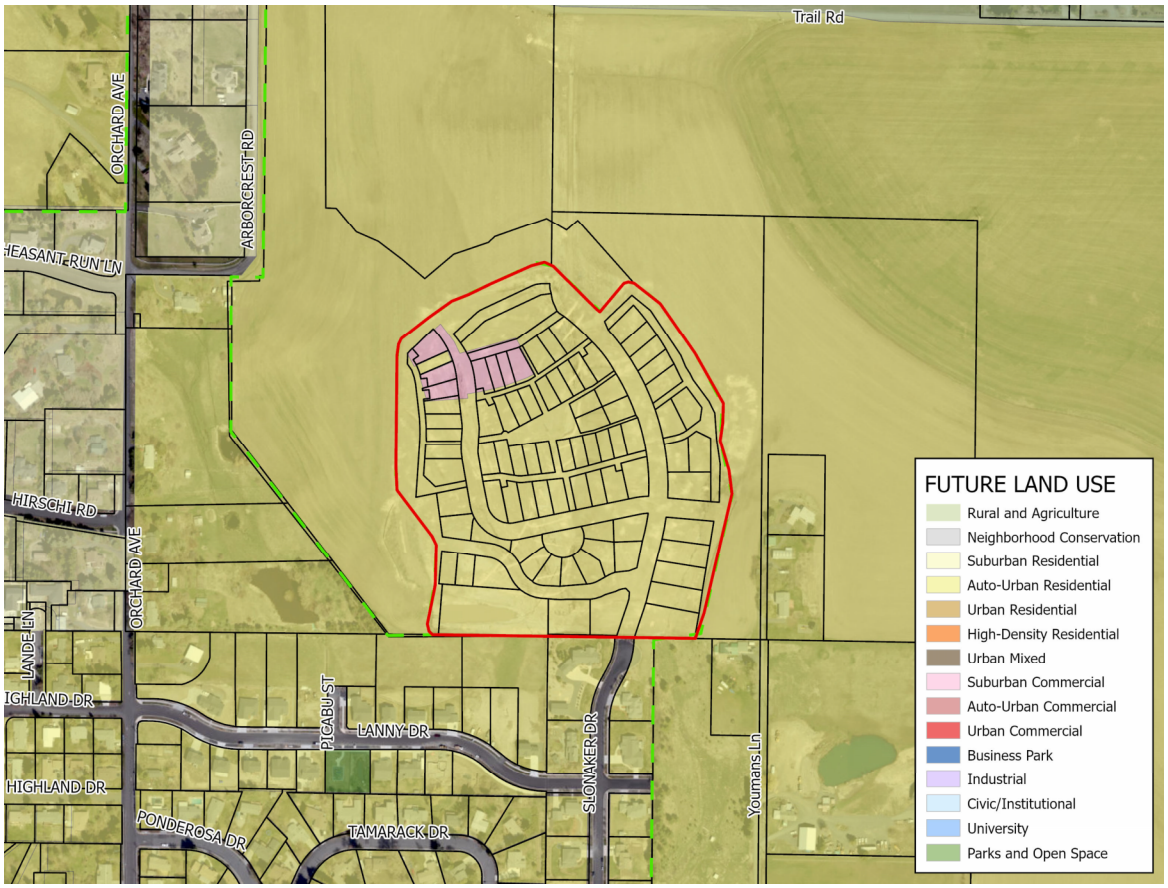
Aerial of Subject Property

Comprehensive Plan: Within the 2019 Moscow Comprehensive Plan, the subject property is currently designated as a combination of Auto-Urban Residential and Suburban Commercial. According to the 2019 Comprehensive Plan, Auto-Urban Residential designated areas are intended to,

> *"contain predominantly single-family detached homes on lots ranging from 7,000 to 11,000 square feet in size and are more isolated from surrounding uses which may require residents to rely more on automobile transportation. This designation includes those areas generally anticipated to be developed for low- to moderate-density residential uses at densities between three to six units per acre which could include a mix of detached single-family, twinhome, and townhome residential dwellings. Appropriate current zoning for Auto-Urban Residential designated areas include Low Density Residential (R-1), Moderate Density Single Family Residential (R-2) and Medium Density Residential (R-3) in order to include a mixture of attached and detached dwellings where appropriate."*

Suburban Commercial designated areas are intended to,

> *"provide local and neighborhood commercial services in a manner that is compatible within a residential neighborhood environment. Lands appropriate for this designation include areas in close proximity to higher-density residential development and intersections of designated collector or arterial streets near residential development. Developments within these designated areas should include additional building scale and design standards (e.g., roof shape and materials, building height, setbacks, lighting, signage, etc., coupled with increased buffer yard requirements would better ensure compatibility). Developments within Suburban Commercial designated areas should limit the floor area ratios and require greater landscaping. Suburban Commercial designated areas are most appropriately zoned Neighborhood Business (NB)."*



Current Comprehensive Plan Land Use Designations

Zoning: The subject property is currently designated as a combination of the Moderate Density, Single Family Residential (R-2) Zone and the Neighborhood Business (NB) Zone. The adjacent properties immediately to the west, north, and east are within Latah County and are currently designated as Agriculture/Forestry (AF). Properties to the west adjacent to Orchard Ave within the City Limits are a combination of the Suburban Residential (SR), Farm Ranch (FR), and Moderate Density, Single Family Residential (R-2) Zoning Districts. The Picabu Estates, Blackwood 1st Addition, and Evergreen Hills Subdivisions to the south and southwest are currently designated as Low Density, Single Family Residential (R-1).

According to the City of Moscow Zoning Code, the R-2 Zone is a moderate density residential zone appropriate where the following circumstances are present:

1. Single family dwellings predominate.
2. The terrain is not harshly irregular and smaller lot sizes can be accommodated without extensive earthwork.
3. Utilities and other public facilities are adequate for the densities allowed.
4. Existing lot development patterns and policies embodied in the Plan will also guide application of this zoning district.

Uses permitted within the R-2 Zone include single-family residential dwellings, market and community gardens, group child care facilities, and public parks and recreational facilities.

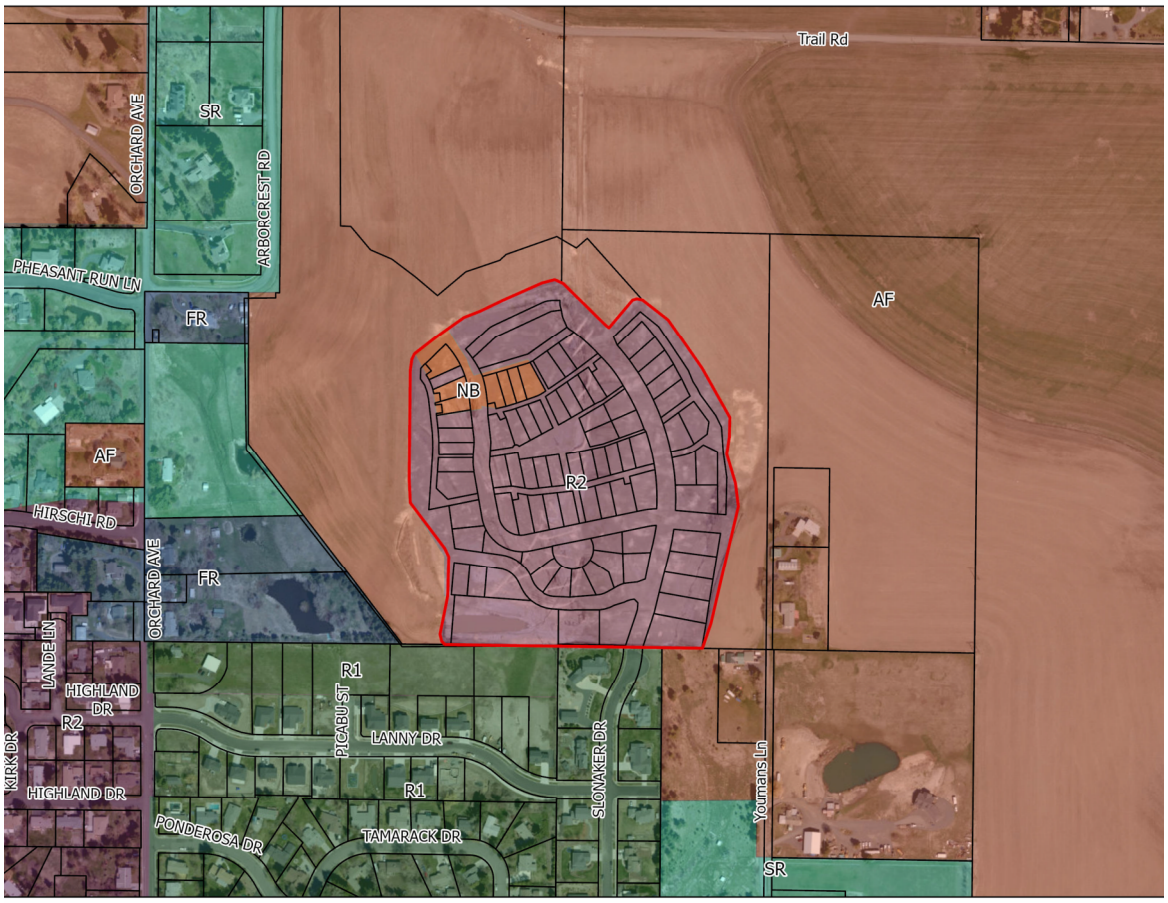
The minimum lot size for lots within the R-2 Zone is 7,000 sf and the minimum lot width is 60 feet (50 feet for lots with alley access). Front yard setbacks are a minimum of 20 feet, side setbacks are a minimum of 5 feet but both sides must equal 15 feet, street side setbacks are 15 feet, and rear setbacks are 20 feet. Maximum building height within the R-2 Zone is 35 feet.

The NB Zoning District is appropriately applied in the following circumstances:

1. Where local commercial facilities will serve the everyday needs of a limited neighborhood area;
2. Where activity levels associated with small scale office development can be accommodated or tolerated by surrounding land uses and existing public services;
3. Where a neighborhood core is identified which is easily accessible by pedestrian or vehicular circulation; and
4. Where such commercial development will result in minimal interference with residential uses in the vicinity of the NB Zoning District.

Uses permitted within the NB Zone include residential uses above or behind a commercial use on the property, community and market gardens, fitness centers, veterinary services, professional offices, restaurants, coffee and espresso stands, child care facilities, community/neighborhood centers, health care services, museums and art galleries, religious facilities, retail and personal services, off-street parking areas, and bed and breakfast inns.

The minimum lot size for single-family, two-family, and multi-family dwellings parcels within the NB Zone is 5,000 sf or 800 sf per dwelling unit, whichever is greater. Townhouse dwellings have a minimum lot size of 1,800 sf and twinhome dwellings require 2,250 square feet. The minimum lot width for single-family, two-family, and multi-family dwellings is 50 feet, 18 feet for townhouses, and 25 feet for twinhomes. Front yard setbacks are a minimum of 20 feet, side setbacks are a minimum of 10 feet, street side setbacks are 10 feet, and rear setbacks are 20 feet. Maximum building height within the NB Zone is 40 feet.



Existing Zoning

Preliminary Plat and PUD: The existing Woodbury 1st Addition subdivision and PUD includes 79 lots ranging from 3,823 to 16,321 square feet in size and is the first phase of a master-planned subdivision that has a new urbanist design. The entire property that the owner wishes to develop is approximately 82 acres in size and extends from Slonaker Drive to the south, Arborcrest Road to the west, Trail Road to the north, and slightly to the east of Youmans Lane to the east. The entire concept is a master-planned community that includes a number of small neighborhoods that are linked by a combination of City and private streets. The community includes rear loaded garages, front porches, tree-lined streets, and a walkway system that will connect a number of small linear parks. Each home in the neighborhood is proposed to be unique, but also be of the same architectural style.

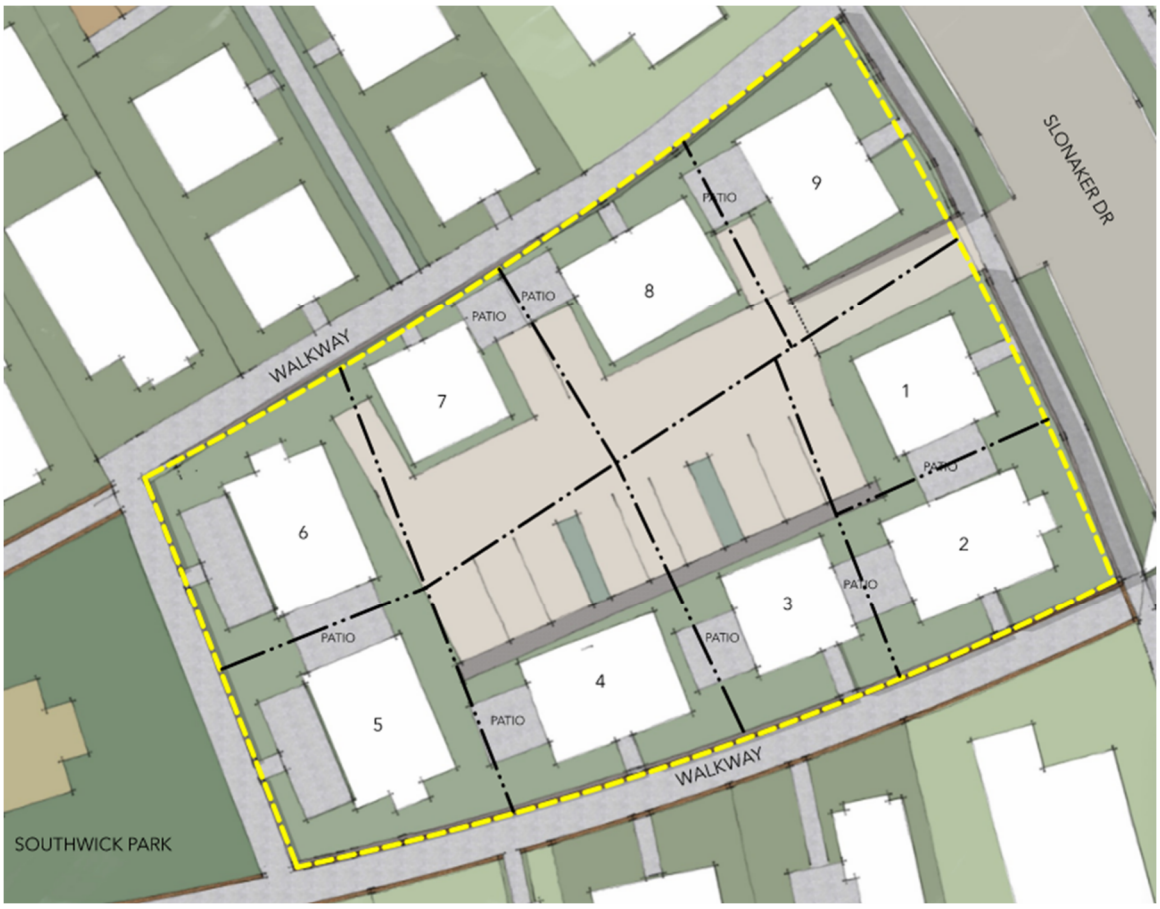
There are four types of lots within the existing PUD: Village; Cottage; Garden; and Estate Lots. The Village lots are those that surround the Center Park and include the Neighborhood Business zoned lots. The Cottage lots are clustered in neighborhoods that surround the Village center. Garden lots are larger in size and surround the cottage neighborhoods. The Estate lots are the largest lots which are located on the perimeter of the development and are the only lots that don't have rear access via a private street. The applicant has previously submitted a table which details specific requirements for the four

lot types. Average lot sizes, average lot widths, setback requirements, and sample building plans are all included within the current PUD materials.

The applicant has indicated that they wish to make some changes to the existing subdivision and PUD in order to construct houses which are more affordable. One way of doing that without affecting quality is to decrease the size of the lots, decrease the size of the dwellings which are constructed upon the lots, and allow for a variety of housing types. Therefore, the applicant is proposing a major PUD amendment to increase the number of lots from 79 to 107. As part of the major PUD amendment, the applicant is proposing to replat a 12.27-acre portion of the existing Woodbury 1st Addition Subdivision which currently contains 52 lots. The replat proposal will increase the number of lots within the replat area to 81 lots, for a total of 107 in the entire subdivision.

The areas of the existing PUD where changes are being proposed are primarily near the core of the development surrounding the central park area. The map above shows the various areas all shaded in different colors. Starting to the east with what is being referred to as Southwick Court, the proposal is to divide the existing four lots into nine lots which each contain one detached single family dwelling. There are proposed to be three dwellings which are 1,152 sf in size and contain one bedroom and six dwellings which are 1,536 sf in size and contain three bedrooms. All of the dwellings in Southwick are proposed to be two stories in height and will surround a common parking area. Front setbacks are proposed to be 5 feet if facing Slonaker and 2 feet if facing the common walkway. Side and rear setbacks are proposed to be 5 feet, and there is proposed to be 10 feet of separation between dwellings. Thirteen parking spaces are proposed which provides one parking space per dwelling and four additional spaces to be assigned. This equates to 1.5 parking spaces per

dwelling unit, which would be a deviation from the current code requirements of 2 parking spaces per single family dwelling. Given the proposed small size of the dwellings, staff would support the proposed requirement of 1.5 spaces per dwelling.



Southwick Court

The next area of proposed changes is being referred to as The Willows and the proposal is to divide two existing lots into four lots. There is proposed to be one detached two-story dwelling of 1,152 sf in size containing one bedroom on each of the four lots. There is proposed to be 8 parking spaces which are accessed via Cottage Lane. This would allow for 2 parking spaces per dwelling unit.

The Willows

The next area of the project where changes are being proposed is located between Cottage Lane and Park Place on a portion of the lots which surround the Central Park. This area is being referred to as the Central Park Townhomes and the proposal is to divide approximately 7 lots into 14 lots. There is proposed to be 8 larger townhouse units which each share a common wall with another dwelling unit. Essentially these eight townhouses are four twinhomes per the current definitions in the Zoning Code, but are being referred to as townhouses. Each townhouse unit contains two to three bedrooms and will range from 2-3 stories in height. The 4 townhomes on the west side of the walkway have 4 small homes or what the applicant is referring to as "mews" which will face Cottage Lane. The townhouses are approximately 2,160 sf in size and the "mews" are approximately 1,000 sf in size. The 4 townhomes and "mews" on the west side of the walkway will all have one off-street parking space and these 8 lots are located within the Neighborhood Business (NB) Zone.

The 4 townhomes on the east side of the walking path have backyards with two car garages. Two additional "mews" are located along the walkway running from Cottage Lane to Park

Place. The 2 “mews” will each have one parking space and the 4 townhouses each have 2-car garages.

Central Park Townhomes

The remainder of the Neighborhood Business (NB) zoned lots adjacent to Woodbury Drive are also proposed to be further divided from approximately 6 lots to 14 lots. The applicant is referring to this area of the development as the Town Center and has redesigned these wider lots into narrower storefront lots intended to resemble 1890’s downtown facades with two to three story buildings which share common walls. The applicant has indicated that the division of the larger lots into smaller ones will allow for the buildings to be separated into fee simple ownership and less expensive to develop. The existing lots were approved to allow any use that the NB Zone would permit and whatever structure would fit within the parameters of the PUD and NB Zone. There was not any detail provided on the type of structure or use which would be constructed on these NB lots. The applicant has now provided more detail on the type of structure that will be built and what uses will be targeted for the Town Center lots, which would consist of retail or offices on the ground floor with offices or dwelling units above. The number of dwellings units would need to comply with the base density requirements of the PUD, which are discussed later in this staff report.

There are currently 18 off-street parking spaces shown on the Town Center lots. The applicant is proposing that each dwelling unit that is constructed have one dedicated off-street parking space in these locations. In order to gauge the need for off-street parking for the buildings and uses constructed within the Town Center, the applicant is proposing 41 temporary parking spaces which are proposed to be constructed directly adjacent to

Rosemary Lane. Rosemary Lane is the north/south private street which provides rear access to the Town Center lots on the west side of Woodbury Drive.

Town Center

The last area of proposed changes is located on Woodbury Drive directly south of the Town Center. Cottage Lane will now be extended across Woodbury Drive to connect to Rosemary Lane, which will separate the Town Center lots from the area being referred to as Woodbury Drive Townhomes, Recreation, and Cottages. The existing four lots in this area are proposed to be divided into four attached townhomes, a recreation lot where an indoor pickleball court would be constructed, and two attached cottages. The townhouses are proposed to be similar to the Central Park townhouse units which contain two to three bedrooms and will range from 2-3 stories in height. The applicant has provided 7 off-street parking spaces to serve the 4 townhouses being proposed in this area. The two cottages will be similar to the 24 ft by 24 ft cottages which are being proposed in Southwick Court and there will be 3 off-street parking spaces provided for the two cottages. The indoor pickleball court property has provided 4 public off-street parking spaces.

Encroachments

The applicant is not proposing any change to the existing allowance of architectural projections such as bay windows, porches, and eaves which are able to encroach 3 feet into the front and street side setbacks.

Fencing

The applicant is not proposing any changes to the existing fencing regulations. Fences located in the front yard shall be allowed up to 42 inches in height and set back 18 inches from the sidewalk. Hedges in the front setback shall not exceed 48 inches in height and the fences and walls shall be consistent with the architectural style of the house.

Rear and side yard fences are encouraged for privacy and shall not exceed 6 feet in height. Fencing over 48 inches shall be required to have 50% opacity which can be softened with vines and plantings. Gates and arbors are permitted and hedges on the side and rear of the lot are unrestricted.

PUD Base Density

The minimum PUD base density of the R-2 Zone is 4.8 dwelling units per acre and the base density of the NB Zone is 24 dwelling units per acre. The proposed PUD has a density of 4.13 units per acre within the R-2 Zone, therefore no density bonuses are required. There

is 1.18 acres of NB zoned land which equates to a base density of 28 dwelling units. The applicant has proposed 21 lots within the NB Zone, which are limited to a total of 28 dwelling units unless a density bonus is proposed as part of a future amendment.

Parking

The applicant has provided an on-street and off-street parking space count as part of their parking plan. On-street parking is provided on both sides of the Slonaker Drive and on one side of Woodbury Drive, Park Place, and Ashton Lane. The applicant has estimated the number of on-street parking spaces at 130 in this first phase. The public off-street parking spaces are proposed to be reduced to 17 from the 25 that were approved in the existing PUD. However, the applicant is proposing to construct 41 temporary parking spaces adjacent to Rosemary Lane in order to provide public parking for the Town Center lots, which will monitored for usage with the goal of increasing, sustaining, or reducing off-street parking in future phases. Staff is comfortable with this approach, as it will provide a gauge of the actual parking demand in the area and more off-street parking facilities could be recommended to be constructed in future phases of the development.

Accessory Dwelling Units (ADU's)

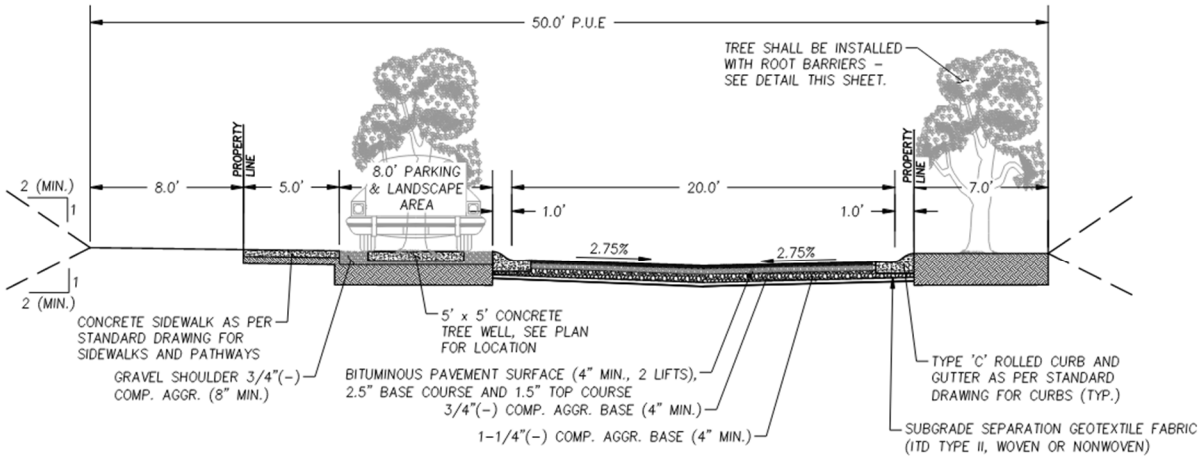
ADU's will remain permitted on all lots as long as setbacks can be met. Upon the Village, Cottage, and Estate lots, ADU's may be placed above a one, two, or three car garage or carport and have a maximum floor area of 750 square feet. On Garden lots the ADU may be placed above a garage or carport, or be independent and have a maximum floor area of 1,200 square feet.

Access, Streets, Traffic: The primary point of access for the existing subdivision is Slonaker Drive. An emergency secondary access and construction entrance has been extended to the existing subdivision from Trail Road to the north. The secondary access road is constructed to an all-weather driving surface width of 20 feet. Future phases of the entire development are planned to provide connections to Arborcrest Road, Trail Road, and Youmans Lane.

Slonaker Drive is a public local neighborhood street that connects to Lanny Lane which is designated as a collector and Mountain View Road which is designated as a minor arterial. Slonaker Drive is developed to a prior City street standard which is a 34-foot-wide paved section with two 10-foot travel lanes, curb, gutter, tree lawns, sidewalks and on-street parking on both sides of the street. The older street section on Slonaker Drive has been extended through the existing subdivision, except for the tree lawn width which was reduced from 8.5 feet to 7 feet.

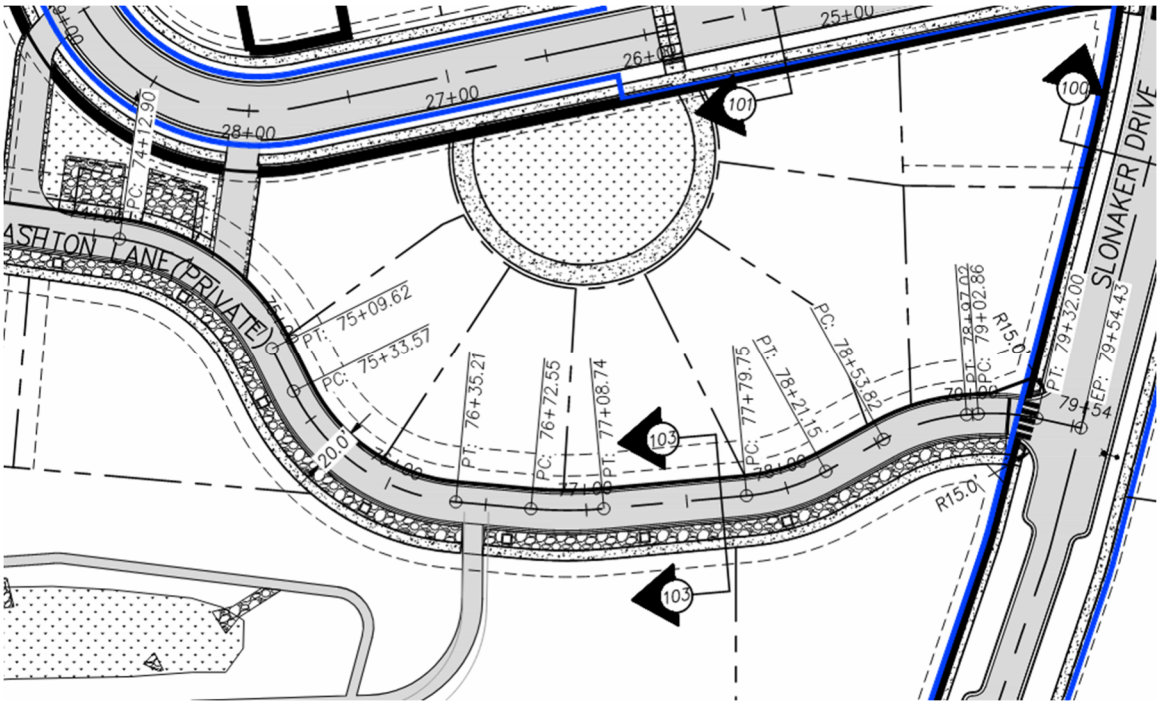
The only other public streets within the existing subdivision are Woodbury Drive and Ashton Lane. Woodbury Drive is constructed to the 28-foot paved street section with two 10-foot travel lanes, curb, gutter, tree lawns, and sidewalks on both sides of the street. On-street parking is located on only one side of the street and the tree lawn width has been reduced from 10 feet to 7 feet on Woodbury Drive. Ashton Lane is currently proposed to be one-way and include a 5-foot sidewalk, 5-foot tree lawn, and curbing on both sides of the street. The roadway includes a 15-foot travel lane and an 8-foot parallel parking lane

on one side. The applicant is proposing that Ashton Lane now be a private street and allow for two-way traffic with parking on one side of the street. The on-street parking would be accessed via a rolled curb and would be surfaced with compact gravel with street trees placed approximately 60 feet apart. Staff was initially concerned with the raised gravel on-street parking spaces since the gravel could migrate into the City's stormwater system, but the applicant has alleviated those concerns by agreeing to provide private catch basins at the south side of the street and slope the street to the south. Since the street would be private, the applicant would be responsible for all maintenance and snow removal.



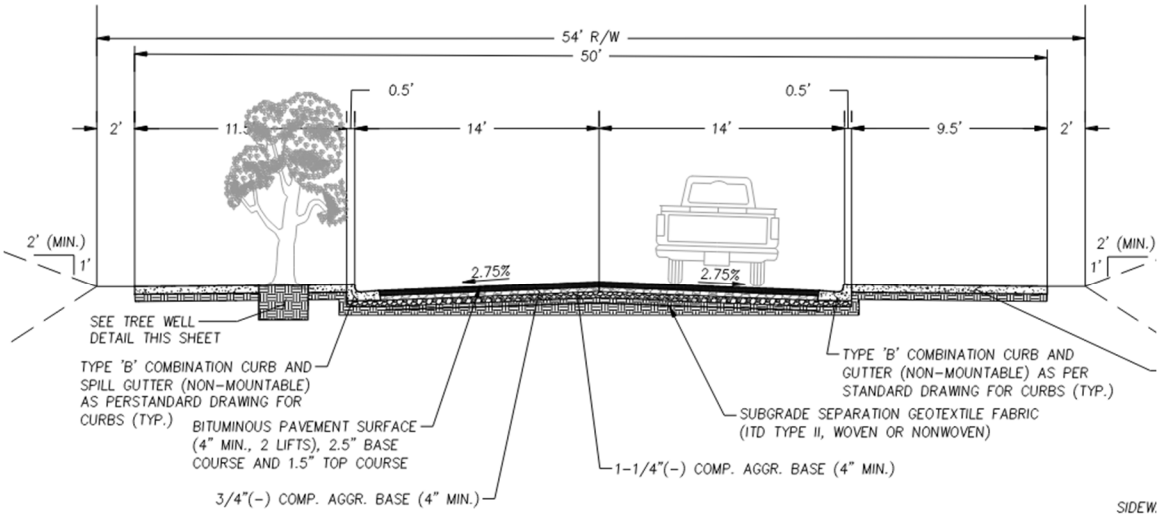
ASHTON LANE ROAD SECTION

SCALE: 1"=5'



The remainder of the streets within the existing subdivision are proposed to remain private streets which will be maintained by a homeowner association. The private street design includes a 16-foot paved roadway with 2-foot gravel shoulders on both sides of the street. The private streets provide primary vehicular access to many of the lots within the subdivision and also serve as emergency services access. The Fire Marshall has reviewed the private streets for sufficient access and the applicant has modeled the private street intersections for sufficient fire truck turning radiuses.

The only other change to the street network within Woodbury Subdivision is Woodbury Drive adjacent to the Town Center. To promote a more urban and walkable environment adjacent to the Town Center, the applicant is proposing that the street narrow down to two travel lanes with wide sidewalks on both sides of the street and trees within tree wells. The sidewalks would be 11.5 feet wide on the west side of the street and 9.5 feet on the east side. This street section would only apply to the portion of Woodbury Street adjacent to the Town Center.



NORTHERN WOODBURY DRIVE ROAD SECTION

N.T.S.

Traffic Impact Study

The applicant had previously contracted with DKS Associates in Portland, Oregon, to conduct a traffic study of the impact of the proposed subdivision on existing roadways and primary intersections within the area. The intersections that were analyzed were the Mountain View Road/D Street intersection and the Mountain View Road/F Street intersection. The traffic impact study was conducted for the full buildout of the subdivision at an estimated 270 new single-family housing units. The traffic impact study concluded that the proposed subdivision is expected to result in minimal impacts to vehicle traffic conditions at the study intersections and meet City operating standards under all development scenarios. The study also concluded that no mitigations are needed to address potential project impacts to traffic conditions.

The City of Moscow Engineering Department has reviewed the traffic impact study and the proposed PUD amendment and determined that the additional lots will not have a

significant impact on the level of service at the intersections that were analyzed. Mitigation along Mountain View Road for the full buildout of the subdivision was required upfront as part of the first phase of the development. Improvements to Mountain View Road including road widening, curb, gutter, tree lawns, sidewalks, and a left turn lane onto Slonaker Drive were constructed in 2024.

Utilities: Water mains will continue to be extended throughout the subdivision from the existing main within Slonaker Drive and a temporary main connected to the main within Arborcrest. Per the attached memo from Bob Buvel, Senior Civil Engineer, the additional lots will have a negligible impact on domestic water demand in the area, however the addition of NB zoned lots with potential commercial uses may increase the fire flow demand in the subdivision. The water modeling report for the original plat was done prior to upgrades to the Ponderosa pump station and it recommended connecting to the main pressure zone in Slonaker as the Ponderosa station was insufficient to serve the development. After that water model analysis was completed, the City constructed a new pump station serving the Orchard Ave pressure zone and the Woodbury Addition was included in the potential service area of that pump station design. The developer has also constructed a connection to that pressure zone and installed a pressure reducing valve near the connection to the main pressure zone in Slonaker, expanding the Orchard Pressure Zone as intended in the new pump station design. Flow tests of the system near the new commercial lots indicate an available fire flow of 3800 gpm. Fire Flow at that capacity should be sufficient to serve the majority of uses in the NB Zone. Any supply deficiencies for other uses can be mitigated by installing fire suppression systems in the building and/or constructing a building with a more fire-resistant building construction type.

Sanitary sewer is currently extended throughout the subdivision primarily within the public and private streets. Engineering has determined that the sanitary system as designed should be sufficient to serve the additional lots, however the additional demand will exacerbate the issue downstream of Slonaker and the planned Lanny Drive connection should be required with the next phase of the development.

Storm sewer has been piped and directed to a stormwater detention pond located at the southwest corner of the subdivision. The detention facilities of the proposed development will need to meet Moscow's Stormwater Runoff Control Standards which required the stormwater to be detained to the pre-development rate. Because of the increased density and subsequent increase in overall impervious area of the development, the Woodbury stormwater report will need to be revised and any necessary modifications to the existing detention pond will need to be completed with the next phase of the development.

Parkland Dedication: Per the attached memo from David Schott, Assistant Parks and Recreation Director, the proposed subdivision falls under the requirements of the parkland dedication codes of the City. There is 10.98 acres of net developable area of platted R-2 Zoned property, which requires a 5% dedication. There is 0.72 acres of net developable area within the NB Zone which requires a 9% dedication. The total parkland dedication for the proposed subdivision is 26,746 sf or 0.61 acres. The applicant has submitted a letter proposing to defer the parkland dedication for phase 1 to phase 2 of the entire subdivision

for a natural area comprised of 3.07 acres and a 1.14-acre area that totals 4.2 acres of open space that will include grading, a detention basin, and a ten-foot (10') wide gravel (pathway base) pathway provided by the developer. It is anticipated the parkland dedication requirements for the entire subdivision would be approximately 2.3 acres +/-. Said 4.2 acres of parkland dedication, together with agreed upon improvements to the parkland property would satisfy all parkland dedication requirements for the entire Woodbury subdivision. There are no changes to the parkland dedication requirements, so the proposed deferral of the parkland dedication still stands.

Other Issues: The applicant conducted two neighborhood meetings with affected property owners within 600 ft. of the subject property on January 15, 2025 and May 30, 2025 to discuss the proposal. All neighborhood meeting materials are attached to your packet.

Input from other Departments/Commissions:

Engineering Department
The Engineering Department has provided parkland dedication requirements within an attached June 17, 2025 memo from Bob Buvel, Senior Civil Engineer.

Parks and Recreation Department
The Parks and Recreation Department has provided parkland dedication requirements within an attached August 18, 2021 memo from David Schott, Assistant Parks and Recreation Director.

RECOMMENDATIONS:

The City of Moscow Planning and Zoning Commission conducted a public hearing for the proposed Major Planned Unit Development Amendment and Preliminary Replat on June 25, 2025 and recommended approval with one condition:

1. The applicant shall be required to update the existing stormwater report for the subdivision and include any mitigation actions necessary to ensure that the stormwater facilities will have no downstream adverse impacts subject to the approval of the City Engineer.

Staff recommends that the City Council conduct the public hearing upon the Major PUD Amendment and Preliminary Replat and upon consideration of testimony received:

1. Approve the Major PUD Amendment for Woodbury 1st Addition with no conditions and adopt the Planning and Zoning Commission Reasoned Statement of Relevant Criteria.
2. If the Major PUD Amendment is approved, approve the Preliminary Replat for Woodbury 1st Addition with one condition and adopt the Planning and Zoning Commission Reasoned Statement of Relevant Criteria.

CITY OF MOSCOW
COMMUNITY
DEVELOPMENT
Ph.: 208-883-7035
504 S. Washington Street
jfleischman@ci.moscow.id.us
mray@ci.moscow.id.us

For City Use Only			
	Date Received		
Dept	Fee Type	Fees	Paid
CDV	Preliminary or Major Amendment	$749.00	
CDV	Minor Amendment or Design Review	$316.00	
	Receipt Number		

APPLICATION FOR PRELIMINARY PLANNED UNIT DEVELOPMENT (PUD) OR PUD AMENDMENT

(Please type or print plainly with blue ink.)

APPLICANT:

Name: Mark Wintz Phone: (208) 596-5555

Address: 1004 Dairy Lane Email: mark@wintzcompany.com

OWNER: (if other than applicant)

Name: Woodbury Land, LLC Phone: Same as above.

Address: _____ Email: _____

PROPERTY:

1. Proposed PUD Name: Woodbury
2. Address(es) or Parcel Number(s): _____
3. Legal Description: See attached _____ _____
   (Subdivision) (Block) (Lot)

If described by Metes and Bounds, please attach deed on a separate sheet.

PROJECT DESCRIPTION:

Please describe the new (or revised) use, design and construction for the above property:

See project description on separate sheet.

The proposed activities and use shall be shown on an attached site plan drawn to a standard engineer's or architect's scale. The site plan shall include all required notations and detail drawings pursuant to Moscow City Code Title 4, Chapter 7, Section 7-4.B. and shall show, label and include dimensions of all property lines, easements, existing and proposed buildings, parking lot(s), driveway(s), fencing and landscaping. A site topography map shall be provided when appropriate.

For Minor Amendments/Design Review only: Skip to Page 3

Received 04-08-2025

AUTHORIZATION:

1. Section _____of the Moscow Zoning Ordinance authorizes the proposed use, subject to a Planned Unit Development application.

2. Before the Moscow Planning and Zoning Commission ("Commission") can approve a Type 1 Planned Unit Development ("PUD") or City Council can approve a Type 2 PUD request, the Commission or City Council must first make findings of compliance in accordance with MCC 4-7-9, with the following six **Relevant Criteria and Standards**. Please describe in the spaces provided below how your proposed PUD is in compliance with each of the Relevant Criteria and Standards:

   A. The proposed PUD is consistent with the Comprehensive Plan.

   See attached

   B. The proposed PUD is consistent with the intents and purposes of Title 4, Chapter 7 of the City Zoning Code.

   The application is consistent with the Comprehensive Plan and with the intents and purposes of Title 4, Chapter 7 including the density and purpose as outlined in Sec. 7-1 of the Zoning Code

   C. The proposed PUD is compatible with the character and uses in the surrounding area.

   Yes. The Woodbury neighborhood is bordered on two sides by residential neighborhoods.

   D. Public Services and utilities are available or can be made available and are adequate to accommodate the proposed PUD.

   Yes.

   E. The proposed PUD will not endanger the public health or safety.

   Correct.

   F. The residential densities, proposed land uses, and design proposed within the PUD, promote the innovative, efficient, economic, and attractive development of the subject property.

   The Woodbury neighborhood is planned to sit on 92 acres and contain approx. 320 lots. This will be a density of 3.9 homes per acre. We believe, at completion, the neighborhood will be an attractive asset to the City.

Received 04-08-2025

CONDITIONS OF APPROVAL:

The Commission or City Council may impose required modifications or conditions as part of the approval pursuant to MCC 4-7-10, including but not limited to, (1) minimizing adverse impact on other development; (2) controlling the sequence and timing of development; (3) controlling the duration of development; (4) assuring that development is maintained properly; (5) designating the exact location and nature of development; (6) requiring the provision for on-site or off-site public facilities or services; (7) requiring more restrictive standards than those generally required in an ordinance; and/or (8) requiring mitigation of effects of the proposed PUD upon delivery of services by any political subdivision, including school districts, providing services within the planning jurisdiction.

COMPLIANCE:

1. Should the preliminary PUD be approved, a final PUD review before the original decision-making body is required to determine whether the proposed development conforms to the intent and conditions of the preliminary PUD approval.
2. Approval of a preliminary PUD proposal shall expire automatically eighteen (18) months after the date of approval unless final PUD approval has been obtained prior to such time.
3. Where final proposed PUD plans are subsequently modified from the approved preliminary PUD plans, such plan modifications must be submitted to the Community Development Department to be reviewed for substantial conformance with the approved plans. If plan modifications are not in substantial conformance, the plans may need to go through a minor or major amendment process as detailed in Title 4, Chapter 7, Section 7-13 of the Moscow City Code.
4. In the event of failure to comply with the approved PUD plans or with any of the conditions imposed upon the PUD project, such permit shall be immediately revoked and shall be automatically null and void.

REVOCATIONS:

If building permits pertaining to an approved PUD, consistent with any proposed phasing, are not obtained within eighteen (18) months of the final PUD approval, such final PUD approval shall be immediately revoked and shall be automatically null and void. The applicant may request a one (1) time extension of a final PUD approval not to exceed one (1) year. Such request shall be in writing and shall be approved by the applicable decision-making body prior to expiration of the original PUD approval or such approval shall not be granted.

The following items must be submitted with this application before it will be processed:

1. Application Fees
2. Site Plan, drawn to scale
3. Floor Plans, drawn to scale
4. Elevation Drawings and/or Renderings, drawn to scale

I understand this information is a public record and may be posted to a public website. I declare and certify under penalty of perjury pursuant to the law of the State of Idaho that the foregoing is true and correct and that I have the legal authority to submit this application.

Signature of Applicant — Date 1/20/25

Signature of Property Owner (if different) — Date

Received 04-08-2025

A. The proposed development is consistent with the Comprehensive Plan. Here is how -

1.1.1 Community Values and Plan Goal

By virtue of its design, the Woodbury Neighborhood promotes character and community, key goals of the Comprehensive Plan. In every way the design is intentional, seeking to provide places for people to "gather, such as sidewalks, yards, neighborhood and public parks".

As an important addition to the Moscow community, it extends and sustains Moscow's interest in neighborhoods with real character.

For Moscow, a key element of sustainability is the preservation of farmland. Low density sprawl consumes productive acreage, will likely cost the City more per residence to maintain and often does not deliver a higher quality of life. This application seeks to increase density, affordability and sustainability while –

a) enhancing the neighborhood's character
b) Providing access for the young and elderly to walkable amenities and limited retail needs.
c) creating a unique quality of life for those living in the neighborhood
d) creating an asset for the City that is enjoyed by and benefits everyone who experiences Woodbury's walkability, streetscapes, setting, parks and town center.
e) We believe Woodbury, along with the modifications we are requesting, will create economic value providing economic sustainability for the City.

1.1.2 Plan Goals and Objectives

In terms of preserving unique lands that contribute to biodiversity, Woodbury has committed to contributing park area that will extend Moscow's existing walkway system northerly along its west edge to Arborcrest. This unique stretch adjoins, expands and overlooks a natural "wetlands", some of which has already been dedicated to a conservancy.

Presently, the area that will be developed per this application is being used for industrial scale wheat farming. It is a monoculture with a very limited biodiversity. The area developed per this application will be heavily planted with great overarching street trees, both elms and maples, crabapples, the serviceberry and other flowering trees and evergreens such as juniper, spruce, pine. Hedges and shrubs of variety all on a water conserving drip system. Altogether the proposal is resource conscientious and will provide a biodiversity that is healthy and presently does not existent.

Received 04-08-2025

2.1.2 Community Character and Land Use - Residential

This section recognizes that neighborhoods such as Woodbury with a "variety of housing types" that may "include some commercial services" and "feature smaller lots than are allowed in typical developments" are a recognized type of housing development in Moscow and are processed by means of the City's Planned Unit Development Code.

2.1.3 Commercial and Industrial

This section states that "Allowance for neighborhood business areas that provide for low impact professional office, services and gathering places would reduce traffic congestion and provide opportunities for jobs and services close to home." This is exactly the objective of the Town Center area at Woodbury. Additionally, the nearby location of the services become both an amenity for the neighborhood and great lifestyle for the professionals who can walk to and from their place of work.

2.2.2 Housing Demand

This section states, "If a mix of housing is provided within neighborhoods, people have the option to move to another home that suits their needs without leaving the community. Units such as village houses, patio homes, townhomes, and downtown residential over-retail housing units should be encouraged in appropriate location to expand the housing types available in the community.

2.2.3 Affordable Housing

As all are aware, we are in dire need of affordable housing. As a home builder, I can attest that this is hard to accomplish. Many of the line item costs required to build a new home are the same whether the home is 1000 sf or 2000 sf. For example there may be the expense of one kitchen and two baths in the 1000 square foot house and in the 2000 sf house and the subcontractors will charge nearly as much for the 1000 sf home because of the set-up time, etc. As a result, building affordable housing has not been profitable for home builders.

As the builders of Woodbury and residents of Moscow we are concerned about the high cost of housing and the gap that has developed between those that have purchased a home prior to the pandemic and those that have not. We want to do what we can to provide more affordable housing than we had made allowance for when we received our approvals a few years ago. That is what this request for density is about.

3.5.3 Subdivision Design and Pedestrian Pathways

Received 04-08-2025

Woodbury has made a great effort to and is committed to making Woodbury as "walkable" as possible. We consider it the most important amenity Woodbury has to offer outside of the neighbors that live next door. In order to make walking a feature that a homebuyer would move for, it must be really engaging and fun! To create that possibility we started with tree-lined streets that are as narrow as the City and our Fire Department would allow and a grand plan that provides for endless ways of making your way through, around and across the Woodbury neighborhood.

Narrow streets cause cars to slow down and, as a result, are not only more pleasant but more safe. Add to the these streets some well-designed alleys that are also planted out with trees and have soft lighting for an evening stroll, and then head down one of the many interconnecting walkways, sidewalks with special detailing and paths through a park area and have you have a place where people will get out and take a walk because it is an entertaining experience. And, by the way, when you are on that walk you might just meet someone new, say hey to a neighbor or stop by a shop in the town center for a treat.

3.5.4. Accessibility for People with Disabilities

We often think of Disability as handicap such as being blind or in a wheel chair and, yes, these are very real and yes, Woodbury is doing what it can to promote mobility for the those kind of serious handicaps with ADA ramps and such considerations. But what about the increasing number of elderly who are cannot drive or are afraid to drive or shouldn't drive. This application is aimed at densifying the core at Woodbury so that more people with disabilities, including the elderly, can afford a smaller and more manageable home, have access to some limited commercial and enjoy every day!

3.6 Bicycles

Woodbury is going to be a great place to ride bikes because there are interesting streets and alleys and because the town center it is going to be a destination. Like the walkability of the Woodbury neighborhood, we are being intentional about creating an enjoyable experience for the bicycler.

Received 04-08-2025

Project Description

Woodbury – Application for PUD Amendment

Summary of Purpose – Housing has become less affordable than ever before. At Woodbury we are actively working to make the necessary adjustments, without compromising our commitment to architectural quality, to do what we can to make homeownership possible. If we are committed to Quality and we want to lower the Cost, then that only leaves Size as a variable to work with.

- Southwick Court – Blk 3, Lots 21, 22, 23 and 24
  - Redesign four single family lots into nine single family detached homes ranging from 1100 s.f. to 1300 s.f.
  - Purpose - This redesign is being proposed in an effort to reduce the cost of housing without reducing the quality. Target buyer is mature singles and empty-nesters.
- Willows – Blk 3, Lots 31 and 32
  - Combine two single family lots and redesign into four single family detached homes.
  - Purpose – Create four lots from what was originally two lots in order to reduce the cost of the homes and allow first-time buyers or young families to purchase at Woodbury.
- Central Park Townhomes – Blk 3, lots 35– 39
  - Redesign five duplex lots into 14 townhomes and one large single family on the corner of Slonaker and Park Place.
  - Purpose – Originally planned as five duplex lots or 10 townhomes, the redesign of the block clarified the intent to make these individually owned townhomes, reduce costs by creating the mews.
    - The four townhomes on the west side of the walkway have given up some of their backyard in order to plot four small homes or mews – under 1000 square feet – that face the alley reducing the cost of the townhomes and creating the even more affordable mews. Townhomes on the west side of the walkway and the six mews have one assigned off-street parking place.
    - The four townhomes on the east side of the walking path have backyards with two car garages. Two “mews” were plotted along and will take access from the walkway running from Cottage Lane to Park Place.

Received 05-13-2025

- Town Center – Blk 2, Lots 17,18 and 19 –
    - Redesign three wider lots into nine narrower storefront lots (Neighborhood Business)
    - Purpose – These large lots were originally intended to be designed to appear and function as the narrow 1890's downtown facades that we are familiar with in our downtown in Moscow, except on a 7/8ths scale. We are proposing that the buildings be legally separated so that they are less expensive for any one reduced section to be built upon, architecturally embellished, owned and maintained.

- Town Center – Blk 3, Lot 34
    - Redesign into four attached storefront /live work properties
    - Note: NB zone extends into the four townhomes and four mews to the east of Blk 3, Lot 34.
    - Purpose – The reduction in size of both yard area and building square feet will create more affordable live-work opportunities.
- Woodbury Drive – Blk 2, Lots 13 – 16
    - Redesign four lots into four attached townhomes, recreation lot for indoor pickle ball court and two detached small homes on the south side of Picotee.
        - Purpose – Create architecturally exceptional small homes that are financially accessible to singles, couples and small families. This also fits into the overarching plan to densify the land use/site plan as one approaches the town center.
        - Pickleball Court – This is an important amenity for the homeowners in Woodbury. We plan to start with a court and no building and construct the building within two years. We think the indoor space will be very popular during our relatively long winters, etc.

Received 05-13-2025

WOODBURY

Mike Ray, AICP
504 S. Washington
Moscow, ID 83843

5.13.25

Re: Woodbury – Parking in the NB Zone

Temp Parking on west side Rosemary Lane - This gravel strip or an equally accessible parking lot with equivalent capacity will be used for two purposes:

1. Dedicated Parking - Individual units, within the NB zone, shall be provided with a minimum of one parking space per dwelling. There are presently 30 parking spaces serving the NB zone. If the number of dwelling units increases from 30 to, for example, 42, Then 12 additional spaces from within the NB Temp Parking Area shall be dedicated and assigned to those units within the NB Zone so that each dwelling unit with the NB Zone shall have a minimum of one parking space.

   This obligation to provide these set-aside spaces shall not be fulfilled until permanent spaces in successive phases have been created and assigned.

2. Public Parking - Parking spaces remaining after the NB Zone has assigned their minimum shall be used for public parking. The demand for parking shall be monitored for adequacy and shall be increased , sustained or reduced accordingly in successive phases, the goal being to provide adequately convenient parking for the NB Zone.

Best regards,

Mark Wintz

Mark Wintz
Woodbury Development, LLC

Received 05-13-2025

Lot Type	Uses	Average Lot Size	Minimum Setbacks			Off Street Parking	Encroachments or Exceptions
			Front	Sides	Rear		
Village Lots - Phase Two - Not included in Phase One	Single Family Detached	4,800 +	7'	5'	5'	Minimum 1 enclosed and 1 additional off-street space provided by parking pad, carport or garage.	Garages doors shall be set back to 7'. At front, side and side street setbacks, porches, bays and appendages may encroach up to 3'.
Village - Neighborhood Business	SF Detached, Neighborhood Business, three lots or less attached	4,000 +	7'	5'	5'	Minimum 1 enclosed and 1 additional off-street space provided by parking pad, carport or garage.	Same as Village lots. Additionally, side setabcks between lots may be reduced to zero feet.
Cottage Lots - Phase One	Single Family Detached	4,800 +	7'	5'	5'	Minimum 1 enclosed and 1 additional off-street space provided by parking pad, carport or garage.	Garages doors shall be set back to 7'. At front, side and side street setbacks, porches, bays and appendages may encroach up to 3'.
Fort Russell - Phase One	Single Family Detached	6,600 +	7'	5'	5'	Minimum 1 enclosed and 1 additional off-street space provided by parking pad, carport or garage.	Garages doors shall be set back to 7'. At front, side and side street setbacks, porches, bays and appendages may encroach up to 3'.
Garden/Perimeter - Phase One	Single Family Detached	16,000 +	10'	7'	10'	Minimum 2 enclosed and off-street spaces	Setback on garages to be a minimum of 20'
Carraige Houses - ADUs - Phase One	Accessory Units	One, two and three car garages	varies			1 additional off-street space	None

Note: Eaves are permitted to encroach into setbacks and required open space.

Summary of Lot Specifications ORIGINAL PUD

Woodbury Neighborhood

Lot Type	Uses	Average Lot Size	Minimum Setbacks			Off Street Parking	Encroachments or Exceptions
			Front	Sides	Rear		
Village - Neighborhood Business	**SF Attached, SF Detached, Neighborhood Business**	400+	0'	0'	0'	Minimum of 1 unassigned off-street space	
Small Lots outside NB zone - Adjoining or across a street from NB	SF attached and detached	400+	0'	0'	0'	Minimum of 1 assigned off-street space provided by parking pad, carport or garage	
Cottage Lots	Single Family Detached	4,800 +	5'	5'	5	Minimum 2 off-street spaces provided by parking pad, carport or garage.	Garages doors shall be set back to 7'. At front, side and side street setbacks, porches, bays and appendages may encroach up to 3'.
Garden Lots	Single Family Detached	6,600 +	5'	5'	5'	Minimum 1 enclosed and 1 additional off-street space provided by parking pad, carport or garage.	Garages doors shall be set back to 7'. At front, side and side street setbacks, porches, bays and appendages may encroach up to 3'.
Estate Lots	Single Family Detached	16,000 +	5'	**5'**	5'	Minimum 2 enclosed and off-street spaces	
Carraige Houses - ADUs	Accessory Units	Above or attached to a garage or house or standing alone.	Same as zone in which it is located			1 additional off-street space required for ADU's over 600 sf	None

Note: Eaves are permitted to encroach into setbacks and required open space subject to building code requirements.

Summary of Lot Specifications - PUD Amendment - Spring 2025

WOODBURY
PHASE 1 SITE MODIFICATIONS

WINTZ COMPANY/ SPRING, 2025

Received 05-13-2025

WOODBURY SITE OVERVIEW

SITE OVERVIEW

Received 05-13-2025

WOODBURY PHASE 1 MODIFICATIONS

PHASE 1

Received 05-13-2025

WOODBURY PHASE 1 PARKING PLAN

Parking stall count:

A. Public parking spaces (blue): 148

B. Designated parking spaces (orange): 61

C. Temporary parking (green):41

N

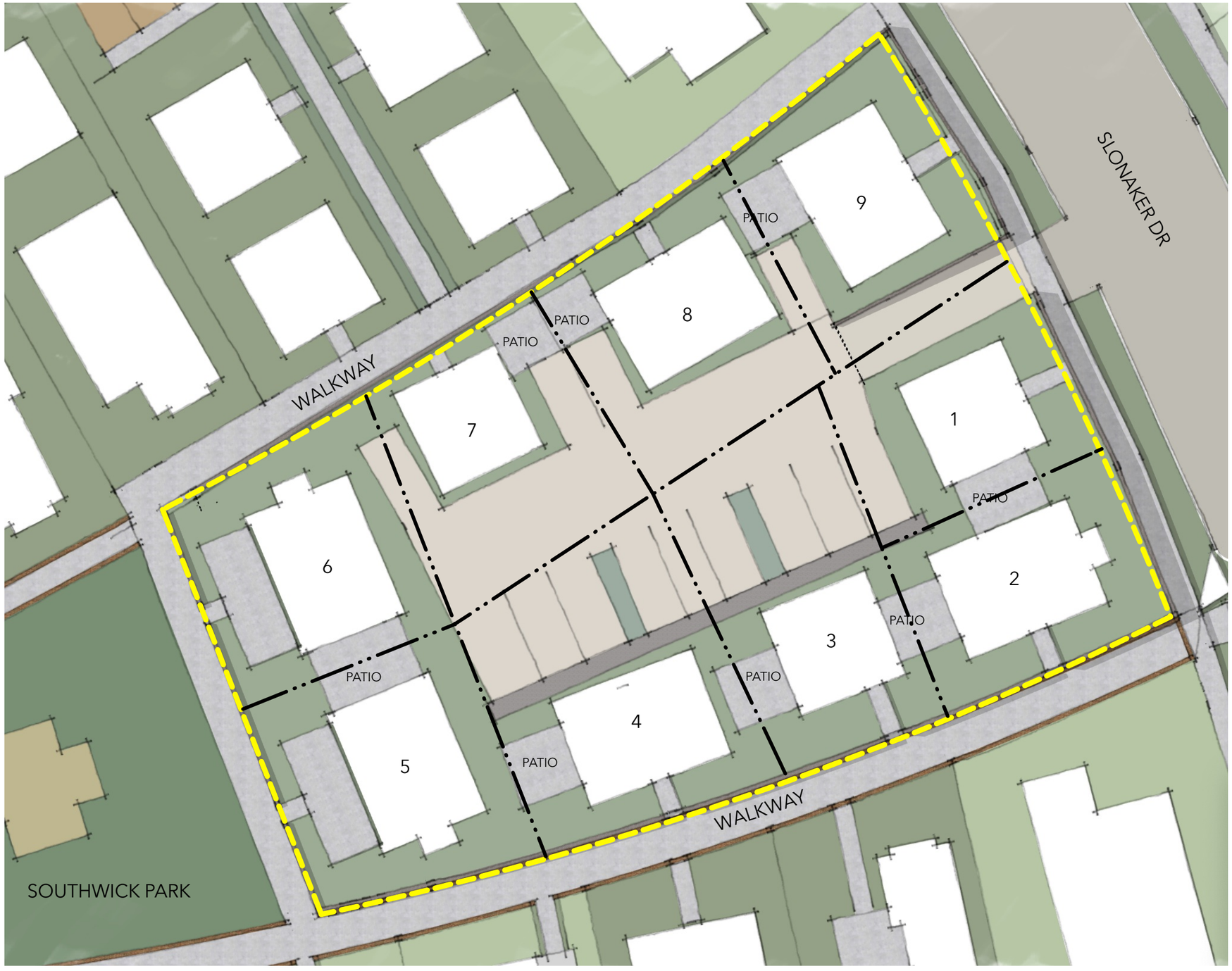
PHASE 1

Received 05-13-2025

SOUTHWICK COURT SITE PLAN

SOUTHWICK COURT SETBACKS:
Front facing walkway: 2'
Sides: 5'
Rear: 5'
Homes fronting Slonaker: 5'
Maintain minimum of 10' between structures

PARKING:
13 parking spots provided.
One designated parking space per unit
and four additional stalls to be assigned.
Parking stalls are 9'x20'.
One compact stall to be 8'x18'



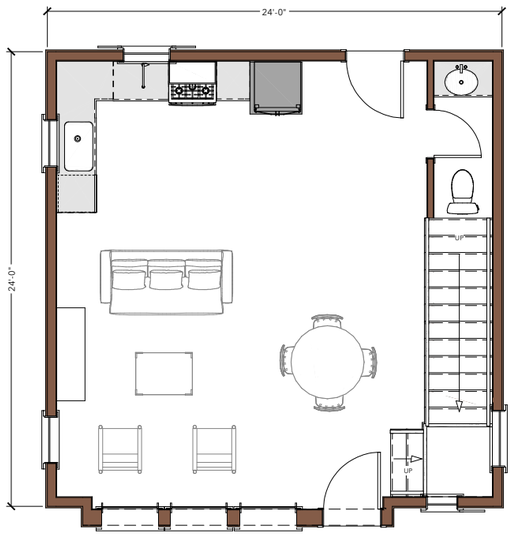
SOUTHWICK COURT - 9 UNITS

Received 05-13-2025

SOUTHWICK COURT TYP. FLOOR PLANS

3) 24X24 UNITS

1ST FLOOR



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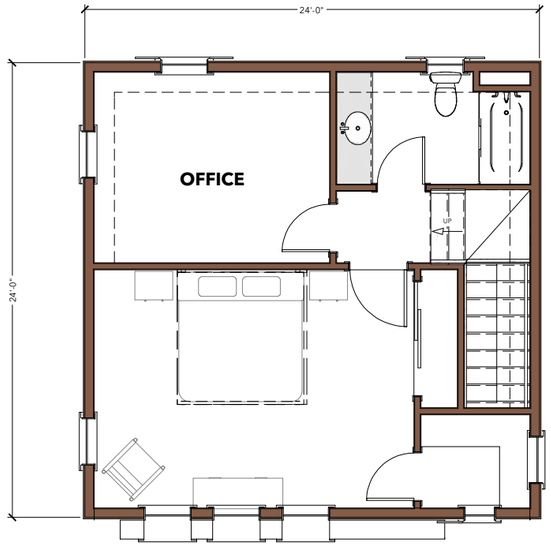
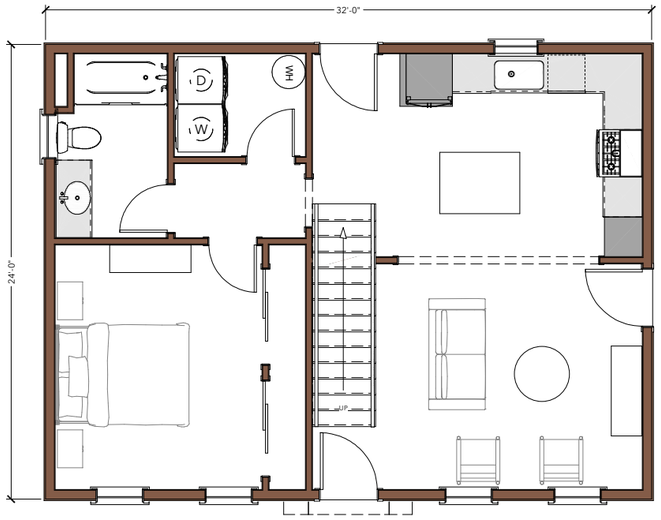
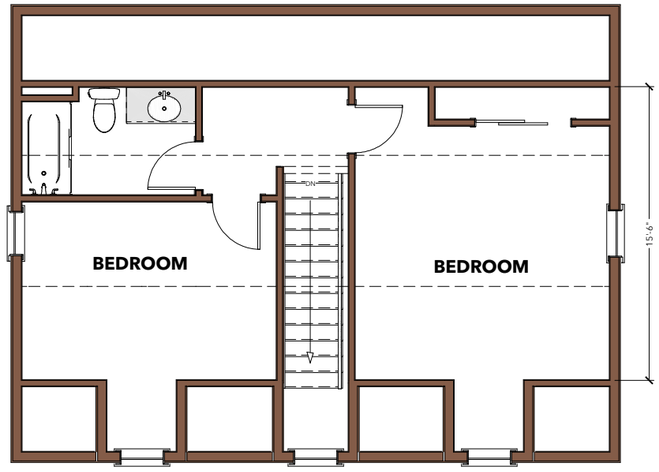


6) 24X32 UNITS

1ST FLOOR



2ND FLOOR



In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

Received 05-13-2025

SOUTHWICK COURT RENDER

In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

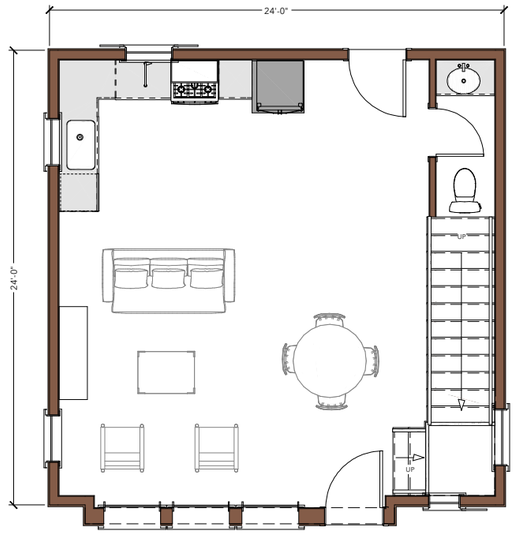
Received 05-13-2025

THE WILLOWS SITE PLAN - FOUR COTTAGES

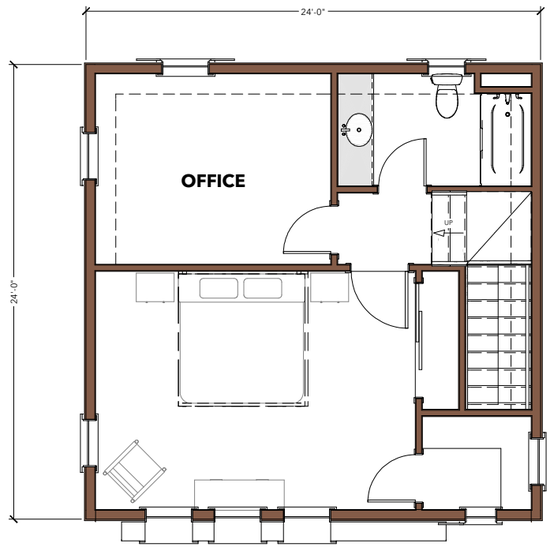
Footprint and elevations similar to Southwick Court

3) 24X24 UNITS

1ST FLOOR



2ND FLOOR



In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

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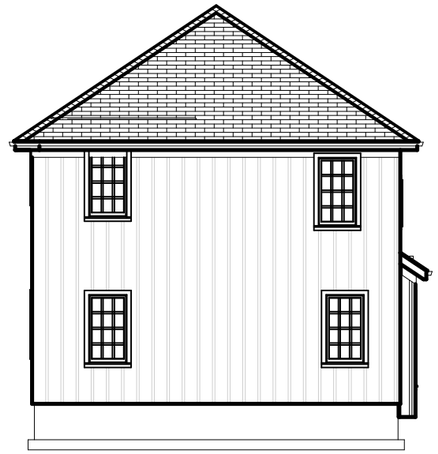
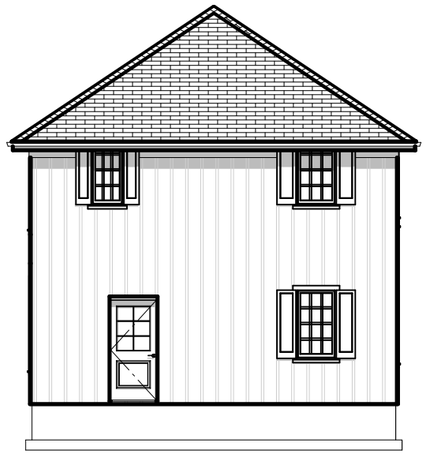
THE WILLOWS ELEVATIONS - FOUR COTTAGES

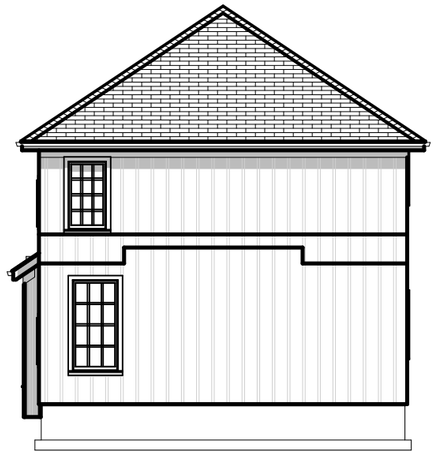
EXTERIOR ELEVATION FRONT



EXTERIOR ELEVATION LEFT



EXTERIOR ELEVATION BACK



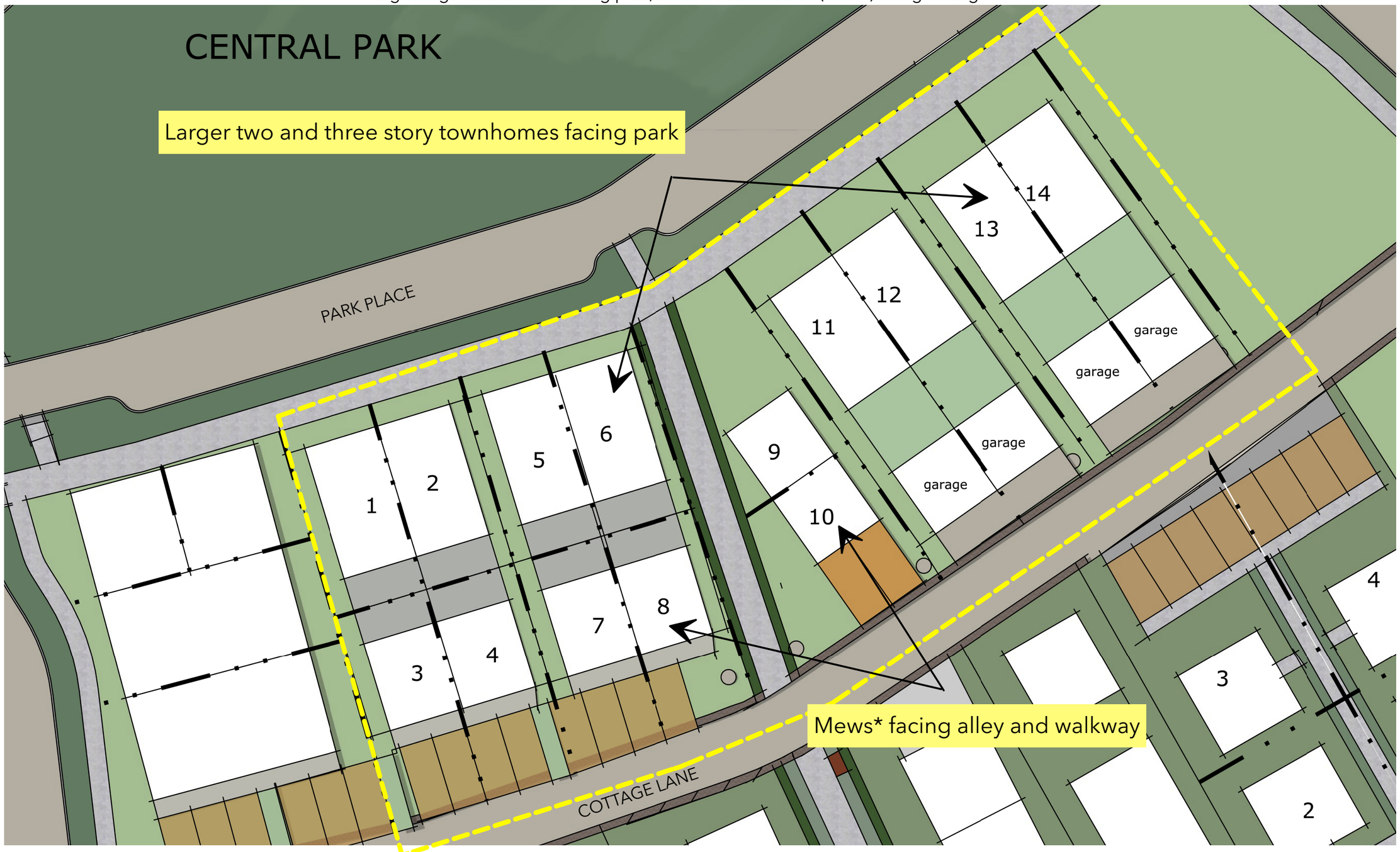
EXTERIOR ELEVATION RIGHT

In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

Received 05-13-2025

CENTRAL PARK TOWNHOMES SITE PLAN

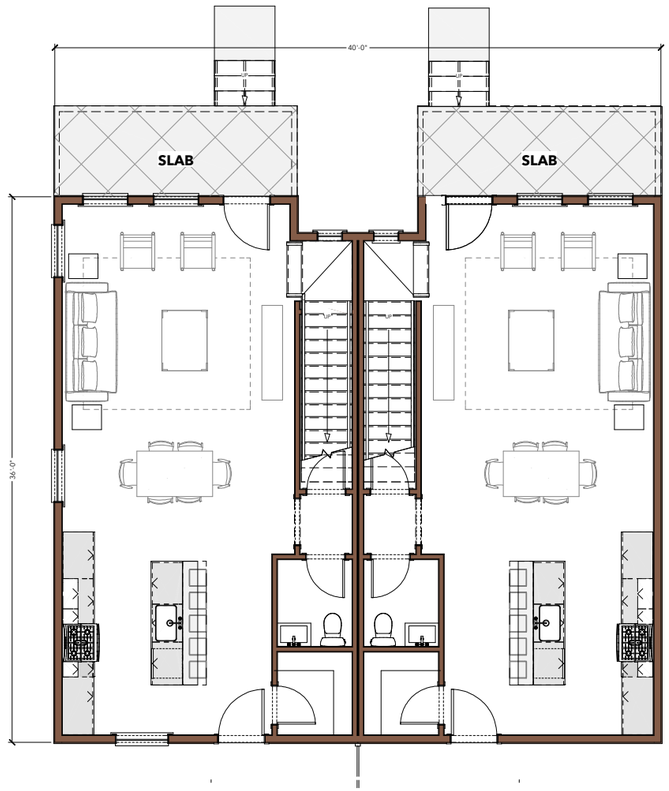
Eight larger townhomes facing park, six small townhomes (Mews) along Cottage Lane



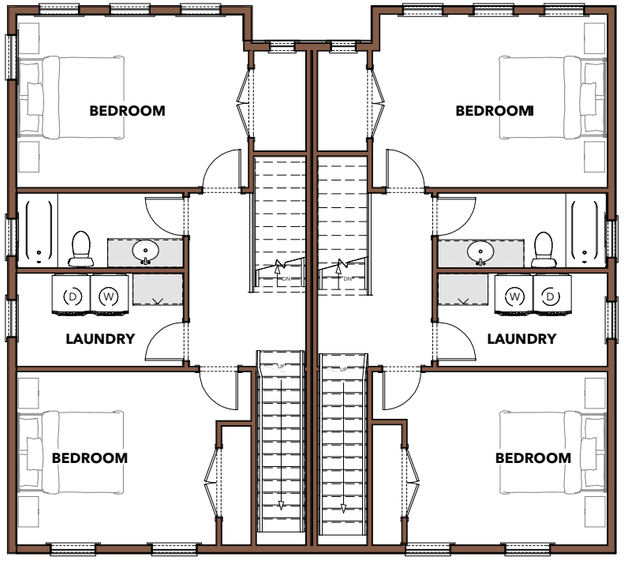
*Mews – (Old England) - A row or street of houses that have been converted from stables into small homes. Mews have become popular as conversion projects for a select few who want to live in an attractive neighborhood at a more affordable price.

Received 05-13-2025

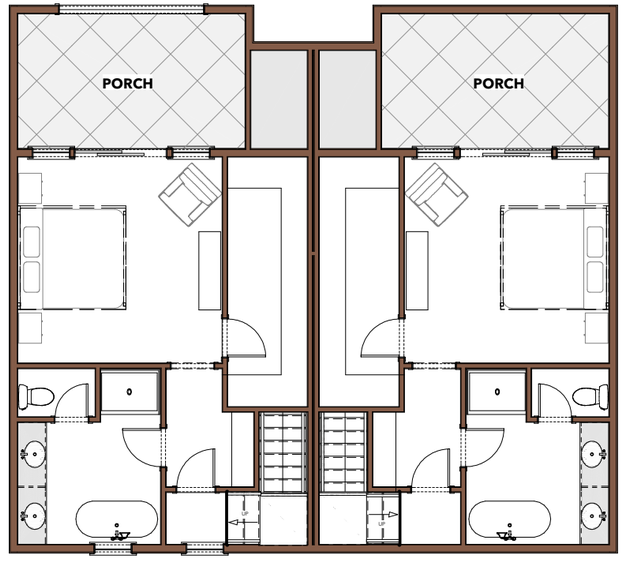
TOWNHOMES - TYPICAL FLOOR PLANS



1ST FLOOR



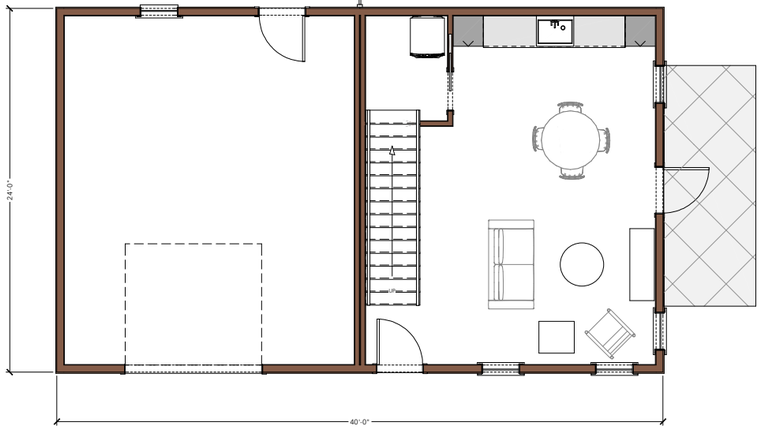
2ND FLOOR

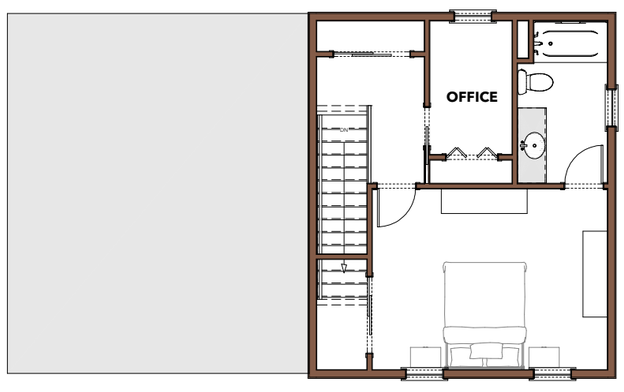


3RD FLOOR

example of townhome
with garage

example of townhome
with second unit



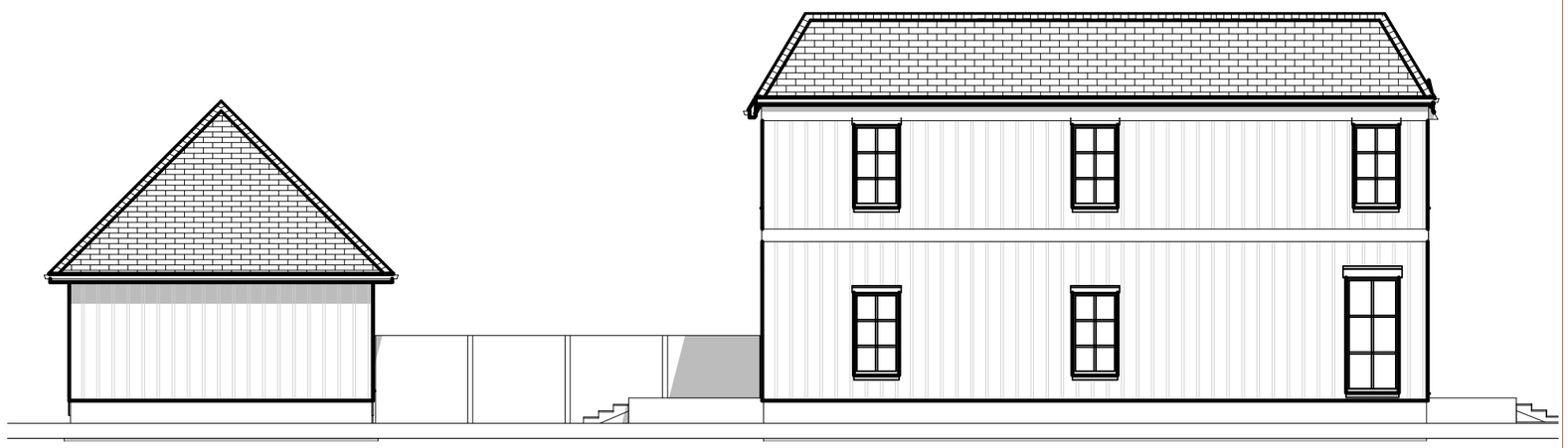


In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

Received 05-13-2025

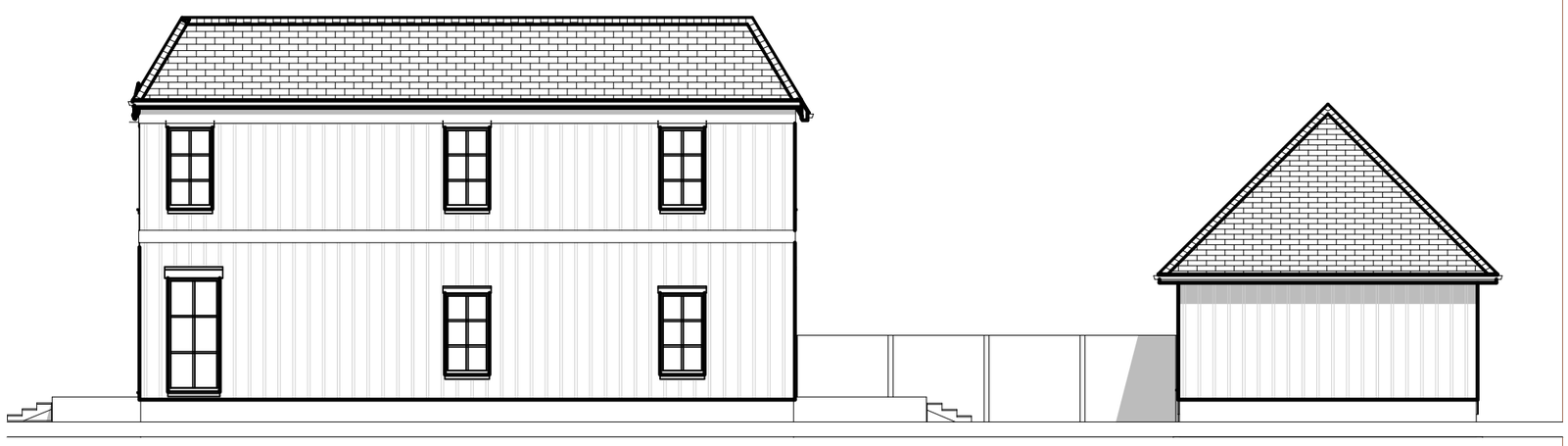
TOWNHOMES - EXAMPLE ELEVATIONS

FRONT



RIGHT

BACK



LEFT

In an effort to improve the design of the neighborhood and maintain an engaging diversity of architecture, floor plans and elevations may vary and be subject to change.

Received 05-13-2025

TOWN CENTER SITE PLAN

Awnings

Narrow Storefronts

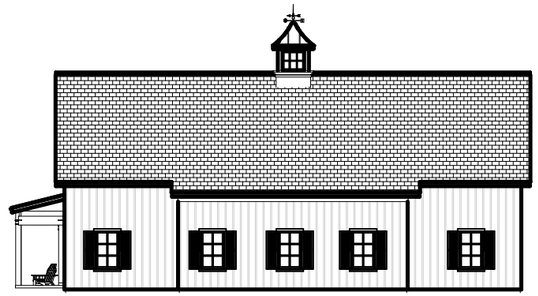
Local retailers

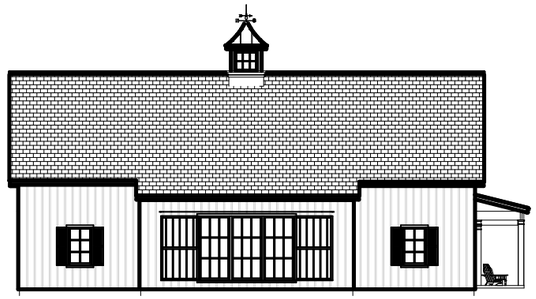
Neighborhood business will consist of retail or offices on the ground floor with offices or apartments above.
Building heights range from two to three stories.

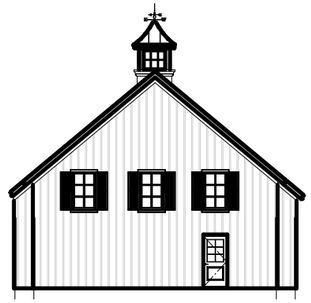
Received 05-13-2025

WOODBURY DR. TOWNHOMES, RECREACTION & COTTAGES

TOWNHOMES - SIMILAR TO CENTRAL PARK TOWNHOMES







INDOOR PICKLEBALL COURT

COTTAGES SIMILAR TO SOUTHWICK COURT 24'X24' COTTAGES

Received 05-13-2025

LUP2025-0015

CITY OF MOSCOW
COMMUNITY DEVELOPMENT
Ph.: 208-883-7035
504 S. Washington Street
jfleischman@ci.moscow.id.us
mray@ci.moscow.id.us

For City Use Only			
	Date Received		
Dept	Fee Type	Fees	Paid
CDV	Application Fee	$1,023.00	
	Receipt Number		

APPLICATION FOR PRELIMINARY SUBDIVISION PLAT

(Please type or print plainly with blue ink.)

APPLICANT:

Name: Levi Wintz Phone: 208-596-7690

Address: 1004 Dairy Lane Moscow ID Email: levi@wintzcompany.com

OWNER: (if other than applicant)

Name: Woodbury Land, LLC Phone: _____

Address: _____ Email: _____

ENGINEER/SURVEYOR:

Name: Scott Sumner Phone: 208-596-7912

Address: 405 SE Brelsford Drive, Ste C, Pullman, WA 99163 Email: scott@syntierengr.com

Primary point of contact (select one): Applicant [X] Owner [ ] Engineer/Surveyor [ ]

PROPERTY:

1. Proposed Subdivision Name: Woodbury 1st Addition Replat
2. Address(es) or Parcel Number(s): _____
3. Legal Description: *Please attach copy of full description.*
4. Gross Area of all land involved: 12.27 acres, and/or 534,481 sq. ft.
5. Total Net Area of land area, exclusive of proposed or existing public street and/or other public lands:
   7.48 acres, and/or 325,633 square feet.
6. Total number of lots: 81 Average lot size: 3,971
7. Existing Zoning of subject property: NBZ, R2

PROJECT DESCRIPTION:

Please describe the concept of the proposed subdivision and approximate percentage (%) of each proposed new land use (i.e. 75% single-family residential; 20% multi-family; 5% commercial). Also include any proposed park land and the acreage:

Densifying Woodbury 1st Addition. 75% single family residential, 25% neighborhood business zone

Received 06-06-2025

SEWER AND WATER MAIN OVERSIZING REIMBURSEMENT POLICY:

Oversizing of utilities will not be eligible for reimbursement from the City unless a written request is submitted to the City Engineer prior to approval of the project construction drawings and written approval of such a request is issued by the City Engineer.

PRELIMINARY PLAT CHECKLIST - Please provide the following information:

_____ 1. Subdivision name
_____ 2. Location: Section, Township, Range
_____ 3. Subdivider's name & address
_____ 4. Engineer/surveyor name & address
_____ 5. Date of subdivision
_____ 6. Reference to adjoining subdivisions with names
_____ 7. North arrow
_____ 8. Scale, not less than 1 in. = 60 ft.
_____ 9. Existing and proposed right-of-way or public tracts with widths and names
_____10. Lot and block layout with numbering and dimensions
_____11. Existing zoning designation, or proposed if a rezone is requested
_____12. All existing and proposed easements of record stating width and purpose
_____13. Location of any existing open spaces or permanent structures
_____14. General layout of sewer and water utilities
_____15. Proposed phasing, if any
_____16. Acreage breakdown with gross and net (less right-of-way)
_____17. Plan/profile of proposed street grades
_____18. Existing Topography*
_____18. Proposed finished grading plan*
_____19. Location of any delineated wetlands and/or water bodies and, if applicable, the floodway and 100-year floodplain (BFE data must be included if the plat is ≥5 acres or ≥50 lots)
_____20. Vicinity sketch

*5' max. contour interval (except for slopes >50% may have 10' interval). Areas with existing slopes ≥ 20% shall be shaded or clearly indicated on the plans**.**

APPLICATION SUBMITTAL:

This application must be completed and submitted with the below described items to the Community Development Department at least twenty-one (21) days prior to the hearing at which the application is to be considered by the Planning and Zoning Commission. Applicant will be notified by the City Planner I as to the time, date, and place of the hearing pertaining to this application.

The following items must be submitted with this application before it will be processed:

1. Payment of application fees.
2. Copy of neighborhood meeting invitation, mailing list, attendance list and minutes.
3. One full-sized Preliminary Plat Map and one electronic copy.

I understand this information is a public record and may be posted to a public website. I declare and certify under penalty of perjury pursuant to the law of the State of Idaho that the foregoing is true and correct and that I have legal authority to submit this Application.

_____ 6/4/2025
Signature of Applicant Date

_____ _____
Signature of Property Owner (if different) Date

Received 06-06-2025

LUP2025-0015

EXHIBIT A
Legal description

A parcel of land situate in the West half (W1/2) of Section 4 and the East half (E1/2) of Section 5 of Township 39 North, Range 5 West, B.M., being portions of Parcels 3 and 7 as described in Quitclaim Deed recorded under Instrument No. 460076, records of Latah County State of Idaho, being more fully described as follows:

BEGINNING at the Northwest corner of the Southwest Quarter of the Southwest Quarter (SW1/4SW1/4) of said Section 4, said point being North 00°33'28" West a distance of 1322.72 feet from the Southwest corner of said Section 4; thence along the North line of the Southeast Quarter of the Southeast Quarter (SE1/4SE1/4) of said Section 5 South 89°42'12" West a distance of 340.66 feet; thence departing said North line North 03°36'03" East a distance of 160.19 feet; thence North 84°54'56" West a distance of 10.83 feet; thence North 00°48'15" West a distance of 125.90 feet; thence North 32°54'25" West a distance of 209.16 feet; thence North 02°50'51" East a distance of 444.46 feet; thence North 52°06'30" East a distance of 185.86 feet; thence North 64°58'42" East a distance of 302.87 feet; thence South 47°29'32" East a distance of 236.88 feet; thence North 44°10'38" East a distance of 122.94 feet; thence South 52°37'35" East a distance of 93.86 feet; thence South 33°59'44" East a distance of 362.10 feet; thence South 02°01'38" East a distance of 101.20 feet; thence South 06°49'06" East a distance of 178.24 feet; thence South 11°52'56" West a distance of 450.41 feet; thence along said North line North 89°49'43" West a distance of 460.08 feet to the POINT OF BEGINNING.

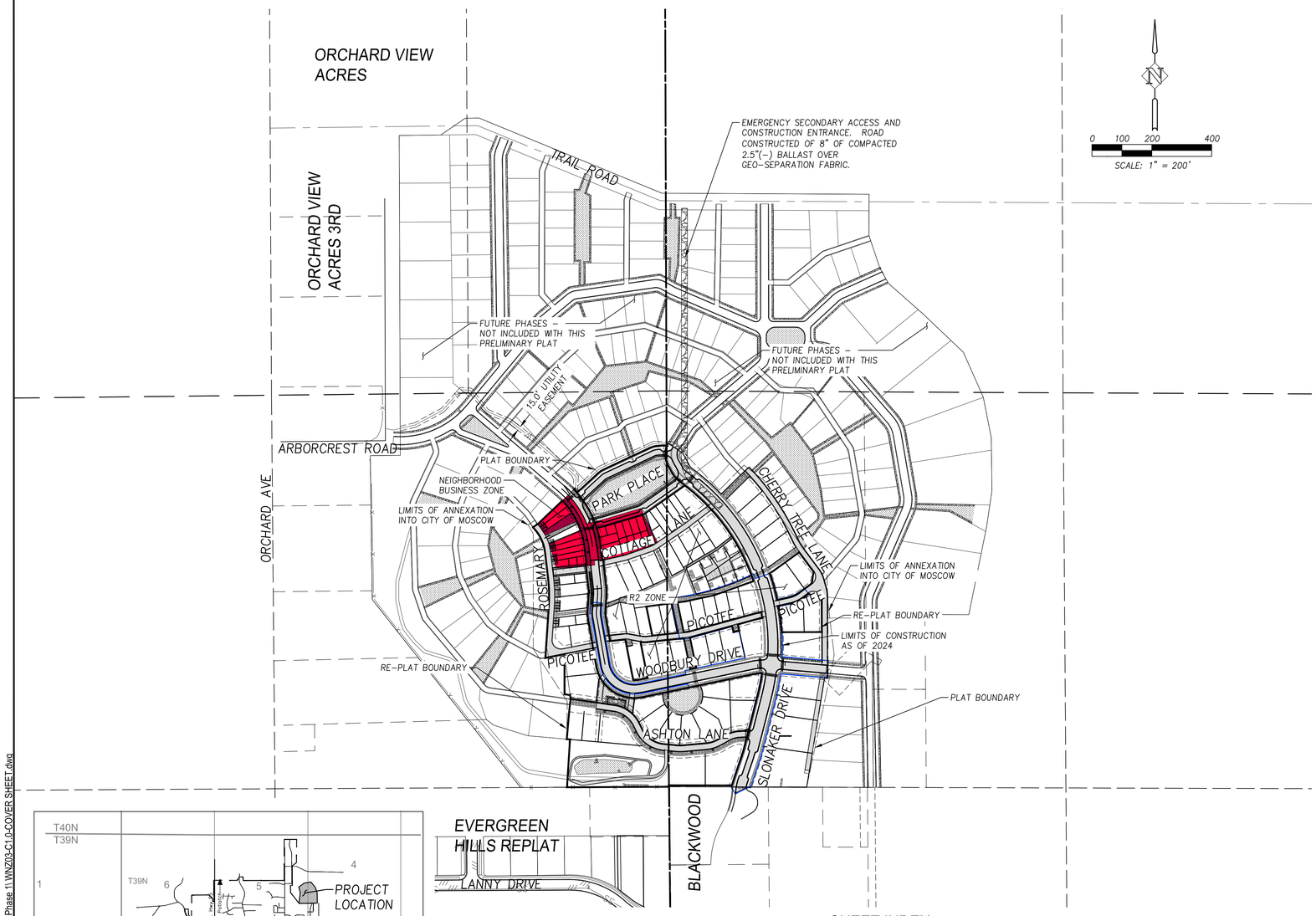
EXCEPTING THEREFROM that certain Consent and Deed of Right of Way to Latah County recorded under Recorder's Fee No. 58521 in Book 66 of Deeds at Page 266.

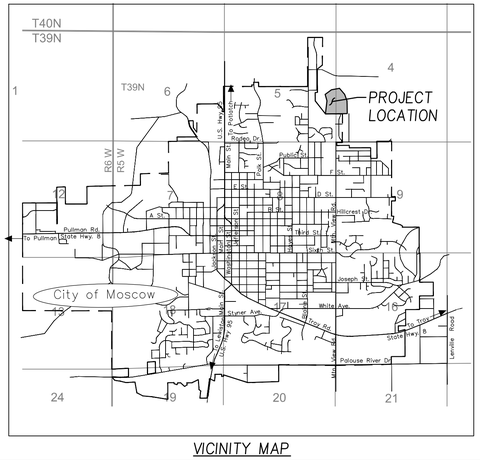
SUBJECT TO a right of way used for county road purposes being known as Trail Road.

Received 05-29-2025

PRELIMINARY REPLAT OF WOODBURY FIRST ADDITION

NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5 OF TOWNSHIP 39 NORTH, RANGE 5 WEST, B.M., LATAH COUNTY, STATE OF IDAHO





VICINITY MAP

SHEET INDEX

1	C1.0	COVER SHEET
2	C2.0	PRELIMINARY GRADING PLAN
3	C3.0	PRELIMINARY UTILITY PLAN
4	C4.0	PRELIMINARY PLAT – SOUTH
5	C4.1	PRELIMINARY PLAT – NORTHWEST
6	C4.2	PRELIMINARY PLAT – NORTHEAST
7	C5.0	SLONAKER PLAN AND PROFILE 10+00 TO 22+55
8	C5.1	WOODBURY PLAN AND PROFILE 20+00 TO 35+23
9	C5.2	ASHTON PLAN AND PROFILE 72+50 TO 79+50
10	C5.3	ROAD SECTIONS
11	C6.0	FIRE TRUCK ACCESS

OWNER
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, ID 83843

LAND AREAS
GROSS LAND: 12.74 ACRES
RIGHT OF WAY: 0.53 ACRES
TRACTS: 4.26 ACRES
NET LOTS: 7.48 ACRES

DEVELOPER
MARK WINTZ
WINTZ COMPANY LLC
1004 DAIRY LANE
MOSCOW, ID 83843
208.596.5555

SITE ADDRESS
SLONAKER DRIVE
MOSCOW, ID 83843

ENGINEER
SYNTIER ENGINEERING, INC
ATTN: SCOTT SUMNER, P.E.
405 SE BRELSFORD DR, STE C
PULLMAN, WA 99163
TEL: 509.339.6187
CELL: 208.596.7912
E–MAIL: SCOTT@SYNTIERENGR.COM

LAND SURVEYOR
SYNTIER ENGINEERING, INC
JASON VON LINDERN, PLS

FLOOD ZONE DESIGNATIONS
FLOOD ZONE C
PANEL NUMBER 160086 0240 D
PANEL 240 OF 275

LAND USE ZONING
MEDIUM DENSITY RESIDENTIAL – R3
NEIGHBORHOOD BUSINESS – NB

LEGAL DESCRIPTION OF REPLATTED WOODBURY PLAT

BLOCKS 1 AND 2, LOTS 8, 10–12, 21–40 OF BLOCK 3, LOTS 2 AND 3 OF BLOCK 4, TRACTS A, B, C, D, E, G, H, J, AND I, ALL OF WOODBURY FIRST ADDITION TO THE CITY OF MOSCOW, AS SHOWN BY THE RECORDED PLAT, INSTRUMENT NUMBER 630759, RECORDS OF LATAH COUNTY, IDAHO.

TOGETHER WITH ALL THAT PORTION OF ASHTON LANE, WOODBURY 1ST ADDITION, AS SHOWN BY THE RECORDED PLAT, INSTRUMENT NUMBER 630759, RECORDS OF LATAH COUNTY, IDAHO, LYING WEST OF A LINE PARALLEL TO AND 30.00 FEET DISTANT FROM THE CENTERLINE OF SLONAKER DRIVE AND EAST OF THE WEST LINE OF SAID ADDITION.

TOGETHER WITH THE EASTERLY 3 FEET OF WOODBURY DRIVE, AS PLATTED ON WOODBURY FIRST ADDITION, INSTRUMENT NUMBER 630759, LYING NORTH OF AN EXTENSION OF THE SOUTH LINE OF LOT 34, BLOCK 3 SAID WOODBURY FIRST ADDITION.

TOGETHER WITH THE WESTERLY 3 FEET OF WOODBURY DRIVE, AS PLATTED ON WOODBURY FIRST ADDITION, INSTRUMENT NUMBER 630759, LYING NORTH OF THE FOLLOWING DESCRIBED LINE:

BEGINNING AT A POINT ON THE WEST LINE OF SAID WOODBURY DRIVE BEING SOUTH 06°38'21" EAST A DISTANCE OF 2.60 FEET FROM THE SOUTHEAST CORNER OF LOT 17, BLOCK 2 OF WOODBURY FIRST ADDITION;

THENCE NORTH 83°55'13" EAST A DISTANCE OF 3.00 FEET TO THE TERMINUS OF THIS LINE.

TOGETHER WITH THE UNPLATTED PORTION OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, LATAH COUNTY IDAHO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF LOT 10, BLOCK 2, WOODBURY FIRST ADDITION, AS SHOWN BY THE RECORDED PLAT, INSTRUMENT NUMBER 630759, RECORDS OF SAID LATAH COUNTY;

THENCE ALONG AN EXTENSION OF THE SOUTH LINE OF SAID LOT 10 NORTH 82°01'03" WEST A DISTANCE OF 18.73 FEET;

THENCE NORTH 00°00'02" EAST A DISTANCE OF 134.11 FEET TO THE NORTHWEST CORNER OF LOT 11 OF SAID BLOCK 2;

THENCE SOUTH 07°43'37" EAST A DISTANCE OF 137.97 FEET ALONG THE WEST LINES OF SAID LOTS 10 AND 11 TO THE **POINT OF BEGINNING.**

CONTAINING: 534,481 SQUARE FEET OR 12.27 ACRES OF LAND, MORE OR LESS.

COVER SHEET
WOODBURY 2025 PRELIMINARY PLAT
MOSCOW, IDAHO

Syntier Engineering, Inc.
405 SE Brelsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER
16186
STATE OF IDAHO
SCOTT A SUMNER
6/6/25

DESIGNED:	ATM			
DRAWN:	ATM			
CHECKED:	SAS			
DATE:	JUNE 4, 2025			

REVISIONS

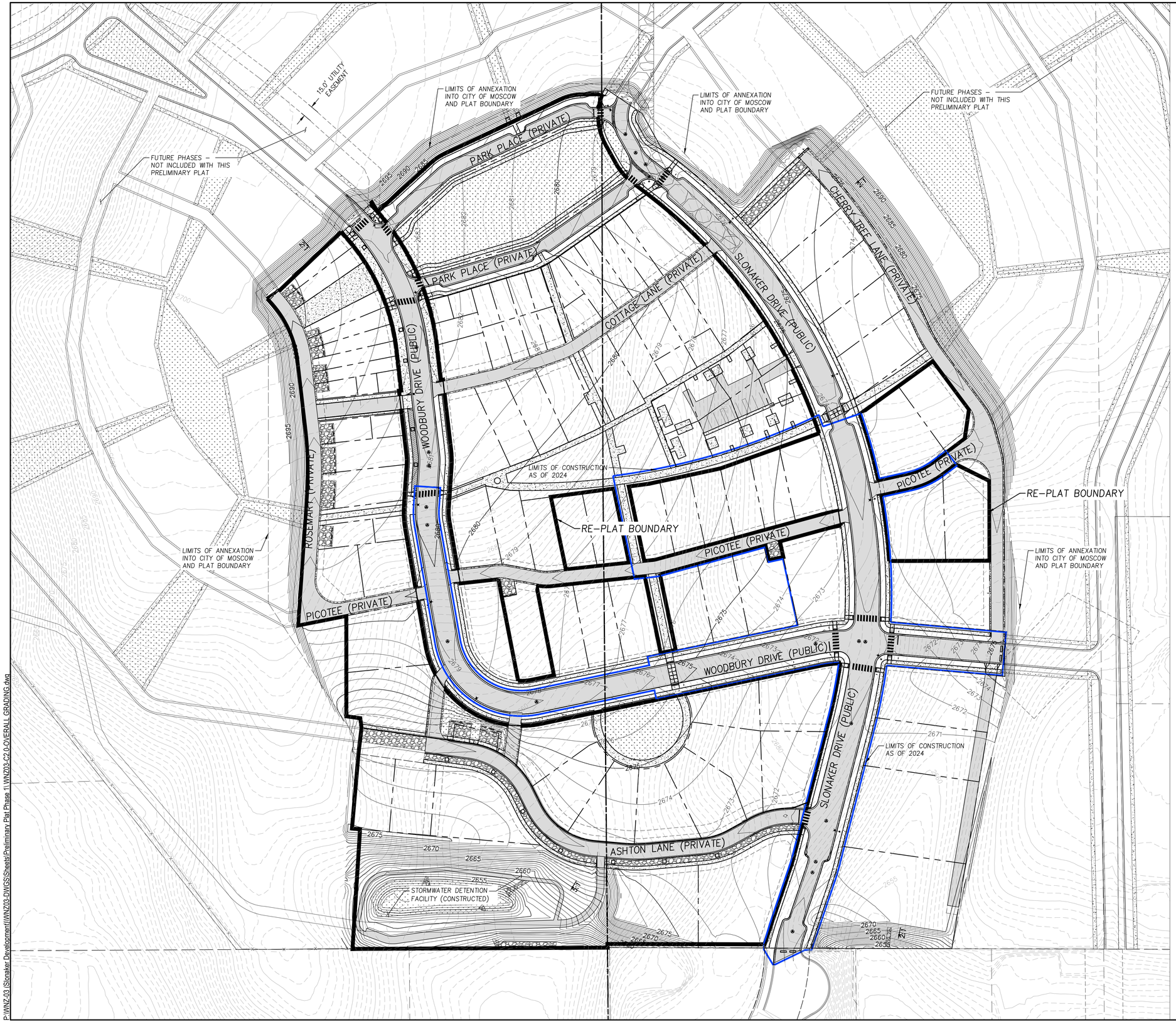
NO.	DESCRIPTION	DATE

SHEET NO.
C1.0
1 OF 10

JOB NO.
WNZ-03

P:\WNZ-03 (Slonaker Development)\WNZ03-DWGS\Sheets\Preliminary Plat Phase 1\ WNZ03-C1.0-COVER SHEET.dwg

Received 06-06-2025



PRELIMINARY GRADING SHOWN IS ALREADY CONSTRUCTED

0 30 60 120
SCALE: 1" = 60'

PRELIMINARY GRADING PLAN
WOODBURY 2025 PRELIIMINARY PLAT

SYNTIER Engineering, Inc.
408 SE Bielsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSE NO. 16146 STATE OF IDAHO SCOTT A SUMNER
6/6/25

DESIGNED:	ATM
DRAWN:	ATM
CHECKED:	SAS
DATE:	JUNE 4, 2025

REVISIONS

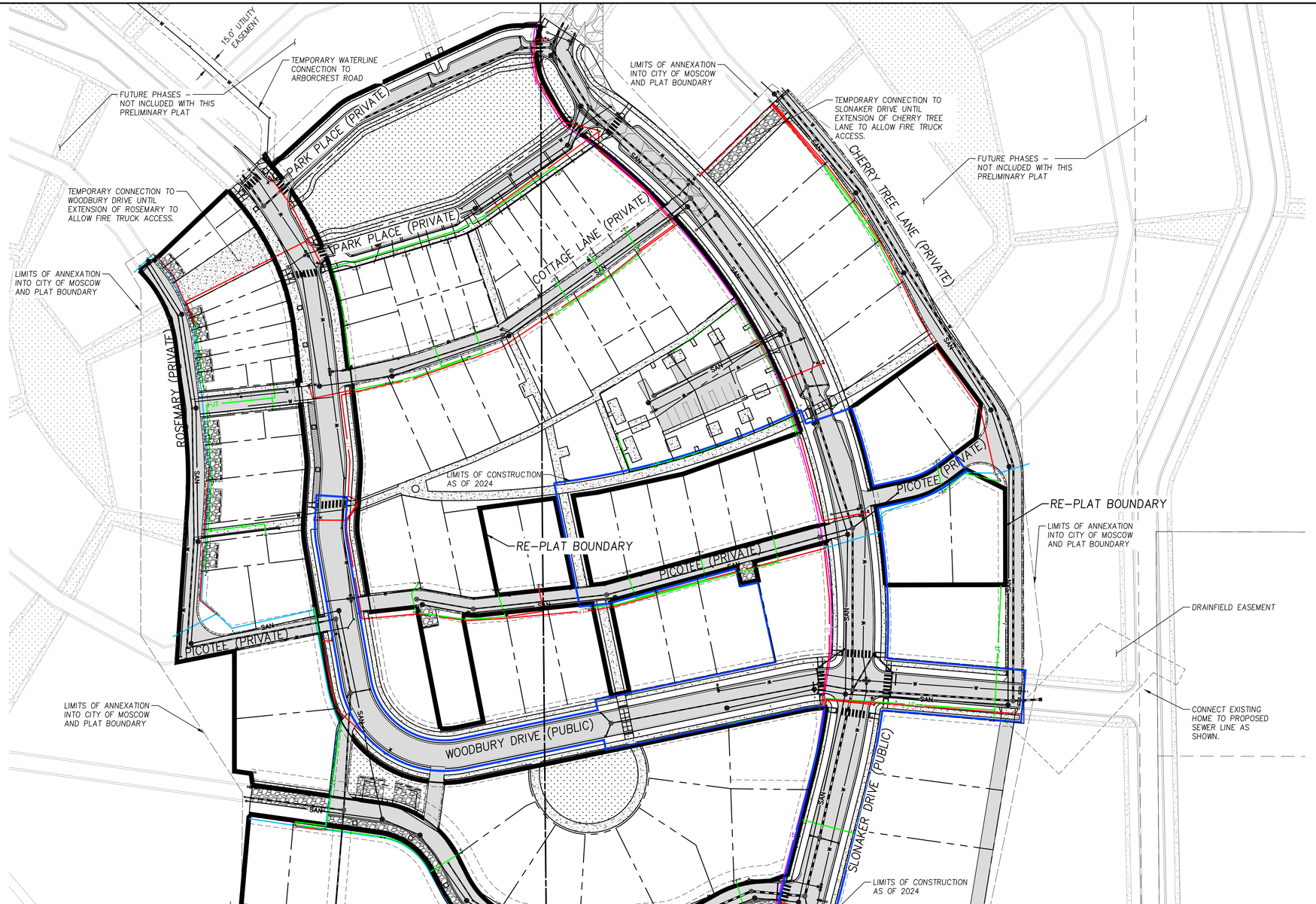
NO.	DATE	DESCRIPTION

SHEET NO.
C2.0
2 OF 10
JOB NO.
WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development\WNZ03-DWGS\Sheets\Preliminary Plat Phase 1\WNZ03-C2.0-OVERALL GRADING.dwg

Received 06-06-2025



0 30 60 120

SCALE: 1" = 60'

LEGEND

- STORMWATER MAIN
- WATERMAIN
- SANITARY SEWER MAIN
- 3 PHASE 3" JOINT UTILITY TRENCH
- 3 PHASE 2" JOINT UTILITY TRENCH
- SINGLE PHASE 3" JOINT UTILITY TRENCH
- SINGLE PHASE 2" JOINT UTILITY TRENCH

PRELIMINARY UTILITY PLAN
WOODBURY 2025 PRELIMINARY PLAT

SYNTIER Engineering, Inc.
408 SE Bretsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER — LICENSED — 16186 — STATE OF IDAHO — SCOTT A SUMNER

DESIGNED:	ATM		
DRAWN:	ATM		
CHECKED:	SAS		
DATE:	JUNE 4, 2025		

REVISIONS

NO.	DESCRIPTION	DATE

SHEET NO.
C3.0
3 OF 10

JOB NO.
WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development\WNZ03-DWGS\Sheets\Preliminary Plat Phase 1\WNZ03-C3.0-PRELIMINARY UTILITY.dwg

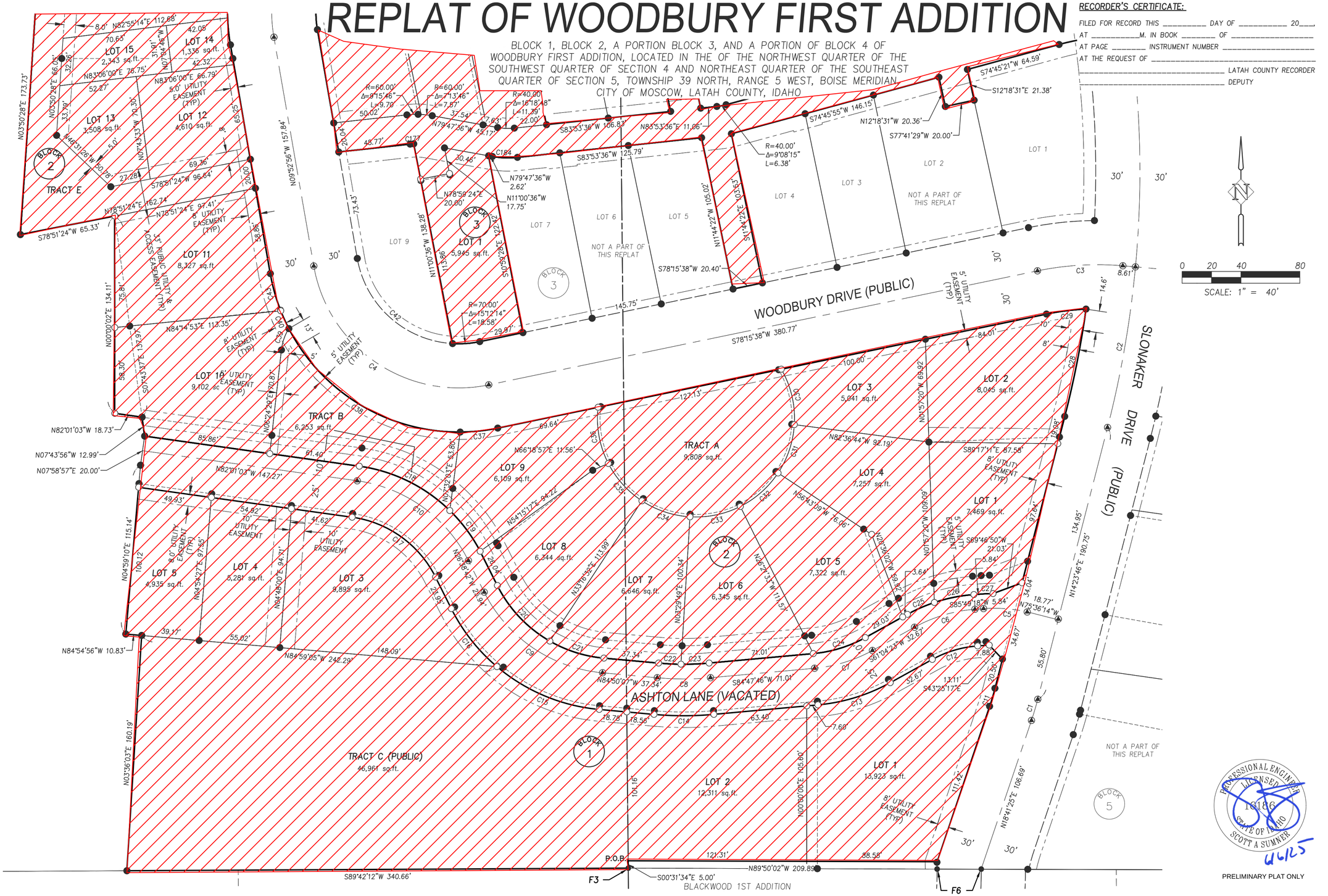
Received 06-06-2025

REPLAT OF WOODBURY FIRST ADDITION

BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION OF BLOCK 4 OF WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

RECORDER'S CERTIFICATE:

FILED FOR RECORD THIS _____ DAY OF _____ 20___,
AT _____M. IN BOOK _____ OF _____
AT PAGE _____ INSTRUMENT NUMBER _____
AT THE REQUEST OF _____
_____ LATAH COUNTY RECORDER
_____ DEPUTY



PRELIMINARY PLAT ONLY

	By	Date
Surveyed	CBB	08/24
Drawn	TMH	04/25
Checked	JMV	04/25
Approved		
Accepted		

Scale: 1"=40'
Date: April 16, 2025
Drawing Name WNZ03-PLAT 2025.DWG
Sheet 3 of 5

SYNTIER Engineering, Inc.

For:
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, IDAHO

BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION OF BLOCK 4 OF WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

Received 06-06-2025

REPLAT OF WOODBURY FIRST ADDITION

BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION OF BLOCK 4 OF WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

RECORDER'S CERTIFICATE:

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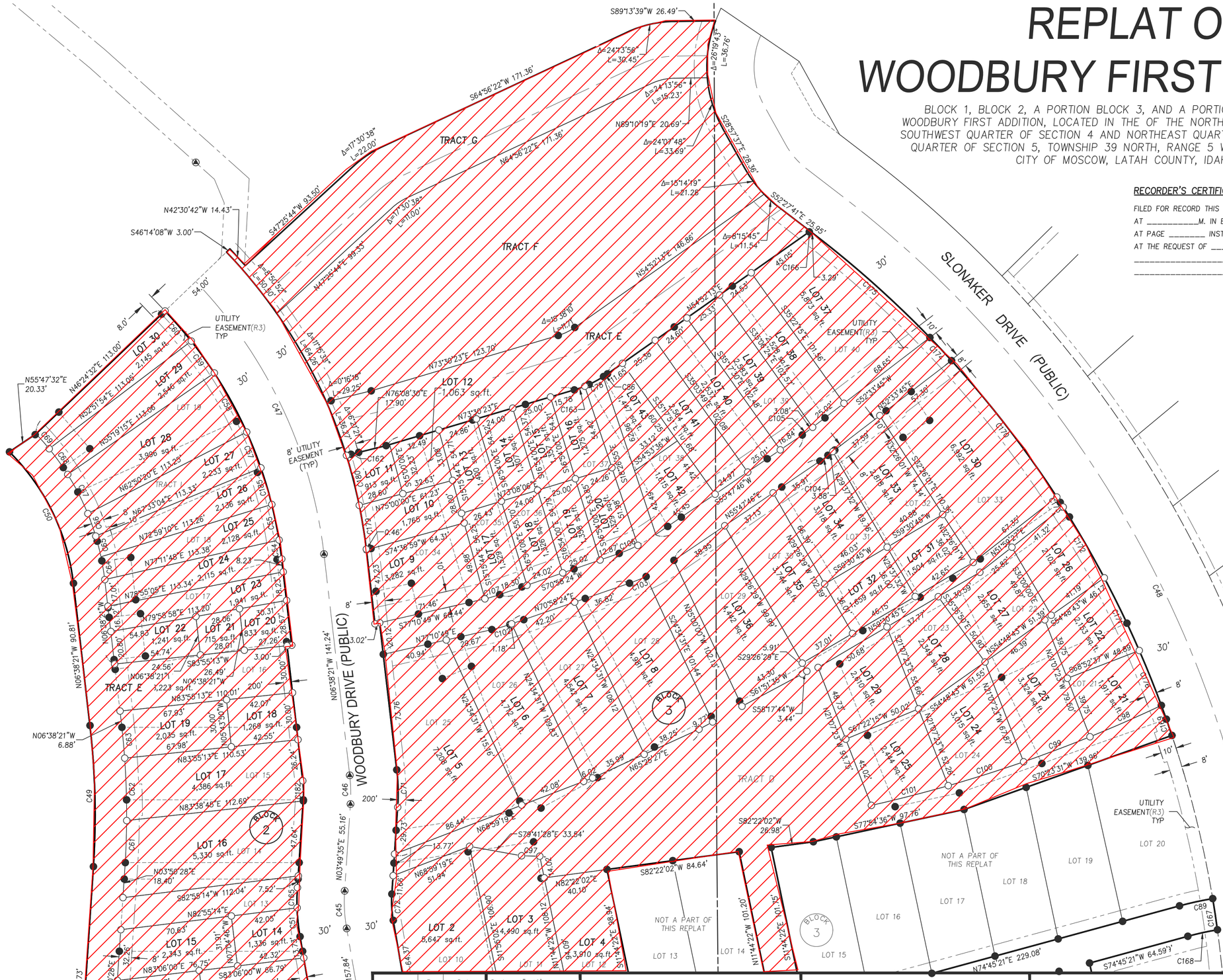
_____ DEPUTY


SLONAKER DRIVE (PUBLIC)
WOODBURY DRIVE (PUBLIC)
TRACT E
TRACT F
TRACT G
TRACT D
LOT 12 1,063 sq.ft.
LOT 2 5,647 sq.ft.
LOT 3 4,490 sq.ft.
LOT 4 3,910 sq.ft.
LOT 5 7,208 sq.ft.
LOT 6 4,712 sq.ft.
LOT 7 4,544 sq.ft.
LOT 8 4,961 sq.ft.
LOT 9 3,282 sq.ft.
LOT 10 1,766 sq.ft.
LOT 11 913 sq.ft.
LOT 12 1,610 sq.ft.
LOT 13 3,508 sq.ft.
LOT 14 1,336 sq.ft.
LOT 15 2,343 sq.ft.
LOT 16 5,330 sq.ft.
LOT 17 4,386 sq.ft.
LOT 18 1,269 sq.ft.
LOT 19 2,035 sq.ft.
LOT 20 833 sq.ft.
LOT 21 715 sq.ft.
LOT 22 1,241 sq.ft.
LOT 23 1,941 sq.ft.
LOT 24 2,115 sq.ft.
LOT 25 2,128 sq.ft.
LOT 26 2,136 sq.ft.
LOT 27 2,233 sq.ft.
LOT 28 3,996 sq.ft.
LOT 29 2,846 sq.ft.
LOT 30 2,145 sq.ft.
LOT 31 1,504 sq.ft.
LOT 32 1,659 sq.ft.
LOT 33 3,744 sq.ft.
LOT 34 3,178 sq.ft.
LOT 35 3,904 sq.ft.
LOT 36 4,442 sq.ft.
LOT 37 9,803 sq.ft.
LOT 38 4,948 sq.ft.
LOT 39 3,015 sq.ft.
LOT 40 3,312 sq.ft.
LOT 41 2,944 sq.ft.
LOT 42 2,660 sq.ft.
LOT 43 6,892 sq.ft.
BLOCK 1
BLOCK 2
BLOCK 3
NOT A PART OF THIS REPLAT
S89°13'39"W 26.49'
S64°56'22"W 171.36'
N64°56'22"E 171.36'
S47°25'44"W 93.50'
N42°30'42"W 14.43'
S46°14'08"W 3.00'
N55°47'32"E 20.33'
N46°24'32"E 113.00'
N52°51'54"E 113.06'
N55°19'15"E 113.06'
N62°50'20"E 113.33'
N67°33'04"E 113.26'
N72°59'10"E 113.26'
N77°11'48"E 113.38'
N78°55'05"E 113.34'
N79°58'58"E 113.20'
N06°38'21"W 90.81'
N06°38'21"W 6.88'
N03°50'28"E 173.73'
N06°38'21"W 141.24'
N03°49'35"E 55.16'
N09°52'56"W 157.84'
N73°30'23"E 123.70'
N76°08'30"E 17.90'
N54°52'13"E 146.86'
S52°27'41"E 25.95'
S28°57'57"E 28.36'
N89°10'19"E 20.69'
S77°10'49"W 66.44'
N77°10'49"E 40.94'
S82°22'02"W 84.64'
S82°22'02"W 26.98'
S77°54'36"W 97.76'
S70°23'31"W 139.96'
N74°45'21"E 229.08'
S74°45'21"W 64.59'
S1°44'22"E 98.94'
N11°44'22"W 101.20'
S1°44'22"E 101.75'
N82°22'02"E 40.10'
S78°41'28"E 33.54'
N68°39'19"E 51.94'
S87°22'15"W 50.00'
S61°51'35"W 43.30'
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S70°58'24"W 36.82'
N70°58'24"E 42.20'
N25°10'00"W 102.74'
N24°34'31"W 106.12'
N24°34'31"W 118.83'
N15°16'00"W 151.16'
N29°16'29"W 102.39'
N27°37'37"W 49.95'
N27°07'23"W 51.28'
N27°07'23"W 67.87'
N54°48'43"W 51.55'
N68°52'37"W 45.89'
N27°07'23"W 79.90'
N51°50'22"E 62.35'
N52°33'45"E 51.30'
N52°26'01"W 44.44'
N59°30'45"W 40.86'
N58°00'45"E 37.77'
N55°47'46"E 37.13'
S65°47'46"W 24.97'
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S52°33'45"W 68.65'
S55°27'15"E 171.36'
S35°32'45"E 24.83'
S33°08'15"E 25.33'
S54°53'36"W 33.12'
S27°07'23"E 55.68'
S29°26'28"E 5.91'
S70°58'24"W 12.87'
S73°08'06"W 24.00'
S75°00'00"W 61.23'
S74°36'59"W 64.31'
S77°10'49"W 71.46'
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S29°16'29"E 102.39'
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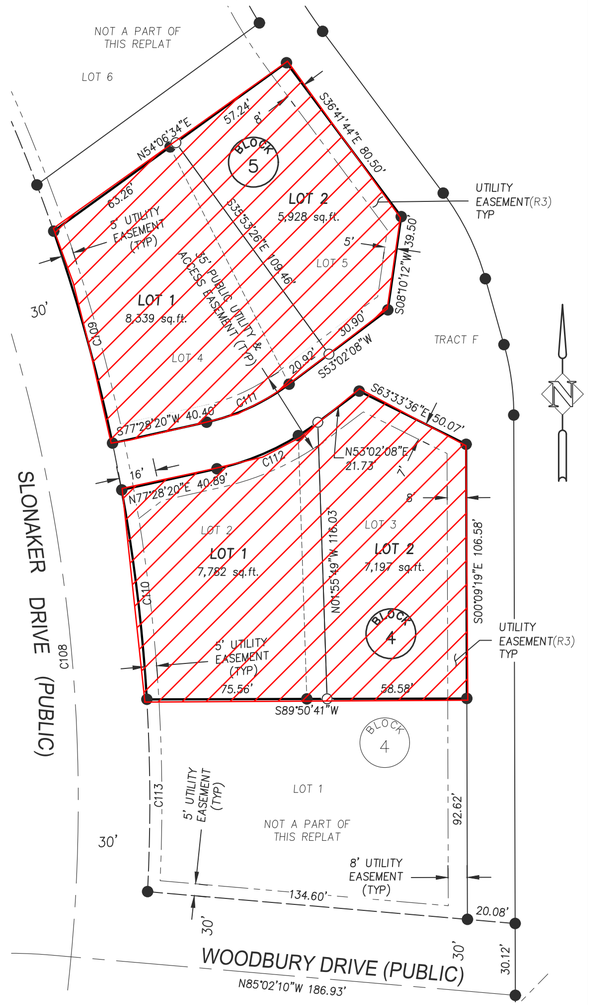
S27°07'23"E 51.28'
S27°07'23"E 67.87'
S54°48'43"E 51.55'
S68°52'37"E 45.89'
S27°07'23"E 79.90'
S51°50'22"W 62.35'
S52°33'45"E 51.30'
S52°26'01"E 44.44'
S59°30'45"W 40.86'
S58°00'45"E 37.77'
S55°47'46"E

RECORDER'S CERTIFICATE:

FILED FOR RECORD THIS _____ DAY OF _____ 20____,
AT _____M. IN BOOK _____ OF _____
AT PAGE _____ INSTRUMENT NUMBER _____
AT THE REQUEST OF _____
_____ LATAH COUNTY RECORDER
_____ DEPUTY

REPLAT OF WOODBURY FIRST ADDITION

BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION OF BLOCK 4 OF WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO



SCALE: 1" = 40'

PRELIMINARY PLAT ONLY

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C1	14.99	200.00	004°17'40"	N16°32'35"E	14.99
C2	110.85	700.00	009°04'23"	N09°51'34"E	110.73
C3	58.31	200.00	016°42'12"	S86°36'44"W	58.10
C4	160.32	100.00	091°51'26"	N55°48'39"W	143.69
C5	32.80	101.25	018°33'38"	N84°53'03"W	32.66
C6	43.19	100.00	024°44'56"	S73°26'51"W	42.86
C7	41.40	100.00	023°43'23"	S72°56'05"W	41.11
C8	36.19	200.00	010°22'07"	S89°58'50"W	36.14
C9	101.64	100.00	058°14'02"	N55°43'06"W	97.32
C10	94.73	100.00	054°16'37"	N54°52'45"W	91.23
C11	12.75	170.14	004°17'40"	S16°32'42"W	12.75
C12	32.40	75.00	024°44'56"	N73°26'51"E	32.14
C13	51.76	125.00	023°43'23"	N72°56'05"E	51.39
C14	40.72	225.00	010°22'07"	N89°58'50"E	40.66
C15	76.53	125.00	035°04'45"	S67°17'44"E	75.34
C16	50.52	125.00	023°09'17"	S38°10'43"E	50.17
C17	72.54	75.00	055°24'58"	S54°18'34"E	69.75
C18	69.64	110.00	036°16'33"	N63°52'47"W	68.49
C19	34.66	110.00	018°03'07"	N36°42'56"W	34.51
C20	52.70	90.00	033°32'49"	N43°22'30"W	51.95

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C21	38.78	90.00	024°41'12"	N72°29'31"W	38.48
C22	15.21	190.00	004°35'14"	N87°07'44"W	15.21
C23	19.17	190.00	005°46'53"	S87°41'13"W	19.16
C24	37.26	90.00	023°43'23"	S72°56'05"W	37.00
C25	20.07	110.00	010°27'09"	S66°17'57"W	20.04
C26	27.45	110.00	014°17'47"	S78°40'25"W	27.38
C27	7.18	111.25	003°41'52"	S87°41'03"W	7.18
C28	74.42	670.00	006°21'50"	S11°12'51"W	74.38
C29	27.16	170.00	009°09'12"	N82°50'14"E	27.13
C30	39.27	66.95	033°36'20"	N13°14'03"W	38.71
C31	35.08	66.95	030°01'18"	N18°34'46"E	34.68
C32	34.67	66.95	029°40'10"	N48°25'30"E	34.28
C33	35.33	66.95	030°14'14"	N78°22'42"E	34.92
C34	34.80	66.95	029°46'43"	S71°36'50"E	34.41
C35	34.55	66.95	029°34'02"	S41°56'27"E	34.17
C36	39.40	66.95	033°42'55"	S10°17'58"E	38.83
C38	143.11	130.00	063°04'26"	S58°52'34"E	135.99
C39	15.50	35.00	025°22'16"	N19°05'37"E	15.37
C40	13.29	130.00	005°51'30"	S24°24'36"E	13.29
C42	93.65	69.99	076°39'32"	S48°12'34"E	86.82

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C43	26.32	130.00	011°35'55"	S15°40'53"E	26.27
C177	2.46	40.00	003°31'20"	S85°28'32"W	2.46
C184	19.71	61.89	018°14'42"	N86°51'46"W	19.63

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C108	816.82	700.00	066°51'27"	N19°01'58"W	771.26
C109	92.30	730.00	007°14'40"	N15°30'54"W	92.24
C110	88.50	730.00	006°56'45"	N06°50'59"W	88.44
C111	38.38	90.00	024°26'12"	S65°15'14"W	38.09
C112	46.91	110.00	024°26'12"	N65°15'14"E	46.56
C113	80.65	730.00	006°19'48"	N00°12'42"W	80.61

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C45	23.93	100.00	013°42'31"	N03°01'40"W	23.87
C46	18.27	100.00	010°27'56"	N01°24'23"W	18.24
C47	194.38	300.00	037°07'29"	N25°12'06"W	191.00
C49	89.63	490.00	010°28'49"	N01°23'57"W	89.50
C50	94.43	140.00	038°38'47"	N25°57'45"W	92.65
C51	18.36	130.00	008°05'23"	S05°50'14"E	18.34
C54	12.18	273.00	002°33'22"	S07°55'02"E	12.18
C55	22.98	273.00	004°49'21"	S11°36'23"E	22.97
C57	24.40	273.00	005°07'17"	S21°40'13"E	24.39
C58	42.77	273.00	008°58'35"	S28°43'09"E	42.73
C59	24.95	273.00	005°14'13"	S35°49'32"E	24.94
C60	25.35	273.00	005°19'12"	S41°06'15"E	25.34
C61	30.54	510.02	003°25'50"	N02°07'31"E	30.53
C62	39.62	510.02	004°27'03"	N01°48'55"W	39.61
C63	23.13	510.02	002°35'54"	N05°20'24"W	23.13
C64	14.68	160.00	005°15'29"	S09°16'07"E	14.68
C65	13.54	160.00	004°50'52"	S14°19'17"E	13.53
C66	15.11	160.00	005°24'43"	S19°27'05"E	15.11
C67	27.95	160.00	010°00'35"	S27°09'44"E	27.92
C68	20.11	160.00	007°12'06"	S35°46'05"E	20.10

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C69	12.61	160.00	004°31'02"	S41°37'39"E	12.61
C71	23.75	130.00	010°27'56"	N01°24'23"W	23.71
C72	16.75	70.00	013°42'31"	N03°01'40"W	16.71
C78	13.18	72.00	010°29'06"	N62°40'46"E	13.16
C86	3.23	72.00	002°34'00"	N56°09'13"E	3.23
C87	6.38	40.00	009°08'15"	N79°19'29"E	6.37
C89	21.55	210.00	005°52'42"	N77°41'43"E	21.54
C94	9.70	60.00	009°15'46"	S88°20'45"W	9.69
C95	7.57	60.00	007°13'46"	N83°24'29"W	7.57
C96	11.39	40.00	016°18'48"	S87°57'00"E	11.35
C97	11.54	900.20	000°44'05"	S88°44'23"E	11.54
C98	49.47	889.80	003°11'07"	S66°17'52"W	49.82
C99	45.01	889.80	002°53'53"	S69°20'22"W	45.00
C100	50.10	889.80	003°13'34"	S72°24'06"W	50.09
C101	50.36	889.80	003°14'33"	S75°38'09"W	50.71
C102	11.92	110.00	006°12'25"	N74°04'37"E	11.91
C103	11.37	110.00	005°55'19"	N68°00'44"E	11.36
C106	12.90	90.00	008°12'38"	S66°52'05"W	12.89
C107	9.75	90.00	006°12'25"	S74°04'37"W	9.75
C162	8.02	6207.00	000°04'26"	N76°15'41"E	8.02

CURVE TABLE					
Curve #	Length	Radius	Delta	Chord Bearing	Chord Length
C163	7.02	72.00	005°35'04"	N70°42'51"E	7.01
C164	2.46	40.00	003°31'20"	S85°28'32"W	2.46
C165	12.75	130.00	005°37'07"	S01°01'01"W	12.74
C166	0.68	72.00	000°32'37"	N54°35'55"E	0.68
C167	20.00	670.00	001°42'38"	S08°36'04"E	20.00
C168	19.23	190.00	005°47'53"	S77°39'18"W	19.22
C169	20.17	670.15	001°43'29"	S19°27'05"E	20.17
C170	109.39	670.15	009°21'10"	S37°39'20"E	109.27
C171	51.15	671.40	004°21'55"	N25°42'23"W	51.14
C172	51.92	674.31	004°24'40"	N30°06'57"W	51.90
C173	7.53	943.56	000°27'27"	N32°39'27"W	7.53
C174	20.10	670.15	001°43'07"	N43°11'28"W	20.10
C175	98.32	668.36	008°25'43"	N48°15'29"W	98.23
C176	37.54	672.79	003°11'48"	N21°54'55"W	37.53
C179	28.13	330.54	004°52'35"	N09°06'14"W	28.12
C180	32.72	329.63	005°41'15"	N14°26'06"W	32.71
C182	12.79	70.00	010°27'56"	N01°24'23"W	12.77
C185	24.26	273.00	005°05'30"	S16°33'49"E	24.25

	By	Date
Surveyed	CBB	08/24
Drawn	TMH	04/25
Checked	JMV	04/25
Approved		
Accepted		

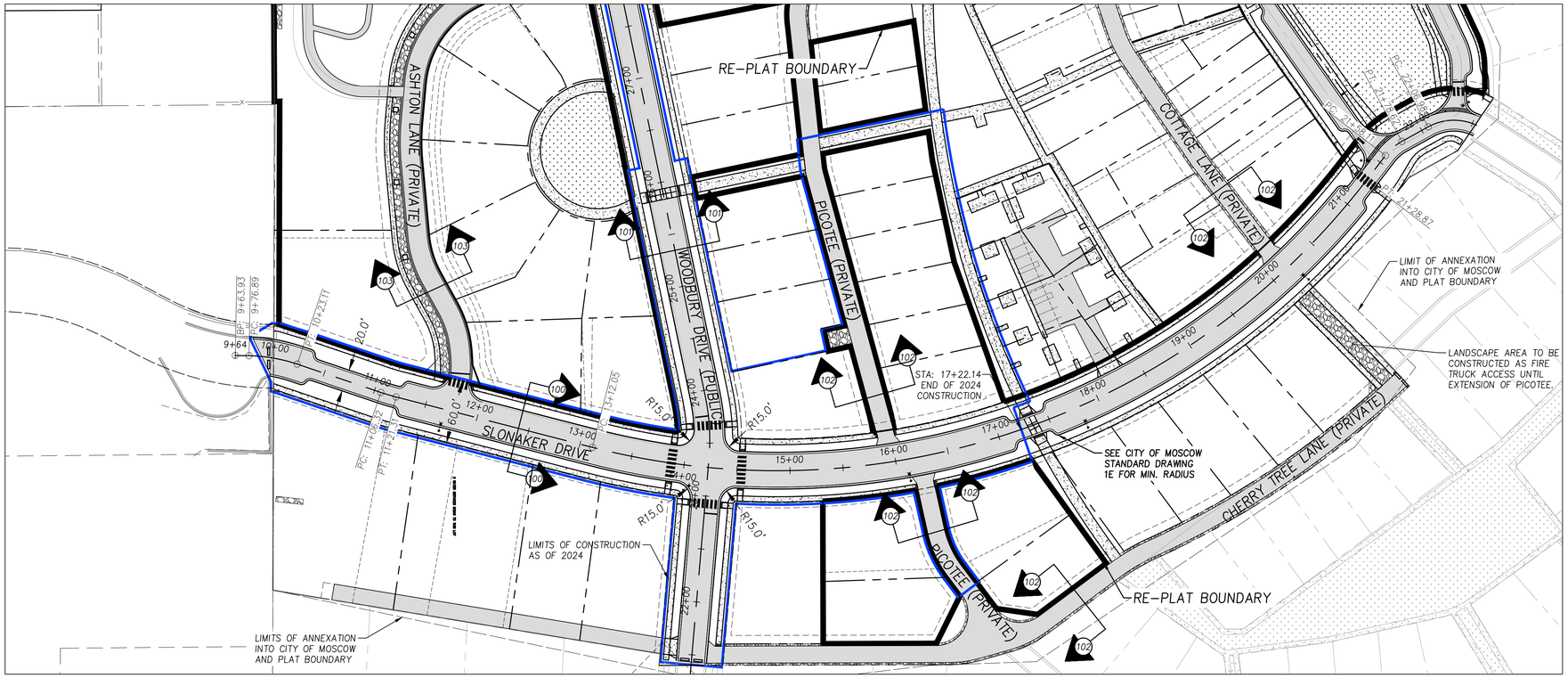
Scale: 1"=40'
Date: April 16, 2025
Drawing Name WNZ03-PLAT 2025.DWG
Sheet 5 of 5

SYNTIER Engineering, Inc.

For:
WOODBURY LAND LLC
1004 DAIRY LANE
MOSCOW, IDAHO

BLOCK 1, BLOCK 2, A PORTION BLOCK 3, AND A PORTION OF BLOCK 4 OF WOODBURY FIRST ADDITION, LOCATED IN THE OF THE NORTHWEST QUARTER OF THE SOUTHWEST QUARTER OF SECTION 4 AND NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 5, TOWNSHIP 39 NORTH, RANGE 5 WEST, BOISE MERIDIAN, CITY OF MOSCOW, LATAH COUNTY, IDAHO

Received 06-06-2025



SLONAKER DRIVE PLAN

0 30 60 120

SCALE: 1" = 60'

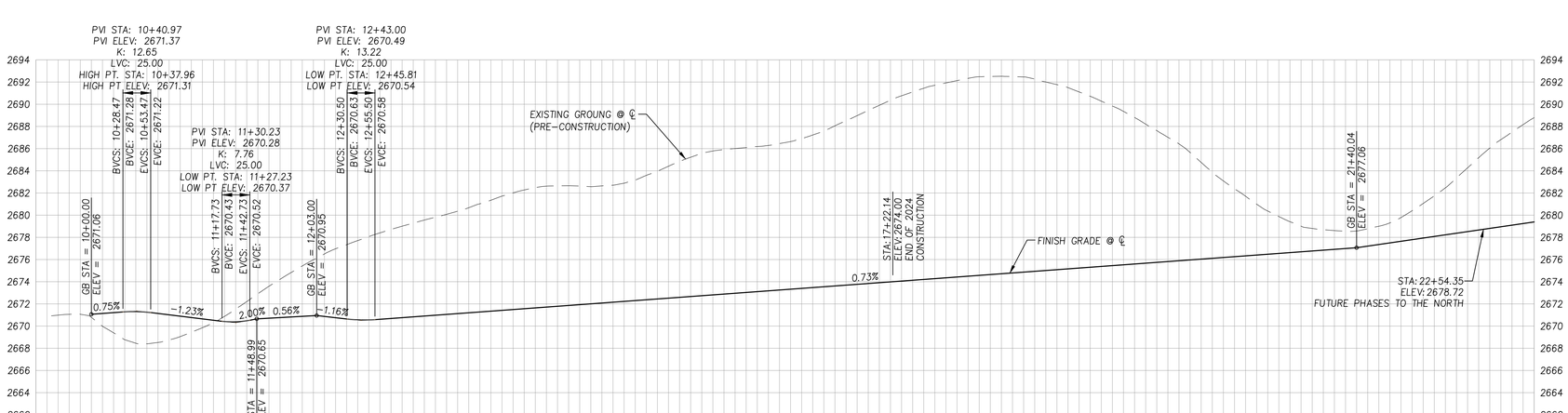
PLAT NOTES

(100) CONSTRUCT 34' WIDE RESIDENTIAL STREET SECTION PER MODIFIED CITY OF MOSCOW STANDARD DRAWING 1B, SHEET C5.3.

(101) CONSTRUCT LOCAL STREET PER CITY OF MOSCOW STANDARD DRAWING 1A, SHEET C5.3.

(102) CONSTRUCT PRIVATE ALLEY PER TYPICAL ALLEY SECTION, SHEET C5.3.

(103) CONSTRUCT STREET PER ASHTON LANE ROAD SECTION, SHEET C5.3.



SLONAKER DRIVE PROFILE

SCALE: 1" = 60' (HORIZ.)
1" = 6' (VERT.)

SLONAKER PLAN AND PROFILE 10+00 TO 22+55
WOODBURY 2025 PRELIMINARY PLAT

SYNTIER Engineering, Inc.
408 SE Bielsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED 16146 STATE OF IDAHO SCOTT A SUMNER 6/6/25

DESIGNED:	ATM
DRAWN:	ATM
CHECKED:	SAS
DATE:	JUNE 4, 2025

NO.	DESCRIPTION	DATE

REVISIONS

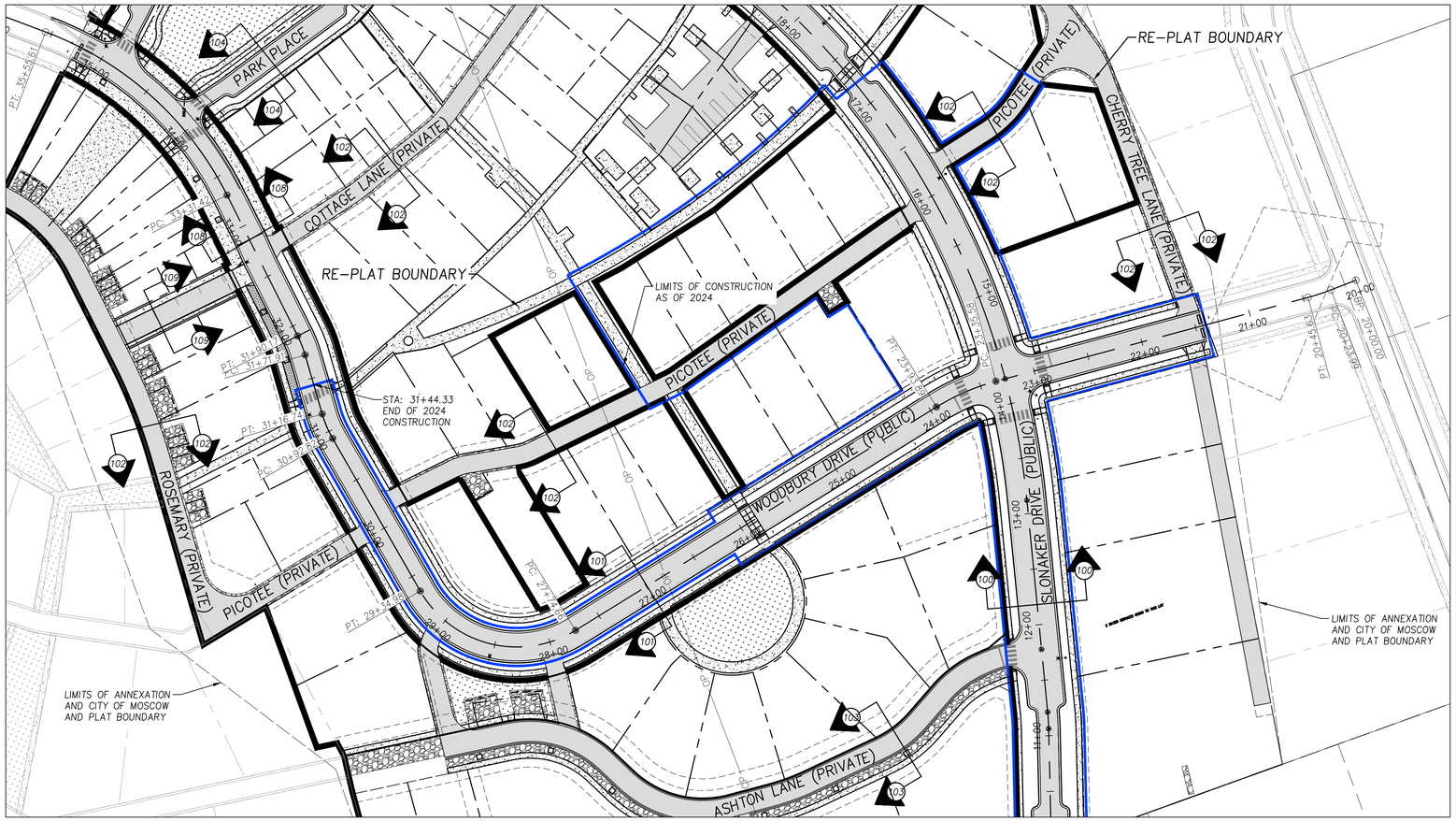
SHEET NO.
C5.0
7 OF 10

JOB NO. WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development\WNZ03-DWGS\Sheets\Preliminary Plat Phase 1\ WNZ03-C5.0-SLONAKER-STA 10+00 TO STA 24+00.dwg

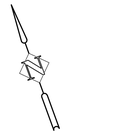
Received 06-06-2025



WOODBURY DRIVE PLAN

WOODBURY DRIVE PROFILE

SCALE: 1" = 60' (HORIZ.)
1" = 6' (VERT.)



PLAT NOTES

(100) CONSTRUCT 34' WIDE RESIDENTIAL STREET SECTION PER MODIFIED CITY OF MOSCOW STANDARD DRAWING 1B, SHEET C5.3.

(101) CONSTRUCT LOCAL STREET PER CITY OF MOSCOW STANDARD DRAWING 1A, SHEET C5.3.

(102) CONSTRUCT PRIVATE ALLEY PER TYPICAL ALLEY SECTION, SHEET C5.3.

(103) CONSTRUCT STREET PER ASHTON LANE ROAD SECTION, SHEET C5.3.

(104) CONSTRUCT ONE WAY LOOP PER PARK PLACE ROAD SECTION, SHEET C5.3.

(108) CONSTRUCT LOCAL STREET PER NORTHERN WOODBURY DRIVE ROAD SECTION, SHEET C5.3.

(109) CONSTRUCT STREET PER COTTAGE CONNECT ROAD SECTION, SHEET C5.3.

WOODBURY PLAN AND PROFILE 20+00 TO 35+23

WOODBURY 2025 PRELIMINARY PLAT

SYNTIER Engineering, Inc.
405 SE Bretsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO SCOTT A SUMNER 16186 6/6/25

DESIGNED:	ATM		
DRAWN:	ATM		
CHECKED:	SAS		
DATE:	JUNE 4, 2025		

NO.	DATE	DESCRIPTION

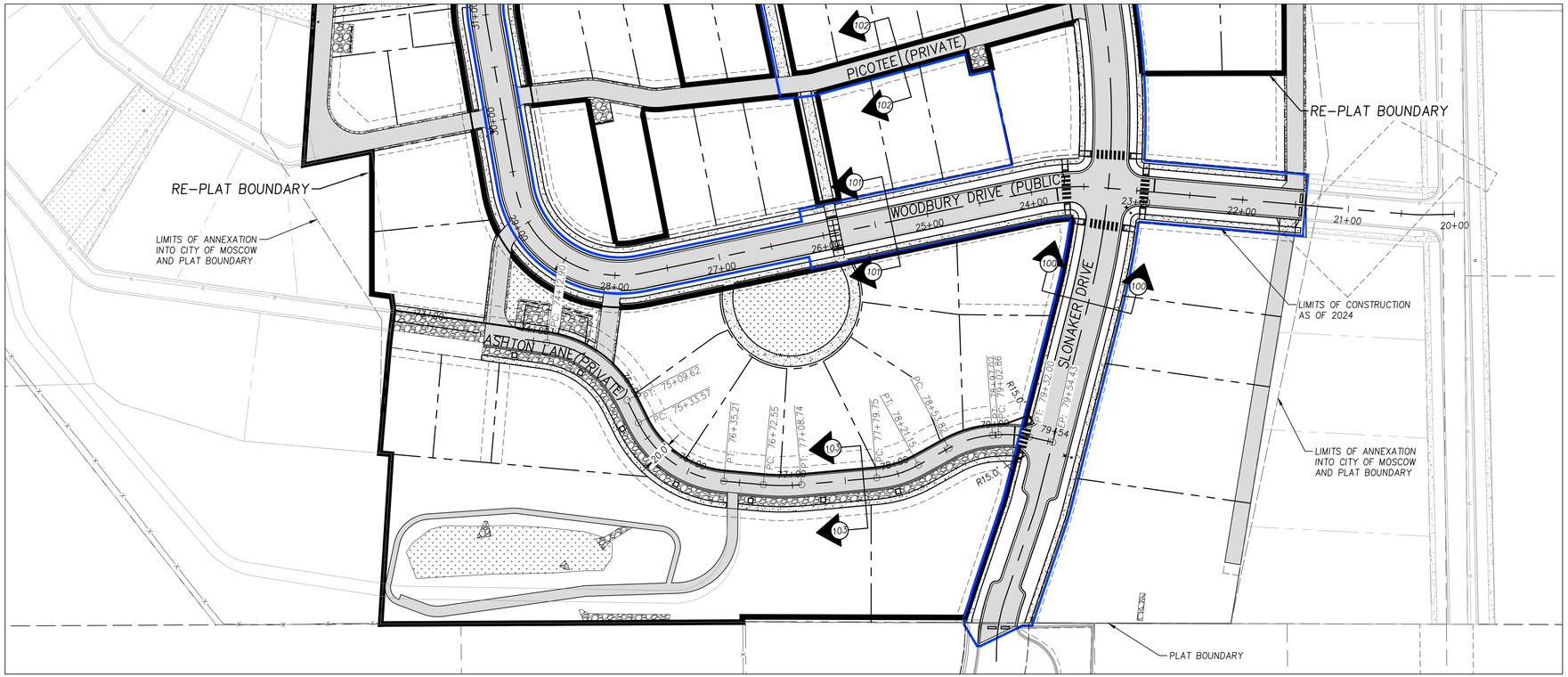
REVISIONS

SHEET NO.
C5.1
8 OF 10
JOB NO. WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development\WNZ03-DWGS\Sheets\Preliminary Plat Phase 1\WNZ03-C5.1-WOODBURY STA 25+00 TO STA 32+00.dwg

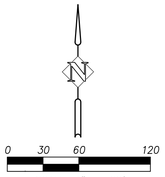
Received 06-06-2025



ASHTON LANE PLAN

ASHTON LANE PROFILE

SCALE: 1" = 60' (HORIZ.)
1" = 6' (VERT.)



SCALE: 1" = 60'

PLAT NOTES

(100) CONSTRUCT 34' WIDE RESIDENTIAL STREET SECTION PER MODIFIED CITY OF MOSCOW STANDARD DRAWING 1B, SHEET C5.3.

(101) CONSTRUCT LOCAL STREET PER CITY OF MOSCOW STANDARD DRAWING 1A, SHEET C5.3.

(102) CONSTRUCT PRIVATE ALLEY PER TYPICAL ALLEY SECTION, SHEET C5.3.

(103) CONSTRUCT STREET PER ASHTON LANE ROAD SECTION, SHEET C5.3.

ASHTON PLAN AND PROFILE 72+50 TO 79+50
WOODBURY 2025 PRELIIMINARY PLAT

SYNTIER Engineering, Inc.
408 SE Bretsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED STATE OF IDAHO SCOTT A SUMNER 16146 6/6/25

DESIGNED:	ATM	
DRAWN:	ATM	
CHECKED:	SAS	
DATE:	JUNE 4, 2025	

NO.	DESCRIPTION	DATE
	REVISIONS	

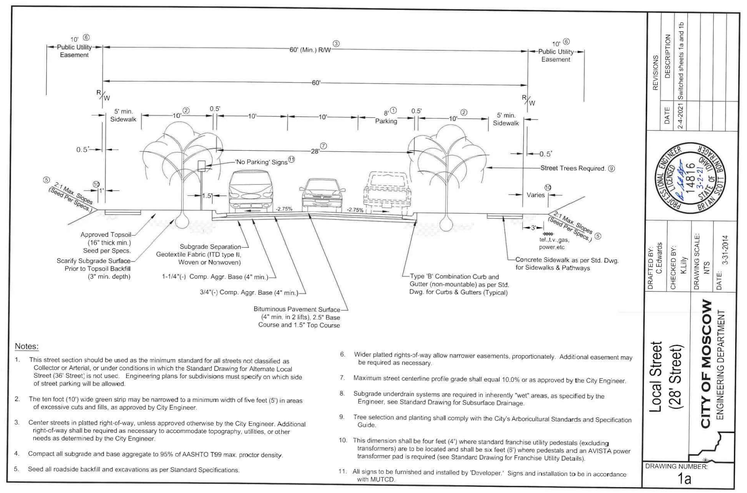
SHEET NO.
C5.2
9 OF 10

JOB NO.
WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development)\WNZ03-DWGS\Sheets\Preliminary Plat Phase 1\ WNZ03-C5.2-ASHTON STA 72+50 TO STA 79+50.dwg

Received 06-06-2025



Notes:

1. This street section should be used as the minimum standard for all streets not classified as Collector or Arterial, or under conditions in which the Standard Drawing for Alternate Local Street (36' Street) is not usec. Engineering plans for subdivisions must specify on which side of street parking will be allowed.
2. The ten foot (10') wide green strip may be narrowed to a minimum width of five feet (5') in areas of excessive cuts and fills, as approved by City Engineer.
3. Center streets in platted right-of-way, unless approved otherwise by the City Engineer. Additional right-of-way shall be required as necessary to accommodate topography, utilities, or other needs as determined by the City Engineer.
4. Compact all subgrade and base aggregate to 95% of AASHTO T99 max. proctor density.
5. Seed all roadside backfill and excavations as per Standard Specifications.
6. Wider platted rights-of-way allow narrower easements, proportionately. Additional easement may be required as necessary.
7. Maximum street centerline profile grade shall equal 10.0% or as approved by the City Engineer.
8. Subgrade underdrain systems are required in inherently "wet" areas, as specified by the Engineer, see Standard Drawing for Subsurface Drainage.
9. Tree selection and planting shall comply with the City's Arboricultural Standards and Specification Guide.
10. This dimension shall be four feet (4') where standard franchise utility pedestals (excluding transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).
11. All signs to be furnished and installed by 'Developer.' Signs and installation to be in accordance with MUTCD.

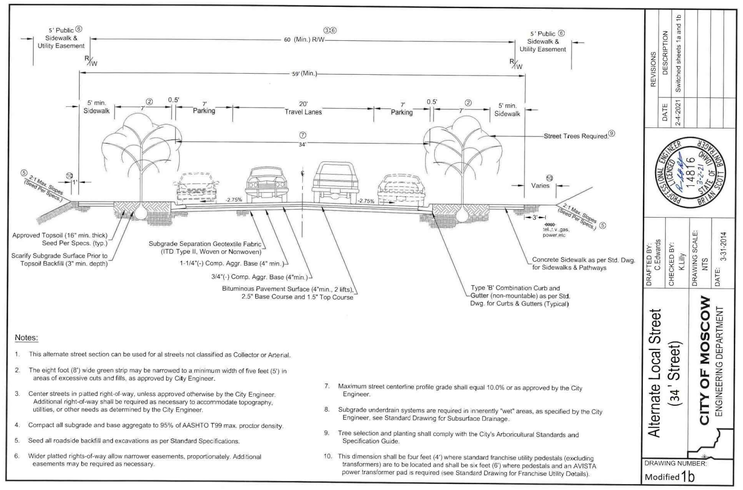
REVISIONS: DATE 2-4-2021 — DESCRIPTION: Switched sheets 1a and 1b

DRAFTED BY: C.Edwards | CHECKED BY: K.Lilly | DRAWING SCALE: NTS | DATE: 3-31-2014

Local Street (28' Street)

CITY OF MOSCOW ENGINEERING DEPARTMENT

DRAWING NUMBER: 1a



Notes:

1. This alternate street section can be used for al streets not classified as Collector or Arterial.
2. The eight foot (8') wide green strip may be narrowed to a minimum width of five feet (5') in areas of excessive cuts and fills, as approved by City Engineer.
3. Center streets in platted right-of-way, unless approved otherwise by the City Engineer. Additional right-of-way shall be required as necessary to accommodate topography, utilities, or other needs as determined by the City Engineer.
4. Compact all subgrade and base aggregate to 95% of AASHTO T99 max. proctor density.
5. Seed all roadside backfill and excavations as per Standard Specifications.
6. Wider platted rights-of-way allow narrower easements, proportionately. Additional easements may be required as necessary.
7. Maximum street centerline profile grade shall equal 10.0% or as approved by the City Engineer.
8. Subgrade underdrain systems are required in inherently "wet" areas, as specified by the City Engineer, see Standard Drawing for Subsurface Drainage.
9. Tree selection and planting shall comply with the City's Arboricultural Standards and Specification Guide.
10. This dimension shall be four feet (4') where standard franchise utility pedestals (excluding transformers) are to be located and shall be six feet (6') where pedestals and an AVISTA power transformer pad is required (see Standard Drawing for Franchise Utility Details).

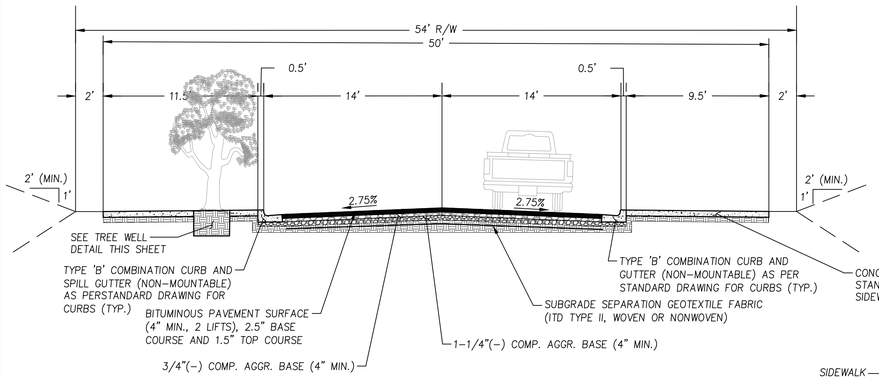
REVISIONS: DATE 2-4-2021 — DESCRIPTION: Switched sheets 1a and 1b

DRAFTED BY: C.Edwards | CHECKED BY: K.Lilly | DRAWING SCALE: NTS | DATE: 3-31-2014

Alternate Local Street (34' Street)

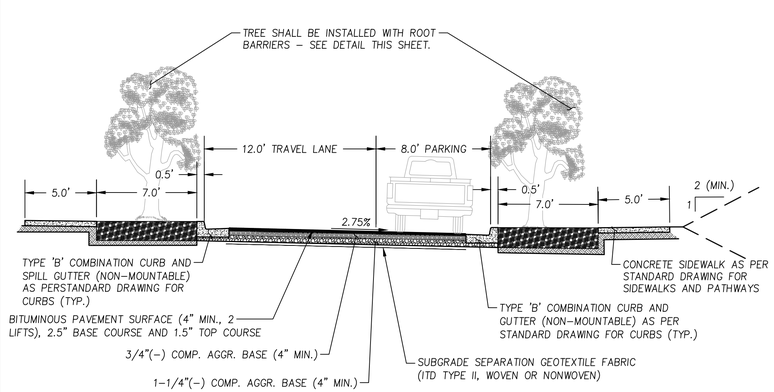
CITY OF MOSCOW ENGINEERING DEPARTMENT

DRAWING NUMBER: Modified 1b



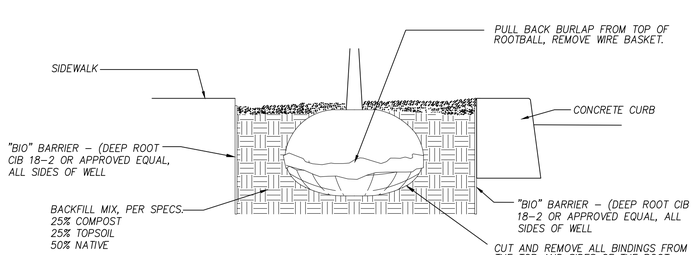
NORTHERN WOODBURY DRIVE ROAD SECTION

N.T.S.



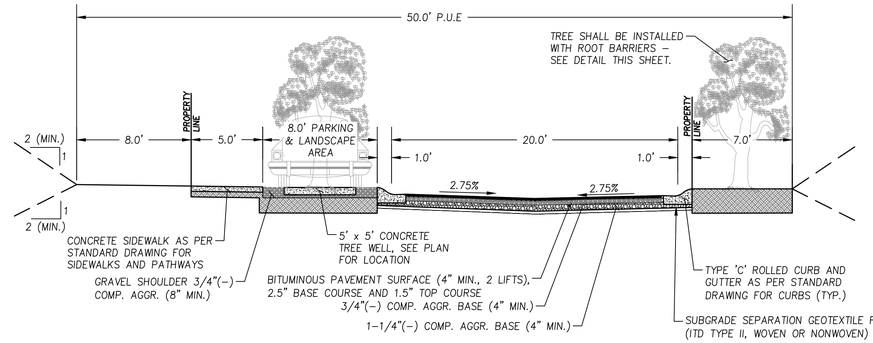
PARK PLACE ROAD SECTION

SCALE: 1"=5'



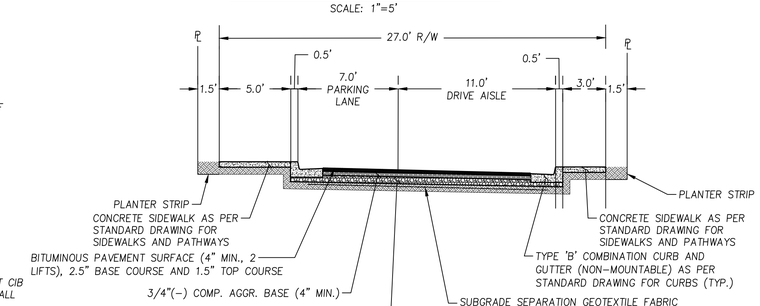
TYPICAL STREET TREE WELL

N.T.S.



ASHTON LANE ROAD SECTION

SCALE: 1"=5'



COTTAGE CONNECT ROAD SECTION

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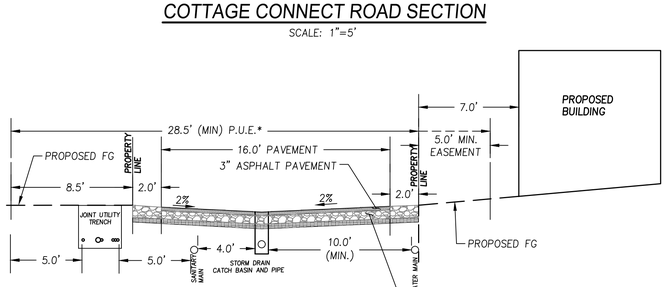


PRIVATE ALLEY SECTION

SCALE: 1"=5'

ROAD SECTIONS
WOODBURY 2025 PRELIMINARY PLAT

SYNTIER Engineering, Inc.
408 SE Bielsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER — LICENSED — 16146 — STATE OF IDAHO — SCOTT A SUMNER — 6/2/25

DESIGNED:	DRAWN:	CHECKED:	DATE:
ATM	ATM	SAS	JUNE 4, 2025

REVISIONS

NO.	DESCRIPTION	DATE

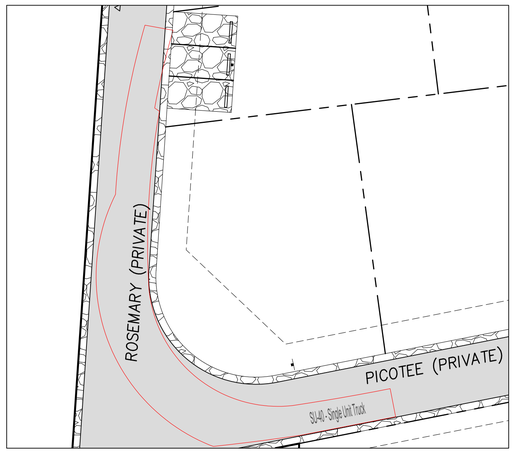
SHEET NO. C5.3 OF 10

JOB NO. WNZ-03

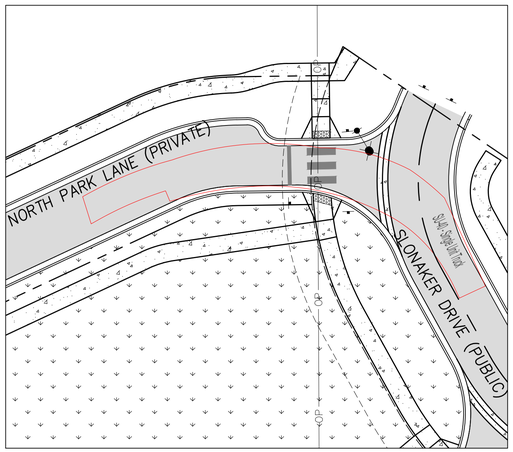
P:\WNZ-03 (Sonaker Development\WNZ03-DWGS\Sheets\Preliminary Plat Phase 1\WNZ03-C5.3-ROAD SECTIONS.dwg

MOSCOW, IDAHO

Received 06-06-2025



1– PICTOEE RT ROSEMARY
SCALE: 1" =20'



2 –SLONAKER LT NORTH PARK PLACE
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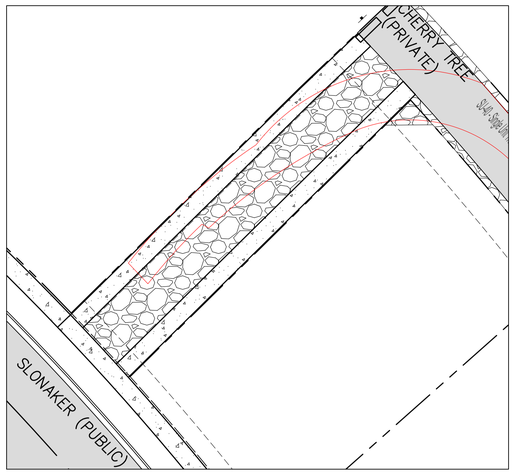
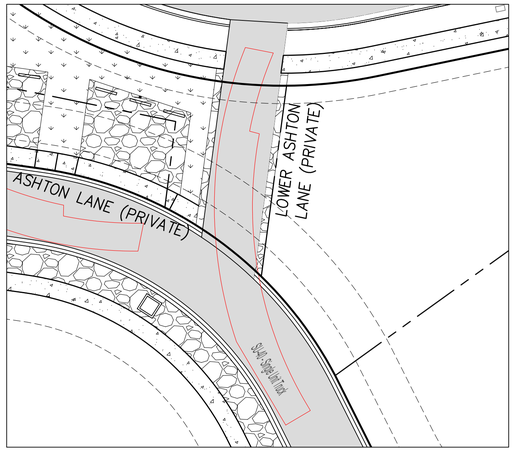
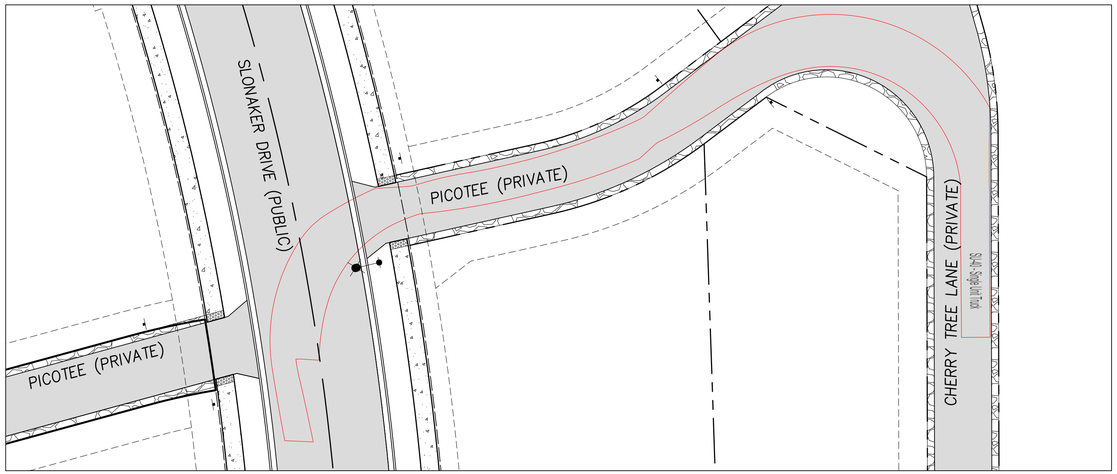


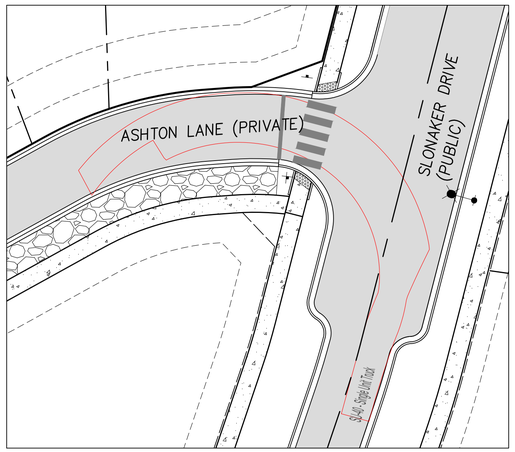
3 – CHERRY TREE LT TO TEMP FIRE ACCESS
SCALE: 1" =20'



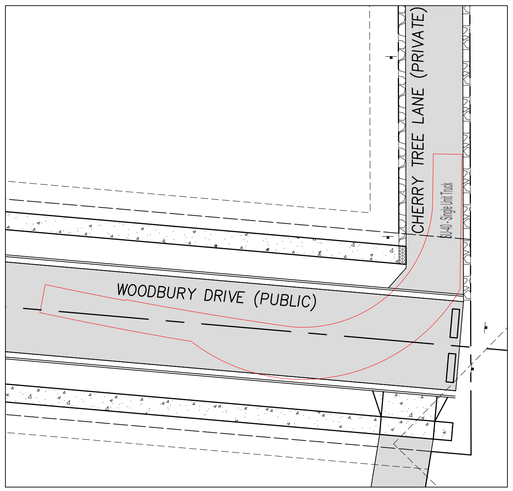
4 – ASHTON LANE RT LOWER ASHTON LANE
SCALE: 1" =20'



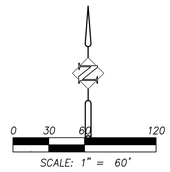
5 – CHERRY TREE LT PICOTEE LT SLONAKER
SCALE: 1" =20'



6 – SLONAKER LT ASHTON LANE
SCALE: 1" =20'

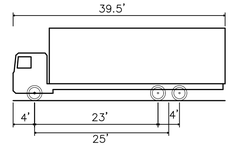


7 – CHERRY TREE RT WOODBURY
SCALE: 1" =20'



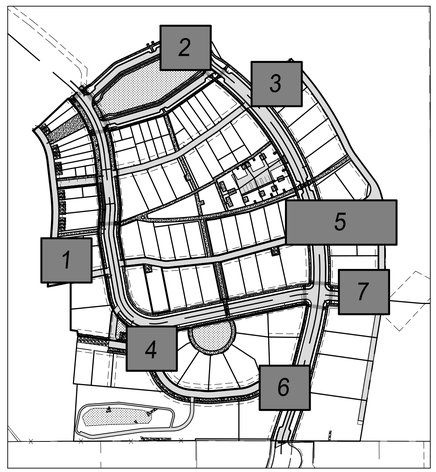
FIRE TRUCK NOTES:

FIRE TRUCK MOVEMENTS ANALYZED WITH AUTODESK VEHICLE TRACKING 2022. VEHICLE USED WAS A 40' SINGLE-UNIT TRUCK PER THE REQUEST OF THE FIRE MARSHALL. OUTLINE SHOWN ON PLANS IS THE WHEEL PATH OF THE VEHICLE.



OVERALL LENGTH	40.000 FT
OVERALL WIDTH	8.000 FT
OVERALL BODY HEIGHT	13.500 FT
MIN BODY GROUND CLEARANCE	1.367 FT
TRACK WIDTH	8.000 FT
MAX STEERING ANGLE (VIRTUAL)	31.80°

SU-40 – SINGLE UNIT TRUCK



KEYMAP

FIRE TRUCK ACCESS
WOODBURY 2025 PRELIMINARY PLAT

SYNTIER Engineering, Inc.
405 SE Brelsford Drive, Suite C Pullman, WA 99163
www.SynTierEngr.com 509.339.6187

PROFESSIONAL ENGINEER LICENSED 16186 STATE OF IDAHO SCOTT A SUMNER
6/6/25

DESIGNED:	ATM
DRAWN:	ATM
CHECKED:	SAS
DATE:	JUNE 4, 2025

DATE	NO.	DESCRIPTION
		REVISIONS

SHEET NO.
C6.0
11 OF 10
JOB NO. WNZ-03

MOSCOW, IDAHO

P:\WNZ-03 (Slonaker Development)\WNZ03-DWGS\Sheets\Preliminary Plat Phase 1\WNZ03-C6.0-Fire Truck Access.dwg

Received 06-06-2025

City of Moscow
Engineering Dept.

Memo

To: Michael Ray, Planning Manager

From: Bob Buvel, Senior Civil Engineer

cc: Scott Bontrager, City Engineer; Jennifer Fleischman, Administrative Assistant – Capital Projects & Deputy City Clerk.

Date: June 17, 2025

Re: Department Review of the Woodbury Addition Re-Plat and Planned Unit Development

---

After reviewing the preliminary re-plat and planned unit development (PUD) for the Woodbury addition, the engineering department has a few of recommendations for consideration at this stage of the re-platting process. We don't anticipate that the traffic on Mountain View Road will increase significantly from the original plat to the re-plat. Based on the TIS submitted with the original plat, the additional lots won't have a significant impact on the LOS at F Street and Mt. View. The improvements on Mt. View to mitigate the impact of the Woodbury Subdivision have already been installed. As with the original plat, more analysis/mitigation may be required when the connection to Orchard Ave. is completed. The increase in the number of lots and density from the original plat will have an impact on some of the utility systems . As a result, please consider the following:

1. The addition lots will have a negligible impact on domestic water demand in the area, however the addition of NB zoned lots with potential commercial uses may increase the fire flow demand in the subdivision. The water modeling report for the original plat was done prior to upgrades to the Ponderosa pump station and it recommended connecting to the main pressure zone in Slonaker as the Ponderosa station was insufficient to serve the development. After that water model analysis was completed, the City constructed a new pump station serving the Orchard Ave. pressure zone and the Woodbury Addition was included in the potential service area of that pump station design. The developer has also constructed a connection to that pressure zone and installed a PRV near the connection to the main pressure zone in Slonaker, expanding the Orchard Pressure Zone as intended in the new pump station design. Flow tests of the system near the new commercial lots indicate an available fire flow of 3800 gpm. Fire Flow at that capacity should be sufficient to serve the majority of uses in the NB Zone. Any supply deficiencies for other uses can be mitigated by installing fire suppression systems in the

building and/or constructing a building with a more fire-resistant building construction type.

2. Because of the increased density and subsequent increase in overall impervious area of the development, the Woodbury stormwater report will need to be revised and any necessary modifications to the existing detention pond will need to be completed with the next phase of the development.

3. The sanitary system as designed should be sufficient to serve the additional lots however the additional demand will exacerbate the issue downstream of Slonaker and the planned Lanny connection should be required with the next phase of the development.

4. The proposed re-plat shows the Woodbury Drive ROW width decreasing from Sixty feet (60') to Fifty-Four feet (54') north of Cottage Lane. The proposed re-plat indicates that Woodbury will continue to be a public street. The Woodbury ROW shall stay 60' wide if it is going to be a public street.

This concludes our comments for this preliminary application. Please let me know if you have any questions or comments.

Regards,

Bob Buvel

COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, January 26, 2026

AGENDA ITEM TITLE

Idaho Energy Efficiency & Conservation Block Grant Program Application (ACTION ITEM) - Alisa Anderson / Karl Riedinger

RESPONSIBLE STAFF

Alisa Anderson, Grants Manager, Karl Riedinger

ADDITIONAL PRESENTER(S)

DESCRIPTION

The Idaho Energy Efficiency and Conservation Block Grant (Idaho EECBG) program offers competitive subawards to eligible cities and counties, enabling local governments to promote energy efficiency and conservation practices. This support helps communities meet the needs of a growing population, reduce tax burdens, and maintain low energy rates. Funding for this program is supplemented by the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL), which provides federal formula grants to states and tribes. These grants support subgrant opportunities for local governments to implement energy-saving projects. The Governor's Office of Energy and Mineral Resources (OEMR) manages the Idaho program and has announced a second round of funding. The first round awarded grants to 11 cities and 3 counties across Idaho. The upcoming round aims to continue investing in communities to increase energy savings and reduce costs. OEMR is particularly interested in independent projects with quick implementation timelines. Previous projects funded by Idaho EECBG focused on various energy efficiency retrofits and upgrades within municipal and county facilities. The current grant application deadline is February 4, 2026. Projects must not exceed $50,000 in costs, and no cost-sharing is permitted. All projects must be completed, and all reports and reimbursement requests submitted by September 1, 2026.

The City staff is requesting to submit an application for the purchase of a Mean Green "EVO" (Revolution) electric zero-turn lawn mower, estimated to cost $45,000, including delivery, setup, and testing. This electric mower offers up to 8 hours of continuous operation and has an expected lifespan of 10 years. Over this period, it is projected to save the City approximately 400-500 gallons of fuel and about 5.5 gallons of oil annually. The Parks Department staff would be able to operate these mowers early in the morning, helping to avoid the summer heat. The Mean Green Mowers operate at a noise level of 78-82 dB with blades on high speed—approximately 2 to 4 times quieter than traditional internal combustion engine (ICE) mowers currently in use. This quieter operation would eliminate the need to mow after 7 a.m. during summer months, reducing disruption in residential neighborhoods. Additionally, the Mean Green Mowers are water-resistant, safe to operate on inclines, and fully charged units can operate up to eight hours on a single charge.

REVIEWED BY

PROPOSED ACTIONS

PROPOSED ACTIONS: Recommend approval to apply for an Idaho Energy Efficiency & Conservation Block Grant in amount not to exceed $50,000 to purchase a Mean Green Mower or provide staff further direction.

STAFF RECOMMENDATION

Recommend approval to apply for an Idaho Energy Efficiency & Conservation Block Grant in amount not to exceed $50,000 to purchase a Mean Green Mower.

OTHER RESOURCES

N/A

FISCAL IMPACT

This program does not require a local match.

PERSONNEL IMPACT

Fleet, Parks, Grants and Finance Departments

ATTACHMENTS

1. Mean Green Mower Product Info
2. EECBG-R2-Request-for-Applications-

MEAN GREEN ELECTRIC MOWERS

MEAN GREEN ADVANTAGE | PRODUCTS | DEALERS | FREE DEMO | SUPPORT | DEALS

The World's MOST Productive Electric Zero Turn

The EVO is the industry's largest electric zero turn. With up to 8 hours of continuous mowing time thanks to its 35-kWh battery, a 74" mulching rear discharge deck, 20-degree slope capability, and performance comparable to a large diesel mower, the EVO is ready for the biggest jobs and longest days.

- All Day Runtime, up to 8 hours of continuous mowing
- 74" 5-blade innovative Vortex mulching rear discharge deck
- Industry exclusive lightweight aluminum chassis and deck for ultra efficient power usage
- Patented blade monitoring system for optimal cut quality and efficiency
- Patented low battery location for industry leading hillside stability and precision handling
- Patented Heavy-duty Impulse Drive System™ (IDS) provides industry leading performance and reliability

FAQ's

How do I charge my Mean Green mower?

Each mower features an external charger that is positioned between the outlet and the mower. One end of the charger connects to a standard 110V or 220V power supply and the other end connects to the mower through a proprietary connector. Mean Green Mowers offers 23A 110V, 35A 220V, or 50A 220V to choose from at the time of purchase.

Are Mean Green Mowers water resistant? How do I clean my mower?

All Mean Green Mowers are water resistant. However, to prolong the life of the mower, do not spray electric components or under the seat with water. We recommend using compressed air or a blower instead. We do not recommend using solvents, hard cleaners, or abrasives on your machine.

Can I use a Mean Green mower in the rain?

All Mean Green Mowers have been tested and can be used in the rain much like any other ICE mower. Since Mean Green Mowers use the low nominal voltage of 48VDC (much like forklifts and golf carts), there is very little chance of shock. Many competitor electric mowers use voltages above 60VDC, which are not considered safe from shock, according to OSHA and IEC 62368-1:2014.

Can I use a Mean Green mower on hills?

Mean Green Mowers are safe to operate on inclines due to their patented battery placement that provides an ultra-low, centralized center of gravity. Our FURY and NEMESIS models are safe to use on inclines up to 15 degrees, while the VANQUISH, RIVAL, and EVO models are safe up to 20 degrees.

What happens when the battery is depleted? Can I get the mower back to the trailer or shop?

On the rare occasion that a Mean Green Mower depletes its entire battery capacity by the end of a day, rest assured that the mower will not be stranded Mean Green Mowers utilize software restrictions that will automatically turn the mower blades off at a low voltage. There will still be plenty of battery power left to drive the mower (with the blades off) for up to 15 minutes after the blades shut down.

What is the life of the battery? How many cycles will it last? Will I ever need to replace it?

Mean Green batteries are rated for up to 2,000 cycles before reducing to 80% capacity. One cycle is a full day of mowing (up to 8 hours), so it's possible to see a battery life of over 12,000 hours.

Every battery is also designed with replaceable modules. If there is ever an issue where a Mean Green battery is not performing properly, simply switch out the needed component instead of replacing the entire battery.

What is the decibel level of the mower with the blades turned on? How much quieter is a Mean Green Mower than an equivalent gas mower?

The decibel range for Mean Green Mowers is 78-82 db with blades on high speed. This is about 2-4 times quieter than any ICE mower in production today.

What is the blade speed and how does it compare to gas mowers?

The blade speed of Mean Green Mowers is set to 18,250 fpm. Our patented blade speed control adds power to the electric blade motor (as needed) in order to maintain a constant blade tip speed. This tip speed provides an excellent quality of cut while ensuring safe user operation.

A typical ICE mower will have a maximum tip speed of about 17,500 fpm until the drive wheels are engaged and the blades begin to cut. As the engine slows down in thicker grass, the blade will slow as well, greatly reducing the tip speed and quality of cut.

Are rear tweels an available option? What are the benefits of tweels? Are they installed at the factory or at the dealer?

Rear tweels can be added to all RIVAL, EVO, NEMESIS, and VANQUISH models at your local Mean Green dealer. Rear tweels prevent flat tires that consume large amounts of operator's time. Real tweels also have the added benefit of providing a shock-absorbing effect for operator comfort and extra stability on hills.

How do you adjust the sensitivity of the controls and slow the mower speed down?

Mean Green Mowers feature two different speed options that can be selected on the touchscreen display. High Speed (or "transport speed") is indicated when the wheel icon becomes green. We recommend using Low Speed for precise cutting and reduced sensitivity.

Do you offer a high lift blade?

Mean Green Mowers is proud to offer a high lift blade. Mean Green High Performance Blades are designed to improve cut quality in turf types and conditions that require more air flow. The additional height of the blade sail creates an increased lifting force perfect for use with turf types that tend to bend or lay down with standard blades. This design also disperses clippings over a larger area leaving behind a cleaner finish. The new Mean Green High Performance Blades are recommended for cooler season grasses and are for use on all models.

Idaho Energy Efficiency and Conservation Block Grant Program

Request for Applications (RFA)

January 2026

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IMPORTANT DATES

Application Opens: January 7, 2026

Informational Webinar: January 13, 2026 @ 2:30 PM MST

Application deadline: February 4, 2026 @ 11:59 PM MST

Subawards Executed: March 13, 2026

Completion Report and Request for Reimbursement forms due to OEMR: September 1, 2026

INTRODUCTION

The Idaho Governor's Office of Energy and Mineral Resources (OEMR) is pleased to announce the latest funding opportunity under the State of Idaho Energy Efficiency Conservation Block Grant Program (Idaho EECBG). Idaho EECBG will provide competitive subawards to eligible cities and counties to enable local governments to promote energy efficiency and conservation practices. This support will help local governments continue to meet the needs of growing communities while reducing tax burdens, and keeping energy rates low. Round 1 of Idaho EECBG awarded funding to 11 cities and 3 counties across Idaho. The second round of funding aims to continue to invest in communities to increase their energy savings and reduce costs. OEMR is seeking independent projects with a quick turn around time. OEMR is not requiring, or allowing, cost share. A project is independent if it does not share common contractors or materials with other city or county projects.

This Request for Application (RFA) serves as OEMR's formal funding opportunity announcement and application for the second round of funding of the Idaho EECBG. Applicants should review this solicitation document in its entirety prior to submitting an application. Submittals must include a completed and signed application as prescribed in the application instructions of this RFA. Incomplete submittals will not be accepted by OEMR. To be deemed complete, Applications must be signed by an authorized representative of the Applicant, every question must be answered (if a question does not apply, an answer of "N/A" or "Does Not Apply" will suffice), and every form must be complete. Applications that do not contain all required documentation or information may be deemed incomplete. OEMR will reject incomplete Applications in their entirety

Applications for Idaho EECBG are due to OEMR no later than February 4, 2026, at 11:59 PM MST. All applications shall be emailed to Camy Holden, Project Coordinator, at camy.holden@oer.idaho.gov, with the subject line "Idaho EECBG R2 Program Application [Applicant Name]."

AWARD INFORMATION

A. Authorizing Statutes

i. Executive Order 2024-09 states that OEMR's duties, powers, and authorities include "[assisting] state agencies, local government, and stakeholders to secure funding where available for energy and mineral projects and opportunities."

ii. The Infrastructure and Investment Jobs Act (IIJA) of 2021 appropriates funding for the Department of Energy (DOE) to issue formula-based grants to states, U.S. territories, units of local government, and Indian tribes under EECBG. DOE's authorization for this program is set forth in Title V, Subtitle E of the Energy Independence and Security Act of 2007 (EISA). 42 U.S.C. §17151 et seq. All subawards made under this Idaho EECBG shall comply with applicable laws and regulations including, but not limited to, 2 CFR Part 200 as amended by 2 CFR Part 910 and Section 40552 of IIJA (PL 117-58).

B. Program Goals

The purpose of Idaho EECBG is to assist eligible applicants in creating and implementing strategies to:

- Increase energy resilience;
- Increase energy savings;
- Establish strong and diverse partnerships with cities, counties, and other stakeholders;
- Reduce energy burdens in communities;
- Promote the acceleration of deployment of advanced energy technologies; and
- Create the greatest number of sustainable jobs.

These stated purposes describe the overall intent of Idaho EECBG. Applicants should develop projects that address the above program goals. Each Applicant is required to use the funds in a cost-effective manner that will maximize continuous energy efficiency and cost reduction to the community.

C. Eligibility Information

I. What entities are eligible/ineligible?

Idaho EECBG is for rural cities and counties that were not eligible for Energy Efficiency Conservation Block Grant formula funding from DOE.

- Ineligible cities: Boise, Caldwell, Coeur d' Alene, Idaho Falls, Meridian, Nampa, Pocatello, Post Falls, Rexburg, Twin Falls
- Ineligible counties: Ada, Bingham, Bonner, Bonneville, Canyon, Jefferson, Kootenai, Latah, Nez Perce, Twin Falls

II. How many applications can an Applicant submit?

An Applicant may submit up to two (2) applications. Applications may include only one (1) activity (e.g., lighting or weatherization.)

III. What are eligible projects?

Eligible projects must fall under the following categories:

- Workforce development
- Energy efficiency, such as weatherization, retrofits, energy conservation and energy management
- Capital investment & financing
- Resiliency
- Electric vehicles and infrastructure
- Clean energy/clean energy technology, such as distributed energy resources and on-site renewable energy

IV. When do projects funded by this grant need to be completed?

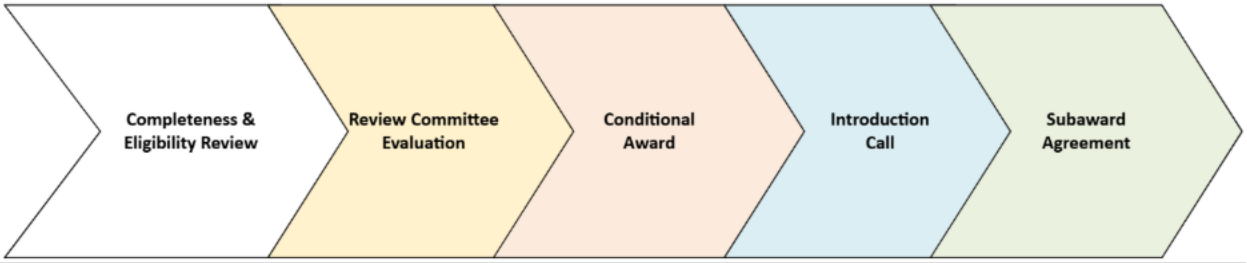
Projects **MUST** be completed, and the completion reports and request for reimbursement forms submitted to OEMR **NO LATER THAN September 1, 2026**. When determining projects for applications, Applicants should consider Idaho EECBG's timeline and consider how quickly eligible projects can be completed.

D. Funding

Round 2 of Idaho EECBG has a maximum program budget of approximately $466,000. Applicants may request a program award up to $50,000. Cost share is not allowed for Idaho EECBG. Total project costs shall not exceed $50,000. Pre-award costs are not allowed.

OEMR will reimburse Subrecipients upon project completion. OEMR will not approve funding in excess of the amount requested in the application. This will be the case even if budget changes occur between application submission and execution of the Subaward Agreement. OEMR strongly encourages all Applicants to thoroughly research the project and its associated costs, and to proactively plan for potential budget or timeline impacts, to ensure that the requested amount is sufficient for project completion.

E. Application Review Process



I. Completeness and Eligibility Review

OEMR will conduct an initial review of all Applications for completeness and eligibility. OEMR will reject incomplete Applications in their entirety. If eligible application funding requests do not exceed the total amount of available program funding, then the Applications will not be subject to the Review Committee, rather the Applications will be funded at the discretion of OEMR. If eligible application funding requests exceed the total amount of available program funding, then the Review Committee will evaluate all eligible and complete Applications.

II. Review Committee Evaluation

After an initial screening for completeness by OEMR, an independent Review Committee comprised of non-OEMR employees will evaluate the Applications. The Review Committee will consider the following four topics when evaluating Applications. For a complete list of the evaluation criteria, please see Appendix A.

Energy Impact (55%)	Community Impact (20%)	Timeline and Completion (20%)	Administrative Compliance (5%)
• Demonstrates a strong need for energy improvements • Improves energy efficiency and reduces energy costs	• Generates positive community impact • Leads to economic development • Serves low-income residents to alleviate energy burden	• Ability to complete project in required timeline	• Provides a clear plan for compliance

III. Conditional Award

After the Review Committee conducts its evaluation, OEMR will provide the highest scored Applications with a conditional award letter. Applicants who receive a conditional award letter will be Conditional Awardees. Projects must comply with Section 106 of the National Historic Preservation Act (NHPA). Therefore, during this conditional award period, Applicants who receive conditional award letters must work with the State Historic Preservation Office (SHPO) to determine what effect, if any, the Applicant's proposed project may have on a historic property. A detailed description of Section 106 can be found under "Federal Requirements," Section B and Appendix D.

While it is not required, OEMR strongly encourages Applicants to consult with SHPO before submitting their application to identify and incorporate any potential impacts to the budget, timeline, and scope that may result from a SHPO consultation. OEMR encourages Conditional Awardees to begin non-binding bidding or procurement for the project in tandem with SHPO review. This will aid in meeting the quick turn-around objective of this award.

If a SHPO review results in a project's scope, budget, or timeline to be materially altered from what was originally submitted in the evaluated application, the results may require the application and the conditional award to be revoked. If SHPO determines no adverse effects are found, the project will move forward to the next step and OEMR will initiate an introduction call.

IV. Introduction Call

After OEMR sends a conditional award letter and confirms compliance with the NHPA, OEMR will schedule an introduction call with each Conditional Awardee to discuss the grant in greater detail and answer any questions Subrecipients may have before issuing a Subaward Agreement.

V. Subaward Agreement

Once Conditional Awardees undergo NHPA compliance, complete the introduction call, and submit any requested follow-up documentation, OEMR shall execute at its discretion a Subaward Agreement. Conditional Awardees who sign a Subaward Agreement with OEMR are now Subrecipients. All Subrecipients will be subject to the terms and conditions of OEMR's Subaward Agreement. Terms will include, but will not be limited to, various federal and state requirements outlined in the Terms & Conditions found on the Idaho EECBG website. Please refer to Appendices B-D for a general overview of several federal and state requirements applicable to this program.

FEDERAL AND STATE REQUIREMENTS

Subrecipients shall comply with all applicable federal, state and local laws and regulations for all work performed under Idaho EECBG. Applications shall refer to the most recent Administrative and Legal Required Document for the Energy Efficiency and Conservation Block Grant Program (ALRD) for additional information and other requirements.

Subrecipients shall obtain necessary federal, state and local permits, authorizations, and approvals for all work performed under Idaho EECBG. For the duration of Idaho EECBG, Subrecipients shall maintain in effect and have in its possession all licenses and certifications required by federal, state, and local laws and rules.

A. Expenditures

All expenditures shall be allowable, allocable, and reasonable in accordance with the applicable federal cost principles. Refer to the following applicable federal administrative requirements for more information:

- 2 CFR Part 200 Subpart E - Cost Principles for all other non-federal entities
- 2 CFR Part 170-Reporting Subaward and Executive Compensation

B. National Historic Preservation Act

Section 106 of the NHPA requires federal agencies to consider the effects of federally funded projects on historic properties. Attachment 1, refers to the Programmatic Agreement that identifies eligible projects for Idaho EECBG. Conditionally awarded projects shall undergo review by SHPO to ensure compliance with Section 106 of NHPA, prior to execution of the Subaward Agreement.

To complete this consultation and project review, Applicants must upload information into the Idaho Cultural Information System (ICRIS.) Attachment 2 includes the SHPO consultation form and instructions for uploading the project into ICRIS. Although SHPO consultation is not mandatory until the conditional award period, OEMR recommends Applicants upload the form prior to submitting the EECBG application. SHPO's review may identify potential adverse effects on historic properties, which could change the project's scope, budget, or timeline. If a SHPO review results in a project's scope, budget, or timeline to be materially altered from what was originally submitted in the evaluated application, the results may require the application and the conditional award to be revoked.

If SHPO's review determines that a project will adversely affect a historic property or cultural resources, further consultation to resolve those effects will be required. The Applicant must then work with SHPO to identify and agree on appropriate mitigation measures. These measures must be submitted to OEMR during the conditional award period. Applicants are encouraged to initiate NHPA consultation early, as review periods can take up to 30 days. For more information on NHPA compliance refer to Appendix D.

C. Build America Buy America

Build America Buy America (BABA) should generally not apply to Idaho EECBG projects. DOE applies the Small Grants Build America Buy America waiver to the domestic content procurement requirement for Subrecipient projects that are at or under the Simplified Acquisition Threshold of $250,000.

BABA established a domestic content procurement preference for all federal financial assistance obligated for infrastructure projects after May 2022. Projects over $250,000 are not eligible for the Small Grants BABA waiver and will be subject to requirements under BABA under subtitle IX of the IIJA, Public Law 177-58, and 2 CFR part 184. If Federal financial assistance provided by DOE is combined with any other financial assistance as cost-match and the total amount of a single project is greater than the Simplified Acquisition Threshold, then the waiver shall not apply. Please note that unintentional application of the waiver such as splitting of projects or other actions to keep below the threshold is prohibited. DOE may develop appropriate terms and conditions, execute financial monitoring, and perform other oversight precautions to mitigate the risk of misapplication of this waiver.

Please refer to Appendix B for a more detailed description of BABA.

D. Davis Bacon Act

Projects and Subrecipients will be subject to requirements under the Davis-Bacon Act (40 U.S.C. § 3141 et seq.) and the applicable requirements of 29 CFR Part 5. See Appendix C.

F. Public Works

Cities and counties are subject to requirements regarding public works construction. Related Idaho Code sections may include but are not limited to the following:

- Idaho Code Title 67, Chapter 28
- Idaho Code Title 54, Chapter 19

REGISTRATION REQUIREMENTS

A. System for Award Management (SAM)

Applicants shall maintain an active SAM registration with current information at all times during which it has an active award or an application under consideration. Important steps in SAM registration are (1) registering with the SAM at https://www.sam.gov/ prior to submitting an application in response to this funding opportunity and (2) designating an Electronic Business

Point of Contact (EBiz POC) and obtaining a special password called an MPIN. Information about SAM registration for Applicants is available at: https://www.fsd.gov/gsafsd_sp?id=gsafsd_kb_articles&sys_id=650d493e1bab7c105465

B. Unique Entity Identifier (UEI)

Applicants must obtain a UEI from the SAM to uniquely identify the entity. The UEI is available in the SAM entity registration record. Applicants will receive the UEI after registering in SAM.

APPLICATION INSTRUCTIONS

Please see the Idaho EECBG webpage to view application forms. Applications must be submitted via email to Camy Holden at camy.holden@oer.idaho.gov by no later than **11:59 PM MST on February 4, 2026**. Applications shall be submitted with the subject line "Idaho EECBG R2 Program Application [Applicant Name]." To be deemed complete, Applications must be signed by an authorized representative of the Applicant, every question must be answered (if a question does not apply, an answer of "N/A" or "Does Not Apply" will suffice), and every form must be complete. Duplicating responses are allowed. However, every question needs to be answered in full under the corresponding question. Applications that do not contain all required documentation or information may be deemed incomplete.

Before application submittal, please use the following checklist to ensure the application is complete. OEMR will reject incomplete Applications in their entirety.

☐ Registration in SAM

☐ Unique Entity Identifier (UEI)

☐ Application Form

☐ Budget Information Form

Documents and information submitted to OEMR in an application are subject to the Idaho Public Records Act (Idaho Code §§ 74-101 to 74-127). Please avoid submitting information considered to be confidential or privileged unless it is necessary to the application. If such information is necessary, please contact OEMR.

REPORTING REQUIREMENTS

To ensure compliance with program requirements, project schedule, and budget expectations, Subrecipients will regularly meet with OEMR and submit the following reports:

- Quarterly Progress Reports
- Completion Report and Success Story
- Reimbursement Request Form

OEMR will provide all necessary forms for reporting.

QUESTIONS AND TECHNICAL ASSISTANCE

Applicants interested in attending the informational webinar via Microsoft Teams on **January 13, 2026, at 2:30 pm (MST)** can join using this **Link.** A recording of the webinar will also be posted to the Idaho EECBG webpage.

Microsoft Teams Need help?
Join the meeting now
Meeting ID: 272 785 908 165 43
Passcode: w7jx9cd9

Dial in by phone
+1 208-985-2810,,388440321# United States, Boise
Find a local number
Phone conference ID: 388 440 321#

Join on a video conferencing device
Tenant key: idahogov@m.webex.com
Video ID: 115 937 900 5
More info

Questions shall be submitted in writing via email with the subject line "Idaho EECBG Question." OEMR will answer all questions within three business days via a public FAQ document that is linked to the Idaho EECBG webpage. All Applicants are responsible for checking the Idaho EECBG webpage on a regular basis for updates to the FAQ document and other pertinent updates. OEMR's technical assistance may consist of (1) application interpretation and clarification, (2) identification of all required documents, (3) budget justification clarification, and (4) reporting compliance. For questions and technical assistance please email comments@oer.idaho.gov

APPENDICIES

Appendix A: Scoring Criteria

Energy Impact (55%)

Topic	Evaluation Criteria	Weight
Demonstrates a strong need for energy improvements	• Clearly identifies the need for energy improvement(s). • Describes energy burden, if any. • Describes financial need of Applicant. • Provides estimated monetary impact if no action is taken.	40%
Reduces energy consumption and saves energy costs	• Provides a clear work plan that will reduce energy consumption and save energy costs • Provides information on the cost-effectiveness of the proposed project compared to alternative projects. • Describes estimated energy savings (kWh, therms, gallons, MMBtus) per dollar spent for energy savings or other benefits. • Clearly explains how the project aligns with program goals and objectives.	40%
Provides clear metrics for tracking measurable energy improvements	• Provides metrics for tracking measurable energy improvements. • Includes targets for improved performance according to metrics. • Describes energy resilience benefits associated with proposed project to ensure access to reliable and affordable energy for the community.	20%

Community Impact (20%)

Topic	Evaluation Criteria	Weight
Describes how the proposed project generates positive community impacts	• Clearly defines impacted community and need that the proposed project is serving within the community. • Clearly explains specific benefits and long-term return to the community. • Describes economic development opportunities spurred by the project	50%

	• Establishes metrics to track positive community impacts.	
Serves low-income Idaho residents to alleviate energy burden	• Explains how project positively impacts low-income and energy burdened populations. • Includes estimates for relief of energy burden.	50%

Timeline and Completion (20%)

Topic	Evaluation Criteria	Weight
Ability to complete project in required timeline	• Provides a clear timeline for project completion prior to September 1, 2026. Timeline includes, but is not limited to: - Planning - Procurement - Construction - Finalization	100%

Administrative Compliance (5%)

Topic	Evaluation Criteria	Weight
Provides a clear plan for compliance	• Provides a clear plan for reporting and administrative compliance with Section 106, Davis Bacon Act, Build America Buy America and Public Works.	100%

Appendix B: Build America Buy America

Federally assisted projects which involve infrastructure work, undertaken by Subrecipients, require that:

a. All iron, steel, and manufactured products used in the infrastructure work are produced in the United States, and

b. All construction materials used in the infrastructure work and manufactured in the United States.

Whether a given project must apply this requirement is project-specific and dependent on several factors, such as the recipient's entity type, whether the work involves "infrastructure," as that

term is defined in section 70914 of the IIJA, and whether the infrastructure in question is publicly owned or serves as public function.

Definitions

a. For purposes of the Buy America requirements, the following definitions apply:

Construction materials includes an article, material or supply-other than an item of primary iron or steel; a manufactured product; cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives- that is or consists primarily of: non-ferrous metals; plastic and polymer-based products (including polyvinylchloride, composite building materials and polymers used in fiber optic cables); glass (including optic glass); lumber; or drywall.

Infrastructure includes at a minimum, the structures, facilities, and equipment for, in the United States, roads, highways, and bridges; public transportation; dams, ports, harbors and other maritime facilities; intercity passenger and freight railroads; freight and intermodal facilities; airports; water systems, including drinking water and wastewater systems; electrical transmission facilities and systems; utilities; broadband infrastructure; and buildings and real property. Infrastructure includes facilities that generate, transport, and distribute energy.

In addition to the above, the infrastructure in question must be publicly owned or must serve a public function; privately owned infrastructure that is solely utilized for private use is not considered "infrastructure" for purposes of Buy America applicability. The agency, not the Applicant, will have the final say as to whether a given project includes infrastructure, as defined herein. Accordingly, in cases where the "public" nature of the infrastructure is unclear, DOE strongly recommends that Applicants complete their full application with the assumption that Buy America requirements will apply to the proposed project.

Project means the construction, alteration, maintenance, or repair of infrastructure in the United States.

b. Buy America Requirements for Infrastructure Projects ("Buy America" Requirements)

In accordance with section 70914 of the IIJA, none of the project funds (includes federal share and recipient cost share) may be used for a project for infrastructure unless:

1. All iron and steel used in the project are produced in the United States- this means all manufacturing processes, from the initial meeting stage through the application of coatings, occurred in the United States;

2. All manufactured products used in the project are produced in the United States- this means the manufactured produce was manufactured in the United States; and the cost of the components of the manufactured product that are mined, produced or manufactured in the United States is greater than 55% of the total cost of all components of the manufactured product, unless another standard for determining the minimum amount of

domestic content of the manufactured product has been established under applicable law or regulation; and

3. All construction materials are manufactured in the United States- this means that all manufacturing processes for the construction material occurred in the United States. The Buy America requirements only apply to articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project. As such, it does not apply to tools, equipment, and supplies, such as temporary scaffolding, brought to the construction site and removed at or before the completion of the infrastructure project. Nor do Buy America requirements apply to equipment and furnishings, such as movable chairs, desks, and portable computer equipment, that are used at or within the finished infrastructure project but are not an integral part of the structure or permanently affixed to the infrastructure project.

These requirements must flow down to all sub-awards, all contracts, subcontracts, and purchase orders for work performed under the proposed project.

Applicants should consult the Build America, Buy America Guidance and Resources to determine whether this requirement applies to their project, both to make an early determination as to the need of a waiver, as well as to determine what impact, if any, this requirement may have on their project's budget. See Guidance for Grants and Agreements as it relates to the Build America, Buy America Act issued August 23, 2023; DOE's Implementation of Requirement for Infrastructure Projects.

Appendix C: Davis Bacon Prevailing Wage

Division D of the IIJA applies to the Energy Efficiency and Conservation Block Grant. Accordingly, per section 41101, all laborers and mechanics employed by the Applicant, subrecipients, contractors or subcontractors in the performance of construction, alteration, or repair work funded in whole or in part under this ALRD shall be paid wages at rates not less than those prevailing on similar projects in the locality, as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code commonly referred to as the "Davis Bacon Act" (DBA).

Applicants acknowledge that they will comply with all of the DBA requirements, including but not limited to:

- Ensuring that the wage determination(s) and appropriate DBA clauses and requirements are flowed down to and incorporated into any applicable subcontracts or subrecipient awards.
- Ensuring that if wage determination(s) and appropriate DBA clauses and requirements are improperly omitted from contracts and subrecipient awards, the applicable wage determination(s) and clauses are retroactively incorporated to the start of performance.

- Being responsible for compliance by any contractor with the DBA labor standards.
- Receiving and reviewing certified weekly payrolls submitted by all contractors and for accuracy and to identify potential compliance issues.
- Maintaining original certified weekly payrolls for 3 years after the completion of the project and must make those payrolls available to OEMR upon request, as required by 29 CFR 5.6(a)(2).
- Conducting payroll and job-site reviews for construction work, including interviews with employees, with such frequency as may be necessary to assure compliance.
- Cooperating with any authorized representative of the Department of Labor in their inspection of records, interviews with employees, and other actions undertaken as part of the Department of Labor investigation.
- Posting in a prominent and accessible place the wage determination(s) and Department of Labor Publication: WH-1321, Notice to Employees Working on Federal or Federally Assisted Construction Projects.
- Notifying the Project Lead of all labor standards issues, including all complaints regarding incorrect payment of prevailing wages and/or fringe benefits, received from the recipient, or contractor or contractor employees, significant labor standards violations, as defined in 29 CFR 5.7; disputes concerning labor standards pursuant to 29 CFR parts 4, 6, and 8 and as defined in FAR 52.222-14; disputed labor standards determinations; Department of Labor investigations; or legal or judicial proceedings related to the labor standards under this Contract, a subcontract, or subrecipient award.
- Preparing and submitting to the Project Lead, the Office of Management Budget Control Number 1910-5165, Davis Bacon Semi-Annual Labor Compliance Report, by **April 21** and **October 21** of each year. Form submittal will be administered through the iBenefits system (https://doeibenefits2.energy.gov) or its successor system.

For additional guidance on how to comply with the DBA provisions and clauses, see Davis-Bacon and Related Acts and Protections for Workers in Construction under the Bipartisan Infrastructure Law.

Appendix D: National Historic Preservation Act: Section 106

Effects on historic properties will be considered pursuant to Section 106 of the National Historic Preservation Act (NHPA). Idaho has a Statement of Work (Attachment 1,) which outlines the Bounded Categories Idaho EECBG projects must fall under. The application will require that an Applicant reviews the Statement of Work, identifies the category their project falls under, and describes why the proposed project falls under that specific category.

To initially evaluate potential impacts under Section 106 for EECBG projects, all Applicants must submit a project description with their application. This description must include the age of the building(s) associated with the proposed project and the location of the

project. Applicants interested in more information regarding Section 106 of NHPA and the review process can refer to the Programmatic Agreement published to OEMR's website under the Idaho EECBG program tab in the Helpful Documents section.

Applicants with conditional awards shall undergo review by the State Historic Preservation Office (SHPO) under Section 106 of NHPA prior to executing a Subaward Agreement. (Attachment 2), includes the SHPO consultation form and instructions for uploading the project into ICRIS. Although SHPO consultation is not mandatory until the conditional award period, OEMR recommends Applicants upload the form prior to submitting the EECBG application. SHPO's review may identify potential adverse effects on historic properties, which could result in changes to the project's scope, budget, or timeline. If a SHPO review results in a project's scope, budget, or timeline to be materially altered from what was originally submitted in the evaluated application, the results may require the application and the conditional award to be revoked.

Appendix E: National Environmental Protection Act

Proposed projects for Idaho EECBG must fall within the categories listed in Attachment 1.

Should an eligible project require further NEPA analysis, all subrecipients selected for an award shall be required to assist in the timely and effective completion of the NEPA process in the manner most pertinent to their proposed project. If DOE determines certain records shall be prepared to conduct NEPA analysis, the costs to prepare the necessary analysis may be included as part of the project costs. If a subrecipient selected for an award undertakes activities prior to authorization from OEMR and DOE, subrecipient does so at the risk of not receiving reimbursement for the project.

Attachment 1: Idaho EECBG Statement of Work

Statement of Work for Non-tribal Energy Efficiency and Conservation Block Grant (EECBG) Applicants with a Historic Preservation Programmatic Agreement (PA)* Requesting Expedited Reviews for Projects with Possible Ground Disturbing Activities

Please check applicable boxes. Note-All boxes must be checked to use this statement of work.

☑	I represent a non-tribal organization.
☑	My organization will not fund project activities on tribal lands or tribally owned structures.**
☑	My organization is proposing to complete potentially ground disturbing activities.
☑	My organization is located in AL, AK, AS, AZ, AR, CA, CO, CT, DE, DC,FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MP, MS, MO, MT, NE, NV, NH, NJ, NM, NY, NC, ND, OH,OK, OR, PA, PR, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY, or VI.
☑	I understand I am required to review the NEPA and Historic Preservation training website: www.energy.gov/node/4816816 and contact my DOE project officer with any questions before initiating project activities.
☑	I understand I am required to review my NEPA determination (the DOE form that documents DOE's environmental review of a project activities) and historic preservation programmatic agreement* once I have an approved award from the DOE Contracting officer. I will contact my DOE project officer with questions on my award documents.
☑	I understand this statement of work requires quarterly submission of NEPA documentation, in the form of a NEPA log. Sample NEPA logs can be found at: www.energy.gov/node/4816816

By signing below, the Idaho Office of Energy and Mineral Resources (enter Applicant organization) provides assurance that it shall only fund projects (including subgrants) that fall within the Bounded Categories listed below and, will follow all restrictions defined below.

Bounded Categories including Blueprint activities:

1. Energy Planning limited to:
    a. Energy data collection to assist in reducing fossil fuel emissions, reducing total energy use, or improving energy efficiency
    b. Develop energy vision, goals, and strategies
    c. Stakeholder engagement, education, and outreach
    d. Write, adopt, and publicize energy plan
    e. Development of energy efficiency and conservation strategies, project-specific plans that may require feasibility studies, preparation of preliminary project design, outreach, and technical support to state agencies, local governments, and affected stakeholders. All project activities identified from these planning efforts and funded from this ALRD must be listed within the Bounded Categories. Projects not listed within these Bounded Categories would require submission of an Environmental Questionnaire (EQ-1).

f. Development and implementation of programs and strategies to encourage energy efficiency and renewable energy such as policy development and stakeholder engagement.

2. Development and implementation of classroom or virtual training programs.

3. Energy Efficiency Audits limited to:
    a. Building energy assessments
    b. Energy audits

4. Development and implementation of building codes including inspection services, and associated activities to support code compliance and promote building energy efficiency.

5. Building Energy Efficiency: Funding commercially available energy or water efficiency or renewable energy upgrades, provided that projects adhere to the requirements of the respective applicant's DOE executed Historic Preservation Programmatic Agreement (PA), or all projects are installed in or on existing buildings, do not require structural reinforcement, or tree removal, are appropriately sized, and are limited to:
    a. Installation of insulation
    b. Installation of energy efficient lighting
    c. HVAC upgrades (to existing systems)
    d. Weather sealing
    e. Purchase and installation energy/water efficient residential and commercial appliances and equipment (including, but not limited to, grid-interactive building technologies, energy or water monitoring and control systems, thermostats, heat pumps, air conditioners, and related software).
    f. Retrofit of energy efficient pumps and motors, for such uses as (but not limited to) wastewater treatment plants, where it would not alter the capacity, use, mission, or operation of an existing facility.
    g. Retrofit and replacement of windows and doors.

6. Development, implementation, and installation of onsite renewable energy technology, provided that projects are installed in or on an existing building or within the boundaries of a facility (defined as an already disturbed area due to regular ground maintenance), do not require structural reinforcement, no trees are removed, are appropriately sized, and are limited to:
    a. Solar Electricity/Photovoltaic—appropriately sized system or unit not to exceed 60 kW.
    b. Wind Turbine—20 kW or smaller.
    d. Solar Thermal (including solar thermal hot water)—system must be 200,000 BTU per hour or smaller.
    e. Ground Source Heat Pump—5.5 tons of capacity or smaller, horizontal/vertical, ground, closed-loop system.

7. Biomass Thermal—3 MMBTUs per hour or smaller system with appropriate Best Available Control Technologies (BACT) installed and operated.

8. Installation of fueling pumps and systems for fuels such as compressed natural gas, hydrogen, ethanol, and other commercially available biofuels, (but not storage tanks) installed on the site of a current fueling station

9. Purchase of alternative fuel vehicles

10. Energy Savings Performance Contracts for Efficiency and Electrification identification in Municipal Buildings limited to:
    a. Explore potential future financing options
    b. Procurement (of performance contractor) and legal support/technical assistance

11. Building Efficiency & Electrification Campaign Activities for Low Income Residential or Small Commercial limited to:
    a. Communications and website development
    b. Program education, outreach, and advertising
    c. Procurement & legal support/technical assistance

12. Building Performance Standards limited to:
    a. Stakeholder Engagement, education, and outreach
    b. Benchmarking
    c. Metric Selection and Target Setting
    d. Determine Compliance and Enforcement Approach

13. Solar (and battery storage) Power Purchase Agreement development including:
    a. Site assessment
    b. Project savings assessment
    c. Procurement & legal support

14. Development and installation of energy storage systems, including electrochemical and thermal storage systems, provided that projects adhere to the requirements of the respective Applicant's DOE executed Historic Preservation PA, are installed in or on an existing building, or within the boundaries of a facility (defined as an already disturbed area due to regular ground maintenance), does not require structural reinforcement, and are appropriately sized not to exceed 1,000 kWh.

15. Community Solar activities limited to:
    a. Stakeholder engagement, education, and outreach
    b. Site assessment
    c. Procurement of developer & legal technical support
    d. Program education, outreach, and advertising
    e. Communications and program promotion, including website development for sign up and public education
    f. Procurement of contractor & legal technical support
    g. Stakeholder engagement through education and outreach
    h. Development, and installation of onsite renewable energy technology, provided that activities adhere to the requirements of the respective Applicant's DOE executed Historic Preservation Programmatic Agreement, are installed in or on an existing building, or within the boundaries of a facility (defined as an already disturbed area due to regular

ground maintenance), do not require structural reinforcement, no trees are removed, are appropriately sized, and are limited to solar electricity/photovoltaic systems—not to exceed 60 kW.

16. Solarize Campaign limited to:
    a. Design program details, including financing options for customers
    b. Procurement of developer & legal technical support
    c. Program education, outreach, and advertising

17. Renewable Resource Planning for Communities limited to:
    a. Plan development & publication
    b. Preliminary Siting planning and assessments
    c. Program education, outreach, and advertising

18. Electric Vehicles (EV) for Municipal Fleets limited to:
    a. Development of fleet replacement plan
    b. Development of charging plan including cost assessment of electric bill
    c. Development of utility data sharing agreement
    d. Procurement and legal technical support to purchase EVs and electric vehicle supply equipment (EVSE)
    e. Installation of EVSE, including testing measures to assess the safety and functionality of the EVSE, restricted to existing footprints and levels of previous ground disturbance, within an existing parking facility defined as any building, structure, land, right-of-way, facility, or area used for parking of motor vehicles. All activities must use reversible, non-permanent techniques for installation, where appropriate, use the lowest profile EVSE reasonably available that provides the necessary charging capacity; place the EVSE in a minimally visibly intrusive area; use colors complementary to surrounding environment, where possible, and are limited to the current electrical capacity. This applies to Level 1, Level 2, or Level 3 (also known as Direct Current (DC) Fast Charging) EVSE.

19. EV Charging Infrastructure for the Community limited to:
    a. Stakeholder engagement through education and outreach
    b. Siting plan and site assessments
    c. Procurement and legal technical support to purchase EVSE
    d. Market analysis
    e. Installation of EVSE, including testing measures to assess the safety and functionality of the EVSE, restricted to existing footprints and levels of previous ground disturbance, within an existing parking facility defined as any building, structure, land, right-of-way, facility, or area used for parking of motor vehicles. All activities must use reversible, non-permanent techniques for installation, where appropriate, use the lowest profile EVSE reasonably available that provides the necessary charging capacity; place the EVSE in a minimally visibly intrusive area; use colors complementary to surrounding environment, where possible, and are limited to the current electrical capacity. This applies to Level 1, Level 2, or Level 3 (also known as Direct Current (DC) Fast Charging) EVSE.

20. Sustainable Financing Solutions for Energy Projects and Programs limited to:
    a. Program design
    b. Legal support
    c. Communications and program promotion
    d. Program evaluation

21. Workforce Development limited to:
    a. Curriculum development
    b. Program education, outreach, and advertising
    c. Paying trainers and trainees
    d. Providing trainee assistance including supplemental services

The Applicant is responsible for informing DOE of any extraordinary circumstances, cumulative impacts, or connected actions that may lead to significant impacts on the environment or any inconsistency with the "integral elements" from a particular project. See 10 C.F.R. 1021 Appendix B. The online NEPA and Historic preservation training at www.energy.gov/node/4816816 reviews these concepts.

Expedited NEPA review based on the NEPA Statement of Work and supporting documents does not preclude DOE from conducting stewardship activities, including audits, and site visits, or from exercising any other rights under the EECBG program.

By signing below, the Applicant, agrees to follow all the statements and restrictions in this document; review and follow the NEPA determination included in each Applicant's award documents when received; review the online NEPA and Historic preservation training at www.energy.gov/node/4816816; and submit quarterly NEPA logs. DOE has developed a NEPA and Historic Preservation training website with PowerPoint presentations, sample template documents (including a NEPA log, project scope of work, and a project layout), word document of an Environmental Questionnaire-1 (EQ1) and an EQ1 submission guide. Applicants are responsible for reviewing the online NEPA training and reviewing the sample documents provided at www.energy.gov/node/4816816 prior to initiating projects. Recipients must contact their DOE project officer with any questions. Subgrantees should also review the NEPA training website prior to initiating projects.

Authorized Signature 7/21/2023 Date

Name (Printed or typed): Richard Stover

Title (Printed or typed): Administrator

Organization (Printed or typed): Idaho Office of Energy and Mineral Resources

***Non-tribal Applicants with a PA are located in AL, AK, AS, AZ, AR, CA, CO, CT, DE, DC,FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MA, MI, MN, MP, MS, MO, MT, NE, NV, NH, NJ, NM, NY, NC, ND, OH,OK, OR, PA, PR, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY, or**

VI. DOE PAs and amendments can be found at: https://www.energy.gov/eere/wipo/historic-preservation-executed-programmatic-agreements

****Any activities on tribal land or tribally owned structures require additional DOE review. I will contact my DOE project officer for instructions on submitting an Environmental Questionnaire for this review.**

Attachment 2: SHPO Consultation Form

STATE HISTORIC PRESERVATION OFFICE / IDAHO STATE HISTORICAL SOCIETY

SHPO Consultation Request

OEMR Grant Programs

Idaho Governor's Office of Energy and Mineral Resources

Submit via ICRIS

SHPO Review #_____

SECTION 1: UNDERTAKING INFORMATION	
PROJECT NAME:	
APPLICANT ORGANIZATION:	
ADDRESS:	
CITY:	COUNTY:

SECTION 2: PROJECT DETAILS		
Does this involve any of the following:	☐ New Construction ☐ Ground Disturbance ☐ Demolition	☐ Acquisition ☐ Rehabilitation/Renovation
Does this project involve any buildings, objects, sites, structures, or districts that are over 45 years old?	☐ Yes ☐ No	Building information and construction dates:

Attachments: In ICRIS, upload any pertinent project information such as plans, renderings, etc.

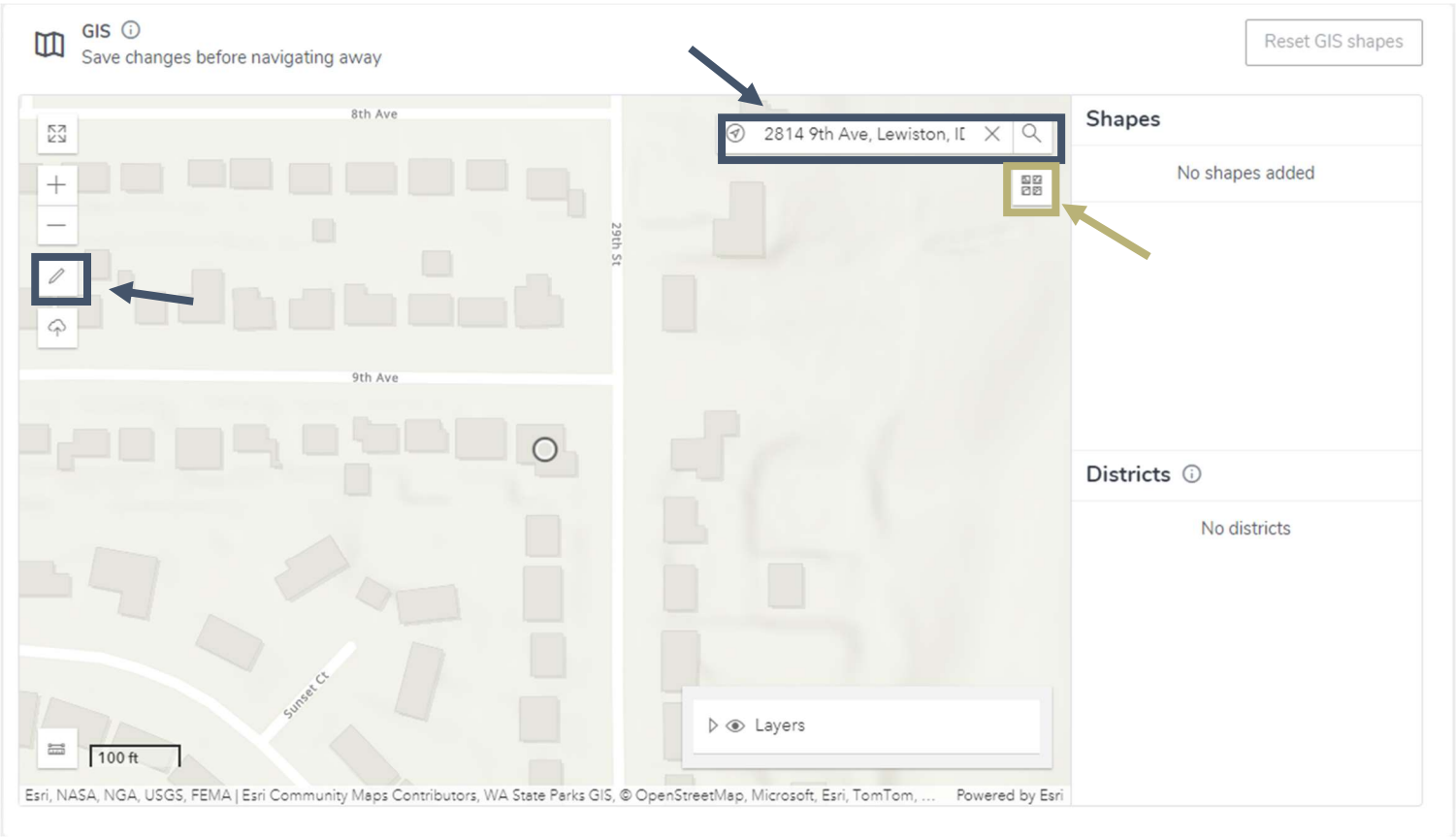
Project Narrative: Provide a detailed description of the proposed project, describe the existing project site conditions and anticipated alterations to buildings or structures.

SECTION 3: CREATE A PROJECT IN ICRIS

1. Navigate to ICRIS by going to https://icris-history.idaho.gov/ and register for an account. You must sign and upload a Confidentiality Agreement to your profile. You'll need to be approved by our office before you can login. Once you have been approved, log out and log back in.
2. Select "New Project" and "Section 106 Review" as your project type. Enter Idaho Office of Energy & Mineral Resources (OEMR) as your lead agency. Enter the other required fields and click "Create."
3. Upload this form under the attachments section and choose the "Agency Form/DSE" option.
4. Upload a minimum of two photos (JPG) in the project photos section. These photos should be of the project location and areas where work is taking place.

SECTION 4: MAP/AREA OF POTENTIAL EFFECTS

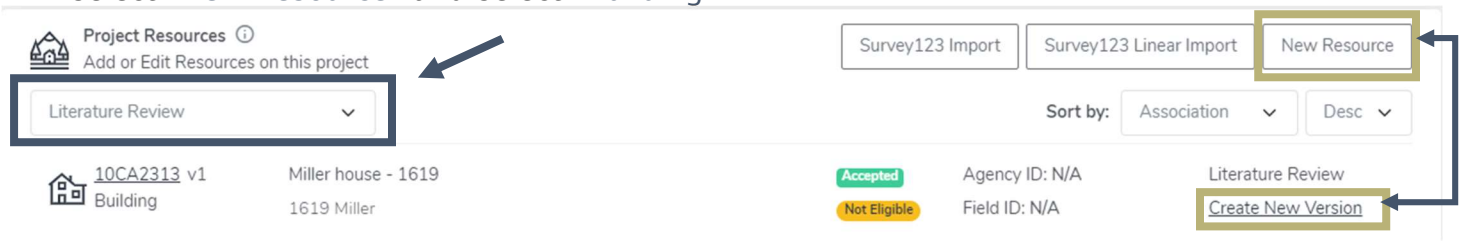
A. In the GIS section, search for the address of your project location in the search bar in the top right of the map or zoom to it.
B. You must draw a polygon by clicking on the pencil button to the left. Double-click to end your polygon. It will ask you to set a buffer distance. Slide the distance down to zero (0) and hit submit.



Tip: *You can zoom in and trace the outline of the resource as shown on the map. You can also change your base map by clicking on the icon below the search bar and view imagery, which may help you draw a polygon that encompasses the whole project area (including garages, and other buildings).*

SECTION 5: IDENTIFY HISTORIC PROPERTIES

1. If your project has a resource that is 45 years old or older: Go down to project resources. Check to see if your resource has been previously recorded by selecting "Literature Review" from the drop-down. If it shows up, select "Create a New Version." If there are no records, select "New Resource" and select "Building."



A. Make sure all the required fields are populated (those with an asterisk).

B. If the National Register of Historic Places (NRHP) Evaluation section is empty, fill it out to best of your ability. Determine if your resource is eligible. A resource may be eligible if it mostly looks the same as when it was first constructed. Select "eligible" or "not eligible." If its eligible, e.g., an Elementary School, select "yes" for the Criteria A drop-down. Choose "Education" as the Area of Significance.

C. Click the Property Type tab on the resource (at the top). Fill out all the required fields to the best of your ability. The feature count should be the resource + any other buildings separate from the resource. E.g., a school (a gymnasium, shed, etc.) The original use and current use should be "Education" and "School."

D. Upload a minimum of two images (jpg) in the resource photos section. There should be two clear images of the resource (e.g. front of the building and side or rear elevations). You'll need to set one of the images as the Overview Image and add a caption. Click on the pencil icon and click set as overview image.

E. Make sure the GIS location on the map is correct if it is already populated. If it is not yet mapped, you'll need to draw a polygon around the resource like you did in the project section.

F. When you've made all the changes, click the mark complete button at the top. Go back to the project by using your browser's back button.

SECTION 6: SUBMITTING THE PROJECT

1. Click "Edit" under project section. Select the following for "Agency Project Finding" finding: "No Comment" and click "Save."
2. At the top of the Project page select "Submit."
3. OEMR will review the documentation for sufficiency.
4. OEMR will then submit the project to SHPO for a 30-day review.
5. You will receive an autogenerated email from the system once the project has been submitted to SHPO and another email once the review has been completed. Be sure to check your SPAM or Junk folders.

COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, January 26, 2026

AGENDA ITEM TITLE

Membership and Mutual aid agreement to the Idaho Water/Wastewater Agency Response Network (IDWARN) (ACTION ITEM)- Justin Kilborn

RESPONSIBLE STAFF

Justin Kilborn

ADDITIONAL PRESENTER(S)

DESCRIPTION

IDWARN is a voluntary, statewide mutual aid network that allows water and wastewater utilities to request and provide personnel, equipment, and materials in response to emergency events such as natural disasters, major infrastructure failures, or other utility emergencies. The City of Moscow approved participation in the Idaho Water/Wastewater Agency Response Network (IDWARN) in April 2011. IDWARN has recently renewed and updated its mutual aid agreement. The updated agreement formalizes the framework under which participating agencies may provide or request assistance and establishes the terms related to reimbursement, liability protections, and operational coordination. The renewed agreement has been reviewed by the City's legal counsel and was found to be sufficient, with no issues identified. Participation in IDWARN does not require payment of membership fees and does not obligate the City to respond to any request for assistance. The agreement preserves local control and allows the City to determine, on a case-by-case basis, whether resources are available and appropriate to deploy. When the City provides assistance to another agency, the agreement allows for reimbursement of eligible costs, including personnel time, equipment use, and materials. The agreement also establishes legal and liability protections designed to support emergency response activities and reduce risk to participating agencies. Continued participation in IDWARN is consistent with the City's prior approvals, current emergency response practices, and standard best practices within the water and wastewater utility industry. Maintaining this agreement strengthens the City's ability to both request and provide support during emergency situations, improving overall system resilience.

REVIEWED BY

PROPOSED ACTIONS

PROPOSED ACTIONS: Recommend authorization for the renewal of the Mutual Aid Agreement and continued membership in the Idaho Water/Wastewater Agency Response Network (IDWARN); or provide staff with further direction.

STAFF RECOMMENDATION

Recommend authorization for renewal of the Mutual Aid Agreement and continued membership in the Idaho Water/Wastewater Agency Response Network (IDWARN).

OTHER RESOURCES

FISCAL IMPACT

PERSONNEL IMPACT

ATTACHMENTS

1. Mutual Aid and Assistance Agreement - Revised 2017

MUTUAL AID AND ASSISTANCE AGREEMENT
FOR
THE IDAHO INTRASTATE WATER/WASTEWATER AGENCY RESPONSE NETWORK (IdWARN)

This Mutual Aid and Assistance Agreement for the Idaho Intrastate Water/Wastewater Agency Response Network (henceforth referred to as "IdWARN") is made and entered into by public and private water and wastewater utilities and other interested parties that have, by executing this Agreement, manifested their intent to participate in the Idaho WARN.

RECITALS

A. Idaho Code section 67-2332 [previously 67-2335] authorizes one or more public agencies to contract to perform any governmental service, activity or undertaking which each public agency entering into the contract is authorized by law to perform.

B. Insuring that water and wastewater systems provide and maintain water and wastewater services that promote the safety, health, comfort and convenience of the residents and visitors of Idaho communities is a fundamental function of government.

C. Utilities in Idaho have a duty to provide and maintain their service to promote the safety, health, comfort and convenience of patrons, employees, and the public.

D. The private and public entities executing this Agreement receive a reciprocal benefit by establishing processes to provide and receive assistance in advance of an emergency.

AGREEMENT

NOW, THEREFORE, in consideration of the covenants and obligations set forth in this Agreement, and the recitals set forth above, which are incorporated herein as if set forth in full, the parties agree as follows.

ARTICLE I.
PURPOSE

Recognizing that emergencies may require aid or assistance in the form of personnel, equipment, and supplies from outside the area of impact, the signatory utilities hereby establish this Program. Through the IdWARN program, Members coordinate response activities and share resources during emergencies. This Agreement sets forth the procedures and standards for the administration of IdWARN for participating members.

ARTICLE II.
DEFINITIONS

A. Authorized Official: An employee or officer of an IdWARN member that is authorized to:

1. Request assistance;
2. Offer assistance;
3. Refuse to offer assistance; or,
4. Withdraw assistance under this Agreement.

B. Emergency: A natural or human caused event or circumstance causing, or imminently threatening to cause, loss of life, injury to person or property, human suffering or financial loss, and includes, but is not limited to, fire, explosion, flood, severe weather, drought, earthquake, volcanic activity, spills or releases of oil or hazardous material, contamination, utility or transportation emergencies, disease, blight, infestation, civil disturbance, riot, international acts, sabotage and war that is, or could reasonably be beyond the capability of the services, personnel, equipment and facilities of a IdWARN member to fully manage and mitigate internally.

C. Members:

1. Member. Any public or private water or wastewater utility that manifests intent to participate in the IdWARN program by executing this Agreement.

2. Associate Member: Any non-utility participant approved by the Statewide Committee that provides a support role for the Program is a member of the Statewide Committee established under Article III, and that has executed this Agreement as an Associate Member.

3. Requesting Member: A Member who requests aid or assistance through the IdWARN program.

4. Responding Member: A Member who offers aid or assistance under the IdWARN program.

5. Non-responding Member: A Member or Associate Member that does not provide aid or assistance during a Period of Assistance under the IdWARN program.

D. Confidential Information: Any document shared with any signatory of this Agreement that is marked confidential, including but not limited to any map, report, notes, papers, opinion, or e-mail which relates to the system vulnerabilities of a Member or Associate Member.

E. Period of Assistance: A specified period of time when a Responding Member assists a Requesting Member. The period commences when personnel, equipment, or supplies depart from Responding Member's facility and ends when the personnel, equipment, or supplies return to such facility (portal to portal). All protections identified in the Agreement apply during this

period. The Period of Assistance may occur during response to or recovery from an Emergency.

F. Program. The interstate program for mutual aid and assistance established by this Agreement, also referred to as IdWARN.

G. National Incident Management System (NIMS): A national, standardized approach to incident management and response that sets forth uniform processes and procedures for emergency response operations.

ARTICLE III.
ADMINISTRATION

This Program shall be administered through a Statewide Committee. The Statewide Committee, under the leadership of an elected chairperson, shall meet at least annually to address Program issues. The Statewide Committee shall also meet at least annually to review emergency preparedness and response procedures. The Statewide Committee shall represent the interests of the Members and Associate Members. In addition, the Statewide Committee includes representatives from the following:

> United States Environmental Protection Agency (USEPA); American Water Works Association (AWWA); Federal Bureau of Investigation (FBI); Idaho Department of Environmental Quality (IDEQ); Idaho Air National Guard; Bureau of Homeland Security (BHS); Idaho Rural Water Association (IRWA); Idaho Emergency Management Association (IEMA).

Under the leadership of the chairperson, the Statewide Committee members shall plan and coordinate emergency planning and response activities for IdWARN. At its first meeting, the Statewide Committee shall establish initial membership of the committee and procedures for administration of the Statewide Committee, including meeting procedures and voting procedures.

ARTICLE IV.
PROCEDURES

In coordination with the standards set forth by the Idaho Office of Emergency Management, the Statewide Committee shall develop operational and planning procedures for the implementation of the IdWARN program. The procedures shall be reviewed at least annually and updated as needed by the Statewide Committee.

ARTICLE V.
REQUESTS FOR ASSISTANCE

A. Member Responsibility. Members shall identify an Authorized Official and alternates; provide contact information including twenty-four hour access; and, maintain resource information that may be available from the Member for mutual aid and assistance response. Member contact information shall be updated annually, or when changes occur, and provided to the Statewide Committee.

In the event of an Emergency, a Member's Authorized Official may request mutual aid and assistance from a participating Member. Requests for assistance can be made orally or in writing. When made orally, the request for personnel, equipment or supplies shall be prepared in writing as soon as practicable. Requests for assistance shall be directed to the Authorized Official of the participating Member. Specific protocols for requesting aid shall be provided in the procedures prepared under Article IV.

B. Response to a Request for Assistance. Members are not obligated to respond to a request. After a Member receives a request for assistance, the Authorized Official will evaluate whether or not to respond, whether resources are available to respond, or if other circumstances would hinder response. Following the evaluation, the Authorized Official shall inform, as soon as possible, the Requesting Member whether it will respond. If the Member is willing and able to provide assistance, the Member shall inform the Requesting Member about the type of available resources and the approximate arrival time of such assistance.

C. Discretion of Responding Member's Authorized Official. Execution of this Agreement does not create any duty to respond to a request for assistance. When a Member receives a request for assistance, the Authorized Official shall have sole and absolute discretion as to whether or not to respond, or the availability of resources to be used in such response. An Authorized Official's decisions on the availability of resources shall be final.

ARTICLE VI.
RESPONDING MEMBER PERSONNEL

A. National Incident Management System. When providing assistance under this Agreement, the Requesting Member and the Responding Member shall be organized and shall function under the National Incident Management System.

B. Control. While employees so provided may be under the supervision of the Responding Member, the Responding Member's employees come under the direction and control of the Requesting Member, consistent with the NIMS Incident Command System response protocol to address the needs identified by the Requesting Member. The Requesting Member's Authorized Official shall coordinate response activities with the designated supervisor(s) of the Responding Member(s). The Responding Member's designated supervisor(s) must keep accurate records of work performed by personnel during the specified Period of Assistance.

C. Food and Shelter. Whenever practical, Responding Member personnel must be self sufficient for up to seventy-two (72) hours. When possible, the Requesting Member shall supply reasonable food and shelter for Responding Member personnel. If the Requesting Member is unable to provide food and shelter for Responding Member personnel, the Responding Member's designated supervisor is authorized to secure the resources necessary to meet the needs of its personnel. Except as provided below, the cost for such resources must not exceed

the per diem reimbursement rates published by the State of Idaho Board of Examiners for the applicable period and location. To the extent food and shelter costs exceed Board of Examiners' per diem rates, the Responding Member must demonstrate that the additional costs were reasonable and necessary under the circumstances. Unless otherwise agreed to in writing, the Requesting Member remains responsible for reimbursing the Responding Member for all reasonable and necessary costs associated with providing food and shelter, if such resources are not provided by the Requesting Member.

D. Communication. The Requesting Member shall provide Responding Member personnel with radio equipment as available, or radio frequency information to program existing radios, in order to facilitate communications with local responders and Member personnel.

E. Status. Unless otherwise provided by law, the Responding Member's officers and employees retain the same privileges, immunities, rights, duties and benefits provided in their respective jurisdictions.

F. Licenses and Permits. To the extent permitted by law, Responding Member personnel that hold licenses, certificates, or permits evidencing professional, mechanical, or other skills shall be allowed to carry out activities and tasks relevant and related to their respective credentials during the specified Period of Assistance.

G. Right to Withdraw. The Responding Member's Authorized Official retains the right to withdraw some or all of its resources at any time for any reason at the Responding Member's sole and absolute discretion. Notice of intention to withdraw must be communicated to the Requesting Member's Authorized Official as soon as is practical under the circumstances.

ARTICLE VII.
COST REIMBURSEMENT

The Requesting Member shall reimburse the Responding Member for each of the following categories of costs incurred during the specified Period of Assistance as agreed in whole or in part by both parties, provided that any Responding Member may assume in whole or in part such loss, damage, expense, or other cost, or may loan such equipment or donate such services to the Requesting Member without charge or cost when permitted by law to make such donation.

A. Personnel. The Responding Member shall be reimbursed by the Requesting Member for personnel costs incurred for work performed during the specified Period of Assistance. Responding Member personnel costs shall be calculated according to the terms provided in their employment contracts or other conditions of employment. The Responding Member's designated supervisor(s) must keep accurate records of work performed by personnel during the specified Period of Assistance. Requesting Member reimbursement to the Responding Member should consider all personnel costs, including salaries or hourly wages, costs for fringe benefits, and indirect costs.

B. Equipment. The Requesting Member shall reimburse the Responding Member for the use of equipment during the specified Period of Assistance, including, but not limited to, reasonable rental rates, all fuel, lubrication, maintenance, transportation, and loading and unloading of loaned equipment. All equipment shall be returned to the Responding Member in good working order as soon as is practicable and reasonable under the circumstances. As a minimum, rates for equipment use must be based on the Federal Emergency Management Agency's (FEMA) Schedule of Equipment Rates. If a Responding Member uses rates different from those in the FEMA Schedule of Equipment Rates, the Responding Member must provide such rates orally or in writing to the Requesting Member prior to supplying the equipment. Mutual agreement on which rates are used must be reached in writing prior to dispatch of the equipment. Reimbursement for equipment not referenced on the FEMA Schedule of Equipment Rates must be developed based on actual recovery of costs. If Responding Member must lease a piece of equipment while its equipment is being repaired, Requesting Member shall reimburse Responding Member for such rental costs.

C. Materials and Supplies. The Requesting Member must reimburse the Responding Member in kind or at actual replacement cost, plus handling charges, for use of expendable or non-returnable supplies. The Responding Member must not charge direct fees or rental charges to the Requesting Member for other supplies and reusable items that are returned to the Responding Member in a clean, damage-free condition. Reusable supplies that are returned to the Responding Member with damage must be treated as expendable supplies for purposes of cost reimbursement.

D. Payment Period. The Responding Member must provide an itemized bill to the Requesting Member for all expenses incurred by the Responding Member while providing assistance under this Agreement. The Requesting Member must send the itemized bill no later than ninety (90) days following the end of the Period of Assistance. The Responding Member may request additional periods of time within which to submit the itemized bill, and Requesting Member shall not unreasonably withhold consent to such request. The Requesting Member must pay the bill in full on or before the forty-fifth (45th) day following the billing date. The Requesting Member may request additional periods of time within which to pay the itemized bill, and Responding Member shall not unreasonably withhold consent to such request, provided, however, that all payment shall occur not later than one (1) year after the date a final itemized bill is submitted to the Requesting Member.

E. Records. Unless prohibited by law, each Responding Member and their duly authorized representatives shall have access to a Requesting Member's books, documents, notes, reports, papers and records which are directly pertinent to this Agreement for the purposes of reviewing the accuracy of a bill or making a financial, maintenance or regulatory audit. Such records shall be maintained for at least three (3) years or longer where required by law.

ARTICLE VIII.
DISPUTES

If any controversy or claim arises out of or relates to the execution of this Agreement, including but not limited to an alleged breach of this Agreement, the disputing Members shall first attempt to resolve the dispute by negotiation.

If negotiation between the involved Members does not result in the issue being resolved, the Statewide Committee will assist in the negotiation process.

ARTICLE IX.
REQUESTING MEMBER'S DUTY TO INDEMNIFY

Members who are public entities shall be subject to Article IX only to the extent permitted by law. Specifically, the duty of a public entity to defend, indemnify or hold harmless any party shall not be extended beyond the appropriation of expenditures for such duty as required by law, including Idaho Code section 59-1015 and Article VIII, Section 4 of the Idaho Constitution. Further, the liability of a public entity shall not be increased by this Article beyond the extent required by the Idaho Tort Claims Act, Idaho Code Title 6 Chapter 9.

The Requesting Member who is not a public entity shall assume, to the extent allowed by the Idaho Public Utilities Commission, the defense of, and fully indemnify and hold harmless the Responding Member, its officers and employees, from all claims, loss, damage, injury and liability of every kind, nature and description, directly or indirectly arising from Responding Member's work during a specified Period of Assistance. The scope of the Requesting Member's duty to indemnify includes, but is not limited to, suits arising from, or related to negligent or wrongful use of equipment or supplies on loan to the Requesting Member, or faulty workmanship or other negligent acts, errors or omissions by Requesting Member or the Responding Member personnel.

The Requesting Member's duty to indemnify is subject to, and shall be complied consistently with, the conditions set forth in Article X.

ARTICLE X.
SIGNATORY INDEMNIFICATION

In the event of liability, claim, demand, action, or proceeding of whatever kind or nature arising out of a specified Period of Assistance, the Members who are not public entities and either receive and provide assistance shall, to the extent allowed by the Idaho Public Utilities Commission, have a duty to defend, indemnify, save and hold harmless all Non-responding Members.

ARTICLE XI.
WORKER'S COMPENSATION CLAIMS

The Responding Member is responsible for providing worker's compensation benefits and administering worker's compensation for its employees.

ARTICLE XII.
NOTICE

A party who becomes aware of a claim or suit that in any way, directly or indirectly, contingently or otherwise, affects or might affect other Members or Associate Members of this Agreement shall provide prompt and timely notice to the Members or Associate Members who may be affected by the suit or claim. Each Member and Associate Member reserves the right to participate in the defense of such claims or suits as necessary to protect its own interests.

ARTICLE XIII.
INSURANCE

Members of this Agreement shall maintain an insurance policy or maintain a self insurance program that covers activities that it may undertake by virtue of membership in the IdWARN program.

ARTICLE XIV.
CONFIDENTIAL INFORMATION

To the extent authorized by law, including the Idaho Public Records Laws, Idaho Code title 74, Chapter 1 [previously sections 9-337 through 9-350], any Member or Associate Member shall maintain the strictest confidence and shall take all reasonable steps necessary to prevent the disclosure of any Confidential Information disclosed under this Agreement. If any Member, Associate Member, third party or other entity request or demands, by subpoena or otherwise, that a Member or Associate Member disclose any Confidential Information disclosed under this Agreement, the Member or Associate Member shall immediately notify the owner of the Confidential Information and shall take all reasonable steps necessary to prevent the disclosure of any Confidential Information by asserting all applicable rights and privileges with respect to such information and shall cooperate fully in any judicial or administrative proceeding relating thereto.

ARTICLE XV.
EFFECTIVE DATE

This Agreement and the Statewide Committee receives and approves the admission of the applicant. The Statewide Committee chair shall maintain a master list of all Members and Associate Members of the IdWARN program.

ARTICLE XVI.
WITHDRAWAL

A Member or Associate Member may withdraw from this Agreement by providing written notice of its intent to withdraw to the Statewide Committee chair. Withdrawal takes effect sixty (60) days after the Statewide Committee chair receives notice. Withdrawal from this Agreement shall in no way affect a Requesting Member's duty to reimburse a Responding Member for cost incurred during a Period of Assistance, which duty shall survive such withdrawal.

ARTICLE XVII.
MODIFICATION

No provision of this Agreement may be modified, altered or rescinded by individual parties of this Agreement. Modifications to this Agreement may be due to programmatic operational changes to support the Agreement, legislative action, creation of an interstate aid and assistance agreement, or other developments. Modifications require a simple majority vote of the Members. The Statewide Committee chair must provide written notice to all Members and Associate Members of approved modifications to this Agreement. Approved modifications take effect sixty (60) days after the date upon which notice is sent to the Members and Associate Members.

ARTICLE XVIII.
SEVERABILITY

The parties agree that if any term or provision of this Agreement is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced if the Agreement did not contain the particular term or provision held to be invalid.

ARTICLE XIX.
PRIOR AGREEMENTS

This Agreement supersedes all prior Agreements between Members to the extent that such prior Agreements are inconsistent with this Agreement.

ARTICLE XX.
MISCELLANEOUS

A. No Third Party Beneficiaries. This Agreement is for the sole benefit of the Members and no person or entity has any rights under this Agreement as a third party beneficiary.

B. Assignment Prohibited. No party may assign benefits or delegate duties created by this Agreement and such assignments and delegations are without effect.

C. No Authority to Bind Other Parties or Partnership. Neither the IdWARN Program nor any party has the authority to enter into contracts or agreements on behalf of one or more parties to this Agreement. This Agreement does not create a partnership between the parties and nothing contained herein shall be interpreted to create an employer-employee, master-servant, a joint venture, or principal-agent relationship between any party in any respect.

ARTICLE XII.
INTRASTATE AND INTERSTATE MUTUAL AID AND ASSISTANCE PROGRAMS

To the extent practicable, Members of this Agreement shall participate in mutual aid and assistance activities conducted under the IdWARN Program and the Interstate Emergency Management Assistance Compact (EMAC). Members may voluntarily agree to participate in an interstate mutual aid and assistance program for water and wastewater utilities through this Agreement if such a program were established.

IN WITNESS WHEREOF, the Members and Associate Members executing a signature page attached hereto have entered into this Agreement effective as set forth in Article XV above. This Agreement may be executed in counterparts by the execution of signature pages. Each such counterpart shall be deemed as an original, all of which together with the terms herein shall be considered one and the same Agreement.

[Signature Pages Follow]

SIGNATURE PAGE

MUTUAL AID AND ASSISTANCE AGREEMENT FOR THE IDAHO INTRASTATE WATER/WASTEWATER AGENCY RESPONSE NETWORK (IdWARN)

_____
(Organization Name)

Signed By _____
Position/Title _____

Date: _____

Please let us know who you would like to be the main contact person for WARN activities, notices, news, and activations.

Name: _____

Position: _____

Contact phone number: _____

Contact email: _____

COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, January 26, 2026

AGENDA ITEM TITLE

Task Order No. 27 Moscow Water Reclamation Facility (WRF) – Effluent Filtration, Dewatering System, and Disinfection System Improvements (ACTION ITEM) - Evan Timar

RESPONSIBLE STAFF

Scott Bontrager, City Engineer, Evan Timar

ADDITIONAL PRESENTER(S)

DESCRIPTION

Task Order No.27, pursuant to the Master Agreement for Professional Services between City of Moscow and J-U-B Engineers, consists of design phase and bidding services for the effluent filtration improvements, dewatering system improvements, and disinfection system scrubber replacement. The dewatering system and the gas scrubber are original pieces of equipment installed during the Phase II facility upgrades in 1996 and are now well beyond their intended service life. Each of these systems plays an essential role in keeping the facility operating safely and reliably. The effluent filtration system helps reduce the amount of phosphorus released into the receiving waters, protecting water quality and meeting regulatory limits. The dewatering system removes water from residual solids so they can be handled and disposed of efficiently. The disinfection system scrubber is a critical safety system that treats air in the event of a chlorine or sulfur dioxide gas release, helping protect staff, the public, and the environment. Together, these systems support continuous, safe, and compliant plant operations. Implementing the upgrades recommended in the 2020 Water Reclamation Facility Plan will reduce operational risk, improve system reliability, and ensure the facility can continue to meet current and future regulatory requirements.

REVIEWED BY

PROPOSED ACTIONS

PROPOSED ACTIONS: Recommend acceptance of the Agreement in the amount of $1,204,300 or provide staff with further direction.

STAFF RECOMMENDATION

Accept Task Order No. 27, award the Agreement in the amount of $1,204,300.

OTHER RESOURCES

FISCAL IMPACT

The funds of $1,204,300 for Task Order No. 27 will come out of the sewer capital budget.

PERSONNEL IMPACT

ATTACHMENTS

1. Task Order NO 27 - WRF Improvements Project_final

TASK ORDER NO. 27

Pursuant to the

MASTER AGREEMENT FOR PROFESSIONAL SERVICES
(Categories1a, 2a, 3a)
BETWEEN CITY OF MOSCOW, IDAHO AND
J-U-B ENGINEERS, INC.

This Task Order No. 27 is made this _____ day of _____, 2026, and entered into by and between the City of Moscow, a municipal corporation of the State of Idaho (hereinafter "CITY"), and J-U-B Engineers, Inc., (hereinafter "ENGINEER"), pursuant to the mutual promises, covenants, terms and conditions contained in the Master Agreement (Categories 1a, 2a, 3a) between CITY and ENGINEER dated January 21, 2024. The Project Name for this Supplemental Task Order No. 27 is as follows:

CITY OF MOSCOW

WRF Effluent Filtration, Dewatering System, and Disinfection System Improvements

PROJECT UNDERSTANDING

The 2022 Water Reclamation Facility (WRF) Facility Plan completed by ENGINEER included a Capital Improvement Plan (CIP) that outlined a series of improvements for CITY to undertake at the WRF in the next 20 years (reference Table 7-1 of the CIP). CITY has decided to implement several critical upgrades as detailed herein. The project generally includes design, bidding, and construction support for the Project, collectively identified as Project #124-027, WRF Effluent Filtration, Dewatering System, and Disinfection System Improvements.

SCOPE OF WORK

ENGINEER's services under this Task Order are limited to the following tasks. Any other items necessary to plan and implement the Project, including but not limited to those specifically listed in "CITY Provided Work and Additional Services", are the responsibility of CITY.

A. TASK 100 –Project Management

1. Subtask 001 – ENGINEER's Internal Project Management

a. Project Initiation
   i. Set up Project into ENGINEER's financial and record keeping systems for document retention and project controls.
   ii. Execute subconsultant agreements, as applicable.
   iii. Develop Project schedule and intermediate milestones for review with CITY.
   iv. Communicate and coordinate ENGINEER's team's internal activities with kickoff and progress meetings as required.

DRAFT

v. Communicate and coordinate subconsultant activities under ENGINEER, as necessary.
vi. Assemble and disseminate background information to design team.

b. Administration
   i. Regularly monitor ENGINEER's Project status, budget and schedule. During periods of Project activity, provide a regular report to CITY on Project status, budget and schedule.
   ii. Provide a monthly invoice including Project / budget status to CITY.
   iii. Provide ongoing document handling and filing.
   iv. It is assumed that the monthly invoices and budget status will be sufficient documentation for CITY.
   v. Conduct Project planning and risk assessment.
   vi. Participate in a monthly design status review meeting with CITY. ENGINEER will provide a summary of ENGINEER's work in progress, identify key questions requiring resolution from CITY and CITY's Design Consultants. Attendance will be virtual and include design team members as deemed appropriate by ENGINEER.

c. Design Phase Close Out
   i. Archive ENGINEER's paper and electronic files and records.
   ii. Communicate the Project completion to CITY, as required.
   iii. Close financial billing and accounting records in ENGINEER's financial and record keeping systems.

d. Deliverables – Monthly invoices

2. Subtask 002 – Workshops

a. General: ENGINEER's project manager will attend all workshops in person or by Video Conferencing, as requested by CITY; design staff will attend virtually.
b. Workshop #1 – Kick-Off Meeting: Conduct an initial workshop with CITY to define Project goals, review current configuration, brainstorm alternative configurations, and conduct a site walkthrough.
c. Workshop #2 – Basis of Design Report 10% Design Review: Upon completion of the draft Basis of Design Report 10% Design, meet with CITY at the WRF to present recommendations, and review critical decisions.
d. Workshop #3 – Preliminary Engineering Report (PER) and 30% Review: Upon completion of the draft 30% Plans and draft PER, meet with CITY at the WRF to present recommendations, review critical decisions, and probable construction budget. Following this meeting, the 30% Plans and PER will be submitted to Idaho Department of Environmental Quality (IDEQ) for technical review.
e. Workshop #4 – 60% Progress Print Review: Upon completion of the 60% plans, meet with CITY at the WRF to review the documents, status, and probable construction budget.

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f. Workshop #5 – 90% / Agency: Upon completion of the 90% Review Bidding Documents, meet with CITY at the WRF to review the documents, status, and probable construction budget.
g. Deliverables: Workshop presentation with notes in PDF format.

3. Subtask 003 – Internal Design Meetings
   a. Conduct internal design meetings at appropriate phases for design team coordination.
   b. No Deliverables related to this subtask.

4. Assumptions
   a. ENGINEER reserves the right to reallocate funds amongst subtasks as necessary for budgetary purposes, provided the total contract amount is not changed (without approval from CITY through an Amendment for Additional Services).
   b. CITY will self-fund the Project; therefore, coordination with funding agencies or inclusion of funding agency documents is not required.

B. Task 200: Design Phase Services

1. Design Subtasks, General: Design milestones are generally defined as follows. Each design subtask presented below will be developed as necessary to achieve the general requirements of these milestones.

   a. Basis of Design Report 10% Design - Establishing preliminary design criteria for major equipment (including sizes, units in operation, reliability needs); qualitative assessment of existing and new infrastructure; preliminary / order of magnitude calculations; initial discussions with vendors to identify preliminary budgetary equipment costs; establishing overall design criteria and interconnections of facility components; developing a process schematic; developing a preliminary hydraulic profile; developing exhibits to illustrate the general nature of the Project.
   b. Preliminary Engineering Report - Developing a Preliminary Engineering Report for CITY and IDEQ review. The intent of this task is to further refine the proposed improvements by gathering and reviewing additional facility information and big picture treatment process options and preferences. The work in this design step focuses on establishing the overall facility and major process design criteria before more detailed design proceeds.
   c. 30% Design (Included with Preliminary Engineering Report) - Developing a schematic design that incorporates the preferences, requirements and constraints previously identified to solicit CITY input and refinement. This task is considered the start of the Project's detailed design process. In this task, all key design discipline leads begin their development of the design concept. The schematic design that is developed establishes the general scope, conceptual design, scale and relationships among the components of the Project, and includes key sizing and analysis for major systems; major plan views and sections; preliminary code analysis, layouts, schematics, equipment quantity and layout. It will include discipline specific design

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ideas so that major process decisions such as equipment spacing, process type/configuration, redundancy, and O&M preferences can be made by CITY.

d. 60% Design - Development of plan view and major / minor sections; preliminary schedules; inclusion of some details; development of preliminary pipe, valve, gate, and instrument schedules; and pipe routing; design concept with inclusion of structural, architectural, electrical, mechanical and treatment systems.
e. 90% Design - Preparation of a 90% complete set of Contract Documents, which will be the basis for the final Contract Document review submittal. These documents will include the Bidding Requirements, Contract Form, Conditions of the Contract, Specifications, and Drawings. Drawings and Specifications will include the required civil site work, landscaping, architectural, structural, process mechanical, HVAC, plumbing, electrical, and instrumentation and control design necessary for both the bidding and construction of the proposed improvements.
f. Final Design - Finalization of complete Contract Documents.

2. Subtask 010- Survey and Data Collection

    a. ENGINEER will provide site topographical survey for the purposes of design in the vicinity of the proposed Dewatering System Improvements area and to the Chlorine Contact Chamber to capture the area around the existing Plant Drain Pump Station. Detailed topographical information will be collected for the following: surface features such as drainages, roads, fences, structures, valve boxes, manholes, building corners, utility poles, equipment, signs, and underground utilities marked in the field by CITY or others at the time of surveying.
    b. A boundary survey is not included in this scope of services.
    c. ENGINEER will request locates from Digline and CITY. Existing utilities identified and located by others will be surveyed as marked and available; utilities identified in record drawings will be included in the Project base map in an approximate way only.
    d. ENGINEER will supplement the topographical survey with information as available from record drawings and / or design drawings provided by CITY. ENGINEER will rely on such information provided by others for design purposes. Exposed elements critical for design may be confirmed in the field through surveying or field measurements.
    e. Record Drawings and other related work.

3. Subtask 011 – Basis of Design Report 10% Design

    a. Prepare a Basis of Design Report (BODR). The BODR will identify flow schematic, overall process design criteria, preliminary vendor offerings, and major equipment sizing criteria.
    b. Filtration:
        i. Evaluation of filter buildout mechanical requirements, required capacity, number of filters to buildout, number of filters to rehabilitate, rehabilitation requirements, and construction phasing.

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ii. Preliminary evaluation of placing a building over the filtration system and preparing a concept-level cost opinion for CMU, manufactured steel building and tension fabric building.

c. Dewatering: Evaluation of rehabilitation requirements for the belt filter presses and belted conveyor.
d. Submit the draft BODR for CITY's review and approval.
e. Revise the BODR based on CITY's comments received during the review meeting.

4. Subtask 012 – Preliminary Engineering Report (PER)

a. Based on technical data developed in other design subtasks, prepare a PER in accordance with IDAPA 58.01.16.411. The PER will incorporate the Basis of Design Report and add additional detail for the following: major Project design criteria, major equipment selections, updated preliminary design cost opinions, and revised schedules. The PER will include 30% Concept Plans.
b. Submit the draft PER with Concept Plans for CITY's review and approval.
c. Revise the PER based on CITY's comments received during Workshop #3.
d. Issue final PER and Concept Plans to CITY and IDEQ for review and approval.
e. Respond to IDEQ comments as applicable.

5. Subtask 013 – Specifications

a. This task will commence upon approval of the 30% Design / PER by CITY. Comments to the PER by IDEQ will be addressed as part of the 60% submittal.
b. Develop proposed Front-End bidding, agreement, general conditions, and related documents using the 2020 Idaho Standards for Public Works Construction (ISPWC) for review by CITY and CITY's legal counsel. Incorporate changes as requested by CITY for development of final documents.
c. Incorporate CITY standard specifications and requirements to the ISPWC Division 100 General Conditions as "Owner's Supplemental Conditions".
d. For the purposes of scoping, it is assumed that funding is limited to CITY funds. Incorporating additional funding sources into the construction documents will be completed as Additional Services.
e. Prepare technical specifications based on the 46-Division format of the Construction Specification Institute (CSI).
f. Provide review documents at the following milestones:
   i. 60% Submittal: Specification Table of Contents and Progress Print of Major Equipment Specifications, if requested by CITY.
   ii. 90% Design / Agency Review Submittal: all specifications for review.
   iii. Final Bid Set: all specifications for competitive bidding.

6. Subtask 014 – General Sheet Development

a. ENGINEER will initiate an Autodesk ACC cloud-based site for integration of design models and file management for ENGINEER's design team and use by CITY's Design Consultants. CITY's Design Consultants are responsible for licensing fees as

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required to access the ACC site, including a BIM Collaborate Pro license for work in Revit 2025.

b. Develop cover sheet, sheet index, Project overview, WRF site overview, legends, design criteria, a process schematic, staging plan, demolition plan(s), and related general sheets.
c. Develop schedules for piping, valves, gates, and instruments with content as appropriate for each design milestone.

7. Subtask 015 – Site / Yard Piping

   a. Site Civil
      i. During 30% Design, site planning will be performed for the facility for connectivity of process elements. The area analyzed for site planning will be limited to the plant drain pump station site area. Surface restoration, grading, and alignments are assumed to be similar to existing and replacement will be in like kind.
      ii. For 60% Design, develop site civil sheets based on the 30% Design as required for grading work. Design will be completed using AutoCAD Civil 3D and establish proposed surface (horizontal and vertical) for the improvements. Plan views and major profiles and sections will be developed as appropriate.
      iii. At 90% / Agency Review, plan views, profiles, sections, and details for construction purposes will be developed.

   b. Yard Piping
      i. Develop a base utility drawing.
      ii. Update and develop the existing yard piping plan (pipe size, use and depth) for the proposed improvement areas (i.e. north and west of the existing dewatering building) based on information as available in record drawings, other information provided by CITY, and from previous projects.
      iii. Based on previous projects, the record drawings have variable accuracy; therefore, the base yard piping plan will reflect approximate locations and cannot be relied upon for detailed location information. If additional details are deemed necessary by CITY to reduce risk and/or uncertainty during construction, CITY may choose to pothole areas for surveying and/or detailed measurements, which will be completed as an additional service.
      iv. Develop yard piping plans to incorporate new work items for the Pump Station. Concept plans will include horizontal routing only of proposed piping 8 inches and larger. In subsequent design stages, a 3D model using Autodesk Civil3D (or similar) of the existing and proposed yard piping will be developed as deemed necessary by ENGINEER for development of construction documents, including plan views, sections, profiles, and details. The entire yard piping system will not be modeled.

   c. Pipe abandonment: Piping in the WRF will be removed.

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d. Storm Water Management: The construction documents will include a performance-based specification requiring the Contractor to design, implement, manage, monitor, and other related work, a storm water management plan and Storm Water Pollution Prevention Plan (SWPPP) to maintain compliance with IDEQ's water quality regulations, EPA's general storm water permits for construction, and other applicable local, state, and federal regulations.

e. Landscape Architecture: N/A – surface repair around the WRF is assumed to be gravel or asphalt.

f. Prepare cost opinions at 30%, 60%, 90% / Agency Review, and final Bid Set.

8. Subtask 016 - Effluent Filtration Improvements

   a. 30% Design
      i. Review original effluent filtration design documents and Operation and Maintenance Manual.
      ii. Review existing operational practices and procedures.
      iii. Develop preliminary plan and section views, as appropriate.
      iv. Develop Process Flow Diagram, lower half of the Process and Instrumentation Diagrams (P&ID) and preliminary control narrative.
   b. 60 % Design: Develop system plans, sections, and details; update P&ID and control narrative; develop draft equipment specification.
   c. Agency Review / 90%: Develop plans, sections, control narrative and details for all required disciplines; develop major equipment specification.
   d. Bid Set / 100%: Incorporate CITY and IDEQ comments and prepare final plans, sections, details, and specifications for all disciplines.

9. Subtask 017 – Dewatering System Improvements

   a. 30% Design
      i. Develop preliminary plan and section views, as appropriate.
      ii. Develop P&ID and preliminary control narrative.
   b. 60% Design: Develop system plans, sections, and details; update P&ID and control narrative; develop draft equipment specification.
   c. Agency Review / 90%: Develop plans, sections, control narrative and details for all required disciplines; develop major equipment specification.
   d. Bid Set / 100%: Incorporate CITY and IDEQ comments and prepare final plans, sections, details, and specifications for all disciplines.

10. Subtask 018 – Disinfection System Scrubber System Replacement

    a. 30% Design
       i. Develop preliminary plan and section views, as appropriate.
       ii. Develop Process Flow Diagram (lower half of the P&ID) and preliminary control narrative.

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b. 60% Design: Develop system plans, sections, and details; update P&ID and control narrative; develop draft equipment specification.
c. Agency Review / 90%: Develop plans, sections, control narrative and details for all required disciplines; develop major equipment specification.
d. Final Design / Bid Set: Incorporate CITY and IDEQ comments and prepare final plans, sections, details, and specifications for all disciplines.

11. Subtask 019 – Pre-qualifications of Bidders

a. It is understood that CITY wishes to prequalify potential general contractor bidders for the Project in accordance with the Category B requirements in Idaho Code § 67-2805.
b. ENGINEER will prepare the pre-qualification solicitation for CITY to publish and work with CITY to establish the qualification criteria. CITY will conduct appropriate legal reviews.
c. CITY will issue documents to interested parties, administer, receive and open the submitted packages, conduct such reviews as deemed necessary by CITY and CITY's legal counsel. CITY will receive questions from potential contractors arising during the prequalification period and issue addenda. A four-week period is assumed for this subtask. The on-line service will maintain a plan holder's list throughout the bidding period.
d. ENGINEER will provide assistance during the solicitation process, which is generally expected to include the following: attending the pre-qualification meeting, answering questions relayed to ENGINEER by CITY, prepare addenda as necessary to clarify or amend provisions in the Prequalification Documents. A total of two (2) addenda are assumed for budgeting purposes.
e. CITY will conduct a pre-qualification conference at the WRF or City Hall. Questions arising from the pre-qualification conference will be addressed through an addendum as necessary.
f. Prequalification packets will be received and opened by CITY. ENGINEER will review the pre-qualification packets received for general conformance with the requirements and summarize results for review by CITY and CITY's legal counsel. Discuss the received prequalification packets with CITY. Based on direction received from CITY, prepare draft award documents for CITY's use in making a formal award to the successful bidder. In the event all bids are rejected and CITY decides to readvertise the Project in whole or in part, the work associated with redesigning, repackaging, and / or rebidding shall be considered an Additional Service.
g. Assumptions:
    i. ENGINEER project manager will attend the prequalification meeting in person.
    ii. CITY will select a list of pre-qualified bidders prior to ENGINEER's reaching 90% design.
    iii. CITY shall review the submittals, select those contractors that meet the prequalification standards, issue necessary statement/response letters, prepare and execute necessary contract documents. This scope of work does not include support for challenges or protests by unsuccessful respondents during the pre-

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qualification process; if challenges or protests arise, the work is considered an Additional Service.

12. Subtask 020 – Electrical

    a. 30% Design
        i. Analyze existing power demand through review of the prior 12 months of power meter data (to be provided by CITY).
        ii. Investigate historical power outage frequency and duration.
        iii. Summarize total connected load, current load demand, and additional load with new and future effluent pumps to confirm adequate power supply is available. Evaluate impact on the standby generator power system to confirm adequate standby generator capacity is available.
        iv. Based on a preliminary site review with operations staff, it is assumed that adequate power supply is available on-site, and the design of new power supply and/or standby power is not included.
        v. If revisions to the power supply and/or standby power systems are required, the scope will be amended as necessary.
        vi. Prepare a one-line diagram, equipment load list, and area classification for the improvements.
        vii. Prepare preliminary network diagram and connection to CITY Programmable Logic Controller (PLC) system.
        viii. Develop a raceway routing plan for connection of lift station.
        ix. Prepare preliminary electrical specifications.

    b. 60% Design
        i. Development of the site electrical plan, process plans including preliminary electrical gear layout, network diagram(s), panel layouts, draft Process and Instrumentation Diagrams (P&IDs), preliminary schedules, and electrical and instrumentation specifications.
        ii. Review control system integration approach. It is assumed that a control system integrator will be responsible for submittal preparation, fabrication, installation, testing, and other related work of panels and PLCs per the Bidding Documents. CITY will contract with 'others' for PLC and Supervisory Control and Data Acquisition (SCADA) programming.

    c. 90% Design: Development of site electrical plans, process power and control plans, site and building lighting, network diagram(s), panel layouts, P&IDs, conduit and instrumentation schedules, and electrical and instrumentation specifications.

    d. Final Design: Incorporate CITY and IDEQ comments and prepare final plans, sections, details, and specifications.

    e. Prepare cost opinions at 30%, 60%, 90% / Agency Review, and 100% / Bid Set.

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13. Subtask 030 – Quality Control: Conduct internal reviews at appropriate phases for quality control.

14. Subtask 031 – Issuing Deliverables: Assemble ENGINEER's design documents at each milestone for review by CITY. CITY will coordinate with CITY's Design Consultants and require submission by others for inclusion in the milestone set one week prior to the scheduled submission date to CITY. ENGINEER will compile documents received by others for the milestone set. All comments generated by CITY and CITY's Design Consultants shall be provided in a Bluebeam session that ENGINEER will initiate and manage; responses to comments will be provided in the Bluebeam session.

    a. Basis of Design Report 10% Design - Report (unstamped) in PDF format.
        i. CITY – one electronic copy
        ii. DEQ – N/A

    b. 30% Design – Concept Plans (unstamped) and Preliminary Engineering Report (stamped) in PDF format.
        i. CITY – one electronic copy
        ii. DEQ – one electronic copy for agency use

    c. 60% Design - Progress print of the plans, specification table of contents, and draft of major process equipment technical specifications (unstamped) in PDF format.
        i. CITY – one electronic copy
        ii. DEQ – N/A

    d. Pre-Qualification Package - (stamped) in PDF format.
        i. CITY – one electronic copy
        ii. DEQ – N/A

    e. 90% Design - Review plans and specifications (stamped for review, not for bidding) in PDF format.
        i. CITY – one electronic copy
        ii. DEQ – one electronic copy for agency review.

    f. Final Design - Bidding Documents (stamped for bidding) in PDF format.
        i. CITY – one electronic copy
        ii. DEQ – one electronic copy for agency use.

15. Subtask 040 – Subconsultant - Building Mechanical: The 040-level subtasks will be used for monitoring and managing subconsultant contracts as required. The following Assumptions will apply:

    a. Subtasks 010 through 040 will be developed incrementally as required to complete the 30% Design, 60% Design, 90% Design, and 100% Final Design milestones.
    b. ENGINEER's opinions of probable cost: Since ENGINEER has no control over the cost of labor, materials, equipment, or Services furnished by others, or over the

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contractor(s) methods of determining process, or over competitive bidding or market conditions, ENGINEER's opinions of probable construction cost are to be made in current year dollars and on the basis of ENGINEER's experience and qualifications and represent ENGINEER's best judgment as an experienced and qualified profession engineering firm familiar with the construction industry; but ENGINEER cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from the opinions of probable cost prepared by ENGINEER. If CITY wishes assurance as to construction costs, CITY shall employ an independent cost estimator.

c. Building Permit: It is assumed that CITY or Contractor will pay for a building permit for the Project; therefore, CITY will apply for and obtain a building permit using the Agency Review or Final Design plans, as appropriate.
d. No geotechnical investigation or report is required.
e. No potholing is required.
f. Plan development will be completed using AutoCAD, AutoCAD Civil 3D (2025), REVIT (2025), and/or other software as deemed appropriate by ENGINEER with all deliverables made in hard copy 11x17 plans and PDFs only. Source files generated by ENGINEER will be provided to CITY, but not to bidders, contractors, or other entities.
g. CITY will self-fund the Project; therefore, coordination with funding agencies or inclusion of funding agency documents is not required.

C. Task 900: Management Reserve Fund

1. The Management Reserve Fund establishes a pre-authorized budget for additional tasks that may be requested by CITY's Authorized Representative and performed by ENGINEER upon mutual agreement of scope, budget, and schedule.
2. ENGINEER will not exceed the pre-authorized amount without CITY written approval.

CITY PROVIDED WORK AND ADDITION SERVICES

A. **CITY-Provided Work**: CITY is responsible for completing, or authorizing others to complete, all tasks not specifically included above in "Scope of Work" that may be required for the project including, but not limited to:

1. Provide operating data for the last three (3) years.
2. Perform and pay for needed sampling and testing.
3. Provide copies of previous reports, manuals, record drawings, and planning studies.
4. Provide utility location services.
5. Pay for any agency review fees that may be needed.
6. Public involvement.
7. Environmental clearances, survey, permits, and mitigations plans such as for wetlands, wildlife, archeology, cultural, or historical.
8. Legal counsel, including review and approval of any contract documents to be executed by CITY with contractor(s) or other third parties.
9. Secure and manage funding for the Project.

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10. Give prompt written notice to ENGINEER whenever CITY observes or otherwise becomes aware of any development that affects the scope or time of performance of ENGINEER's services, or any defect or nonconformance in ENGINEER's services, the work, or in the performance of any Contractor.

B. **Additional Services:** CITY reserves the right to add future tasks for subsequent phases or related work to the scope of services upon written mutual agreement of scope, additional fees, and schedule.

TIME OF COMPLETION AND COMPENSATION SCHEDULE

A. CITY shall pay ENGINEER for the identified Services in "Scope of Work" as follows:

1. For Lump Sum fees: The portion of the Lump Sum amount billed for ENGINEER's services will be based upon ENGINEERS's estimate of the percentage of the total services actually completed during the billing period.

2. ENGINEER may alter the distribution of compensation between individual tasks to be consistent with services actually rendered while not exceeding the total project amount.

B. Period of Service: If the period of service for the task identified above is extended beyond six (6) months past the Notice to Proceed, the compensation amount for ENGINEER's services may be appropriately adjusted to account for salary adjustments and extended duration of project management and administrative services.

C. CITY acknowledges that ENGINEER will not be responsible for impacts to the schedule by actions of others over which ENGINEER has no control.

D. The following table summarizes the fees and anticipated schedule for the services identified in "Scope of Work".

COMPENSATION AND COMPLETION SCHEDULE				
Task	**Task Name**	**Fee Type**	**Amount**	**Anticipated Completion Schedule**
100	Project Management	Lump Sum	$148,800	Concurrent with work progress
200	Design Phase Services	Lump Sum	$955,500	Draft for CITY review twelve (12) months after executed contract, notice to proceed, and receipt of all required data.
900	Management Reserve Fund	TBD (Estimated Amount Shown)	$100,000	As mutually agreed to by CITY and ENGINEER
TASK ORDER TOTAL: $1,204,300				

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The Not-To-Exceed amount to complete all services listed above for this Task Order No. 27 is One Million, Two Hundred Four Thousand, Three Hundred Dollars ($1,204,300.00). No compensation will be paid nor will work be performed over the Not-To-Exceed amount without prior written approval by CITY in the form of a Change Order. Monthly invoices shall be billed as a percentage of work completed. Any and all travel will only be reimbursed if pre-approved by the Project Manager, and only per CITY Travel Policy. Reimbursable expenses will be paid at cost and only if pre-approved by the Project Manager and accompanied by an itemized receipt. Any travel and/or reimbursables paid will be paid as part of the Not-To-Exceed Task Order Total per the Compensation and Completion Schedule above.

Except as expressly set forth in this Task Order No. 27, the Master Agreement otherwise is unmodified and remains in full force and effect following this Task Order No.27.

APPROVALS, ACCEPTANCE AND SEVERABILITY

Approval and Acceptance of this Scope of Work shall incorporate this Task Order No. 27 as part of the Master Agreement. ENGINEER is authorized to begin performance upon ENGINEER's receipt of a copy of this Task Order signed by CITY. The terms and conditions of this Task Order No. 27 shall be deemed severable. If any part of this Task Order No. 27 is held invalid or unenforceable by a court of competent jurisdiction, the remaining portions of this Task Order No. 27 shall remain in full force and effect so long as the remainder of this Task Order No. 27 is reasonably capable of completion.

IN WITNESS WHEREOF, the Parties have executed this Task Order No. 27 as of the date last signed below.

I, Cory R. Baune, P.E., certify under the penalty of perjury pursuant to the law of the State of Idaho, that the foregoing is true and correct and that I am an authorized agent to bind J-U-B Engineers, Inc. into this Task Order No. 27. If signing this document utilizing a digital signature, I understand that my digital signature is valid and binding upon me to the same force and effect as a handwritten signature.

ENGINEER	**CITY**
J-U-B Engineers, Inc.	City of Moscow, Idaho
_____	_____
Cory R. Baune, P.E.; Exec, VP	Hailey Lewis, Mayor
_____	_____
Date	Date

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_____
PM's Approval

ATTEST:

_____
Laurie M. Hopkins, City Clerk

ACKNOWLEDGMENT

STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 2026, before me, a Notary Public in and for said State, appeared Cory R. Baune, known to me to be the person named above and acknowledged that they executed the foregoing document as the duly authorized representative of J-U-B Engineers, Inc.

_____
Notary Public for the State of _____
Residing at_____
My commission expires_____

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COMMITTEE / CITY COUNCIL STAFF REPORT

DATE: Monday, January 26, 2026

AGENDA ITEM TITLE

Comprehensive Water and Sewer System Plans Project (ACTION ITEM) - Tyler Palmer

RESPONSIBLE STAFF

Tyler Palmer, Deputy City Supervisor

ADDITIONAL PRESENTER(S)

DESCRIPTION

As part of the management of the City of Moscow's public water and sewer utilities, it is necessary to perform a periodic review of the existing Public Drinking Water and Sewer Conveyance Systems and to assess the system's needs to resolve existing issues and meet long term growth, rehabilitation, and capacity demands. The State of Idaho Department of Environmental Quality (IDEQ) requires Public Drinking Water and Sewer Systems to prepare and update their "System Facilities Plan" periodically. The most recent comprehensive plans were adopted and approved in 2011 (sewer) and 2012 (water).

The City of Moscow entered into a professional services agreement (PSA) to update the City's Comprehensive Water and Sewer Conveyance System Plans with HDR Engineering, Inc. The PSA tasked HDR to provide a review of the existing systems, identify system inadequacies, and detail system improvements to resolve deficiencies and meet future growth needs. The updated Plans, before you today, will serve as the management and business plan for the water and sewer utilities covering policies, operations, water quality and supply, water rights, and system improvements. They provide a detailed utilities work plan for the next decade, identify long-term needs and opportunities, and outline strategies for utility management for the next 50 years. Following adoption by the council, the Plans will be submitted to IDEQ for approval.

REVIEWED BY

PROPOSED ACTIONS

PROPOSED ACTIONS: Recommend adoption of the updated Comprehensive Water and Sewer System Plans, or provide staff further direction.

STAFF RECOMMENDATION

Recommend adoption of the updated Comprehensive Water and Sewer System Plans.

OTHER RESOURCES

FISCAL IMPACT

PERSONNEL IMPACT

ATTACHMENTS

1. 223119 Moscow Comprehensive Sewer System Plan, FINAL, 2026-01-21
2. Moscow Comprehensive Water System Plan 2026-01-21

Comprehensive Sewer System Plan

CITY OF MOSCOW

December 2025 | Project No. #223119

PREPARED BY

KELLER ASSOCIATES

733 5th Street, Suite A
Clarkston, WA 99403
509-295-6095

PREPARED FOR

CITY OF MOSCOW 1887 IDAHO

PO Box 9203
Moscow, ID 83843
208-883-7001

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EXECUTIVE SUMMARY

The City of Moscow conveys sanitary sewer to the Water Reclamation Facility for treatment. The City has prepared this Comprehensive Sewer System Plan (CSSP) to evaluate the existing sanitary sewer conveyance system and to identify capital improvements needed to reliably serve current and projected wastewater demands. The CSSP documents existing system conditions, evaluates hydraulic capacity and system performance, establishes a prioritized Capital Improvements Program (CIP), and compliance with state and federal regulations. The plan is intended to guide long term infrastructure planning, budgeting, and project implementation through 2075 (50-year planning horizon).

ES.1 EXISTING WASTEWATER COLLECTION SYSTEM

The City's wastewater conveyance system serves residential, commercial, institutional, and industrial customers within the City limits and designated service areas. The system currently serves a population of approximately 24,200 with projected growth to 26,500 by 2035 and 36,000 by 2075 using a 1% annual growth rate. The City also conveys flows from the University of Idaho and the Southeast Moscow Water and Sewer District.

The system consists of approximately 88 miles of gravity and pressure sewer pipelines; six (6) wastewater lift stations and associated force mains; and appurtenances that convey wastewater to the City's Water Reclamation Facility. System components vary in age, size, and material, reflecting phased development and expansion over many decades.

The conveyance system is predominately gravity driven, with pump stations used where topography limits gravity conveyance. Portions of the system include older infrastructure that has reached or is approaching the end of its useful service life. Known system challenges include aging pipelines/manholes, root intrusion, localized capacity constraints, maintenance intensive pump stations, and areas susceptible to infiltration and inflow (I/I), particularly during wet weather conditions.

ES.2 SYSTEM EVALUATION

The CSSP planning area includes the existing wastewater service area as well as growth and future service areas identified in the City's adopted comprehensive plan and land use designations. Population growth projections were used to estimate future wastewater flows over the 10-, 20-, and 50-year planning horizons. These projections provide the basis for evaluating future system capacity needs and identifying improvements necessary to support planned growth and redevelopment.

A system-wide hydraulic model evaluation was performed using available record drawings, geographic information system (GIS) data, operational and maintenance records, prior planning documents, and engineering analysis. The evaluation considered both dry weather and wet weather conditions and included model calibration for both seasonal changes. The modeling focused on system capacity, hydraulic performance, and overall condition. The evaluation looked at pipe diameter, flow velocity, pipe slopes, and depth of flow to determine if deficiencies are occurring or if future growth will trigger system deficiencies.

Key findings from the evaluation include:

- Numerous areas of sub-optimum pipe slopes were identified.
- Select CCTV footage review identified areas where root intrusion, cracked pipes, or areas of past repairs will require improvements. These portions of the conveyance system require rehabilitation or replacement due to age, material condition, or maintenance history. The City has an on-going effort of pipeline rehabilitation and replacement. These efforts also provide ongoing management

of infiltration and inflow to maintain reliable system performance and minimize impacts on downstream treatment facilities.

- For the 10-year planning horizon, the Mall Lift Station and portions of the adjacent pipelines are at or over capacity and manholes have potential to surcharge. The City is currently improving the lift station and forcemain with completion in 2026. The trunkline that conveys flows to the Mall Lift Station also requires upsizing, especially with future growth estimates making the capacity deficiencies higher.
- The City is interested in providing a gravity bypass from the Southeast Lift Station to the South Lift Station to stay ahead of growth and future deficiencies as the Southeast Lift Station does not have capacity for the projected 50-year flows.
- Ongoing system monitoring and model refinement are important tools for managing growth and prioritizing improvements.

ES.3 CAPITAL IMPROVEMENTS PROGRAM

The CSSP outlines a phased Capital Improvements Program (CIP) to address identified deficiencies and support future growth. Projects were organized to reflect logical sequencing and coordination with planned development, roadway projects, and other utility improvements, as much as possible. The CIP provides detail for projects in the 5-, 10-, and 20-year range with planning level costs to allow the City to develop annual budgets for incorporating these projects over time. Recommendations for future, 50-year planning horizon projects are also included to maintain the City's focus on longer term needs.

CIP projects include capacity, conditions, and maintenance/operations related elements. Priority 1 improvements occur within the 5-year timeframe for a total of $7.5M, not including the ongoing Mall Lift Station costs. Priority 2 improvements include projects through the 10-year planning horizon with $0.3M cost. The Priority 3 improvements extend through the 20-year planning horizon totaling $1.9M. Over the next 20 years, an estimated $10M in projects is recommended.

CHAPTER 1 - INTRODUCTION AND BASIS OF PLANNING

Keller Associates (Keller) has been contracted as a subconsultant to HDR, Inc. (HDR) to complete the Comprehensive Sewer System Plan (CSSP) as part of the larger Comprehensive Water and Sewer System Plans Project in which HDR is the prime contractor hired by the City of Moscow (City or Moscow). This chapter provides an introduction, establishes the planning constraints, and clarifies the issues that will impact planning decisions.

1.1. PURPOSE AND NEED

This plan was commissioned by the City of Moscow to assess the current state of the wastewater conveyance system and to plan for future needs. The previous CSSP was completed by Keller in 2011. This plan will develop a vision and plan of action for expanding and improving the City's conveyance system. This study is funded by the City.

1.2. PLAN ORGANIZATION

This plan follows the format listed in the scope of work and consists of the following:

- Chapter 1 – Introduction and Basis of Planning: Discusses the purpose and need for this study by outlining the plan contents, relevant background information, study approach for addressing environmental and community characteristics, and evaluation criteria to be used in this study.
- Chapter 2 – System Description and Study Area: Provides a description of the system study area, existing conveyance system, treatment system, ownership and management, and system classification and operator licensing.
- Chapter 3 – Service Area Policies, Plans, and Agreements: Summarizes the City's sewer service ordinances and provide recommendations regarding possible revisions and updates, describes operations agreement with the Southeast Moscow Water & Sewer District and current and projected impacts on City operations, and summarizes consistencies and discrepancies with the City's approved land use plan.
- Chapter 4 – System Demand Projection: Establishes historical and projected population growth for 10-, 20-, and 50-year planning periods and historic and projected wastewater flows and loading characteristics.
- Chapter 5 – Water Reclamation and Reuse Options: Describes the historic and existing water reuse agreement with University of Idaho.
- Chapter 6 – System Analysis: Describes development, flow monitoring, and calibration of the InfoSWMM model and discusses model output results for 10-, 20-, and 50-year planning periods and provides recommendations to alleviate existing deficiencies and serve future growth.
- Chapter 7 – Operations and Maintenance: Provides documentation and a summary of staff interviews, describes current and past O&M procedures, recommends procedure updates, and highlights possible I/I reduction measures.
- Chapter 8 – Capital Improvement Plan: Recommends ranked improvements to the sewer conveyance and treatment system including project descriptions, schedules, and projected costs while balancing the benefits of system expansion and system improvements.

1.3. BACKGROUND AND SYSTEM HISTORY

The City's sanitary sewer conveyance system is made up of approximately 86 miles of pipeline, 1,960 manholes, and six (6) lift stations. The conveyance system serves customers within the City of Moscow, the Southeast Moscow Water and Sewer District (District), and the University of Idaho (UI). While all flow from UI is ultimately conveyed through the City's interceptor system, UI owns and operates its own conveyance system on campus that discharges into the City's system at various locations. Wastewater is conveyed through a series of interceptors to the City's Water Reclamation Facility located on the west end of the City. The Water Reclamation Facility is owned by the City of Moscow and operated by their Water Reclamation staff. Treated effluent is discharged to Paradise Creek and is used for irrigation on the UI campus via a reuse system owned and operated by UI.

Parts of the conveyance system date back to the 1890s, pre-dating any treatment facilities. Some of the earliest sewer pipelines, installed in the early 1900's, served the UI campus and included siphons under Paradise Creek. Original sections of pipe are made of vitrified clay pipe. With continual growth in the City, the wastewater system has seen a steady increase in flows. The City has continuously undertaken efforts to rehabilitate or replace older sections and implement improvements to increase the level of service to customers.

1.4. USE OF AVAILABLE DATA

This study utilized multiple data sources, including topographic data, base maps, precipitation records, water usage, wastewater flows, and demographic information. The demographic data was developed by HDR as part of the associated Water System Plan. City staff provided input through interviews, identifying known challenges and contributing to the evaluation of improvement alternatives and cost estimates.

Electronic data, such as topographic information, GIS files, and base maps, was used to delineate basin boundaries. Descriptions from closed-circuit television (CCTV) inspections helped assess pipeline and manhole conditions. Additional resources for evaluating the conveyance system included record drawings, operations and maintenance manuals, previous reports, manhole cards, and base maps.

This study was also coordinated with the Comprehensive Water System Plan to align land use assumptions, growth areas, and population projections.

1.5. ASSESSMENT METHODOLOGIES

Planning criteria can largely be grouped into one of two categories: capacity and performance. Capacity issues arise when the system is undersized to serve the system's current needs. Performance issues are caused by aging or damaged infrastructure that results in the system not performing as designed or resulting in unintended environmental impacts.

Specific planning criteria are noted below. Unless another source is cited, Idaho Administrative Procedures Act (IDAPA) 58.01.16 from the Idaho Department of Environmental Quality "Wastewater Rules" standards were used for all performance criteria.

1.5.1. Gravity Pipelines

- The minimum diameter for new gravity sewer main is 8 inches (IDAPA 58.01.16.430.02.a).
- The minimum diameter for new gravity sewer service is 4 inches (IDAPA 58.01.16.430.02.a).
- Gravity sewer mains should follow minimum slopes outlined in the 10 State Standards (Great Lakes-Upper Mississippi River Board of State and Provincial Public Health and Environment Managers, 2014) as shown in the table below. The 10 State Standards is a widely used guidance document for wastewater systems. The minimum slopes cited target a minimum flow of 2.0 feet per second (fps) which reduces sediment build-up in pipes.

Pipe Diameter (in)	10 State Standards Minimum Slope (%)
8	0.4
10	0.28
12	0.22
15	0.15
18	0.12
21	0.1
24	0.08
30	0.058
36	0.046
42	0.037

- Pipelines crossing surface water bodies should be placed perpendicular to flow of the surface water (IDAPA 58.01.16.430.02.k.iii).
- A minimum of 18 inches of vertical separation and 10 feet horizontal separation should be maintained between sewer pipelines and potable water pipelines (IDAPA 58.01.16.430.02.o).
- Manholes are required to be installed at the end of each line or at any changes in grade, size or alignment (IDAPA 58.01.16.430.02.h).
- New trunklines should be buried no deeper than 20-25 ft, with 30 ft as the deepest limit. New pipes should be installed with a minimum cover depth of at least 2.5 feet.

1.5.2. Lift Stations

- Mechanical and electrical components should be protected from physical damage during a 100-year flood event and remain fully operational and accessible during a 25-year flood event (IDAPA 58.01.16.440.01.a).
- The pump stations must be accessible to maintenance vehicles in all weather conditions (IDAPA 58.01.16.440.01.b).
- Pumping capability should be achieved by one of four types of installations: wet well/dry well, submersible, suction lift, or screw pumps (IDAPA 58.01.16.440.02.a).
- Lift stations must be capable of conveying design peak hour flows with the largest pump offline (IDAPA 58.01.16.440.02.c.i).
- A backup power source must be provided for alarm systems. Alarms should be transmitted to a 24-hour response center. (IDAPA 58.01.16.440.06).
- Lift stations must have a dedicated back-up power source. This could consist of an onsite generator, dedicated portable generator, or second independent utility connection. (IDAPA 58.01.16.440.07.b).

1.5.3. Force Mains

- Force mains should have a minimum velocity of 2 fps to avoid solid deposition (IDAPA 58.01.16.440.10.a).
- Force main velocities should have a maximum velocity of 8 fps to avoid excessive energy consumption and head loss, and the potential for water hammer (EPA 832-F-00-071).

- Air relief valves should be placed at high points in the force main (IDAPA 58.01.16.440.10.b).
- Adequate cover is required to prevent freezing or damage (IDAPA 58.01.16.440.10.k).

1.5.4. Additional Planning Criteria

- For areas not expected to experience growth, if interceptor pipeline flows are less than 90% capacity and no historical problems have been observed, then no improvements would be recommended. However, increased monitoring may be warranted.
- For areas that will likely experience growth, the need for capital improvements should be triggered if the pipe is at 75% of flow capacity, with the goal to have new facilities in place by the time the existing pipelines reach 90% of capacity.
- Infiltration and Inflow (I/I) reduction efforts should be continued to reduce system leaks and reduce groundwater flow into the system. The efficacy of these efforts should be monitored, especially in limited-capacity areas of the conveyance system.

IDAPA 58.01.16 should be referred to for a comprehensive and up-to-date list of design requirements during the design of new wastewater conveyance infrastructure.

CHAPTER 2 - SYSTEM DESCRIPTION AND STUDY AREA

This chapter provides the location of the project and defines the project planning boundary. Planning efforts will focus within the planning boundary only. This chapter also provides a summary of environmental resources present within the planning boundary area.

2.1. LOCATION & PLANNING BOUNDARY

The City of Moscow is in Latah County along the Washington border as shown in Figure 2-1. It's home to the University of Idaho (UI). Highways US-95 (north-south) and ID-8 (east-west) serve the city, passing through the city center.

The City's wastewater system is defined as a Class III system by Idaho Department of Environmental Quality (DEQ) and serves all the City of Moscow, the Southeast Moscow Water and Sewer District (District), and UI. More information on these intertie agreements can be found in Chapter 3. While all flow from UI is ultimately conveyed through Moscow's interceptor system, UI owns and operates its own conveyance system on campus. Wastewater is conveyed through a series of interceptors to the City's Water Reclamation Facility located on the western edge of the City. City limits, District and UI boundaries, and the study planning boundary are shown in Figure 2-2.

FIGURE 2-1 VICINITY MAP

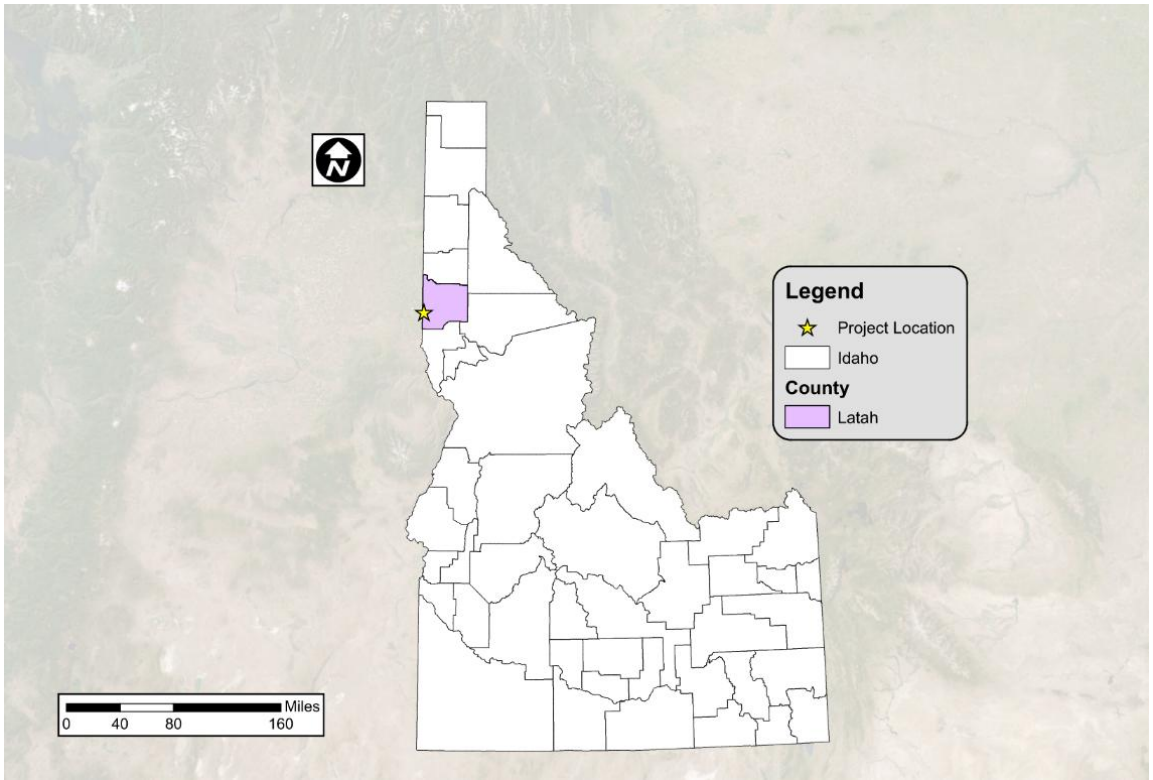
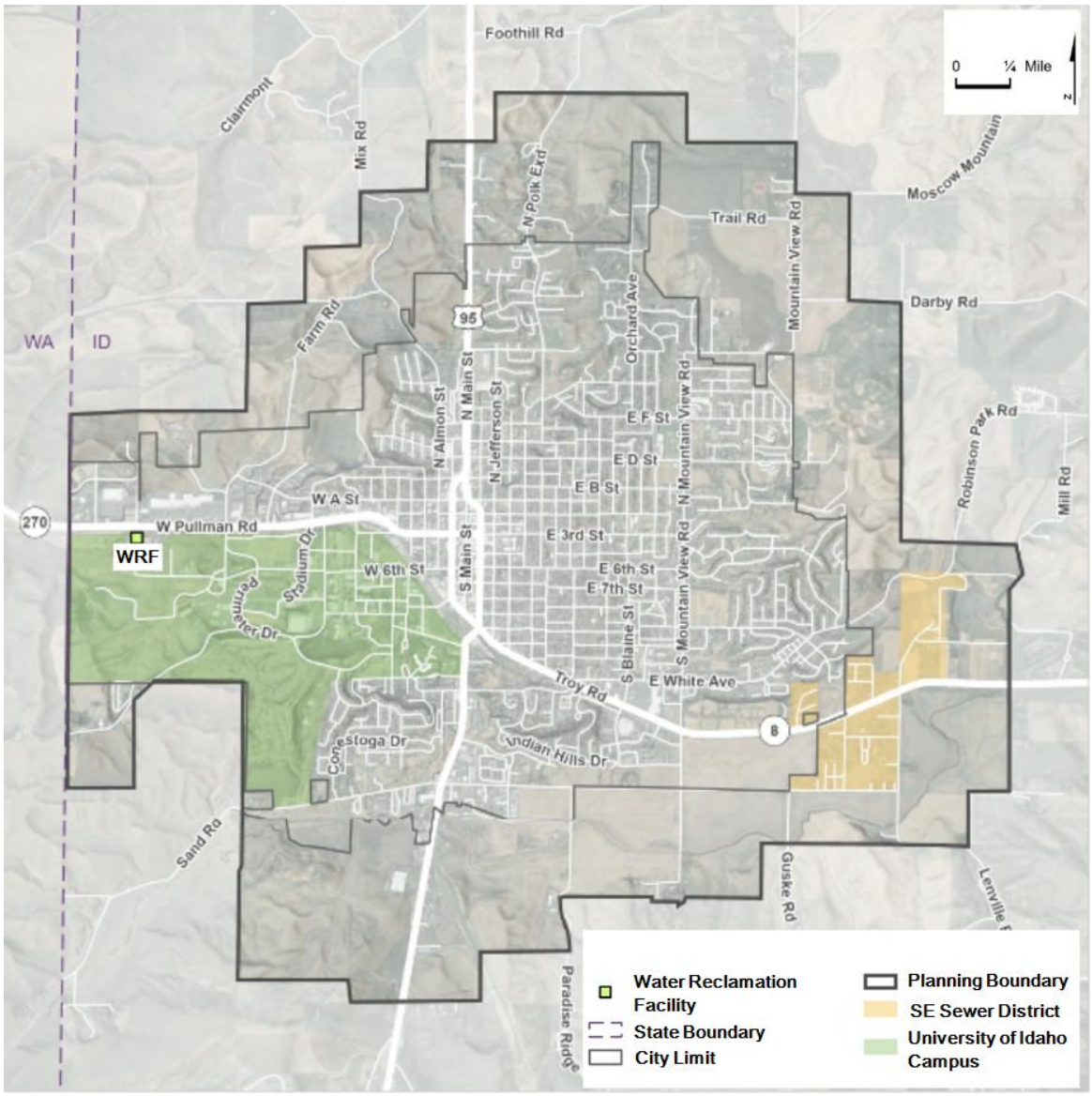


FIGURE 2-2 PLANNING BOUNDARY



2.2. ENVIRONMETAL RESOURCES PRESENT

The Comprehensive Sewer System Plan is a planning effort with no physical construction of infrastructure or change of operation and maintenance procedures. The environmental impact of the recommended improvements is briefly discussed in chapters 2 and 5 of this plan but does not represent a full environmental analysis for any of the recommended projects. A majority of the recommended projects are located within existing roadways, previously developed land, or City-owned land. This section presents a summary of the environmental features within the planning boundary.

Land Use

The City of Moscow has a mix of residential, commercial, industrial, and agriculture zoning. The UI is zoned as "University". Appendix B-1 shows a detailed zoning map. Multifamily housing tends to be located near UI with more single-family housing on the east side of the City.

Floodplains

Paradise Creek runs from north of Moscow through the east side of the city, along Mountain View Road, before turning west near Highway 8. Flood zones follow the creek and are most prominent near Joseph St. The South Fork of the Palouse River runs along the southern side of the City with flood zones approximately following Palouse River Drive. See Appendix B-2 for floodplain maps.

Wetlands

Based on the US Fish and Wildlife Wetland Mapper, wetlands are sparce within City limits. Part of Anderson Park is zoned as emergent wetland and freshwater ponds are mapped within a few city parks. Special care should be taken to avoid disturbing wetland resources. Refer to Appendix B-3 for the wetland mapping.

Wild and Scenic Rivers

There are no designated or proposed wild and scenic rivers near the City as shown in Appendix B-4. The closest Wild and Scenic River is the Snake River, located south of Moscow between Lewiston, Idaho and Clarkston, Washington.

Historic sites, structures, and landmarks

There are 24 registered historic places in Moscow, six (6) of which are located on the UI campus. Ten (10) of these locations hold statewide significance. Appendix B-5 provides information on these sites.

Biological resources

The environmentally sensitive species reported by the U.S. Fish and Wildlife Service's Information for Planning and Consultation (IPaC) includes monarch butterfly (candidate), Suckley's Cuckoo Bumble Bee (proposed endangered), and Spalding's catchfly (threatened), as well as 21 species of migratory birds of concern within the Moscow vicinity. Appendix B-6 includes additional information.

Water resources

The City of Moscow pulls drinking water from the Grande Ronde and Wanapum aquifers from five active wells. The City does not lie over a sole source aquifer, according to EPA's sole source aquifers tool and map; see Appendix B-7.

Socio-economic conditions

Data for the City of Moscow from the U.S. Census Bureau provided socio-economic information.

The median household income between 2019 and 2023 is estimated to be $56,497, less than the state median income of $74,636. Both estimates are in 2023 dollars and based off American Community Survey sampling for 2017-2021. Census data also estimates 21.1% of the population in Moscow lies below the poverty level. The average for the State of Idaho is 10.1%. The most current information can be found at the following links:

- U.S. Census Bureau QuickFacts: Idaho
- U.S. Census Bureau QuickFacts: Moscow city, Idaho

The University of Idaho plays a critical role in the local economy. The City's Comprehensive Plan (2019) reports that UI is the largest employer in town, with nearly 2,000 employees. The Comprehensive Plan notes that approximately 50% of the local economy is supported by the UI, and that each student generates over $57,000 in sales and creates three quarters of a job. Chapter 6 ("Economic Development") from the Comprehensive Plan is included in Appendix B-8.

Climate

The Western Regional Climate Center reports average minimum temperatures between 22.6°F and 50.2°F and average maximum temperatures between 34.9°F and 83.0°F at the UI from 1893 – 2016. Total annual precipitation averages 23.81 inches with 49.8 inches of snowfall. Historic monthly climate data is shown in Table 2-1.

TABLE 2-1 HISTORICAL CLIMATE DATA FOR THE CITY OF MOSCOW

Month	Average Max Temp (F)	Average Min Temp (F)	Average Total PPT (in)	Average Total Snowfall (in)
January	34.9	22.6	3.01	16.1
February	40.2	26.0	2.18	8.8
March	47.6	30.6	2.35	5.0
April	56.9	35.6	1.94	1.2
May	65.4	41.1	2.06	0.1
June	72.6	46.3	1.67	0
July	83.0	50.2	0.71	0
August	82.7	49.6	0.79	0
September	73.2	44.0	1.20	0
October	60.0	37.3	1.88	0.3
November	44.5	30.6	3.07	5.5
December	36.3	24.9	2.95	12.6
Annual Total/Average	**58.1**	**36.6**	**23.81**	**49.8**

Geologic hazards and soils

The Natural Resource Conservation Service primarily mapped Moscow soils as Naff-Palouse complex, Naff-Thatuna complex, and Palouse silt loam. These soils are predominantly silt loams and silty clay loams and are associated with the 'farmland of statewide importance' classification. Appendix B-9 contains the Web Soil Survey report. USGS has classified the earthquake risk in the area to be "low".

Air Quality

Idaho DEQ monitors the air quality index (AQI) and meteorological parameters in Moscow near the UI's main campus. DEQ identifies air quality priority areas based on the National Ambient Air Quality Standards (NAAQS). Priority areas are areas violating, approaching violation, and previously violating the NAAQS. Per DEQ's air quality priorities area map, Moscow is not located in a designated priority area.

CHAPTER 3 - SERVICE AREAS POLICIES, PLANS, AND AGREEMENTS

3.1. EXISTING CONVEYANCE SYSTEM ORDINANCES AND STANDARDS

The City of Moscow's sewer use ordinance is outlined in Title 5, Chapter 3 of the Moscow City Code. This section grants the authority to require permits and fees, establish sewer rates, and adopt rules and regulations to enforce the code's provisions. It also specifically addresses inflow, as well as prohibited, hazardous, and industrial waste.

The sewer use ordinance also references regulations (specifications) governing sewer construction. These are included in the City of Moscow Standard Construction Specifications, which address trenching and backfill, sewer pipe, sewer services, and manholes.

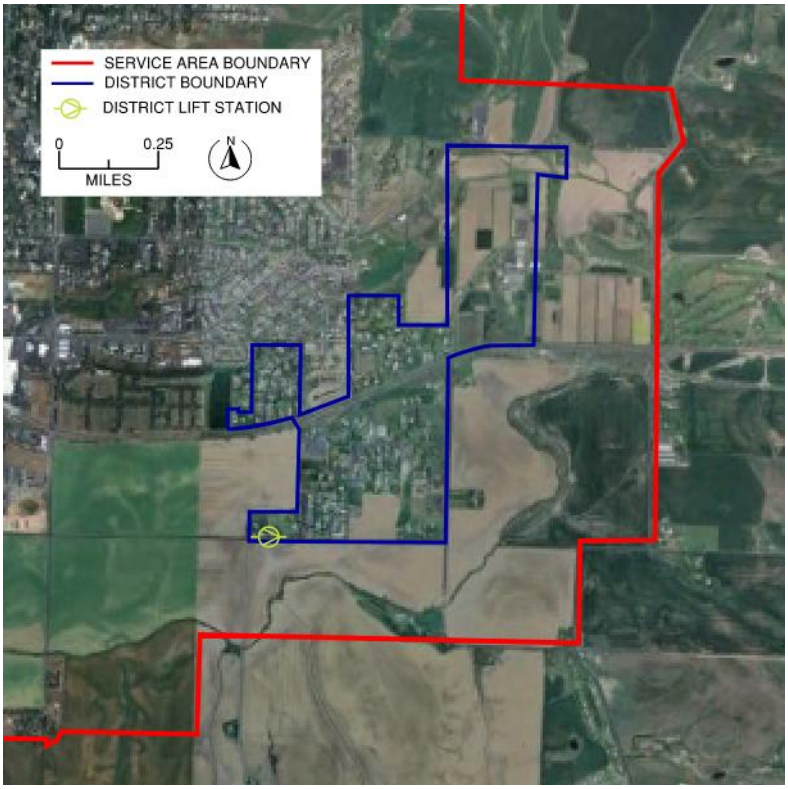
The previous comprehensive sewer system plan noted that there had been some discussion about adopting the Idaho Standards for Public Works Construction (ISPWC) to replace the City's current standard specifications. A draft update is currently under review and is anticipated to be taken to City Council for adoption in 2025.

3.2. SERVICE AGREEMENTS

Southeast Moscow Water and Sewer District

The City of Moscow collects wastewater from the Southeast Moscow Water and Sewer District (District), which currently provides gravity sewer service to over 250 residential users. The District boundary and service area are illustrated in Figure 3-1. A lift station conveys all wastewater from the District approximately 5,100 feet to a manhole located at the intersection of S. Mercer Avenue and S. Mountain View Road. Flow from the manhole is then conveyed through the City's conveyance system to the Water Reclamation Facility.

FIGURE 3-1 PLANNING BOUNDARY



The City performs normal operation and maintenance, including minor upgrades (i.e. control system, check valves) of the District system. City staff did not note any specific operation or maintenance concerns with the gravity conveyance system within the District boundaries. The pump station that serves the District is aging and will require an upgrade to the electrical panel. Further, a trunkline to the South Lift Station is being evaluated but if that project is not pursued, the pump station will need to be converted to a submersible system.

There are four privately owned and maintained lift stations in the District system that collect flows from individual establishments (including a mobile home park). The District facilities, constructed in 1981, are in good condition. The mains are PVC material, have ample capacity, and several decades of anticipated useful life.

A copy of the current agreement, dated September 2016, between the City and the District can be found in Appendix B. Some key elements of the agreement are highlighted below:

- The City is to maintain, operate and keep in good repair District facilities (excluding the individual service lines). In the event of a major repair (defined as exceeding 50% of City's annual revenue), the repair costs are the full responsibility of the District.
- The City is responsible to provide administrative services relating to billing, collection and general accounting. The District is responsible to assist in collecting delinquent payments.
- New facilities are to be constructed to City-approved standards and procedures. Expansion of the District boundaries requires City approval.
- Expansions of the District conveyance system must be approved by the City Council and District board.

- The District "expresses its intent, through its Board of Directors, not to oppose annexation of any portion of District by City when City desires annexation." (Section 2-9).
- The District agrees "To turn over to CITY, upon annexation of DISTRICT, the entire sewer system, together with any improvements, operating property, rights-of-way and easements, located within the annexed area. CITY will not owe any compensation to DISTRICT for said transfer." (Section 2-11).
- The City can pass sewage through the District boundaries until the District demonstrates there is insufficient capacity to accept additional sewage.
- The terms of the current agreement are to be reviewed at least every ten (10) years, with the agreement in effect until March 1, 2026.
- The District customers are billed by the City and charged the same rate as City users plus an additional three dollar administrative fee.

University of Idaho

Wastewater from the University of Idaho (UI) is collected by a university-owned and maintained gravity sewer conveyance system. The UI system discharges to the Moscow conveyance system at approximately 10 locations, with over 80 percent of the flow from the UI campus entering at 3 of the locations.

According to City staff, there is no known agreement between the City of Moscow and UI to collect and treat UI wastewater. There is a 1977 agreement between the City and UI that allows UI to use treated effluent for irrigation purposes. The UI currently pays the City a fixed annual rate to collect, convey, and treat UI wastewater.

The City's rate structure classifies non-residential connections as high, medium, or low based on their assumed strength of sewage (maximum of 200 mg/l, 400 mg/l, and 600 mg/l respectively for BOD and TSS). Each connection is charged a fixed fee with additional use rates that are based on their sewer strength classification. With this classification, UI falls in the medium strength category.

Keller Associates recommends that an agreement between the UI and Moscow that defines responsibilities, roles, cost sharing, allowances for growth, coordination requirements, and liabilities is developed.

Consistency with the 2019 Comprehensive Plan

The conveyance system planning effort is intended to complement the City's Comprehensive Plan completed in March 2019. Existing and future land use information for this study, provided to Keller Associates by the City, is substantially the same as that used in the Comprehensive Land Use Plan.

The Comprehensive Plan outlines the following goals and objectives for public utilities and community growth:

- Provide for sustainable growth while conserving natural resources, protecting natural features, and enhancing the character of the community and region.
- Advocate and practice the sustainable management and development of local and regional water resources and supplies to meet the needs of both current and future residents.
- Plans for direct growth to areas that can be most efficiently and economically served with public services and utilities while planning for future capacity needs.
- Plan and provide for the orderly and efficient conveyance and treatment of wastewater services to the community into the future while minimizing adverse impacts to the surrounding natural environment.

Recommendations outlined later in the plan are guided by these goals and objects as well as the land use planning in the Comprehensive Plan.

CHAPTER 4 - SYSTEM DEMAND PROJECTIONS

4.1. POPULATION PROJECTIONS

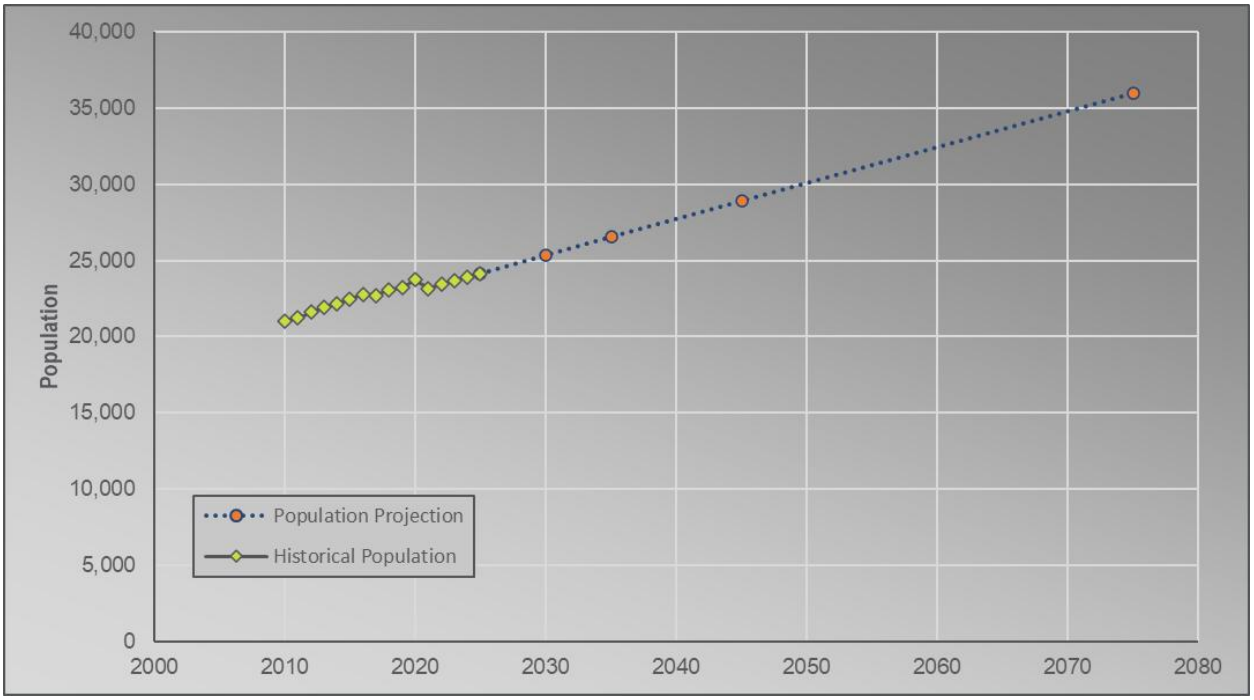
Population projections were developed in coordination with the Comprehensive Water System Plan (CWSP). The key planning years in this study were defined as the existing (2025), 10-year (2035), 20-year (2045), and 50-year (2075) planning periods.

Table 4-1 and Figure 4-1 presents recent demographic data, as well as projections for the forecasting period, developed as part of the CWSP as Average Annual Growth Rate (AAGR). The demographics are for Moscow's retail service area (i.e., areas where the City of Moscow provides collection services). This is not the same as the demographics within the City's municipal boundary or urban growth area, since some of the demographics within the City are served by the University of Idaho conveyance system, which is excluded from this analysis. The data is based on information from the City of Moscow Comprehensive Plan, the City of Moscow Planning Department, and the U.S. Census (HDR Comprehensive Water System Plan July 2024). The University of Idaho model was completed by Keller and flow and growth metrics for UI were taken from that effort.

TABLE 4-1: POPULATION PROJECTIONS

	Year	Population	AAGR (calculated)	Data Source & Comments
Historical	2010	21,026	-	HDR Comprehensive Water System Plan Draft July 2024
	2011	21,237	1.0%	HDR Comprehensive Water System Plan Draft July 2024
	2012	21,628	1.8%	HDR Comprehensive Water System Plan Draft July 2024
	2013	21,903	1.3%	HDR Comprehensive Water System Plan Draft July 2024
	2014	22,168	1.2%	HDR Comprehensive Water System Plan Draft July 2024
	2015	22,450	1.3%	HDR Comprehensive Water System Plan Draft July 2024
	2016	22,782	1.5%	HDR Comprehensive Water System Plan Draft July 2024
	2017	22,725	-0.3%	HDR Comprehensive Water System Plan Draft July 2024
	2018	23,111	1.7%	HDR Comprehensive Water System Plan Draft July 2024
	2019	23,204	0.4%	HDR Comprehensive Water System Plan Draft July 2024
	2020	23,757	2.4%	HDR Comprehensive Water System Plan Draft July 2024
	2021	23,173	-2.5%	HDR Comprehensive Water System Plan Draft July 2024
	2022	23,453	1.2%	HDR Comprehensive Water System Plan Draft July 2024
	2023	23,688	1.0%	HDR Comprehensive Water System Plan Draft July 2024
	2024	23,924	1.0%	HDR Comprehensive Water System Plan Draft July 2024
	2025	24,161	1.0%	HDR Comprehensive Water System Plan Draft July 2024
Projected	2030	25,346	1%	5-year Planning Period
	2035	26,530	1%	10-year Planning Period
	2045	28,899	1%	20-year Planning Period
	2075	36,005	1%	50-Year Planning Period

FIGURE 4-1: POPULATION PROJECTIONS



4.2. GROWTH DISTRIBUTION

Areas of anticipated major growth with were identified by the City as part of the CWSP. A visual indication of growth areas for the 10-year, 20-year, and 50-year projections can be found in Figure 4-1 (courtesy of HDR from Waster System Plan), Appendix C. The additional flow associated with these growth areas were allocated to their respective future model scenarios, which is further explained in Chapter 6.

4.3. HISTORICAL FLOWS

Historical flow data for the wastewater treatment plant was reviewed to summarize typical flows within the system under several flow scenarios. The historical data was used to develop planning criteria for assigning existing and future flow conditions. The flow scenarios assessed in this planning study include the following:

- **Annual Average Day Flow (AADF):** The average annual daily flow for an entire year.
- **Average Dry Weather Flow (ADWF):** The average annual daily flow for June through September.
- **Average Wet Weather Flow (AWWF):** The average annual daily flow for December through March.
- **Maximum Month Flow (MMF):** The average daily flow from the month with the largest flow during a calendar year.
- **Maximum Day Flow (MDF):** The total daily flow from the peak day.
- **Peak Hour Flow (PHF):** The maximum flow rate the system may experience during a one-hour period.

4.3.1. Existing AADF, ADWF, AWWF, MMF, & MDF

An analysis of historical wastewater flows was completed for the years 2017 through 2022. Table 4-2 summarizes this flow data. The final planning criteria for AADF, ADWF, and AWWF were selected

as the average per capita of this six-year period, multiplied to the 2025 population. The final planning criteria for MMF and MDF were the maximum recorded per capita flows for the six-year period multiplied by the 2025 population.

It should be noted that Max Month and Max Day flows generally occurred during months with higher precipitation. Further discussion of seasonal and precipitation impacts on flows are discussed in Section 4.4.

The flows presented in Table 4-2 are the resultant flows at the Water Reclamation Facility.

TABLE 4-2: HISTORICAL WASTEWATER FLOWS

Year	Population	AADF		ADWF		AWWF		MMF		MDF		Peaking Factor
		MGD	gpcd	MGD	gpcd	MGD	gpcd	MGD	gpcd	MGD	gpcd	MDF/AADF
2017	22,725	2.12	93	1.49	66	2.80	123	4.05	178	7.48	329	3.53
2018	23,111	1.91	83	1.49	64	2.33	101	2.65	115	4.24	183	2.22
2019	23,204	1.87	81	1.49	64	2.12	91	2.97	128	7.61	328	4.07
2020	23,757	1.82	76	1.55	65	2.17	91	2.84	120	6.57	277	3.62
2021	23,173	1.72	74	1.32	57	2.18	94	2.32	100	4.00	173	2.33
2022	23,453	2.02	86	1.75	75	2.28	97	2.48	106	7.36	314	3.65
Historical Average	-	1.91	82	1.52	65	2.31	100	2.89	124	6.21	267	3.24
Historical Max	-	2.12	93	1.75	75	2.80	123	4.05	178	7.61	329	4.07
Final Planning Criteria	24,161	1.99	82	1.57	65	2.41	100	4.30	178	7.95	329	4.01

4.3.2. Peak Hour Flows

The most critical flow event for a conveyance system is the PHF because this is typically when pipes or lift stations will experience the maximum flows. Diurnal curves were developed from temporary flow monitors placed throughout the conveyance system at the time of this study. Additional details are described in Chapter 6. The calibration effort created system curves for various parts of the system which were modified to match the target peak flow at the plant. These diurnal curves, with a final approximate average day to peak hour factor at the plant of 1.6, was applied to the planning criteria maximum day flows to approximate peak hour annual flows in the modeling effort. As a result, existing PHF is calculated as 12.7 MGD. Additional information on calibration can be found in Chapter 6 and Appendix E.

4.4. INFILTRATION AND INFLOW (I/I) ANALYSIS

Infiltration and inflow (I/I) is stormwater or groundwater that enters the sanitary sewer system and can come from a variety of sources, such as storm sewers connected to the sanitary sewer, storm inflow through manhole lids, and groundwater infiltration into cracked/broken pipelines, services, or manholes. I/I impact may exist due to rainfall /snow melt events, seasonally high groundwater, surface water irrigation influences, or nearby rivers or streams.

Figure 4-2 shows seasonal variations in Water Reclamation Facility influent flows, with higher flows occurring during late fall and winter, likely driven by increased rainfall. Peaks in influent flow closely align with significant rainfall events, indicating stormwater inflow and infiltration into the sewer system. In some cases, flow increases are delayed, likely due to snow accumulation and subsequent melting. During drier months, such as late spring and summer, flows remain steady, reflecting consistent base flows from domestic and commercial wastewater. The rolling monthly average smooths out daily rainfall fluctuations, highlighting the seasonal trends that impact influent flow rates.

FIGURE 4-2: WATER RECLAMATION FACILITY INFLUENT FLOWS VS. DAILY PRECIPITATION

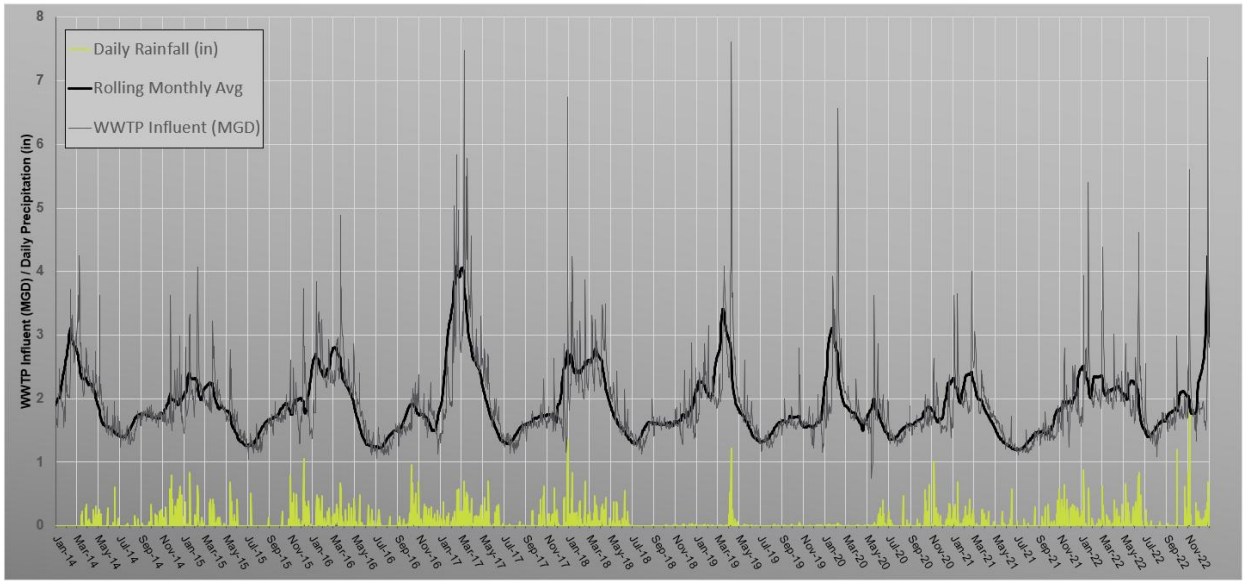
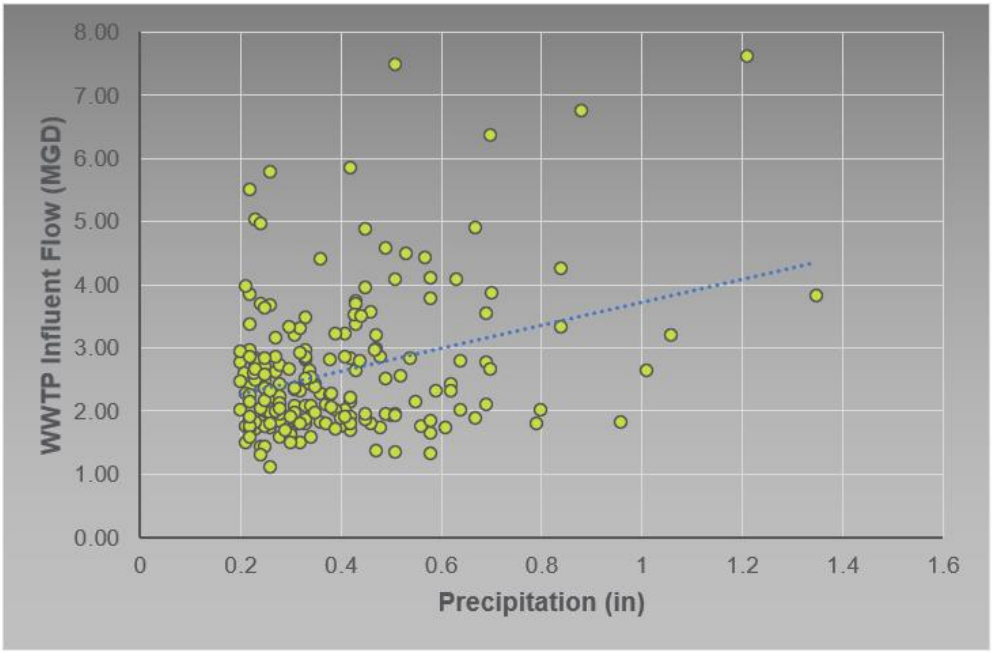


Figure 4-3 illustrates the relationship between daily precipitation and Water Reclamation Facility influent flow, focusing on precipitation events greater than 0.2 inches to better assess the correlation between precipitation and flow. The trendline indicates a positive relationship, with increasing precipitation generally leading to higher influent flows, likely due to stormwater infiltration and inflow into the sewer system. This pattern is consistent with systems experiencing I/I, which typically exhibit a linear correlation between precipitation and flow rates. However, the variability in the data points suggests that while precipitation significantly impacts influent flow, other factors such as base flows and system capacity also play a role. Additional discussion of addressing I/I can be found in Chapters 6 and 9.

FIGURE 4-3: CORRELATION BETWEEN PRECIPITATION AND WATER RECLAMATION FACILITY FLOWS



4.5. FUTURE FLOW PROJECTIONS

Based on the future population projections from Table 4-1 and the planning criteria presented in Table 4-2, future flow projections were calculated by multiplying the per capita planning criteria by the anticipated number of people in the 5, 10, 20, and 50-year windows. These flow projections are shown in Table 4-3 below. These projections were used in modeling efforts described in Chapter 6 of this report.

It should be noted that this flow projection is considered conservative, as the per capita planning criteria is conservative due to the calculation method explained in Section 4.3.1 and it assumes future growth will still experience similar inflow and infiltration. Methods to target and reduce I/I within Moscow's system are discussed in Chapter 6 and 9 of this report.

TABLE 4-3: FLOW PROJECTION SUMMARY

Year	Population	AADF		MDF	
		Planning Criteria (gpcd)	MGD	Planning Criteria (gpcd)	MGD
2025	24,161	82	2.0	329	7.9
2030	25,346	82	2.1	329	8.3
2035	26,530	82	2.2	329	8.7
2045	28,899	82	2.4	329	9.5
2075	36,005	82	3.0	329	11.8

CHAPTER 5 - WATER RECLAMATION AND REUSE OPTIONS

This chapter of the plan documents the history of water recycling within the City, previous water recycling studies, and presents an updated evaluation of alternative water recycling options available to the City of Moscow.

5.1. WATER RECYCLING HISTORY

5.1.1. Agreement with the University of Idaho

The City of Moscow (City) and the University of Idaho (UI) entered into an agreement in 1977 to reuse Water Reclamation Facility (WRF) effluent for irrigation on UI land. This agreement is in Appendix D-1. Goals listed in the agreement include conservation of the underground water supply in the Moscow basin, reduction in fertilizer requirements for large, irrigated areas, and creation of a long-term uninterruptible source of irrigation water supply. The Idaho Department of Water Resources (IDWR) issued a 1977 Water Right License (Water Right No. 87-7026) to the UI for a peak diversion rate of 1.78 cubic feet per second, with an annual volume of 522.0 acre-feet (af). Recycled water (treated wastewater) is used for irrigation of the UI golf course and lawns.

In 1996, the UI also secured a water right from IDWR (Water Right Permit No. 87-7201) for 195 af of wastewater effluent for discharge to the wetlands located downstream of the WRF. Both water rights are included in Appendix D-2.

5.1.2. *Water Recycling at University of Idaho*

Water Right 87-7026 indicates a place of use for the recycled water totaling 174 acres. The area currently irrigated by UI with the recycled water is shown on Figure 5-1 in purple. The total area irrigated by UI is approximately 173 acres, according to University mapping. Recycled water flows from the WRF chlorine contact chamber outlet box to the UI storage basin by gravity. Sulfur dioxide is added to the effluent prior to discharging to Paradise Creek to neutralize any remaining chlorine. The City's sulfur dioxide analyzer requires a minimum flow of 200,000 gallons per day (GPD).

Irrigation water is stored in a 517,000-gallon concrete storage tank. The water level in the tank is controlled by an automatic gate valve that allows recycled water to flow to the tank. Effluent that is not directed to the UI storage tank is discharged to Paradise Creek.

FIGURE 5-1: WATER REUSE MAP*

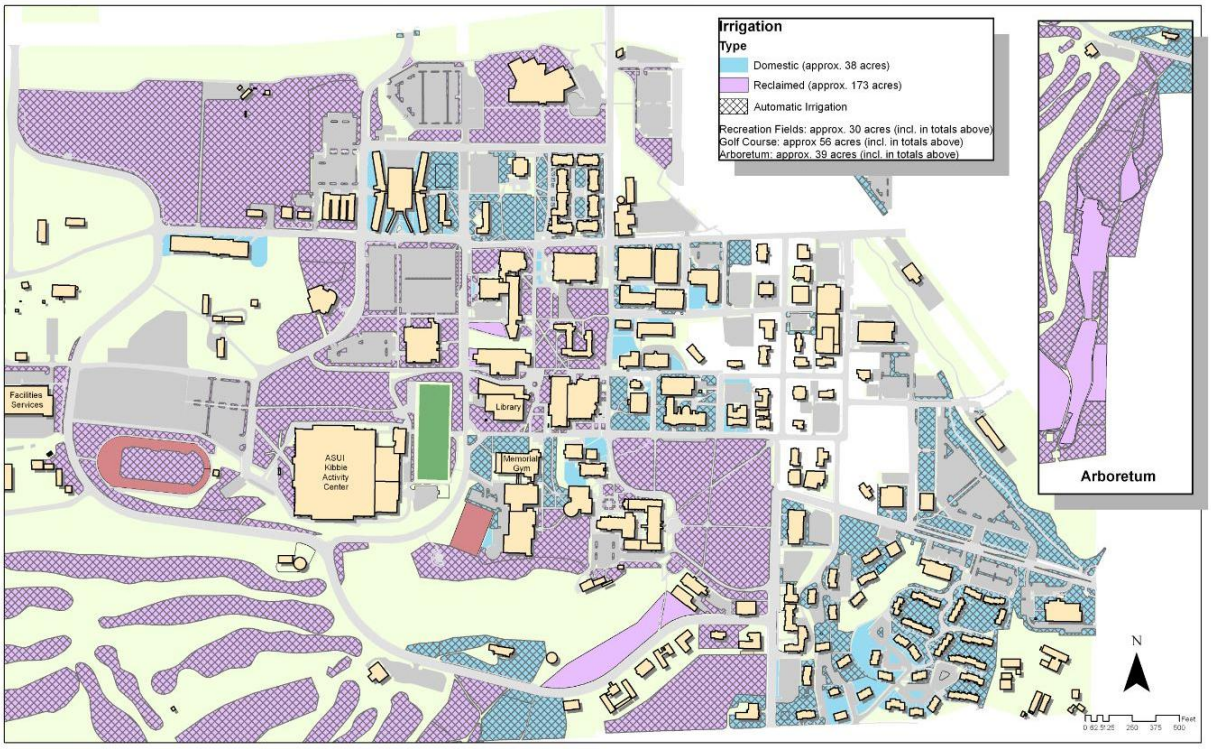


*Figure created by others. This figure does not show the full extent of the golf course irrigation area.

A summary of WRF effluent flow, flow discharge to Paradise Creek, recycled water routed to UI, and other water used within UI during the irrigation season (May to October) for the period 2018 to 2022 is provided in Table 5-1.

TABLE 5-1: WATER REUSE VOLUMES AND APPLICATION AREAS

Date		Moscow Effluent, Million Gallons				UI Irrigation, Million Gallons						
						Other Irrigation Water		Total Irrigation	Where Applied		Usage per acre	
		Total	Discharged to Creek	Discharged to UI	Percente of Effluent Reused*	Aquaculture (Well Water)	Domestic Water		Golf Course	Lawns, Playfields	gal/ac**	MG/ac
2018	May	52.43	47.80	4.63	8.8%	0.08	0.00	4.72	1.94	2.78	27,269	0.55
	June	29.86	12.96	16.90	56.6%	0.09	0.00	16.99	5.95	11.04	98,226	
	July	20.23	-3.89	24.12	119.2%	0.18	0.54	24.84	6.51	18.33	143,598	
	August	23.23	-1.49	24.72	106.4%	0.00	0.00	24.72	8.74	15.98	142,881	
	September	28.06	8.50	19.56	69.7%	0.00	0.00	19.56	5.80	13.76	113,092	
	October	45.78	42.06	3.72	8.1%	0.00	0.00	3.72	1.21	2.51	21,506	
2019	May	52.28	47.55	4.73	9.1%	0.23	0.00	4.96	2.71	2.25	28,668	0.47
	June	31.85	15.66	16.19	50.8%	0.00	0.00	16.19	5.74	10.45	93,587	
	July	19.70	-4.00	23.70	120.3%	0.00	0.00	23.70	7.87	15.84	137,009	
	August	21.45	-2.97	24.43	113.9%	0.00	0.00	24.43	4.05	20.38	141,191	
	September	36.57	25.17	11.41	31.2%	0.00	0.00	11.41	2.02	9.39	65,928	
	October	52.58	52.58	0.00	0.0%	0.00	0.00	0.00	0.00	0.00	0	
2020	May	53.48	50.52	2.96	5.5%	0.00	0.00	2.96	1.91	2.26	17,092	0.50
	June	53.30	43.20	10.10	18.9%	0.00	0.00	10.10	2.73	7.37	58,372	
	July	42.81	21.09	21.72	50.7%	0.00	0.00	21.72	7.89	13.84	125,575	
	August	45.38	18.53	26.85	59.2%	0.00	0.00	26.85	8.51	18.34	155,204	
	September	47.63	28.12	19.51	41.0%	0.00	0.00	19.51	6.77	12.73	112,764	
	October	52.12	46.74	5.38	10.3%	0.00	0.00	5.38	2.21	3.17	31,107	
2021	May	46.70	31.19	15.51	33.2%	0.00	0.82	16.33	1.91	14.41	94,390	0.60
	June	38.57	20.19	18.38	47.7%	0.00	1.27	19.65	2.86	16.79	113,563	
	July	37.31	18.45	18.86	50.6%	0.00	4.88	23.74	8.77	14.97	137,207	
	August	40.42	21.00	19.43	48.1%	0.00	4.07	23.50	4.15	19.34	135,809	
	September	44.28	27.46	16.83	38.0%	0.00	0.00	16.83	2.50	14.32	97,277	
	October	46.13	41.94	4.19	9.1%	0.00	0.00	4.19	1.00	3.19	24,199	
2022	May	55.39	55.08	0.31	0.6%	0.00	0.00	0.31	0.22	0.10	1,800	0.42
	June	58.84	55.63	3.21	5.5%	0.03	0.00	3.24	1.80	1.44	18,730	
	July	23.15	3.46	19.69	85.1%	0.29	0.33	20.31	9.38	10.93	117,394	
	August	20.50	-3.95	24.45	119.3%	0.26	0.25	24.96	6.61	18.35	144,293	
	September	25.45	5.75	19.71	77.4%	0.08	0.00	19.79	3.83	15.96	114,368	
	October	41.83	37.44	4.39	10.5%	0.00	0.00	4.39	1.56	2.83	25,399	
Average	May	52.06	46.43	5.63	10.8%	0.06	0.16	5.85	1.74	4.36	33,844	0.51
	June	42.48	29.53	12.96	30.5%	0.02	0.25	13.23	3.82	9.42	76,496	
	July	28.64	7.02	21.62	75.5%	0.09	1.15	22.86	8.08	14.78	132,157	
	August	30.20	6.22	23.97	79.4%	0.05	0.86	24.89	6.41	18.48	143,875	
	September	36.40	19.00	17.40	47.8%	0.02	0.00	17.42	4.19	13.23	100,686	
	October	47.69	44.15	3.54	7.4%	0.00	0.00	3.54	1.20	2.34	20,442	
	Annual Avg.	237.47	152.35	85.12	35.8%	0.25	2.43	87.80	25.43	62.61	507,499	

*Values exceeding 100% are believed to be a result of water discharged the previous month and stored for future use. UI also noted that the golf course irrigation meter can provide inaccurate readings. Data provided is directly from UI and the City and has not been altered.
**Based on 173 acres of irrigation area.

Currently, UI uses potable water for irrigation for some areas of campus. This is generally used in July and August and represents a relatively small amount of total irrigation demand. Existing irrigation demand is highest in August and accounts for approximately 80% of the total effluent flow. The average amount of water used for irrigation by UI from all sources is 0.51 million gallons per acre per season (MG/ac/season).

With a minimum flow of 200,000 GPD to Paradise Creek required to maintain accurate sulfur dioxide readings, additional effluent is not available for reuse during July and August. However, as the City grows, WRF effluent volumes will also increase potentially offering additional opportunities for reuse on City owned land.

5.1.3. Summary of Past Water Reclamation and Reuse Analysis Studies

The City has had the following water reclamation and reuse studies completed:

- City of Moscow/University of Idaho Wastewater Reuse Capacity Assessment, March 2010, JUB Engineers, Inc.
- Reuse Study for the City of Moscow, December 2001, Kimball Engineering.

The JUB study provided a planning level analysis of the potential for using reclaimed water from the City's WRF for irrigation of a 27-acre ball field complex located in the southwest corner of Moscow on Palouse River Drive. The report concluded that the WRF has sufficient flow to provide irrigation water for the ball field complex, but that UI does not have the infrastructure to transmit the irrigation water to the complex. The JUB study indicates an average irrigation flow of 0.78 MG per week for the May to October period (0.75 MG/ac/season). Conversations with UI indicate that they are using the maximum amount of reuse water for the existing irrigation areas so it is not feasible that the ball fields are included in the acreage unless additional flows to the WRF are realized through population growth.

The Kimball study analyzed options for meeting future phosphorus effluent limits during the growing season by using Moscow WRF effluent for irrigation with a secondary objective of using recycled to reduce potable water demand. The Kimball study provided a list of areas within the City that could be irrigated with recycled water and estimated the irrigation demand at each site. The report concluded that irrigating public areas with WRF effluent will not reduce discharge to Paradise Creek significantly enough to comply with the new NPDES phosphorus limits. That report used a consumptive use value of 0.92 MG/ac/season (referenced as obtained from the Washington State University Extension) for calculating potential volumes of recycled water to irrigate parks in Moscow.

5.2. POTENTIAL FOR WATER RECYCLING

5.2.1. Recycled Water Flow Limitations

As noted above, the City maintains a minimum flow of approximately 200,000 gallons per day to the dechlorination system to provide sufficient flow to obtain accurate sulfur dioxide readings. If the City reconfigured the dechlorination system to eliminate the need for the minimum flow, an additional 200,000 GPD, or approximately 6 MG per month, of recycled water could be available for irrigation.

A Memorandum of Understanding (MOU) between the Palouse Clearwater Environmental Institute, UI, and the City for the Paradise Creek Watershed Restoration Artificial Wetlands Demonstration Project (see Appendix D-3) outlines goals and objectives for construction and maintenance of artificial wetlands west of the WRF. This MOU includes a requirement for the City to "assure continued flow of Wastewater Treatment Plant effluent to the Wetlands facility, subject to prior water rights and contingent upon regulatory approval, if required." The MOU can be terminated upon 30 days written notice, and it is supposed to be reviewed every five years "to assure its adequacy, effectiveness and continuing need." The previous comprehensive sewer system plans notes, "DEQ indicated in a phone conversation that the Demonstration Project is over, and the City has no regulatory obligation to continue discharging to the wetlands site." Further follow-up with DEQ was not included as part of the analysis for this chapter but the City has expressed interest in terminating the MOU.

5.2.2. Irrigation Rates

To determine the volume of water that could be recycled within Moscow, a design irrigation rate must be selected. As indicated above, the Kimball and JUB reports used 0.92 MG/ac/season and 0.75 MG/ac/season, respectively. An independent consumptive use value was also determined as part of this study using precipitation deficit values for irrigated lawns in Moscow from the Idaho Department of Water Resources website, ET-IDWR. The precipitation deficit during the growing season is the irrigation water requirement for an irrigated crop. This is calculated by subtracting

precipitation from actual evapotranspiration. The average precipitation deficit for May through October 1990 to 2021 for irrigated turf in Moscow totals 24.62 inches. This equates to 0.67 MG/ac/season Accounting for irrigation application losses (from DEQ Guidance for Reclamation and Reuse of Municipal and Industrial Wastewater assumed 80% efficiency), the total application rate would be 0.67/0.80 or 0.84 MG/ac/season.

The area for each City park and estimates for irrigation water usage are shown in Table 5-2.

TABLE 5-2: EXISTING IRRIGATION RATES

Site	Park Area (acres)	Potential Demand at 0.75 MG/Ac, Season[1]
8th Street Reservoir	1.00	0.75
Almon Asbury Lieuallen Park	2.00	1.50
Alturas Park	1.00	0.75
Anderson Frontier	8.00	6.00
Baseball Field at JHS	2.00	1.50
Berman Creekside	4.00	3.00
Bridge Street Property	1.00	0.75
Carol Ryrie Brink Nature Center	4.00	3.00
Dog Park	1.00	0.75
East City Park	7.00	5.25
Ghormley	11.00	8.25
Indian Hills Park	1.00	0.75
Itani Park	1.00	0.75
Harvest Park	4.00	3.00
Heron's Hideout	4.00	3.00
Hordemann Pond Kiwanis	3.00	2.25
Jim Lyle Rotary Park	2.00	1.50
Lena Whitmore	3.00	2.25
Lillian Woodworth Otness Park	1.00	0.75
Lions Park/Fair Grounds	2.43	1.82
Lola Clyde Park	5.00	3.75
Memorial Gardens Cemetery	41.00	30.75
Milton Arthur Park	3.00	2.25
Morgan's Orchard Park	0.50	0.38
Mountain View	16.00	12.00
MSD Community Playfields	23.00	17.25
Moser Park	5.00	3.75
Oyler Fields	9.40	7.05
Triangle Park	2.00	1.50
Vista Park	5.00	3.75
West Palouse River Drive[2]	44.00	-
Total	217.33	130.00
Total MG/month	--	25.66
1 Irrigation requirements per JUB Engineers, 2010.		
2 Area not currently irrigated		

5.2.3. Potential Recycling Areas

The irrigation demand for existing sites is approximately 26 million gallons per season but as noted in section 5.1.2, available effluent is a limiting factor in determining domestic water savings rates. Existing irrigation applications on the UI campus use all available effluent during the highest irrigation months. If City parks were irrigated with recycled water, domestic water would need to be used for irrigation on the UI campus during these high irrigation months which would not provide a net benefit in reducing aquifer water demand. Effluent reuse could be increased during lower irrigation months (May, June, September, and October). Table 5-3 shows volumes of effluent available for reuse during the irrigation season. These values were developed using average reported volumes from 2018 to 2022. Application area was calculated using an application rate of 0.51 MG/acre/season as presented in Section 5.1.2 based on actual irrigation usage.

TABLE 5-3: AVAILABLE EFFLUENT FOR IRRIGATION

	Moscow Effluent, Million Gallons				
Month	Total	Discharged to UI	Minimum Discharge to Creek	Available Effluent	Application Area (acres)
May	52.06	5.63	6.20	40.23	77.36
June	42.48	12.96	6.00	23.53	45.24
July	28.64	21.62	6.20	0.82	1.57
August	30.20	23.97	6.20	0.02	0.05
September	36.40	17.40	6.00	13.00	24.99
October	47.69	3.54	6.20	37.95	72.98

5.3. RECOMMENDED CAPITAL IMPROVEMENTS

Keller Associates does not recommend improvements related to water reuse at this time. The limited water available for reuse during the highest irrigation months severely limits the benefits of capital improvements for water reuse. If substantial growth occurs and effluent rates increase significantly, reuse options should be reevaluated.

CHAPTER 6 - SYSTEM ANALYSIS

The City of Moscow owns and operates a sanitary sewer conveyance system and Water Reclamation Facility (WRF) which serves approximately 24,200 people within its service area. The conveyance system consists of six lift stations (LS) and 88 miles of gravity and pressure sewer pipe. Figure 6-1 illustrates the existing conveyance system labeled by pipeline material, Figure 6-2 shows the existing pipelines labeled by size, and larger versions of these figures are shown in Appendix E.

FIGURE 6-1 EXISTING CONVEYANCE SYSTEM - MATERIAL

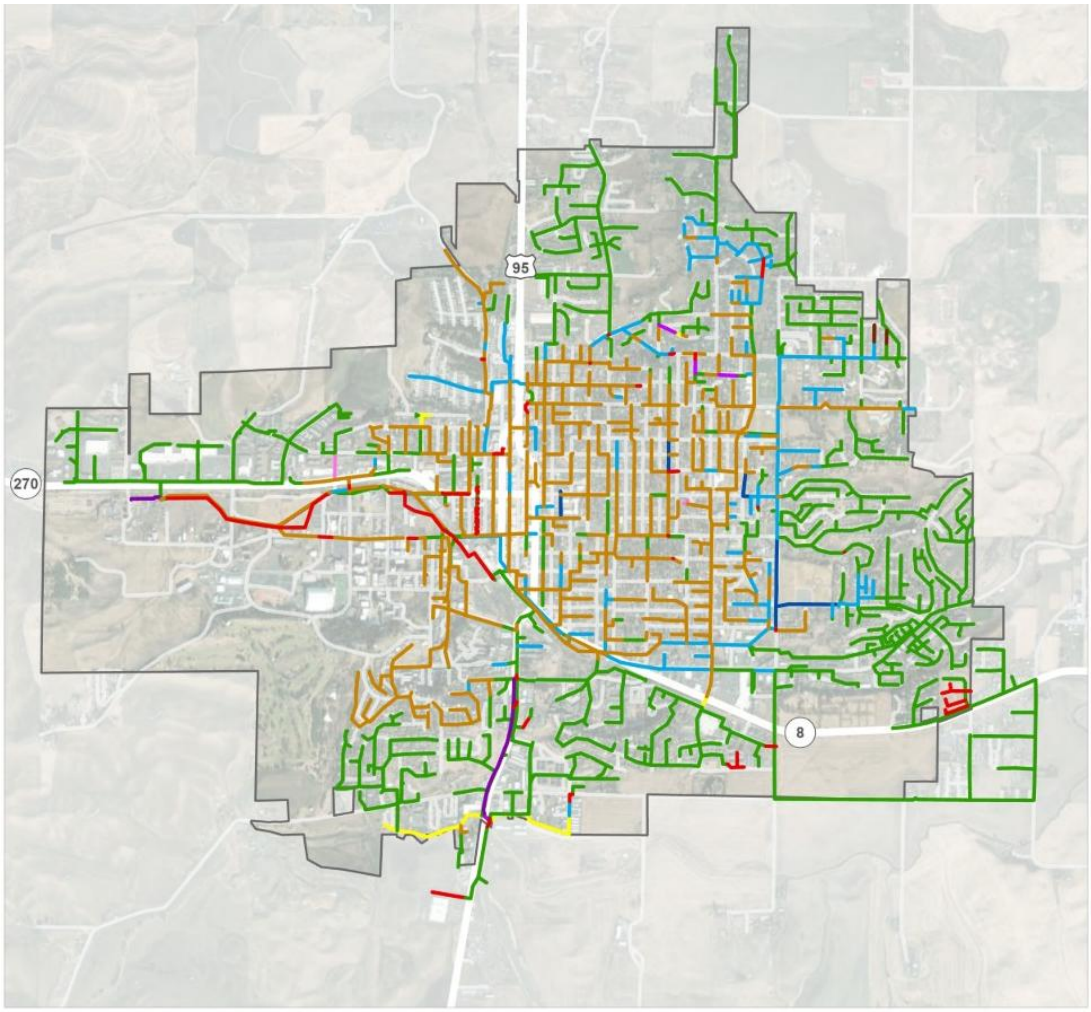


FIGURE 6-2: EXISTING CONVEYANCE SYSTEM - SIZE

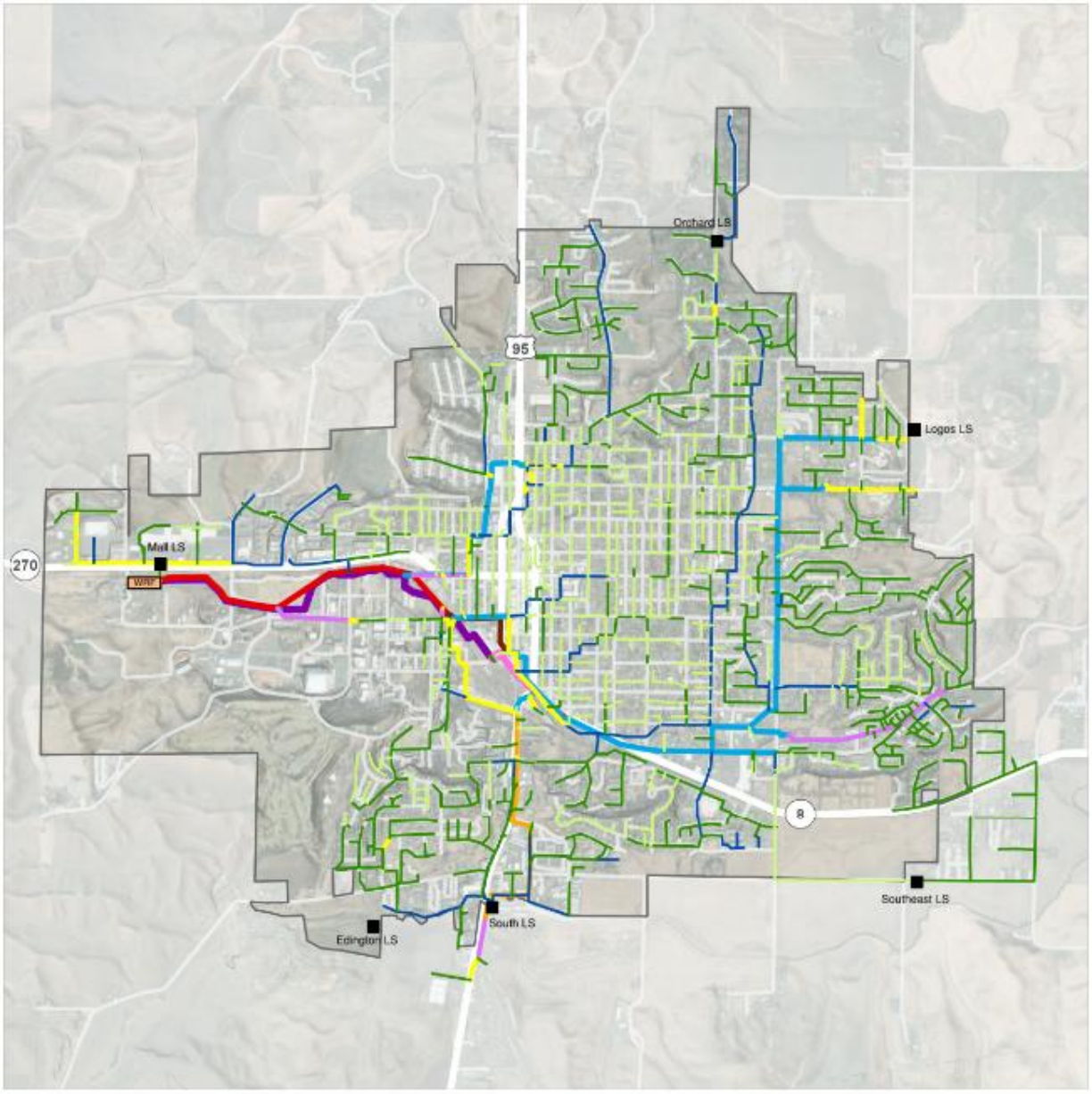


FIGURE 6-2
Existing Pipeline Size
Wastewater Facilities Planning Study
Moscow, Idaho

6.1. SYSTEM CONDITIONS

6.1.1. Pipeline Materials

The length of pipeline by diameter and materials is shown below in Table 6-1. The information provided in the table and figure was taken from City GIS and filtered for pipelines owned by the City, and includes both pressure and gravity pipelines.

TABLE 6-1: EXISTING CONVEYANCE SYSTEM BY LENGTH AND MATERIALS

Length (ft)												
Material		Concrete	CI	AC	Clay	PVC	HDPE	DI	Steel	Unknown	Total	% of Total
Diameter (in)	6 or less	13,265	301	477	76,358	28,621	659	0	0	744	120,425	26%
	8	16,013	732	551	30,005	154,498	4,648	0	0	1,764	208,211	45%
	10	4,084	46	4,523	21,494	20,788	2,202	3,024	16	670	56,848	12%
	12	737	0	0	8,165	8,542	0	657	30	321	18,451	4%
	14/15	0	0	0	1,316	10,229	653	0	89	278	12,565	3%
	18	12,960	0	50	6,709	2,697	1,843	0	0	0	24,259	5%
	21	1,523	0	0	17	270	0	0	0	0	1,810	0%
	24	385	0	0	5,997	568	0	0	0	3,782	10,732	2%
	30	0	0	0	105	1,925	0	0	0	0	2,029	0%
	36	7	0	0	0	1,449	3,046	52	0	3,900	8,453	2%
	Unknown	0	0	0	0	0	0	0	0	3,252	3,252	1%
Total		48,973	1,079	5,601	150,166	229,586	13,049	3,732	135	14,712	467,034	100%
% of Total		10%	0%	1%	32%	49%	3%	1%	0%	3%	100%	-

1) CI = Cast Iron; AC = Asbestos Cement; Clay = Clay Tile or Vitrified Clay Pipe; PVC = Polyvinyl Chloride; HDPE = High Density Polyethylene; DI = Ductile Iron

As shown in the table above, a large portion of the system is either clay tile or vitrified clay. These materials are indicative of older installation and generally have a 70-100 year life. As many of these pipes will likely be approaching the end of their life, it is recommended that the City target them for replacement.

Additionally, unusual materials, such as corrugated steel, should be targets for replacement. The City should make an effort to identify pipelines with unknown material and sizes to complete their records of the City system.

6.1.2. CCTV Summary

Keller Associates was tasked with reviewing up to 16 hours of City-provided CCTV footage of the system's pipelines. The majority of the pipes reviewed as part of this effort were in good condition. However, several pipelines were found to have issues. These are summarized below and in Figure 6-3 of Appendix E. The referenced pipelines are labeled based on their start and end manholes. It is recommended that these issues be targeted for repair as part of the City's maintenance program.

- E21-19 to E21-20: Intruding tap where camera can't move past
- G14-01 to G15-07: Tap roots and root ball blocking entire pipe (candidate for root elimination / prevention program)
- H16-15 to H16-16: Root ball, possible sag 300-345 feet (abrupt water level change)
- H19-08 to H19-07: Crack in pipe with exposed soil
- I17-04 to I17-05: Crack in pipe, joint gasket exposed, tap roots, root intrusion, soft plug
- J16-13 to J16-14: Root ball intrusion from service lateral

- H15-14 to H15-15: Cracks in pipe in 5 locations, roots in joints (average issues of clay tile pipe)
- H19-06 to H20-02: Camera goes underwater
- H18-05 to H18-04: Multiple patched cavities in pipe

6.1.3. Gravity Pipelines Under Minimum Slope

Wastewater collection systems typically should adhere to requirements established in IDAPA 58.01.16.430 and the Ten State Standards (Great Lakes - Upper Mississippi River Board of State and Provincial Public Health and Environmental Managers, 2014), which include recommended minimum slopes for pipelines, as presented in Table 6-2. Pipelines that do not meet these minimum slopes may have insufficient velocity to scour the pipes and prevent the settling of transported solids. Segments below the minimum recommended slopes will likely have increased accumulation of debris and sediment, which typically results in additional cleaning efforts.

TABLE 6-2: MINIMUM SLOPES

Pipe Diameter (Inches)	Minimum Slope (%)
8”	0.40%
10”	0.28%
12”	0.22%
15”	0.15%
18”	0.12%
21”	0.10%
24”	0.08%
27”	0.07%
30”	0.06%
33”	0.05%
36”	0.05%
39”	0.04%
42”	0.02%

The pipeline slopes within the City’s system were compared to the recommended minimum slopes. Figure 6-3 below and in Appendix E shows pipes with slopes that do not meet the recommended minimum slopes. The slopes are based on the length calculated from GIS and the reported pipeline invert elevations. It should be noted the calculated slope based on may vary from the reported slopes due to discrepancies in the GIS length. The pipes with sub-minimum slopes could be areas that the operations and maintenance staff focus cleaning efforts on.

FIGURE 6-3: CCTV ISSUES AND MINIMUM SLOPE DEFICIENCIES

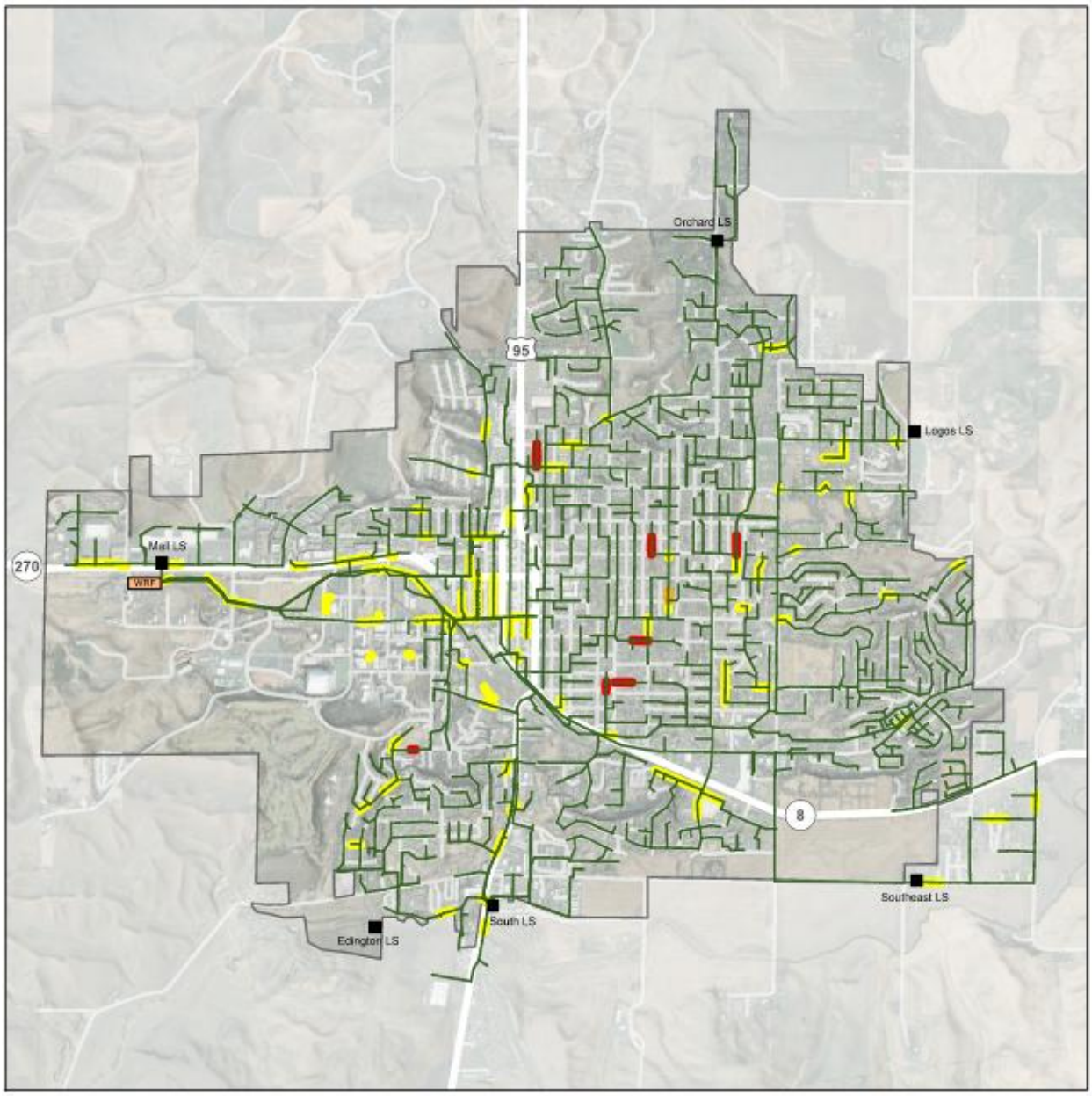


FIGURE 6-3
CCTV and Minimum Slope Deficiencies
Wastewater Facilities Planning Study
Moscow, Idaho

CCTV Found Deficiency
CCTV and Slope Deficiency
Less than Minimum Slope
Existing Pipes
City Limits
0 ¼ Mile

6.1.4. Lift Station Pump Test

Keller Associates performed pump drawdown tests on each of the City's lift stations in December 2024 in order to document the actual existing pump capacity of each of the stations. The results of the pump drawdown test are shown in Table 6-3 below. The tested results are compared to their respective reported capacities. It should be noted that the Logos and Edington lift stations were not included in the pump tests. These stations were recently installed and the City is not concerned about the stations' capacities, at this time.

TABLE 6-3: PUMP TESTED CAPACITY VS. REPORTED CAPACITY

Lift Station		Tested Pump Capacity (gpm)	Reported Pump Capacity (gpm)
Orchard LS	Pump 1	419	500
	Pump 2	308	500
Mall LS	Pump 1	1,137	1,200
	Pump 2	978	1,200
Southeast LS	Pump 1	390	500
	Pump 2	535	500
South LS	Pump 1	499	820
	Pump 2	521	820
	Pump 3	444	820

As shown by the pump tests, each of the lift stations has at least one pump that flows less than 20% of its reported capacity. Decreases in pumping capacity can be caused by worn or aged pump impeller, blockages in the pipeline, or aging forcemains producing additional friction head. It is important to keep pressurized pipes free of blockages, and to replace pumps as they reach the end of their useful life. Routine pump maintenance should be completed to keep the pumps in good working order and continue to meet their design points.

6.2. MODEL DEVELOPMENT

This section discusses the hydraulic model of the conveyance system analysis and recommendations. It outlines the model selection, model construction, and model calibration process. This chapter also documents existing and anticipated future deficiencies and presents recommended improvements to address these deficiencies.

6.2.1. Model Development

An accurate computer model of the wastewater system serves as an important planning tool and provides the basis for identifying existing and future collection system deficiencies. InfoSWMM Suite 14.7 Update #2 was selected as the modeling software for this project. InfoSWMM is a fully dynamic model which operates in conjunction with Esri ArcGIS and allows for evaluation of complex hydraulic flow patterns. The updates to the model included a complete review and update of the system's inverts, pipeline updates based on City projects, and updated flow distribution and magnitude based on meter data and flow monitoring. A variety of sources were used in developing the hydraulic model and are described below:

- Pipes and Manholes: The City's GIS and previously constructed InfoSewer model data was used as the basis for updating the pipeline characteristics in the model. The pipelines were imported to the model and reviewed for suspicious attributes such as adverse slopes, connectivity, smaller downstream pipes, vertical datum busts, and more. Discrepancies between inverts in the GIS and previous model were noted and rectified to reflect the GIS. Minor adjustments were made such as lowering the manhole invert to match the outgoing pipe, connecting pipes to their respective downstream pipe, or obvious typos in elevations. More significant adjustments such as vertical datum discrepancies, missing invert and rim data, adverse grades, and questionable diameters were checked versus record drawings, past survey notes, or surveyed by Keller. Data that did not match the checked documents were updated in the model.
- Lift Stations: The lift station attributes including wetwell dimensions, pumping rates, and operational settings were based on the previous model, record drawings, pump curves, City input, and reported settings.
- Flow Distribution: Water meter data was provided by HDR, which was developed as part of the Comprehensive Water System Plan. Average winter water usage data, assumed to be representative of typical wastewater flows as it excludes irrigation demands which do not return directly to the sewer system, were assigned to the nearest appropriate manhole, totaling over 2,000 individual flows. Large users were checked to ensure flow data was assigned to the correct discharge locations. Flows were then calibrated as described in Section 6.2.5.
- University of Idaho connection: The University of Idaho (UI) owns and maintains wastewater conveyance pipelines that connect into the City of Moscow's conveyance system. As Keller is currently developing the University of Idaho's water and wastewater system plans, these pipelines and their associated flows were incorporated into the City of Moscow's model. UI owned pipelines and manholes were informed by the University's GIS, with flows informed by student count and flow monitoring efforts.

6.2.2. Flow Monitoring Summary

Flow monitoring for this study was conducted in phases from October 11th to December 21st 2023. Flow monitors were installed at twelve locations throughout the conveyance system. The flow monitoring locations and basins can be found in Figure 6-4 of Appendix E, and processed data is included at the end of Appendix E.

For the purpose of this study, flow monitoring refers to the temporary installation of a sensor in a sewer pipe to measure wastewater flows. Specifically, the sensors measure the depth of water in the pipe and the velocity of the wastewater flows for use in calculating the flow going through the pipe. The flow monitors were programmed to record data points every 5 minutes to capture fluctuations in system flows. It should be noted, while flow monitoring is an effective way of measuring sewer flows, there is the potential for errors in the output data. Malfunctioning equipment and debris accumulation on the sensor are some of the most common errors encountered as a part of the flow monitoring process. The flow data was checked at a minimum of once per week in an attempt to identify poor data quality and address issues if possible.

The flow monitoring data was processed, and the data quality was reviewed. Scattergraphs were developed by plotting velocity on the x-axis and depth on the y-axis. This is a common way to evaluate the data quality and identify potential issues. The theoretical Manning Equation was also plotted on the scattergraph to indicate if the observed data matches the theoretical values. Tightly clustered data points along the Manning curve indicate good

quality data. Where the Manning Equation did not match well, an adjusted version of the Manning Equation called the Stevens-Schutzbach Method was used. This method is applicable for pipes with downstream obstructions, offset joints, debris, or other related conditions. This method was used when the scattergraph shows no velocity, but a depth greater than zero.

FIGURE 6-4: EXISTING CONVEYANCE SYSTEM - SIZE

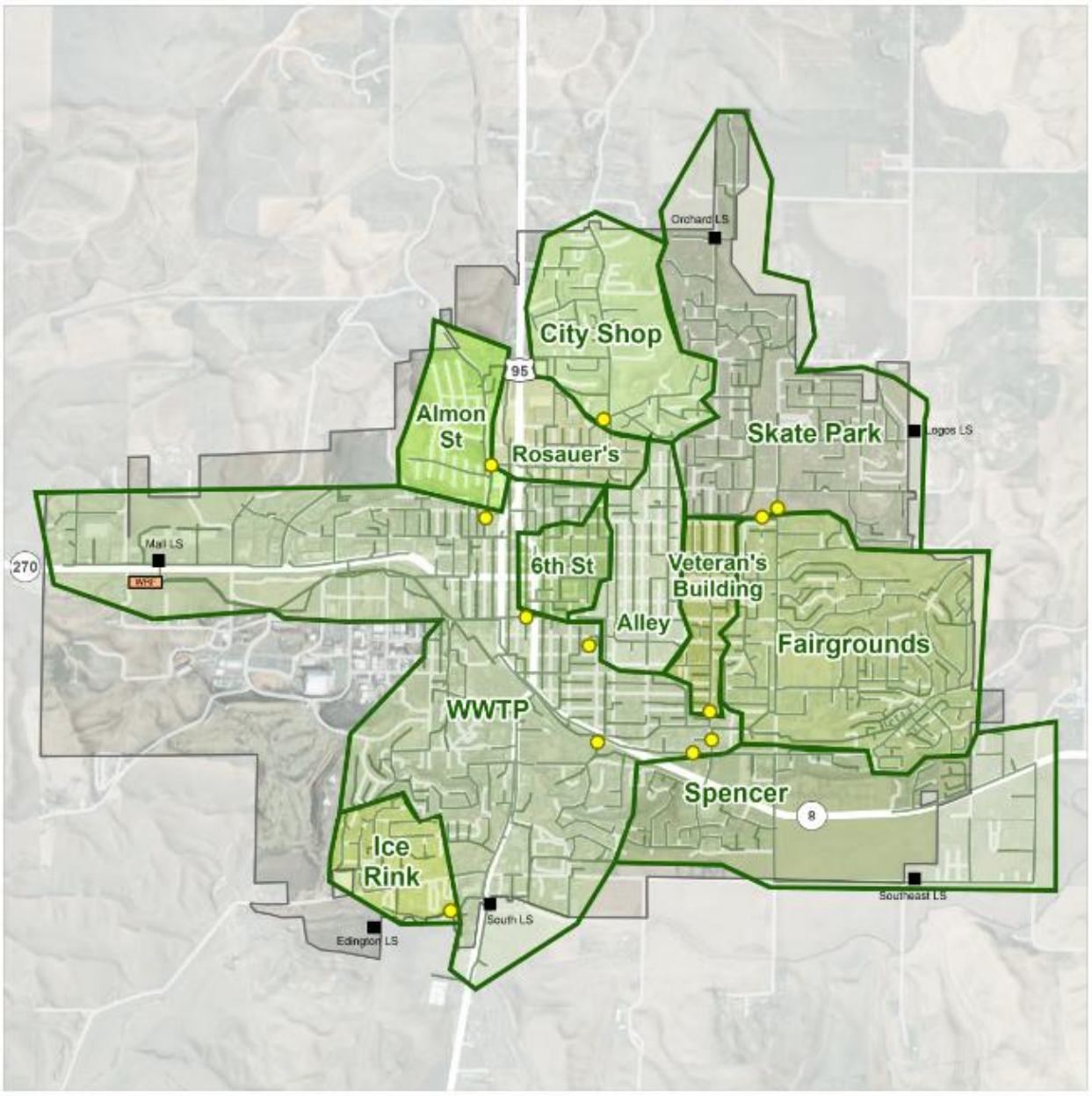


FIGURE 6-4
Flow Monitoring Locations and Basins
Wastewater Facilities Planning Study
Moscow, Idaho

A brief description of the flow monitoring results is provided below:

- Site 1 (Almon St, F-16-16): Installed in Almon St, the flow meter produced reliable data with standard performance except for sensor issues that occurred from October 28th to November 2nd. Excluding this data, the scattergraph produced a reasonable cluster, especially after November 2nd, and clear diurnal curves were taken after this date.
- Site 2 (Ice Rink, F-24-02): Installed southwest of the Palouse Ice Rink, this site produced reliable data with standard performance in the scattergraph.
- Site 3 (City Shop, H-14-06): Installed on the south side of the Moscow City Shop, this site produced scattergraphs that resembled a hydraulic jump as the meter's cable submerged itself from October 31 through November 3rd. The Steven-Schultzbach Method was used to verify meter readings after November 3rd, and readings for the 4th were used to calibrate.
- Site 4 (Coffee Shop, H21-01): This flow meter was installed in the parking lot of the Bean Farm Espresso next to Troy Rd. Very low flow levels were recorded, some of which fell below the recommended minimum for receiving reliable data. Thus, this data was removed from analysis because of unreliable data.
- Site 5 (Rosauer's, F15-04): Installed at the intersection of E St and Almon St north of Rosauers, this meter produced reliable data with tightly clustered data points in the scattergraph.
- Site 6 (Soccer Field, J16-21): Installed on the south end of the soccer fields parallel to Adams St, the sensor did not pick up variations in water level. In addition, velocity drifts caused data to be unreliable and recorded flow does not match the predicted flow. This site was removed from analysis because of unreliable data.
- Site 7 (Spence's, I21-04): Installed in White Ave to capture flows from the east side of the City, this flow monitor did not pick up velocity readings before November 2nd. The scattergraph did not match the original Manning's equation so the Steven-Schultzbach Method was utilized to review flow. After November 2nd, the meter reading issue was fixed, and the 4th was used to calibrate the model.
- Site 8 (Skate Park, J15-07): Installed next to the Skate park within Mountain View Rd. The flow meter measured very low flowrates. The level reading on the sensor requires a minimum of 2 inches of water to accurately read the level, and as many points within the data set dropped below the recommended minimum, much of the data was considered unreliable, and downstream monitors were used to calibrate this basin.
- Site 9 (6th Street, G18-01): Installed on 6th St to partially capture downtown flows, this flow meter produced reliable data and standard performance, with scattergraph points mostly matching the anticipated Manning's Equation.
- Site 10 (Veteran's Building, I20-22): Installed within Blain St, the recorded flow does not match predicted flow, with the scattergraph indicating a pattern consistent with surcharging during some high flow events. This was due to a buildup of flow in the pipe caused by downstream blockages that were resolved via cleaning halfway into the monitoring period. After cleaning, peak periods produced usable diurnal curves that were utilized for calibration, and subsequent modeling indicated this site should not be surcharging at peak flows.
- Site 11 (Alley, G19-21): Installed in the alley between 7th St and 8th St west of Harrison St, this site produced water levels that generally fell between 1 and 3 inches. Additionally, some periods of monitoring indicated that the level sensor was drifting. As such, periods where the level was drifting or readings were not taken due to lower flows were discarded, and the model was calibrated to a period with believable data.

- Site 12 (Fairgrounds, I20-14): Installed in Blaine St north of White Ave and upstream of Site 7, this basin had widely variable data during rain events, either caused by instrumentation error or inflow and infiltration having an outsized effect, which caused the data to have steady flow increase throughout the day that wasn't seen in downstream flow monitors. Because of the suspect nature of this data, it was disregarded, and Site 7 data was used to calibrate this basin.

6.2.3. Model Assumptions

One of the basic assumptions of the hydraulic model is that all of the lines are free from physical obstructions such as roots and accumulated debris. Such maintenance issues, which certainly exist, must be discovered and addressed through maintenance efforts. The modeled capacities discussed in this chapter represent the capacity assuming the sewer lines are in good working order.

6.2.4. Model Flows

Model flows were assigned based off winter-time water usage as described in Section 6.2.1. Each flow in the software was also assigned a 24-hour flow pattern developed from the flow monitoring data. Each of the 12 sites had diurnal curves developed, and each of the flows within each basin had their respective diurnal curve applied. However, sites that yielded poor data or diurnal curves had downstream diurnal curves applied to their flows. Further discussion of this process is below in Section 6.2.5 and each curve used is shown in Appendix E.

6.2.5. Model Calibration

The model calibration results are summarized below in Table 6-4 and additional details are included in Appendix E. The green values represent flows calibrating within +10% or -5% while the red values indicate flows outside of this range. In summary, the model calibrated very well, and the majority of the peak flows were matched within the targeted ranges.

TABLE 6-4: MODEL CALIBRATION SUMMARY

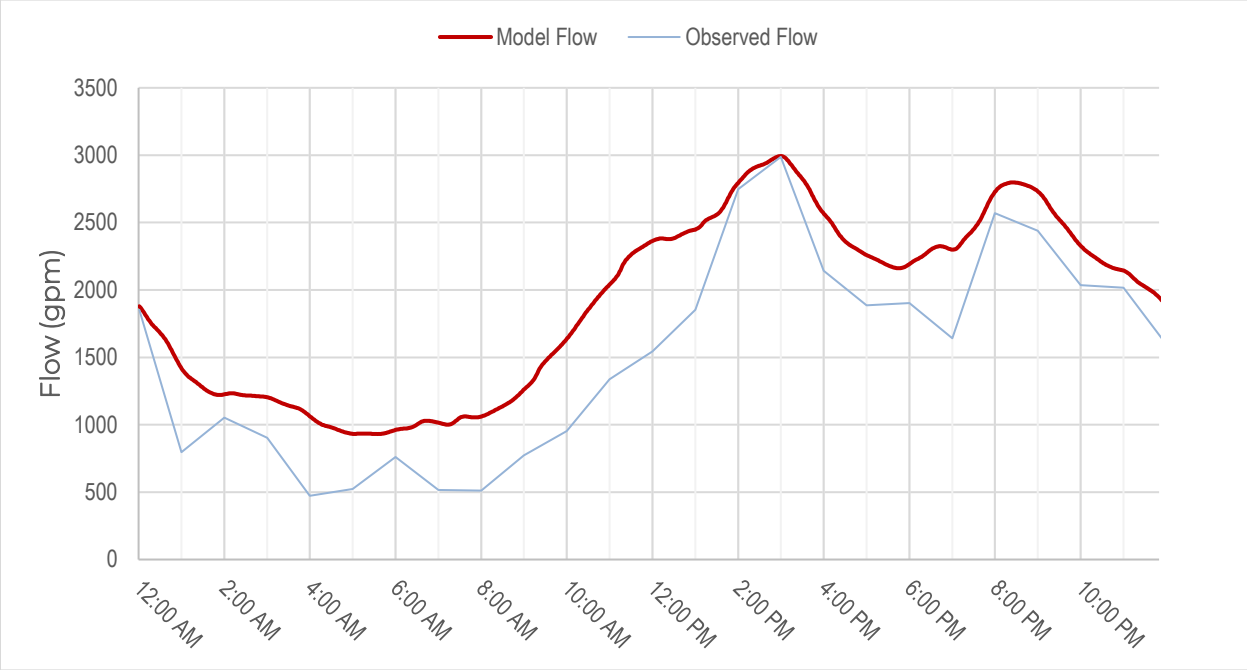
Location	Observed Daily Flow Volume (gal)	Modeled Daily Flow Volume (gal)	Percent Difference	Observed Peak Flow (gpm)	Modeled Peak Flow (gpm)	Percent Difference
Flow Monitor Site 1	228,044	202,008	-11.4%	252	263	4.1%
Flow Monitor Site 2	23,055	24,399	5.8%	35	33	-3.2%
Flow Monitor Site 3	92,783	100,956	8.8%	140	140	0.3%
Flow Monitor Site 5	109,180	128,481	17.7%	179	182	1.5%
Flow Monitor Site 7	786,337	781,007	-0.7%	715	728	1.9%
Flow Monitor Site 8	33,821	36,563	8.1%	66	63	-4.2%
Flow Monitor Site 9	47,822	49,382	3.3%	100	102	1.4%
Flow Monitor Site 10	131,841	134,277	1.8%	214	217	1.5%
Flow Monitor Site 11	91,129	99,404	9.1%	143	143	-0.3%
WWTP	2,167,661	2,732,674	26.1%	2987	2995	0.2%

Calibrating the hydraulic model is a critical step to build confidence in the output model results. The goal of the calibration process is to adjust the model inputs to match the observed data points from the flow monitoring and lift station SCADA. The peak day from the flow monitoring period was observed to be 11/4/2023, and therefore this day was used as the calibration day.

Diurnal curves were developed for the twelve flow monitor sites based on the observed flows. These diurnal curves were assigned to the junctions in their respective basins to simulate the changes in flows throughout the day. However, sites which produce unusable data or suspect daily diurnal curves (sites 4, 6, and 12) were not used, and instead the downstream flow monitoring sites were used to calibrate the flow. The base flows were adjusted globally up or down from the initial flow allocation based on the water meters, so the average flows matched the system flows observed on the calibration day. The model was then exercised, and the output results were compared to the observed data from the monitoring period. The base flows, diurnal patterns and other model inputs were adjusted with each model run until the outputs matched the observed data. It should be noted that matching the peak flows was given more weight than the daily volume because the peak flows are the primary evaluation criteria to determine if there are capacity deficiencies.

In general, the winter-time water usage flow allocation method matched the calibration day data fairly well, with all but three of the basins only being adjusted plus or minus 40 percent. Three of the basins required multipliers of two or greater to match the observed flows. These basins were the WRF basin, Site 7 – Spence basin, and Site 10 – Veteran's basin. The larger increase in flows in these basins can likely be attributed to I/I within the system during the wet weather months. Additionally, these basins correlate to the largest increases in flow during wet weather events, indicating these basins are likely the primary source of system I/I. It is recommended that these basins be targeted for I/I efforts such as CCTV inspection and pipeline repair/replacement. An example of calibrated model results is illustrated in Graph 6-1, and the final calibration figures are saved in Appendix E. Model results are shown in red and observed flow monitoring in blue.

GRAPH 6-1: CALIBRATED MODEL RESULTS AND OBSERVED DATA AT WRF



6.2.6. Modeling Scenarios

Several model scenarios were run to analyze current capacities under existing flows and the effects of future growth at 10, 20, and 50-year horizons. City-supplied GIS land use layers identifying areas of anticipated growth at 10, 20, and 50-year intervals were used to allocate and calculate future flows and to identify where pipeline extensions would be required. These growth areas match the growth areas presented in the 2025 Comprehensive Water System Plan by HDR. The future flow summary can be found in Section 6.4.

6.3. EXISTING SYSTEM EVALUATION

Collection systems are primarily evaluated based on the ability to convey peak system flows. After construction and calibration of the model, the flows on the collection system were increased globally to reach the maximum daily flow (MDF) established in Chapter 4 of this report. The original calibrated inflow, factor applied, target MDF, and resultant model MDF are displayed in Table 6-5. It should be noted that the University of Idaho (UofI) model flows were calibrated separately as part of their own Sewer System Plan and thus were excluded from the factor multiplier for the City of Moscow.

TABLE 6-5: FACTOR APPLIED TO CALIBRATED MODEL AND RESULTANT MAXIMUM DAY FLOW COMPARISON

Max Day Perameters	Max Day Values
Model Calibration Day Load (MGD)	2.62
Max Day Planning Criteria Load (MGD)	7.95
Isolated Uofl Max Day Load (MGD)	0.84
Target Max Day Load w/out Uofl (MGD)	7.11
Factor Multiplier Used	2.72
Final Model Max Day Output (MGD)	7.95
Difference (Model vs. Target, MGD)	0.00

After constructing the hydraulic model, Keller evaluated the capacity of the collection system under maximum day conditions. Keller Associates used the following planning criteria to evaluate the existing collection system:

- Depth over Diameter (d/D): Maximum flow depth divided by the pipe diameter, or depth over diameter (d/D), is a common metric to assess capacity for gravity pipelines. For interceptor pipelines 10-inches and over in diameter, if the d/D of a pipeline exceeds 0.75 during peak hour flow conditions, a pipe upsize project should be considered. Also, if 8-inch pipelines exceed 0.5 d/D then they can be considered at capacity and upsizing should be considered. Upsizing pipes at these d/D triggers reduces the risk of surcharging and overflows within the system.
- Surcharging: Surcharging refers to when the water level in a manhole rises above the top of the incoming or outgoing pipe. Surcharging typically occurs when there is insufficient pipe capacity downstream. It is recommended that no surcharging be allowed in any of the gravity sewer pipelines.
- Lift station firm capacity: Firm capacity refers to a lift station's pumping capacity with its largest pump offline. The lift station's firm capacity should be capable of pumping the peak hour flows coming into the lift station (per IDAPA 58.01.16, Section 440.02.c). This improves the resiliency of the lift station by providing redundancy to convey peak flows in the event of a pump failure. In duplex systems, a station exceeds its firm capacity if both pumps must run to convey flows into the lift station. The same applies to a triplex lift station if all three pumps are required to run during peak hour flows.
- Velocities in forcemains: In forcemains, it is recommended not to exceed velocities of more than 10 feet per second (fps). Exceeding this velocity increases head losses, reduces the efficiency of the lift station, and can limit the capacity of a lift station due to the excessive head losses. Additionally, high velocities can cause water hammering when the pumps turn on and off or when valves are opened or closed, which can cause damage to infrastructure. A high force main velocity is generally indicative of an undersized force main or an oversized pump. For longer force mains, maximum velocities of 5 to 7 fps may be preferred to minimize head loss and long-term pumping costs. A minimum velocity of 2 fps should be maintained to keep particles in suspension and remove settled debris in pipelines (IDAPA 58.01.16, Section 440.10.a).

6.3.1. EXISTING SEWER MAIN CAPACITY

The model was exercised to identify system deficiencies during a 2024 maximum day flow/peak hour event. Figure 6-5 and in Appendix E illustrates the d/D of the existing system. The figure is color-coded to show a gradation of pipes based on flow depth (red where the depth is 100% of diameter, orange for depths of 85 – 100% of diameter, yellow for flows of 75 – 85% of diameter, green for flows of 50% to 75% of diameter, and blue for under 50%).

It should be noted that the model color-codes pipelines based on the water level at the center of the pipeline, meaning that it is possible to see surcharging in manholes whose upstream or downstream pipeline is less than a d/D ratio of 1 due to variation in hydraulic grades.

FIGURE 6-5: EXISTING SYSTEM GRAVITY PIPELINE CAPACITY

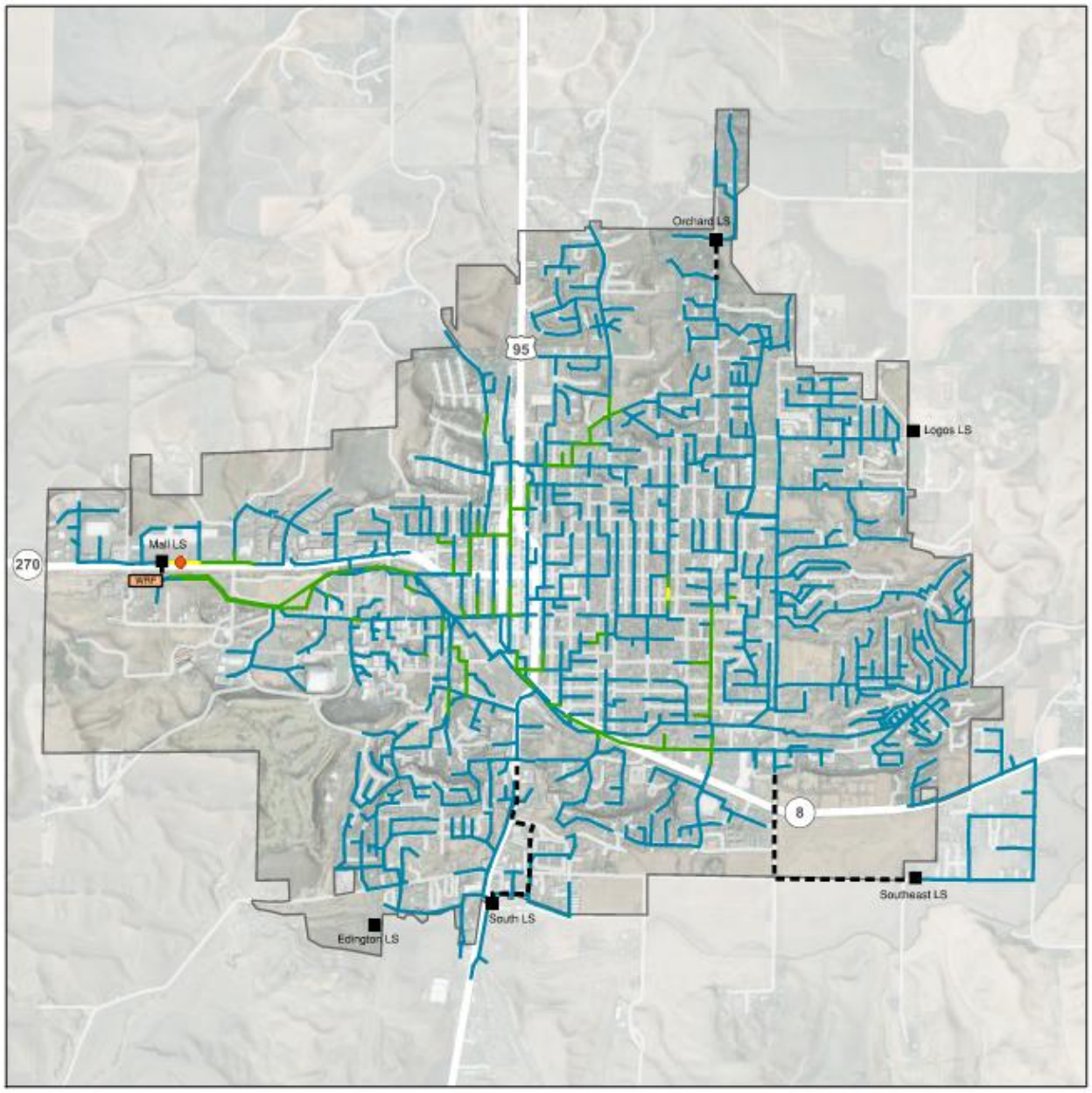


FIGURE 6-5
Existing Max Day Capacity
Wastewater Facilities Planning Study
Moscow, Idaho

Pipes- Max Full Depth (d/D)
- < 0.5
- 0.5 - 0.75
- 0.75 - 0.85
- 0.85 - 0.99
- > 0.99

- Surcharged Manhole
- Forcemain
- City Limits

0 ¼ Mile

KELLER ASSOCIATES

As shown in the figure, the majority of the system has adequate capacity for peak flow conditions and majority of the system is less than 0.5 d/D. However, large portions of the system, including the main trunklines upstream of the plant parallel to Pullman Rd/Highway 8, are over 0.5 d/D. There were two segments where the d/D was between 0.75 and 0.85, and therefore improvements will be considered.

- The 12-inch pipeline directly upstream (to the east) of the Mall lift station. As this area is anticipated to have additional growth in the future and therefore, improvements to increase the capacity are recommended.

- A single segment within Hayes St. exceeds the 0.75 d/D. The area upstream of this segment is built out and not anticipated to produce additional flow in the future. For this reason, improvements were not considered for this area. The City should monitor this location and if the system shows signs of frequent surcharging, improvements should be reconsidered.

6.3.2. Existing Lift Station and Forcemain Capacity

The lift stations were assessed for capacity issues by comparing the peak hour flows to their firm capacity. Table 6-6 below summarizes the design capacity of the stations, the tested capacity from the pump testing, and the modeled peak inflow into each lift station. Additionally, the velocities within the forcemains were compared to the recommended velocities of between 2 fps and 10 fps. The Logos and Edington lift stations were excluded from this analysis.

TABLE 6-6: LIFT STATION CAPACITY EVALUATION

Lift Station		Tested Pump Capacity (gpm)	Reported Pump Capacity (gpm)	Peak Hour Inflow (gpm)	Formain Diameter (in)	Forcemain Velocity* (ft/s)
Orchard LS	Pump 1	419	500	15	6	5.67
	Pump 2	308	500			
Mall LS	Pump 1	1,137	1,200	1,180	8	7.7
	Pump 2	978	1,200			
Southeast LS	Pump 1	390	500	30	6	5.7
	Pump 2	535	500			
South LS	Pump 1	499	820	530	16	1.3
	Pump 2	521	820			
	Pump 3	444	820			

*Assumes that one pump is running at reported capacity

** Orange forcemain velocities show velocities lower than 2 fps scour, and yellow indicates above 7 fps

As shown, the modeled peak inflow into the lift stations does not exceed the reported firm capacities of any of the lift stations. The South lift station's flows exceed its single pump tested capacities but does not exceed its reported firm capacity of approximately 1,400 gpm or its tested firm capacity of approximately 940 gpm. However, when looking at the tested capacity, the peak inflow into the Mall lift station exceeds its tested firm capacity of 978 gpm. Additionally, the Mall lift station's forcemain is exceeding 7 feet per second (fps) assuming that it outputs its reported capacity. While not exceeding the maximum of 10 fps, forcemains with velocities greater than 7 fps can cause increased headloss and may lead to higher power costs. The City is aware of these issues and is currently in the process of increasing the pumping capacity at the Mall lift station and upsizing the forcemain.

The upsized forcemain will prevent velocities from exceeding 10 fps after the station is upgraded. See Chapter 8 of this report for additional information on planned improvements.

Additionally, the South lift station has a velocity of less than 2 fps in the forcemain when one pump is running at its reported capacity. The velocity is even lower when using the tested pumping rates. As such, it is possible that debris is accumulating in the forcemain, which may explain why the tested capacity of the pumps is significantly less than the reported capacity. Keller reviewed pump curves and preliminary system curves to check if pumps were properly sized, and it appears that the curves meet the system curve at the pump's setpoint of 820 gpm at 81 ft. Typically, this means that worn pumps or additional head is likely responsible for lower pump outputs. However, the City replaced the pumps in the last 5 years, and when the 16" forcemain was installed in 2021, the pumps had similar output to the tested values in Table 6-6. It is recommended that the City either create a regular cleaning schedule for the forcemain, or regularly exercise multiple pumps simultaneously during off-peak times so flows reach scour velocity and clear solids build up from the forcemain. The City has indicated that the pumps operating at the current output is acceptable for current conditions.

6.3.3. Existing Planned Capital Improvement Projects

The City is has begun the planning and/or design for two existing deficiencies. These projects include:

- Upgrade to the Mall lift station and forcemain to handle existing and future (20-year) flows. This involves increasing the Mall lift station firm pump capacity from 1,200 gpm to 1,900 gpm and increasing the forcemain size from 8-inch to 16-inch. It should be noted the upgrade will leave room to expand to a buildout capacity of 2,700 gpm.
- A potential gravity bypass of the Southeast lift station. This improvement will use 18-inch through 24-inch sized pipelines to convey flow from the existing Southeast Lift Station to the South Lift Station. The existing Southeast Lift Station will then be abandoned. The City desires to rid itself of a lift station where gravity flow is possible, reducing Operations and Maintenance costs in the future.

Additional information about these planned improvement projects is shown in Chapter 8 of this report.

6.4. FUTURE SYSTEM EVALUATION

Future flows were calculated based on City input and HDR-designated growth areas. Each growth area had an associated EDU count, which was converted into an associated flow. These flows are summarized in Figure 6-9 below, with a visual marker of each location shown in Figure 6-8 in Appendix E. Each flow was added to its respective future model scenario to the location the growth area will likely flow to, in either the 10-year, 20-year, or 50-year max day scenarios. The following subsections summarize the results of these three future scenarios.

TABLE 6-7: FUTURE GROWTH AREAS SUMMARY

Code	Zone Designation	2035 Load (gpm)	2045 Load (gpm)	2075 Load (gpm)
A	Low Density Residential	21.9	0	0
AZ	High Density Residential	0	0	254.8
B	Low Density Residential	28.5	0	0
C	Low Density Residential	2.8	0	0
D	High Density Residential	2.8	0	0
E	Low Density Residential	5.0	0	0
F	Low Density Residential	11.6	0	0
G	High Density Residential	15.5	0	0
H	High Density Residential	6.9	0	0
I	Low Density Residential	5.5	0	0
J	Commercial	0.6	0	0
K	Low Density Residential	1.7	0	0
L	Low Density Residential	0	41.4	0
M	High Density Residential	0	110.8	41.5
N	Commercial	0	1.3	0
O	High Density Residential	185.3	0	0
P	Commercial	0	0	0.4
Q	High Density Residential	0	0	106.9
R	High Density Residential	0	0	25.3
S	Mixed/Unknown	0	0	23.2
T	Mixed/Unknown	0	0	53.4
U	High Density Residential	0	0	12.5
W	Mixed/Unknown	0	0	92.8
X	Commercial	0	0	1.4
Y	Low Density Residential	0	0	48.6
Z	Mixed/Unknown	0	0	53.4
Total (gpm)		288.1	153.4	714.2
Resultant Total Model Output (MGD)		8.9	9.7	12.4

Additionally, two variations of each of the future scenarios were run, the first of which assumes existing pipeline conditions and the second assuming that the planned improvement projects in Section 6.3.3. were implemented. For this analysis, this sub-variation was referred to as the "Planned" scenario, and the results of these are only shown in Appendix E for City reference.

6.4.1. 10-Year Flow Capacity

10-year anticipated flows were added to the existing. The resulting d/D is shown in Figure 6-6 and in Appendix E. Additionally, pipeline capacity with the planned improvement projects is shown in. The lift station capacity analysis and forcemain velocity analysis are shown in Table 6-8 at the end of this chapter.

FIGURE 6-6: 10-YEAR SYSTEM GRAVITY PIPELINE CAPACITY

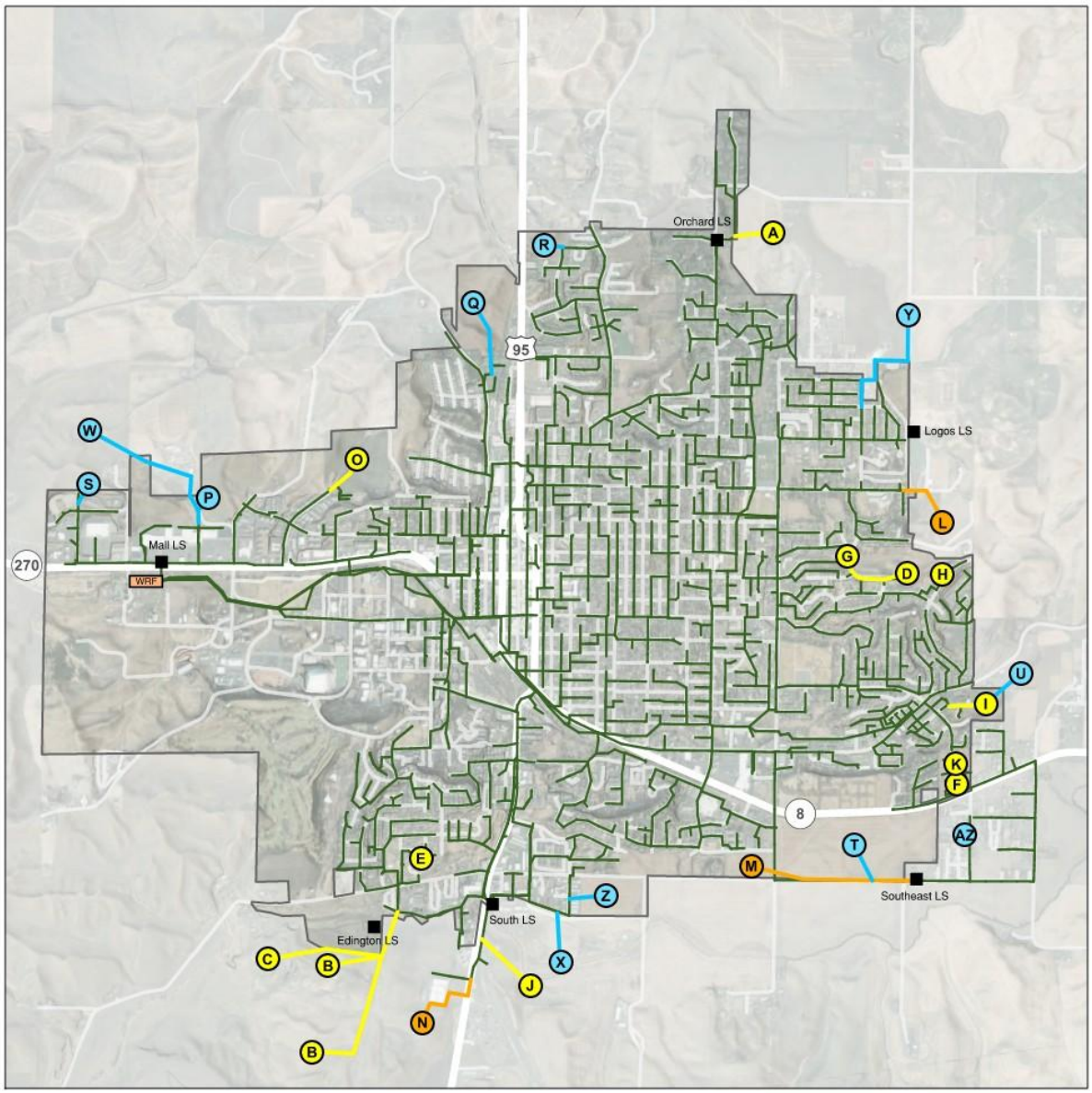


FIGURE 6-6
Future Growth Areas
Wastewater Facilities Planning Study
Moscow, Idaho

Pipeline Improvements
- 10 Year
- 20 Year
- 50 Year
- Existing Pipes

- 10-Year Growth
- 20-Year Growth
- Beyond 20 Year Growth
- City Limits

0 ¼ Mile

KELLER ASSOCIATES

FIGURE 6-7: 10-YEAR SYSTEM GRAVITY PIPELINE CAPACITY

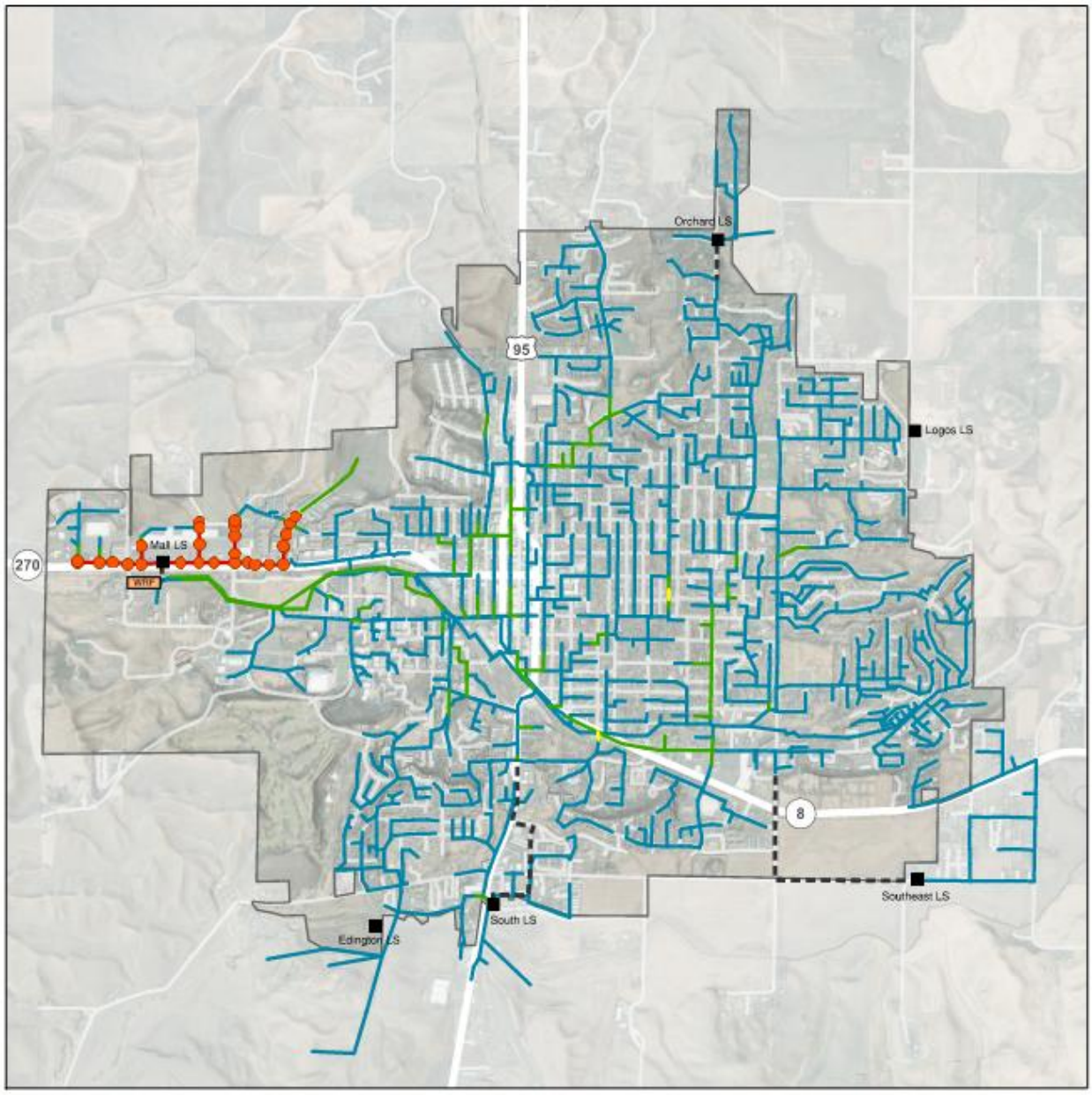


FIGURE 6-7
Gravity Capacity - 10-year
Wastewater Facilities Planning Study
Moscow, Idaho

Pipes- Max Full Depth (d/D)

- < 0.5
- 0.5 - 0.75
- 0.75 - 0.85
- 0.85 - 0.99
- > 0.99

Surcharged Manhole
Forcemain
City Limits

0 ¼ Mile

KELLER ASSOCIATES

FIGURE 6-8: 10-YEAR SYSTEM GRAVITY PIPELINE CAPACITY WITH PLANNED IMPROVEMENTS

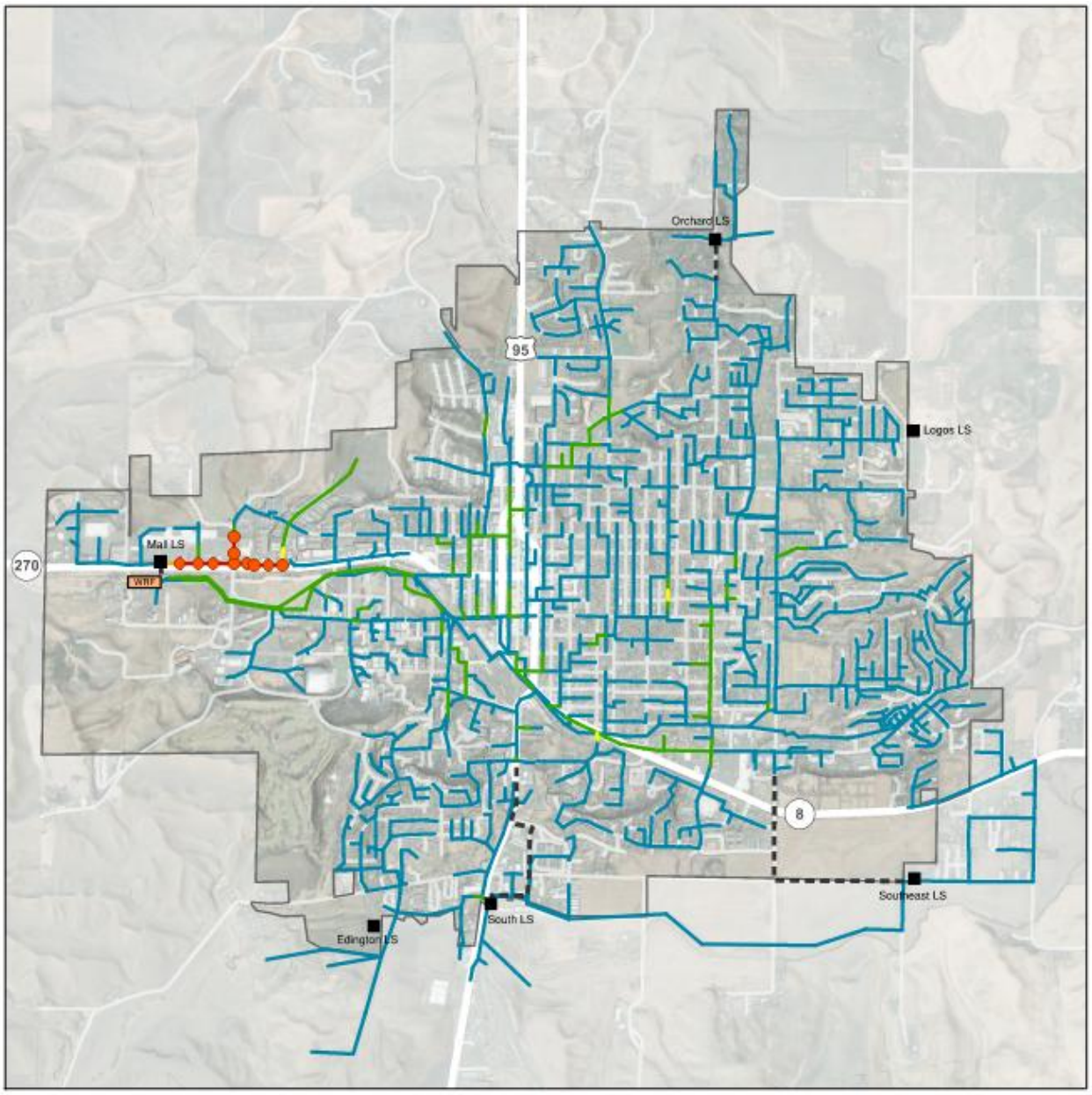


FIGURE 6-8
Gravity Capacity - 10-year with Planned Improvement Projects
Wastewater Facilities Planning Study
Moscow, Idaho

Pipes- Max Full Depth (d/D)
- < 0.5
- 0.5 - 0.75
- 0.75 - 0.85
- 0.85 - 0.99
- > 0.99

Surcharged Manhole
Forcemain
City Limits

0 ¼ Mile

KELLER ASSOCIATES

As shown in the figure, existing issues within the collection system exacerbated with the addition of 10-year flows, including surcharging along Hwy 8 / Pullman Rd. It should be noted that this issue is derived from the pipeline size itself, as even with planned improvements at the lift station, the existing pipeline cannot properly convey planned flows.

Additionally, the lift station analysis shows that the Mall Lift Station and forcemain are under capacity under 10-year conditions as expected because they are also undersized under the existing flows based on tested firm capacities. Once the Mall Lift Station is upsized, all the lift station's peak inflow are less than their reported and tested firm capacities.

6.4.2. 20-Year Flow Capacity

The 20-year flows projections were added to the model. The resulting d/D is shown in Figure 6-9 and in Appendix E. Additionally, 20-year pipeline capacity with the planned improvement projects is shown in Figure 6-10. The lift station capacity analysis and forcemain velocity analysis are shown in Table 6-8 at the end of this chapter.

FIGURE 6-9: 20-YEAR SYSTEM GRAVITY PIPELINE CAPACITY

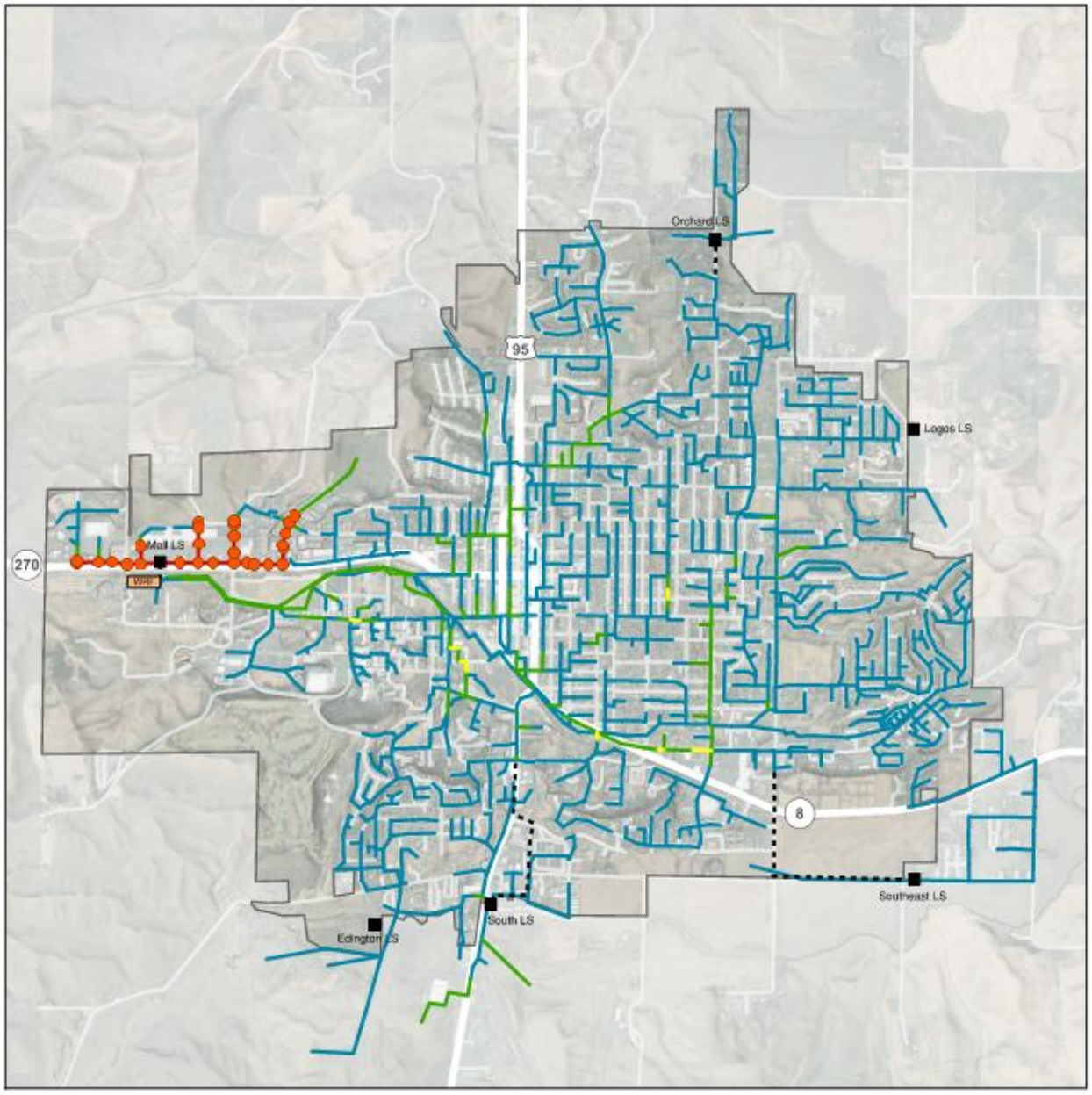


FIGURE 6-9
Gravity Capacity - 20-year
Wastewater Facilities Planning Study
Moscow, Idaho

FIGURE 6-10: 20-YEAR SYSTEM GRAVITY PIPELINE CAPACITY WITH PLANNED IMPROVEMENTS

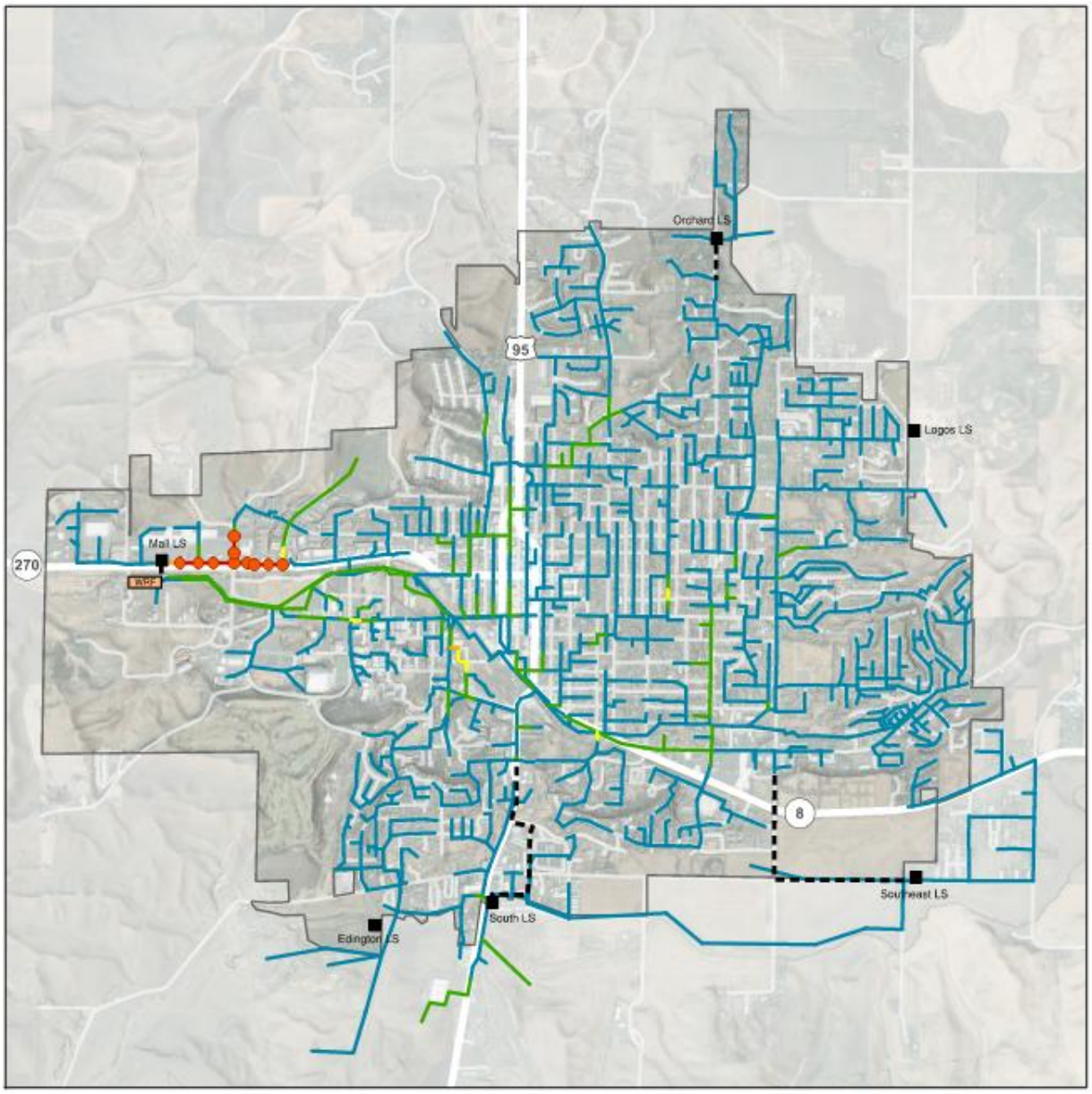


FIGURE 6-10
Gravity Capacity - 20-year with Planned Improvement Projects
Wastewater Facilities Planning Study
Moscow, Idaho

Pipes- Max Full Depth (d/D)
- < 0.5
- 0.5 - 0.75
- 0.75 - 0.85
- 0.85 - 0.99
- > 0.99

Surcharged Manhole
Forcemain
City Limits

0 ¼ Mile

KELLER ASSOCIATES

As shown in the figure, the existing and 10-year flow capacity issues are exacerbated, with increased surcharging upstream of the Mall lift station.

Additionally, the existing 12-inch pipeline along Railroad St, College St and Deakin Ave flowing south to north from Sweet Ave to 6th St reach 0.75 d/D in the 20-year period. Looking at Figure 6-10, which includes the City-planned project of the Southeast lift station bypass, additional flow is diverted down this trunkline, and results in portions of this trunkline exceeding 0.85 d/D. This line runs in and adjacent to the University of Idaho and thus any project to rectify this deficiency will need to coordinate work with the University.

A small section of pipeline within 6th St from Rayburn St to the east side of the Ag Biotech Building shows flows that exceed 0.75 d/D within the existing 8-inch pipeline due to the additional flows. Similar to the Railroad St/College St/ Deakin Ave pipeline, this section of pipelines is located within the University grounds but are owned by the City. Work and costs should be coordinated with the University.

Without the planned bypass of the Southeast lift station, the discharge from the Southeast lift station and increased 20-year flows cause 18-inch pipeline segments within White Ave to exceed the trigger of 0.75 d/D. If the City does not bypass the Southeast lift station as described by Section 6.3.3 and Chapter 8, this project will become necessary to prevent surcharging and the risk of sewer overflows beyond the 20-year period.

If the tested firm capacities are used, the South lift station tested firm capacity (approximately 940 gpm) lacks adequate conveyance for 20-year flows. See Chapter 8 and Appendix G for recommended improvements to address the reduced station capacity. If these recommendations cannot improve actual station capacity, the South lift station should be upgraded within the 20-year window. The CIP in Chapter 8 is based on the lift stations' reported capacities.

6.4.3. 50-Year Flow Capacity

The 50-year flows projections were added to the model. The resulting d/D is shown in Figure 6-11 and in Appendix E. Additionally, 50-year pipeline capacity with the planned improvement projects is shown in Figure 6-12. The lift station capacity analysis and forcemain velocity analysis are shown in Table 6-8 at the end of this chapter. It should be noted that deficiencies noted later in the chapter are denotated numerically in Figure 6-11.

FIGURE 6-11: 50-YEAR SYSTEM GRAVITY PIPELINE CAPACITY

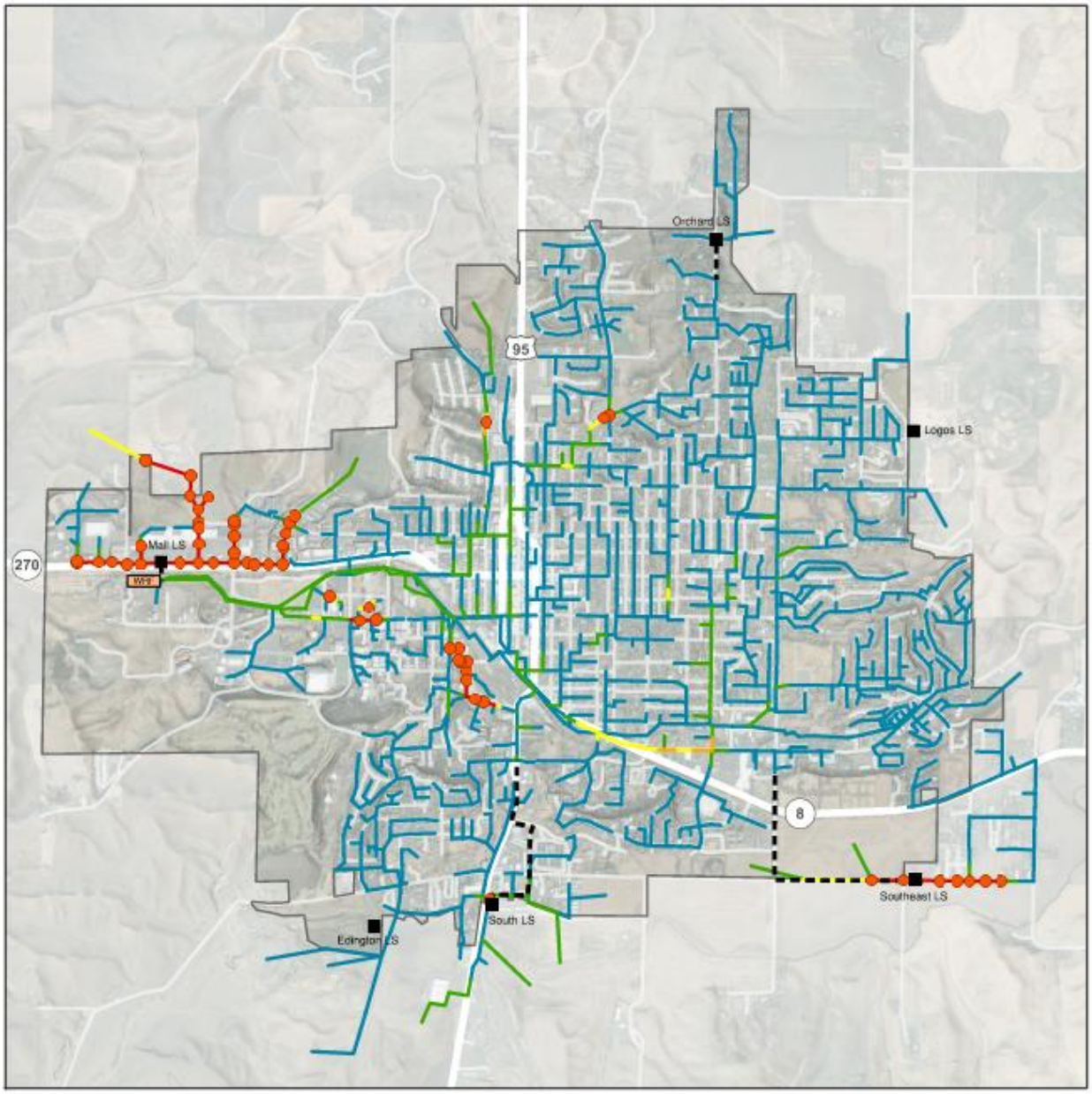


FIGURE 6-11

Gravity Capacity - 50-year

Wastewater Facilities Planning Study

Moscow, Idaho

Pipes- Max Full Depth (d/D)

- < 0.5
- 0.5 - 0.75
- 0.75 - 0.85
- 0.85 - 0.99
- > 0.99

Surcharged Manhole

Forcemain

City Limits

0 ¼ Mile

KELLER ASSOCIATES

FIGURE 6-12: 50-YEAR SYSTEM GRAVITY PIPELINE CAPACITY WITH PLANNED IMPROVEMENTS

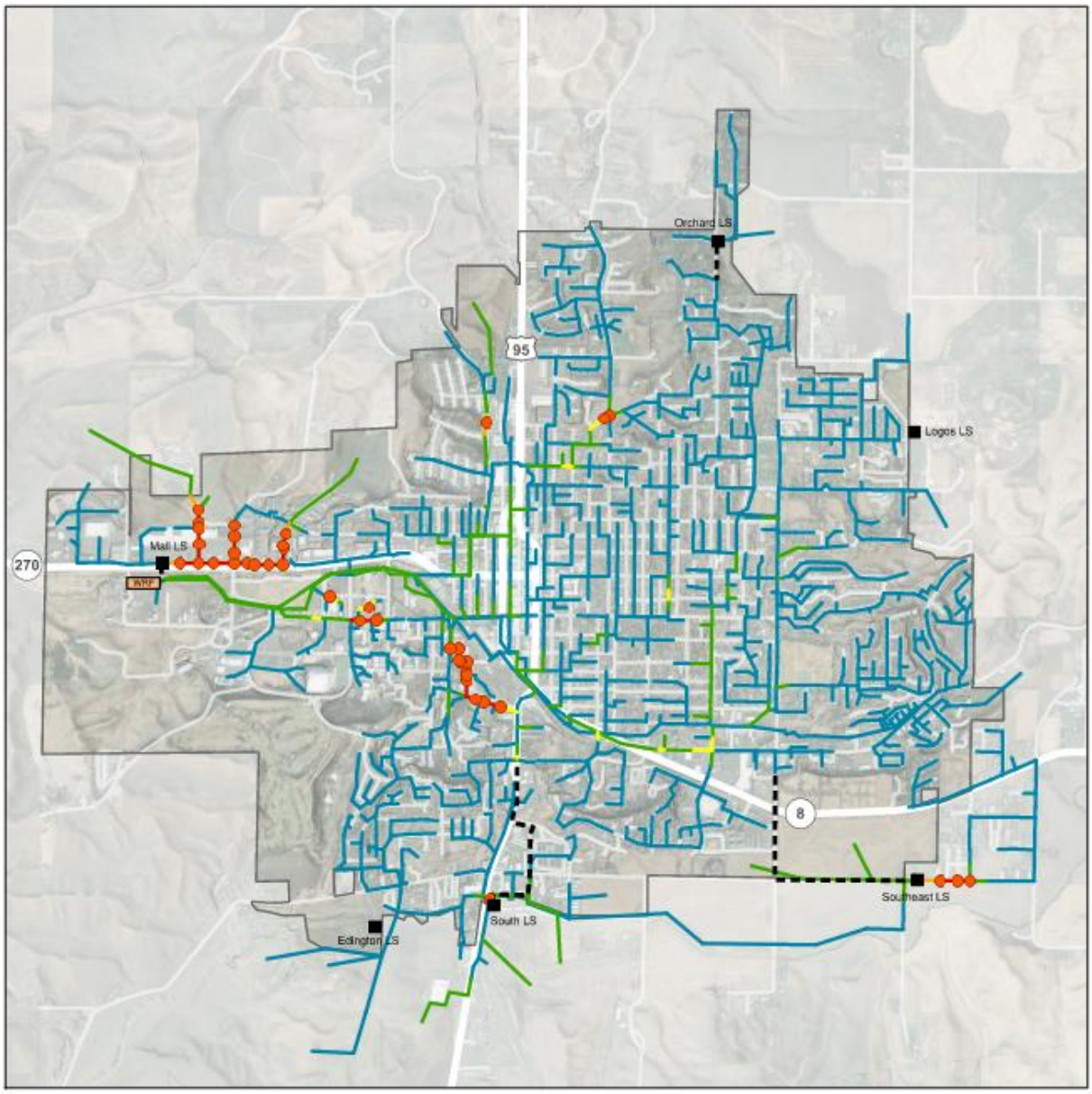


FIGURE 6-12

Gravity Capacity - 50-year with Planned Improvement Projects

Wastewater Facilities Planning Study

Moscow, Idaho

Pipes- Max Full Depth (d/D)

- < 0.5
- 0.5 - 0.75
- 0.75 - 0.85
- 0.85 - 0.99
- > 0.99

Surcharged Manhole

Forcemain

City Limits

0 ¼ Mile

KELLER ASSOCIATES

As shown, the issues noted in the existing and 10/20-year models are exacerbated in the 50-year model. Additionally, the following issues become prevalent:

- 1: The pipeline issues noted within Railroad St, College St, and Deakin Ave in the 20-year period show surcharging in the 50-year model.
- 2: A few pipe segments downstream of the SE lift station discharge exceeds the 0.75 d/D trigger if the Southeast lift station bypass occurs. If the bypass does not occur, a significant portion of pipelines along White Ave and Hwy 8 show d/D ratios above the trigger point of 0.75.
- 3: Almon St. north of Robinson's Mobile Home Ct exceeds its capacity and surcharges due to low slopes and planned development further north on Almon St.
- 4: The pipeline on the south side of the City shop and into Van Buren St potentially experiences surcharging.
- 5: Due to increased flows upstream of the SE lift station, the pipeline along Palouse St. directly upstream of the Southeast lift station experiences surcharging due to small pipeline sizes. Even when accounting for the lift station bypass, these pipelines still do not have adequate capacity for future flows.
- 6: With the additional 50-year flows, some of the pipelines upstream of the South lift station experience surcharging. It is recommended that the Southeast lift station bypass connects all the way to the South lift station wetwell and not to existing gravity pipelines, otherwise the existing pipelines will experience surcharging.

Projects to address these deficiencies are listed in Chapter 8 and Appendix G.

As shown by the pump station results in Section 6.4.4, the South Lift Station exceeds its firm capacity in the 50-year planning window. It is recommended the City keep an eye on growth upstream of the South lift station and the flows into the lift station. Generally, pump upgrades are recommended when peak inflows into the lift station reach 75-85% of the firm capacity. Additionally, the Southeast lift station is anticipated to exceed its firm capacity in the 50-year scenario if the Southeast bypass project is not completed.

6.4.4. Future System Lift Station Capacity and Forcemain Velocity Evaluation

Table 6-8 shows the modeled peak flows into the lift stations compared to their existing firm capacity and the velocity in the force mains. It should be noted that this table assumes that the Mall lift station forcemain has been improved from an 8-inch pipe to a 16-inch forcemain per the planned project. The table also shows peak flows with both the existing infrastructure and the planned improvements. The primary difference between the scenarios can be seen in the Mall, South, and Southeast lift station rows, as the projects remove some bottlenecks at the Mall lift station with the rerouted flow from the Southeast to the South lift station. The Edington and Logos lift stations were excluded from this analysis.

TABLE 6-8: FUTURE LIFT STATION CAPACITY EVALUATION

Lift Station		Tested Capacity (gpm)	Reported Capacity (gpm)	2035 Peak Hour Inflow (gpm)	2035 Peak Hour Inflow with planned Improvement (gpm)	2045 Peak Hour Inflow (gpm)	2045 Peak Hour Inflow with planned Improvement (gpm)	2075 Peak Hour Inflow (gpm)	2075 Peak Hour Inflow with planned Improvement (gpm)	Formain Diameter (in)	2075 Forcemain Velocity* (ft/s)
Orchard LS	Pump 1	419	500	110	110	110	110	110	110	6	5.7
	Pump 2	308	500								
Mall LS	Pump 1	1,137	1,200	1,610	1,800	1,610	1,800	1,650	2,350	16	3.7
	Pump 2	978	1,200								
Southeast LS	Pump 1	390	500	58	N/A	58	N/A	1,065	N/A	6	12.1
	Pump 2	535	500								
South LS	Pump 1	499	820	770	830	1,110	1,370	1,685	2,605	16	2.7
	Pump 2	521	820								
	Pump 3	444	820								

*Assuming that future pumps are pumping 2075 peak hour flow or current reported capacity, whichever is higher

** Yellow inflow indicates inflow that exceeds the reported firm capacity of the lift stations, with red forcemain velocities exceeding 10 fps

As shown by the Table, the Mall lift station has inadequate capacity to handle 10-year, 20-year, and 50-year flows, which is rectified by the planned improvement project described in Section 6.3.2 and Chapter 8 of this report. Additionally, when the City completes the project to increase the forcemain to 16-inch in diameter and increases pump capacity to at least 1,900 gpm, the station will be able to convey 20-year flows and forcemain velocities fall into the acceptable range. The planned buildout of the Mall lift station of 2,700 gpm is adequate to convey 50-year flows.

The Southeast and South lift stations do not have adequate capacity to handle anticipated 50-year flows. Additionally, even if the pumps are upgraded to handle future flows, the Southeast lift station's forcemain is too small to handle anticipated 50-year flows. Again, if the tested firm capacities are used, the South lift station tested firm capacity (approximately 940 gpm) lacks adequate conveyance for 20-year and 50-year flows, while its reported capacity (approximately 1,400 gpm) can convey 20-year flows. Projects to rectify these deficiencies are displayed in Chapter 8.

6.5. SYSTEM ALTERNATIVES

As system deficiencies were identified, several alternatives to address these deficiencies were considered. Alternatives for the highest priority projects including the Mall lift station and Southeast lift station were not developed because they are currently being designed. A description of the improvements is provided in Chapter 8. For the remainder of the capacity deficiencies identified, general alternatives were considered and are presented in Section 6.5.1. The condition deficiencies identified in the CCTV evaluation can be addressed via the replacement alternatives in Section 6.5.2. below.

6.5.1. Gravity Capacity Alternatives

Capacity Alternative No. 1: No Action

If the City chooses not to take action on addressing existing deficiencies in the system, the existing trunklines will continue to experience surcharging during high flow events. As additional development occurs, this problem will continue to be exacerbated and the manholes and sewer services along the surcharged pipeline may be at risk of backups and flooding, which possess significant environmental and human health risks. Ultimately, this option is not considered viable.

Capacity Alternative No. 2: Install parallel Pipelines / Facilities

The City could choose to construct parallel facilities in areas with limited remaining capacity. This alternative would increase the system's capacity and could cost less than full replacements. Another advantage of constructing parallel facilities is that existing infrastructure could be left in service while the parallel facilities are constructed. The downside of this alternative is the long-term increase in maintenance costs associated with maintaining parallel facilities and the potential higher life-cycle

costs associated with the eventual replacement or rehabilitation of the original pipeline / lift station. Given the age of the existing pipelines, this alternative is not recommended.

Capacity Alternative No. 3: Redirect Flows

Under certain scenarios, additional development can be accommodated by redirecting flows into sewer basins with available capacity. This alternative works best when flows can be conveyed directly to the WRF, minimizing the effects of additional capacity added to downstream facilities. For the existing deficiencies, redirecting flow from the Southeast lift station to the South Lift Station is already considered the preferred alternative by the City to address existing and future issues concerning the pipeline along Palouse River Dr and the discharge at White Ave.

In order to address future issues along Railroad St, College St, and Deakin Ave, it is possible to reconstruct the diversion structure at the intersection of Highway 95 and Sweet Ave to send all flow north to the 30" trunkline in Highway 8 instead of splitting part of its flow down Sweet Ave. While this option is appealing for the short term due to its cost-effectiveness, the amount of flow diverted would not prevent the maximum water level from exceeding 0.75 d/D ratio within Daekin Ave or prevent surcharging in the 50-year planning window.

As it relates to addressing deficiencies within the 20-year planning window, few other opportunities exist for flow re-direction.

Capacity Alternative No. 4: Increase Capacity

This alternative includes increasing the system's capacity by installing larger diameter pipelines. The City could reconstruct pipelines that are approaching capacity with larger ones, or use trenchless technology, such as pipe bursting existing pipelines (typically limited to upsizing by one nominal pipe diameter), to increase capacity. By increasing the system's capacity, the City would not need to limit development. This would allow the City to expand its service area and mitigate risks of manhole surcharging and sanitary sewer overflows. The drawback to this alternative is the upfront capital cost associated with expanding capacity. With the exception of the alternatives discussed to address deficiencies above, this option was chosen as the recommended alternative for pipeline capacity issues.

6.5.2. Pipeline Replacement Alternatives

Condition Alternative No. 1: Replace with Traditional Open Cut Technology

As the collection system infrastructure approaches the end of its useful life, it could be replaced with new pipelines and manholes using traditional open-cut installation. This alternative would extend the useful life of the pipeline by the life span of a new pipe. The City could also choose to increase pipe size or correct pipeline grades as they reconstruct the pipelines. This alternative may be preferred depending on site constraints (pipe depth, surface restoration, sewer bypass requirements, services, groundwater, soil conditions, existing pipe size, grade, etc.). This approach usually has the highest disturbance to the surface above and surrounding areas. It also typically causes the largest and longest disruption to existing sewer service and operations.

Condition Alternative No. 2: Utilize Trenchless Technology for Repair

Alternatively, the City could utilize trenchless rehabilitation technologies such as pipe bursting, cured-in-place-pipe installation, or slip lining for pipelines and applying rehabilitating coatings to manholes. Under the right circumstances, these approaches can be less costly than the open-cut construction approach. Spot repairs can also extend the life of a pipeline segment and, under certain conditions, can be completed without open-cut trenching. Trenchless repair approaches typically limit the ability to correct pipe slopes and offset problems.

It is recommended that each pipeline segment be evaluated to determine the optimum replacement strategy as part of an ongoing collection system replacement program. This effort includes carefully reviewing CCTV data and other site constraints and should be completed as part of the concept or pre-design phase of pipeline rehabilitation/replacement projects.

CHAPTER 7 - OPERATIONS AND MAINTENANCE

The purpose of this chapter is to outline the ongoing operation and maintenance (O&M) strategies necessary to maintain the long-term effectiveness of the sewer system. Proper O&M is critical for preventing system failures, minimizing disruptions, and maintaining compliance with regulatory requirements. This chapter provides detailed guidelines for maintaining the sewer system's infrastructure, including pipelines, pumping stations, lift stations, and treatment facilities.

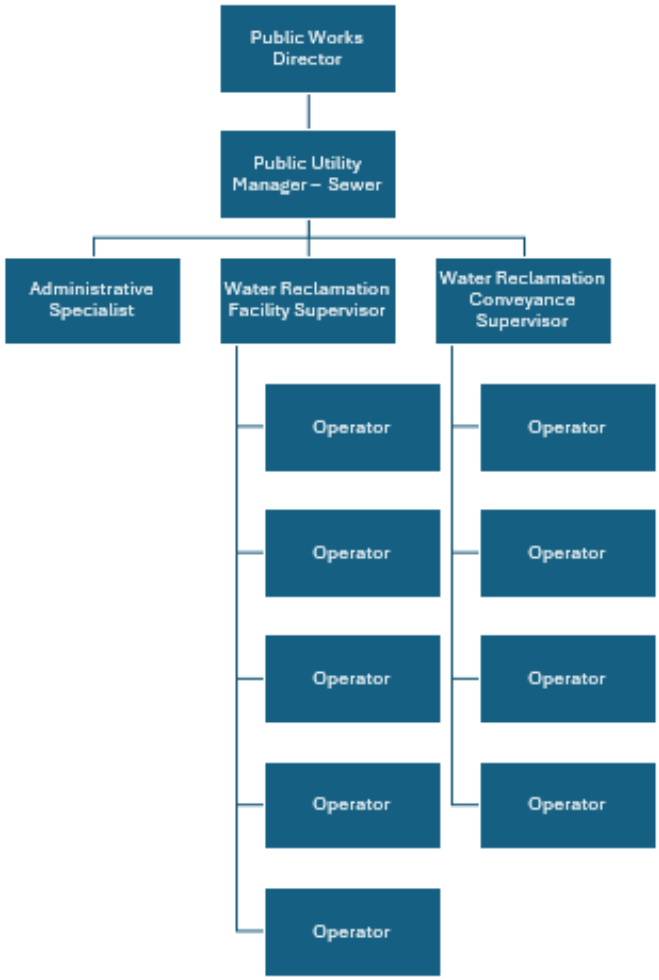
7.1. ORGANIZATIONAL STRUCTURE AND RESPONSIBILITY

The O&M activities will be overseen by the Public Utility Manager. The team includes:

- **Water Reclamation Conveyance Supervisor**
- **Water Reclamation Conveyance Operators**

See **FIGURE 7-1** for the City Organization Chart specific to these utilities.

FIGURE 7-1: PUBLIC WORKS WASTEWATER ORG CHART



A summary of duties is provided below:

Water Reclamation Conveyance Supervisor

- Customer claims coordination
- Lift station maintenance scheduling
- Parts acquisition/inventory maintenance
- Scheduling of conveyance tasks
- I&I work coordination (office)
- Coordination of mainline repairs
- Contractor coordination/scheduling
- New construction quality control (TV)
- System logging coordination
- Work order processing
- Safety issues and signage
- Equipment coordination/maintenance scheduling

Conveyance Operator

- Perform video work
- Customer service calls-prime contact
- Mainline cleaning
- Lift station maintenance and operations
- Mainline taps
- I&I coordination assistance (field)
- Main repair assistance
- System logging (flow and/or sampling)
- Utility Locates
- Operate the jet cleaner
- Assist in video work
- Customer service calls-secondary contact

7.2. OPERATOR QUALIFICATIONS AND TRAINING

To have a successful operation and maintenance program for the sewer conveyance system, the operator should have the ability to collect operating information, plus compile, organize, and evaluate the data. The operator must also be able to plan the necessary actions and maintenance procedures to achieve proper operation of the sewer conveyance system. The operator should be able to use sound judgment in deciding what to do and know when and where to obtain necessary help.

Safety and training programs are integral parts of any well-managed sewer conveyance system. Sewer conveyance systems, by their nature and location, can be dangerous places to work. Workers regularly are exposed to hazardous structures, materials and atmospheres, vehicular traffic, and biological contaminants. It is important to provide training so that employees know and understand the hazards they may encounter while doing their job. Depending on the organization and employee skills, either in-house trainers or safety consultants can provide safety training. Some recommended training subjects are presented in Table 7-1.

TABLE 7-1: RECOMMENDED TRAINING

Recommended Sewer Conveyance System Operator Training		
Type of Training	**Recommended Frequency of Training**	**Notes**
OSHA Confined Space Entry	Annually	Required before entering confined spaces.
Blood borne pathogens	Annually	
Lock-out / tag-out (LOTO)	Once, then as needed	Retraining as necessary when changes in job assignment, machines, equipment or processes occur.
Ladder Safety	Once, then as needed	As necessary for job assignment.
Fire Extinguisher Training	Every 1-2 Years	Could be paired with First Aid / CPR training.
Trench Excavations	Once every 3 years	
OSHA Requirements / Safety	Annually	Check to see if employees need recertifications or additional training via OHSA standards.
Safe Vehicle Operation	Once, then as needed	
Ergonomics of Lifting	Once, then as needed	
Hazard Communication	Once, then as needed	
Chemical Hazard and Toxic Substances	Once, then as needed	Provide effective information when employees are exposed to new chemicals or pollutants.
Personal Protective Equipment (PPE)	Once, then as needed	If employee is not demonstrating proper understanding and use of PPE, the employee should be retrained.
Work Zone Safety	Once, then as needed	
Right-to-know (RTK)	Once, then as needed	
First Aid / CPR	Every 1-2 Years	Or when certification expires (typically 1 or 2 years)
PACP	Every 3 years	Every 3 years to keep certification active
CCTV Training	Every 2-3 Years	Or as technology changes
Pipeline Repair Methods	Once, then as needed	
Equipment Training	Once, then as needed	

7.3. ROUTINE MAINTENANCE AND REPAIRS

Routine maintenance tasks will be scheduled based on manufacturer recommendations, system needs, and historical performance data. The following activities described below are part of the routine maintenance program.

7.3.1. Inspection and Monitoring

- Pipes: Closed-circuit television (CCTV) inspections should be completed every 3 to 5 years for all sections of the sewer network. This provides a visual inspection to highlight problems with root intrusion, pipe breakage, etc.
- Manholes: Visual inspection should be completed annually for signs of corrosion, cracks, or blockages. This could be completed concurrently with the jetting process described in later sections.

- Pumps: Pumps should be inspected yearly to check the pump's mechanical components, such as the motor, bearings, seals, and impellers, for signs of wear, damage, or clogging. Additional inspections of the pump's electrical components including wiring, control panels, alarms, and backup power sources should also be completed quarterly. Pumps and motors shall be maintained according to the manufacture recommendations.
- Lift Station Meters: Visual inspections of meters should be completed annually for signs of damage or wear. Debris and sediment should be cleared from the meters. Meters should be calibrated during these inspections.
- Force Main Air Relief Valves: Visual inspection of air relief valves should occur annually. Remove debris or mineral buildup as necessary. This can be done manually or through a backwash procedure outlined in the product manual. Some air relief valves require lubrication, and the manufacturer recommended schedule should be followed.

7.3.2. Cleaning and Preventative Maintenance

- Jetting: The entire sewer network should be jetted every two years. Areas with known debris accumulation, tight bends, or flat grades should be flushed more frequently.
- Grease Removal: All grease traps and interceptors installed must be maintained as required by Moscow City Code (Title 5, Chapter 3) and the City of Moscow Fat, Oil, and Grease Best Management Practices Manual. The City continues to work with commercial property owners to educate, monitor, and enforce treatment requirements for Food Service Establishments connected to the City's sewer conveyance system.
- Root Control: Advanced root growth in the sewer pipes should be removed via mechanical methods, such as jetters, winches, drills, or chemical means such as herbicides. If herbicides are used, herbicides should be selected by whether the goal is to kill the plant (systemic herbicides) or only cause dieback of the roots (contact herbicides) in the sewer.
- Sealing and Grouting: Manhole joints shall be sealed if signs of groundwater intrusion are present.

7.3.3. Infiltration and Inflow Prevention

Infiltration and inflow (I/I) will be mitigated by the repair and rehabilitation of sewer mains. CCTV can be used to identify locations of high I/I. If damage is localized, point repairs can be performed to fix pipes or joints. If longer sections of pipe are damaged, sewer lining or complete replacement should be considered. As noted above, manholes and other structures should be inspected and sealed annually. Further reduction in I/I can be achieved through repair or replacement of sewer laterals.

7.4. EMERGENCY MAINTENANCE AND REPAIRS

7.4.1. Electrical Outage Response

The sewer network should be monitored from the SCADA system to identify areas of high concern. Coordinate with Avista to estimate expected power outage times. If these times exceed the backup generator run time, coordinate with the on-call maintenance staff to set up a bypass pump.

The Public Utility Manager shall work with the City's Communication Team to keep the public informed of conservation measures or health risks associated with the power outage.

Once power has been restored complete inspections of each lift station to check for damage or system overflow.

7.4.2. Repair Response

When a failure point has been identified a maintenance team should be deployed to provide necessary emergency repairs. These may include overflow control, bypass pumping, or temporary repairs when permanent repairs will take more time. The City does have the capacity to repair failures internally, but also uses third-party contractors as needed to facilitate the repairs.

The Public Utility Manager shall work with the City's Communication Team to inform the public about possible contamination risks and boil notices as noted in the City's 2024 Communications Plan. The Communication Team is comprised of the City Administrator, Deputy City Administrator, Police and Fire Public Information Officers, and the Communication Specialist at the City.

Long-term repair solutions will depend on the cause of the failure. If the failure was due to insufficient capacity, the City should consider options to increase system capacity at the point of failure. If ageing infrastructure was the cause of the failure, consider permanent repairs such as pipe replacement or lining, or pump upgrades. A portable bypass pump capable of handling the hydraulic grade line at the south lift station is recommended to accommodate lift station shutdowns and emergency repairs.

7.4.3. Spill Response

Spills or system overflows should be contained as soon as possible and cleaned up using vacuum trucks and disinfectants. If spills impact natural waterways, the spill should be reported to the regulatory authority and any guidance that agency provides should be followed.

7.5. SUPPLY AND EQUIPMENT MANAGEMENT

Tools and machinery should be stored in designated and secure facilities. Weatherproof and/or climate-controlled facilities should be considered for high value tools and machinery. The facilities should be organized and clean. An inventory tracking system should be established to track purchase date, tool usage, maintenance records, and current location. This tracking system should include an inventory check-in/check-out process.

7.6. RECORD KEEPING AND REPORTING

The City should maintain comprehensive documentation of system performance, maintenance activities, equipment inspections, and any repairs or upgrades. This includes tracking daily flow rates, treatment efficacy, and discharge quality. Reports should be prepared as required to comply with local, state, and federal regulations. A centralized digital system is recommended for recordkeeping, allowing easy access to historical data for audits, trend analysis, and infrastructure planning.

7.7. EMPLOYEE SURVEY

An employee survey was distributed to the water reclamation staff. Responses were generally positive with multiple employees stating that the annual cleaning schedule works well to maintain the conveyance system. Concerns about some of the older 6-inch clay pipes were also noted by several staff members. Employees stated that they felt they had adequate access to equipment and consumable supplies. Employees generally felt like they had appropriate training to fulfill their job duties though one employee did say hands on instruction would be preferred to verbal instruction.

7.8. STAFFING RECOMMENDATIONS

The standard for evaluating staffing needs of wastewater treatment and conveyance systems comes from the EPA. Recommendations outlined below were developed using the EPA manual titled *Manpower Requirements for Waste Water Collection Systems in Cities and Towns Up to 150,000 in Population* from 1973. This manual was developed through surveys of 54 cities from across the country. Major factors that influence staffing requirements are listed in the manual as:

- The size of the system in miles of sewer lines.
- The age of the system.
- The standard of sewer construction.
- Funds available in the budget.
- The scope of the municipality's responsibility such as the maintenance of lateral lines.
- The extent of contractors' use.
- The establishment of minimum maintenance capabilities.
- The type of equipment used.
- The accessibility of work sites to equipment.
- Distances work crews have to travel.
- The topography of the area.

Table 7-2 shows the minimum recommended number of staff for various sized cities but technological advances have occurred since this manual was published which will reduce the staffing requirements. This table is copied directly from the manual and should only be used for general guidance.

TABLE 7-2: EPA STAFFING RECOMMENDATIONS

Occupational Title	Population									
	10,000		25,000		50,000		100,000		150,000	
	People	Hours/week	People	Hours/week	People	Hours/week	People	Hours/week	People	Hours/week
Superintendent	1	10	1	20	1	40	1	40	1	40
Asst. Superint.									1	40
Maint. Supervisor					1	40	2	80	2	80
Foreman	1	20	1	20	1	40	1	40	2	80
Maint. Man II	1	20	1	20	1	40	1	40	2	80
Maint. Man I	1	20	2	60	3	120	5	200	8	320
Mason II					1	40	1	40	2	80
Mason I							1	40	1	40
Maint. Eq. Op.			1	40	2	80	3	120	5	200
Const. Eq. Op.	1	20	1	20	1	40	1	40	2	80
Auto. Eq. Op.							1	40	1	40
Photo, Insp., Tech.							1	40	1	40
Laborer	1	20	2	40	2	80	5	200	6	240
Dispatcher					1	40	2	80	2	80
Clerk Typist					1	20	1	20	2	80
Stock Clerk					1	40	1	40	1	40
Sewer Maint. Staff	6	110	9	220	16	620	27	1060	39	1560
M. Mech. II (a)										
M. Mech. I (b)										
M. Mech. Help. (b)										
Const. Insp. (c)										
Const. Insp. S. (d)										
Total Staff										

a) Number of lift stations multiplied by 8/3
b) Number of lift station visits per week
c) Number of construction site visits per week multiplied by 8/3
d) Determined by the number of Construction Inspectors employed and developed on a judgmental basis

Table 7-3 shows staffing recommendations specific to the City's system. These recommendations are based on the 1973 EPA manual and discussions with City staff.

TABLE 7-3: CITY OF MOSCOW CONVEYANCE SYSTEM STAFFING RECOMMENDATIONS

Occupational Title	Population				Current Staffing	
	25,000		50,000			
	People	Hours/week	People	Hours/week	People	Hours/week
Public Utility Manager	1	20	1	20	1	20
Maint. Supervisor	1	40	1	40	1	40
Maint. Staff II	2	80	3	120	4	160
Maint. Staff I	3	120	5	200		
Construction Inst.	1	40	1	40	0	0
Admin Specialist	0	0	1	20	1	20
Total	8	300	12	440	7	240

Coordination with the City indicates current staffing levels are sufficient for maintenance and operation of the conveyance system. If significant construction occurs, a dedicated construction inspector may be needed if that work is not contracted out. As the City grows, it is anticipated that growth in staffing of 'in the field' employees will be needed to accommodate changes. It is not anticipated that the City will need to hire maintenance dispatchers, dedicated equipment mechanics, or administrative staff.

CHAPTER 8 - CAPITAL IMPROVEMENT PLAN

8.1. CAPITAL IMPROVEMENT PLAN

This chapter discusses the Capital Improvement Plan (CIP) based on the recommended improvements to the conveyance system. It outlines the capital improvement schedule, planning level costs, and other recommendations for implementation.

The analysis and alternatives presented in Chapter 6 of this report helped identify system deficiencies, such as undersized lift stations and gravity conveyance system bottlenecks. There are several other recommended improvements that are straightforward and do not require an alternative evaluation. This chapter summarizes all recommended improvements and provides cost estimates for each improvement. Information on financing options are also discussed.

8.2. PRIORITIZATION CRITERIA

As discussed in the previous chapters, the recommended improvements to the wastewater system include upsizing pipes, re-routing flows, replacing pumps, constructing new lift stations, replacing aging infrastructure, and expanding treatment facilities. The improvements have been prioritized, with City input, as outlined in Table 8-1. Priorities are from highest (1) to lowest (4). New sewer mains which collect wastewater from new developments and discharge to the existing system were assumed to be constructed by development and are not reflected in capital improvement projects.

TABLE 8-1: PRIORITIZATION CRITERIA

Priority	Description
1	- Addresses lift station and forcemain capacity issues under existing flows - Address surcharging in the conveyance system under existing flows - City desired priority projects or in-progress projects
2	- Address anticipated deficiencies within the 10-year period
3	- Address surcharging in the conveyance next 10-20 years
4 / Future	- Improvements to accommodate future growth - Address surcharging in the conveyance system beyond the 20-year period - Address lift station capacity issues beyond the 20-year period

8.3. BASIS FOR COST ESTIMATES

Capital costs developed for the recommended improvements are planning level estimates. Actual construction costs may differ from the estimates presented, depending on specific design requirements and the economic climate when a project is bid. The cost estimates presented are planning level estimates and reflect typical accuracy levels for planning work. As a result, the final project costs will likely vary from the estimates presented in this document.

The costs are based on quotes from suppliers, similar recent wastewater system improvement projects that the City has completed, Keller's perception of current conditions at the project, and additional design/administration considerations. The total estimated probable project costs include construction costs, contractor markups, 30% contingency (which is typical of a planning-level estimate), and design/administration costs. Cost estimates should be refined during the preliminary and final design phases of each project.

8.4. CAPITAL IMPROVEMENT PLAN (CIP)

The summary of recommended CIP improvements, their estimated costs, and triggers are provided in Table 8-2. Individual cost sheets with additional details are included in Appendix G. Figure 8-1 shows the locations of the CIP projects and a full-size figure can be found in Appendix G. Some of the additional details include a description of the need for the project, project objectives, and design considerations. Project prioritization for lift stations is based on reported capacities of the lift stations.

TABLE 8-2: CAPITAL IMPROVEMENT PLAN

ID#	Project Name	Project Trigger	Total Estimated Cost
Priority 1 Improvements (2025-2030)			
1.1	Mall LS and Forcemain Upgrade	Lift Station and Forcemain Capacity	In Progress
1.2	Southeast LS Bypass Pipeline	Lift Station and Gravity Pipeline Capacity	$ 6,449,000
1.3	Formalize Connection Agreement with U of I		$ 50,000
1.4	Mall LS / Highway 8 Trunkline Upsize	Gravity Pipeline Capacity	$ 993,000
		Total Priority 1 Improvements (rounded)	**$ 7,492,000**
Priority 2 Improvements (2030-2035)			
2.1	Comprehensive Sewer System Plan Update	10-year FPS Update	$ 250,000
		Total Priority 2 Improvements (rounded)	**$ 250,000**
Priority 3 Improvements (2035 - 2045)			
3.1	Comprehensive Sewer System Plan Update	20-year FPS Update	$ 250,000
3.2	Railroad St, College St, and Deakin Ave Upsize	20-year Gravity Pipeline Capacity	$ 1,345,000
3.3	6th St Upsize	20-year Gravity Pipeline Capacity	$ 332,000
		Total Priority 3 Improvements (rounded)	**$ 1,927,000**
		TOTAL SYSTEM IMPROVEMENTS COSTS (rounded)	**$ 9,669,000**
Growth / Developer Driven Improvements			
4.1	South LS Pump Upsize	50-year Capacity Constraints	**N/A**
4.2	Almon St Upsize	50-year Gravity Pipeline Capacity	**N/A**
4.3	Moscow City Shop / Van Buren St Upsize	50-year Gravity Pipeline Capacity	**N/A**
4.4	Palouse River Dr Upsize	50-year Gravity Pipeline Capacity	**N/A**
4.5	South Lift Station Upstream Pipeline Upsize	50-year Gravity Pipeline Capacity	**N/A**
4.6	Blaine St / White Ave / HWY 8 Upsize	50-year Gravity Pipeline Capacity	**N/A**

Notes

The cost estimate herein is concept level information only based on our perception of current conditions at the project location and its accuracy is subject to significant variation depending upon project definition and other factors. This estimate reflects our opinion of probable costs at this time and is subject to change as the project design matures. This cost opinion is in **2025** dollars and does not include escalation to time of actual construction. Keller Associates has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. Keller Associates cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein."

FIGURE 8-1: CIP MAP

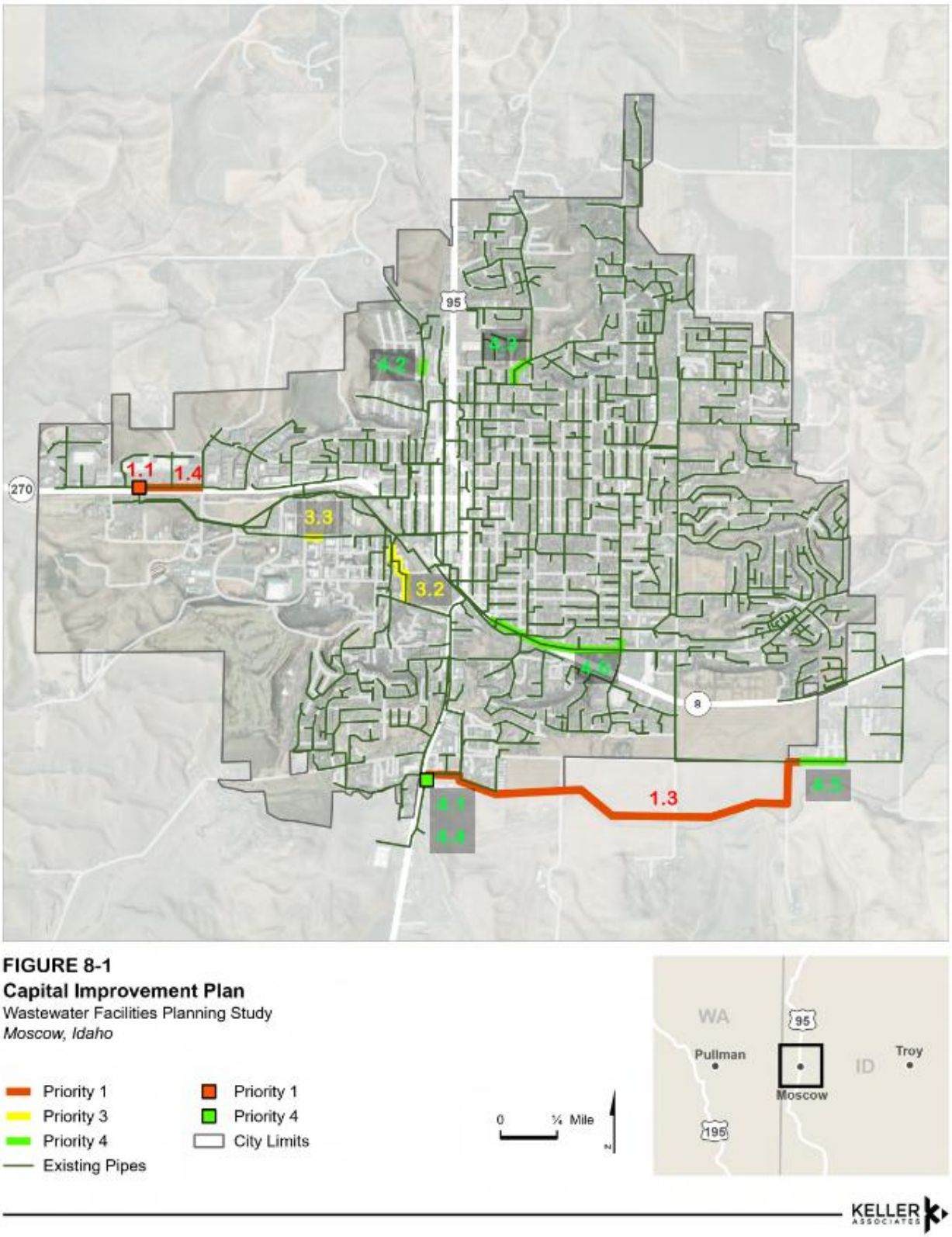


FIGURE 8-1
Capital Improvement Plan
Wastewater Facilities Planning Study
Moscow, Idaho

KELLER ASSOCIATES

8.5. PRIORITY 1 PROJECTS

Priority 1 CIP projects are planned to be completed within the next 0-5 years. These projects address lift station and forcemain capacity issues within the existing system, potential surcharging within the existing conveyance system, and previously identified improvement projects that the City desires to be completed. The Priority 1 and 2 projects are summarized as follows. See Appendix G for details regarding the remaining priority 3-4 projects.

- **1.1 Mall Lift Station and Forcemain Upgrade:** Peak flows into Mall lift station are over 90% of the station's firm capacity of 1,200 gallons per minute (gpm). Additionally, the velocity in the existing 8-inch forcemain exceeds 6 feet per second (fps) during existing conditions and 10 fps in future conditions. The goal of the project is to increase the pumping capacity of the lift station to 1,900 gpm and upsize the forcemain to 16 inches in diameter to address these deficiencies. The proposed capacity will exceed the projected 20-year peak hour flows. However, the 50-year peak hour flows are 2,350 gpm. Sizing mechanical and electrical equipment to the 50-year flows is not recommended due to the typical useful life of mechanical and electrical equipment, but provisions for future capacity considered to facilitate future upgrades. The new force main could be installed adjacent to the existing force main rather than completely replacing it. Installing a parallel force main rather than replacing the existing pipe will improve redundancy, provide operational flexibility, and can reduce the need for bypass pumping during construction. Some challenges associated with this project are its proximity to Highway 8/Pullman Road, and the forcemain which goes under the highway. This will require highway permitting and coordination with the Idaho Department of Transportation (ITD).
- **1.2 Southeast Lift Station Bypass Pipeline:** The Southeast lift station is anticipated to be undersized for future flows, and the conveyance system downstream of its current discharge is already above half full and is anticipated to exceed trigger 0.75 d/D before the 20-year period. Additionally, the City would like to replace lift stations with gravity conveyance systems where possible. Previous planning efforts have identified this project as a location where a new gravity system can bypass the lift station. This project constructs a gravity conveyance pipeline from the Southeast lift station to the South lift station, thus bypassing the Southeast lift station and abandoning it. This project will require easements from the property owners between the Southeast and South lift station and may require a short river crossing near the South lift station.
    - If the bypass of the Southeast lift station does not occur, then the City will need to expedite construction of Project 4.6 to the 10-20 year window, and the City will need to plan on a Southeast lift station and forcemain upgrade within the 50-year window. This upgrade will likely involve a pump and station upgrade to a capacity of 1,100 gpm and a forcemain upgrade to a 10-inch.
- **1.3 Formalize Connection Agreement with the University of Idaho:** Currently, the University of Idaho discharges flow from its conveyance system to the City's system. The agreement between the City and the University has been informal. The primary purpose of this project is to formalize the agreement between the two participants, including detailing specifics on cost sharing for projects, payments, ownership, and responsibility of maintenance.
- **1.4 Mall Lift Station / Highway 8 Trunkline Upsize:** The existing 12-inch trunkline upstream of the Mall lift station (to the east), surcharges during existing peak hour flows. In future model scenarios, the pipeline continues to surcharge due to additional flows. The goal of this project is to upsize the trunkline to an 18-inch diameter pipeline to convey existing and future flows with a d/D of less than 0.7 in 50-year conditions. This pipeline is parallel to Highway 8 and will require coordination with ITD to ensure they do not interfere with the highway, and business owners to ensure business access during construction. This work may be completed in conjunction with Project 1.1.
- **2.1 Sewer Comprehensive Sewer System Plan Update:** It is important to regularly update the facility plan to update hydraulic models, evaluate system conditions, discover new deficiencies, and create plans to address deficiencies. In general, it is recommended to update

a facility plan every five to seven years or more frequently if there is a significant change in growth trends.

8.6. PERMIT REQUIREMENTS

For Priority 1 and 2 projects, permits will likely be required for the highway crossing associated with the Project 1.1 forcemain upgrade. Additional coordination with ITD will be required for Project 1.4. Project 1.2 will require the City to acquire additional easements through the properties between the Southeast and South lift stations. This project also consists of crossing the South Fork Palouse River which may require a Joint Application for Permit ("Section 404 Permit"), which involves the United States Army Corps of Engineers (USACE), Idaho Department of Water Resources (IDWR), Idaho Department of Lands (IDL), and Idaho Department of Environmental Quality (DEQ), depending on final alignment and profile.

Approval for facilities that are not simple sewer line extensions will require DEQ approvals of the preliminary engineering reports (PER) and final plans and specifications. Simple sewer line projects could be submitted to DEQ for approval or be approved by a Qualified Licensed Professional Engineer (QLPE).

8.7. ADDITIONAL MAINTENANCE PROJECTS

In addition to Capital Improvement Projects, the following maintenance deficiencies were discovered during this planning project. These projects were not included in the CIP because they are maintenance related rather than overall system deficiencies. It is recommended that the City allocate funds to address the following deficiencies.

- **Low Tested Pump Capacities and Scour Velocities:** Several of the pumps tested at the City's lift stations show flows significantly lower than the reported capacity of the station. While Project 1.1 and 1.2 address issues at the Mall and Southeast lift stations, the South and Orchard lift stations will continue to operate below their reported capacity. As stated in Chapter 6, the City indicated that the pumps have been recently replaced at both stations, and there has been no change in pump performance since. However, it is recommended that both station's outputs be regularly monitored to ensure no drop in performance. Additionally, it is recommended that the City establish a regular monitoring and cleaning schedule for the South lift station forcemain to ensure no solids buildup due to its low pipeline velocity. As additional development occurs in the future, it is anticipated the pump upgrade required at the South lift station will generate flows capable of exceeding minimum scour velocity. Refer to Chapter 6 for the analysis of pump tested vs. reported output and pipeline velocities.
- **Infiltration and Inflow (I/I) Efforts:** As stated in Chapter 6, the WRF basin, Site 7 – Spence basin, and Site 10 – Veteran's basin saw the largest increases of flow during wet weather events. It is recommended that these basins be targeted for I/I evaluations and repair/replacement.
- **CCTV Issues:** As stated in Chapter 6, several issues were discovered during CCTV review of footage. It is recommended that the City address these issues, either with cleaning, trenchless repair/replacement technology, or full open-trench replacement of pipeline.
    - E21-19 to E21-20: Intruding tap where camera can't move past
    - G14-01 to G15-07: Tap roots and root ball blocking entire pipe (candidate for root elimination / prevention program)
    - H16-15 to H16-16: Root ball, possible sag 300-345 feet (abrupt water level change)
    - H19-08 to H19-07: Crack in pipe with exposed soil
    - I17-04 to I17-05: Crack in pipe, joint gasket exposed, tap roots, root intrusion, soft plug
    - J16-13 to J16-14: Root ball intrusion from service lateral
    - H15-14 to H15-15: Cracks in pipe in 5 locations, roots in joints (average issues of clay tile pipe)
    - H19-06 to H20-02: Camera goes underwater

- H18-05 to H18-04: Multiple patched cavities in pipe

8.8. FUNDING OPTIONS

Many of the CIP projects identified in this plan can be funded by development (Priority 4 improvements) as growth occurs and new facilities are needed to meet increasing demands. Methods of funding the remaining projects are available should the City choose to investigate, including the following:

8.8.1. Cash Funding

The City could consider raising rates to cash fund the improvements. This would require the least total cash outlay; however, the rates would be higher than if they were spread over a long-term loan, which could be a significant hardship.

8.8.2. Idaho Department of Environmental Quality (State Revolving Fund)

The State Revolving Fund (SRF) program is funded by a combination of repayment of loans previously made by DEQ and grant money supplied by the Environmental Protection Agency (EPA). Owners of public wastewater systems can apply for SRF funds annually through a competitive application process. Applications are ranked by state officials based on need, sustainability, water quality improvements, and other criteria. Davis-Bacon Wage Act and American Iron and Steel Requirements apply. Applicants may qualify for principal forgiveness or other subsidy programs. DEQ is required to commit a significant percentage of available loan funds to sustainable, energy efficient, and “green” infrastructure improvements. Consequently, elements that meet the “green” infrastructure qualifications may receive priority for funding. Authorization to indebt the City is required through either judicial confirmation or voter approval.

8.8.3. United States Army Corps of Engineers (USACE) (Section 595)

The USACE can sometimes offer funding for wastewater-related infrastructure projects to supplement funding from DEQ or USDA-RD. Funding availability depends on an appropriation from Congress and varies from year to year. Costs are typically shared with a 25% local match required.

8.8.4. Idaho Bond Bank

The Idaho Bond Bank is a state level entity that lends money to local governments within the state, with the goal of providing funds for their infrastructure needs and access to the capital markets at competitive interest rates. Under the Idaho Bond Bank program (IBBA), a municipality obtains a loan from the Bond Bank secured by either the municipality's bond or a loan agreement with the Bond Bank. The Bond Bank pools several loans to municipalities into one bond issue. The municipalities then repay the loan, and those repayments are used to repay the revenue bonds. The Bond Bank can obtain better credit ratings, more attractive interest rates, and lower underwriting costs than municipalities could achieve individually within the municipal bond market. The Bond Bank is able to pledge certain state funds as additional security for its bonds, further reducing interest costs. Additionally, the Idaho Bond Bank Authority can open doors to municipalities that were previously barred from the capital markets due to the prohibitive costs of financing or challenging credit situations.

8.8.5. Local and Private

In addition to federal and state funding programs, there are local and private funding sources available to communities to fund. Some of these include a local improvement district (LID), the municipal bond market with voter approval or judicial confirmation, a business improvement district (BID), urban renewal district, connection fees, development agreements with developers, and others.

8.9. ANNUAL BUDGET CONSIDERATIONS

The capital improvement project will be used to perform a rate study and establish an annual budget for the City. The rate study will be completed by FCS Consulting and is anticipated to be completed in 2025.

8.10. PLANNING RECOMMENDATION

The planning elements used as the basis for the recommendations and CIP projects in this plan may evolve over time and it is recommended that the City continue to maintain current models of the system and review each improvement in more detail a year or two ahead of implementing individual capital improvements. By reviewing upcoming improvements ahead of time, it will provide the City an opportunity to refine project scopes and budget. A more comprehensive update of the Comprehensive Sewer System Plan is recommended every 7-10 years to allow for the City to re-assess needs, priorities, and properly allocate budgets to address system deficiencies. The GIS mapping and hydraulic model should continuously be updated to reflect new development and improvements which occur to the system.

Appendix A

Zoning

Zoning Classification, Zoning Description

- AF, Agriculture-Forestry
- CB, Central Business
- FR, Farm-Ranch-Outdoor Recreation
- GB, General Business
- I, Industrial
- MB, Motor Business
- NB, Neighborhood Business
- R1, Single Family - Low Density
- R2, Single Family - Moderate Density
- R3, Medium Density Residential
- R4, Multi-Family Residential
- RO, Residential Office
- RTO, Research-Technology -Office
- SR, Suburban Residential
- U, University
- UMC, Urban Mixed Commercial
- City Limit

FEMA Flood Zone

- Floodway
- 100 Year Flood Plain
- 500 Year Flood Plain

This map is provided for reference purposes only and is not intended to depict the exact locations of property lines or other features shown. Please do not make business decisions based on this product before independently validating the data.

N

0 0.1 0.2 0.3 0.4 0.5 Miles

STREET DIRECTORY

"A" STREET	G-16	LATHEN STREET	F-22
ADAMS STREET	G-19	LAUDER AVENUE	F-21
ALICE STREET	H-22	*Leepike Court (private)*	G-12
ALMON STREET	F-18	LEITH STREET	H-14
ALPOWA AVENUE	D-22	LEMHI DRIVE	J-20
ALTURAS DRIVE	I-22	LENTER STREET	F-21
ALTURAS PARKWAY	J-22	LENVILLE ROAD	N-23
AMY COURT	K-18	LEVICK STREET	F-21
ANDERSON PLACE	E-23	LEWIS STREET	G-19
ANDY AVENUE	J-21	LEXINGTON AVENUE	K-13
ANNA STREET	H-18	LIEUALLEN STREET	E-16
APONI PLACE	I-23	LILLY STREET	F-17
APPALOOSA ROAD	E-23	LINCOLN STREET	I-17
Apple Lane (private)	I-19	LINDA LANE	E-21
ARBORCREST ROAD	J-8	LINDSEY STREET	E-14
ARROW STREET	H-22	LINE STREET	E-18
ASBURY STREET	F-17	LOGAN STREET	H-20
ASH STREET	E-19	LOHREN LANE	I-22
ATSHIK STREET	H-22	LUND LANE	K-14
"B" STREET	G-16	LUNDQUIST LANE	N-21
BADGER COURT	M-19	LYNANDRA DRIVE	I-15
BAKER STREET	C-16	LYNN AVENUE	H-20
BITTERROOT STREET	J-13	MABELLE STREET	H-20
BLAINE STREET	I-17	MAIN STREET	F-17
BLAKE AVENUE	E-20	*Mainspring Lane (private)*	L-20
BOB WHITE PLACE	G-11	MALLARD COURT	G-12
BONNIE COURT	G-12	MCKINLEY STREET	G-14
BORAH AVENUE	D-22	MEADOW STREET	L-19
BOYDE AVENUE	F-21	MEADOWLARK LANE	L-15
BRENT DRIVE	F-13	MELISONDRE STREET	D-14
BRIDGE STREET	K-16	MERCER AVENUE	J-21
BRISTOL DRIVE	L-21	MILLER COURT	D-15
BRISTOL LOOP	L-21	MIX ROAD	E-11
BRITTON LANE	H-12	MOLLY COURT	J-17
"C" STREET	G-15	MONROE STREET	H-18
CAMAS STREET	J-20	MOORE STREET	H-15
CAMBRIDGE COURT	L-20	MORTON STREET	G-14
Camden Court (private)	L-20	MOSER STREET	K-16
CAMPUS DRIVE	E-19	MOUNTAIN VIEW ROAD	J-21
CARMICHAEL ROAD	M-23	MYRTLE STREET	G-24
CASTLEFORD STREET	L-21	NADI COURT	L-17
CAYUSE DRIVE	D-23	NANCY COURT	G-13
CHELSEA COURT	M-20	NARROW STREET	F-19
CHERRY BLOSSOM LANE	I-13	NELSON AVENUE	G-24
CHERRY STREET	E-16	NEZ PERCE DRIVE	D-20
CHINOOK STREET	E-22	NEZ PERCE ST	J-19
CHRISTOPHER LANE	I-11	NORTHWEST COURT	D-15
CIRCLE DRIVE	D-16	NORTHWOOD DRIVE	H-21
CLAY COURT	M-19	NOTTING HILL DRIVE	M-20
CLEARVIEW STREET	L-19	NURSERY STREET	G-24
CLEVELAND STREET	J-14	NYLAROL STREET	H-22
Clockworks Lane (private)	L-20	OLD PULLMAN ROAD	B-20
COLLEGE STREET	F-19	ORCHARD AVENUE	I-13
COLT ROAD	D-22	PALOUSE COURT	I-17
CONCORD AVENUE	K-13	PALOUSE RIVER DRIVE	E-23
CONESTOGA DRIVE	E-22	PANORAMA DRIVE	M-18
CONESTOGA STREET	D-23	PARADISE CREEK STREET	D-17
COURTNEY STREET	L-19	PARADISE DRIVE	F-22
COVEY LANE	G-11	PARADISE RIDGE ROAD	H-24
Creekside Lane (private)	K-17	PARK DRIVE	J-19
CRESTVIEW DRIVE	K-17	PEACHTREE DRIVE	I-13
"D" STREET	K-15	*Pearl Circle (private)*	E-23
DAMEN STREET	K-16	*Pendulum Lane (private)*	L-20
DAVES AVENUE	K-13	PERIMETER DRIVE	C-20
DAYBY ROAD	L-11	PETERSON DRIVE	D-17
DEAKIN AVENUE	F-18	PHEASANT RUN LANE	I-10
Deakin Avenue (private)	F-18	PICABU STREET	J-12
DEER MEADOW COURT	H-21	PINE CONE ROAD	I-22
DISCOVERY DRIVE	A-22	PINE STREET	E-19
DOGWOOD COURT	J-17	PINTAIL LANE	G-12
DOLLY DRIVE	G-13	PINTO DRIVE	D-22
"E" STREET	K-15	PLEASANT PLACE	G-11
EASTWOOD AVENUE	H-21	PLUM COURT	I-13
EDINBOROUGH COURT	L-21	POLK STREET	H-18
EIGHTH STREET	G-19	PONDEROSA COURT	I-17
EISENHOWER STREET	L-15	PONDEROSA DRIVE	J-12
EKES ROAD	E-22	POWERS AVENUE	G-23
EL CAJON STREET	K-20	PUBLIC AVENUE	I-13
ELM STREET	E-19	PULLMAN ROAD	C-17
EMPIRE LANE	H-11	QUAIL RUN DRIVE	G-11
"F" STREET	I-14	*Queen Road (private)*	E-21
FAIRVIEW DRIVE	M-19	RAILROAD STREET	F-19
FARM ROAD	C-17	RAYBURN STREET	D-19
FIFTH STREET	G-17	RESIDENCE STREET	E-15
FIRST STREET	G-16	RIDGE ROAD	E-21
FLETCHER PLACE	E-23	RIDGEVIEW DRIVE	L-21
FLINT STREET	G-22	ROBINSON PARK ROAD	M-19
FLOWER LANE	M-21	RODEO DRIVE	H-13
FLORENCE AVENUE	K-19	ROLLING HILLS DRIVE	K-17
FORD STREET	L-14	ROOSEVELT STREET	J-16
FORT STEVENS STREET	E-22	ROSE COURT	L-16
FOURTH STREET	G-17	ROWE STREET	H-21
FRANKLIN ROAD	G-11	ROXBURY DRIVE	M-21
GAMBELS LANE	G-11	*Ruby Court (private)*	E-23
GARFIELD STREET	I-16	RYAN LANE	L-17
Garnet Court (private)	E-23	*Samaritan Lane (private)*	M-19
GETAWAY COURT	L-19	SECOND STREET	G-17
GRANT COURT	J-18	SENGA STREET	D-14
GRANT STREET	J-14	SEVENTH STREET	E-18
GRANVILLE STREET	M-20	SHELBY LANE	L-20
Greensides Hill Place (private)	G-12	SHERWOOD STREET	L-19
GUSKE ROAD	I-24	SHETLAND COURT	E-21
HAMPTON COURT	M-21	SHORT STREET	C-17
HANSON AVENUE	I-20	SHOSHONE STREET	M-19
HARDING STREET	K-20	SIXTH STREET	J-18
HARDEN ROAD	D-11	SLONAKER DRIVE	J-12
HAROLD STREET	I-20	*South Hill Terrace (private)*	F-20
HARRISON STREET	H-20	SOUTHVIEW AVENUE	C-22
HARVEST DRIVE	K-17	SPOTSWOOD STREET	G-20
HATHAWAY STREET	L-19	SPRUCE CIRCLE	J-12
HATLEY WAY	A-17	STADIUM DRIVE	D-18
HAWTHORNE DRIVE	G-21	STEFANY LANE	M-19
HAYES STREET	I-18	STYNER AVENUE	G-21
HENLEY STREET	G-20	SUMMIT ROAD	K-17
HENRY COURT	K-16	*Sundial Lane (private)*	L-20
HIDDEN LANE	H-20	SUNNYSIDE AVENUE	C-22
HIGHLAND DRIVE	I-12	SUNRISE DRIVE	K-16
HIGHWAY 95	F-16	SUNSET DRIVE	E-15
HIGHWAY 8	A-17	SUSAN DRIVE	G-13
HILLCREST DRIVE	K-16	SUTTON STREET	M-20
HILLSIDE PLACE	H-15	SWEET AVENUE	F-20
HIRSCHI ROAD	I-11	TAMARACK DRIVE	J-12
HIRSHI ROAD	I-11	TAYLOR AVENUE	E-21
Hooger Court (private)	M-18	THATUNA AVENUE	J-13
HOLIDAY STREET	L-20	THIRD STREET	E-17
HOME STREEY	E-16	*Tiempo Drive (private)*	L-20
HOMESTEAD STREET	H-14	TOBISKA DRIVE	I-14
Hourglass lane (private)	L-20	TOMER ROAD	M-22
HOWARD STREET	H-14	TRACY COURT	G-14
HUNTER STREET	H-20	TRAIL ROAD	J-9
IDAHO AVENUE	E-19	TRAVOIS WAY	I-21
ILENE DRIVE	K-14	TROY ROAD	L-22
INDIAN HILLS DRIVE	G-22	TRUMAN STREET	L-14
ITANI DRIVE	K-17	UNIVERSITY AVENUE	E-19
JACKSON STREET	F-18	URQUHART AVENUE	E-18
JANSON STREET	K-16	VALLEY VIEW DRIVE	K-14
JASON DRIVE	M-18	VAN BUREN STREET	G-17
JEFFERSON COURT	G-12	VANDAL DRIVE	I-14
JEFFERSON STREET	G-19	VEATCH STREET	G-20
Jerstad Court (private)	M-18	VENTURA STREET	K-13
JOHNSON STREET	I-20	VET SCIENCE ROAD	B-18
JOSEPH STREET	K-19	VICTORIA DRIVE	E-22
JULIE COURT	G-12	VIEW STREET	E-22
JULIE DRIVE	G-13	VIRGINIA AVENUE	I-12
JUNIPER DRIVE	J-12	VISTA STREET	L-19
KAMIAKEN STREET	J-19	WALENTA DRIVE	D-21
KATHY AVENUE	L-18	WANEKIA COURT	D-15
KENNEDY STREET	L-14	WAR BONNET DRIVE	A-16
KENNETH STREET	H-20	WASHINGTON STREET	G-19
KING ROAD	E-21	WEST VIEW DRIVE	L-18
KIRK DRIVE	I-12	WEYMOUTH STREET	L-19
KISMET COURT	N-20	WHITE AVENUE	I-21
KODA COURT	I-22	WHITE PLACE	H-21
KOOSIMITY STREET	D-15	WILDROSE DRIVE	M-21
KOUSE STREET	J-20	WILLOW VIEW PLACE	E-23
LANDE LANE	I-11	WILTSHIRE DRIVE	L-20
LANNY DRIVE	J-11	YOUMANS LANE	K-12

ZONING ORDINANCES 2023

Ordinance No.
2023-02
2023-06
2023-11

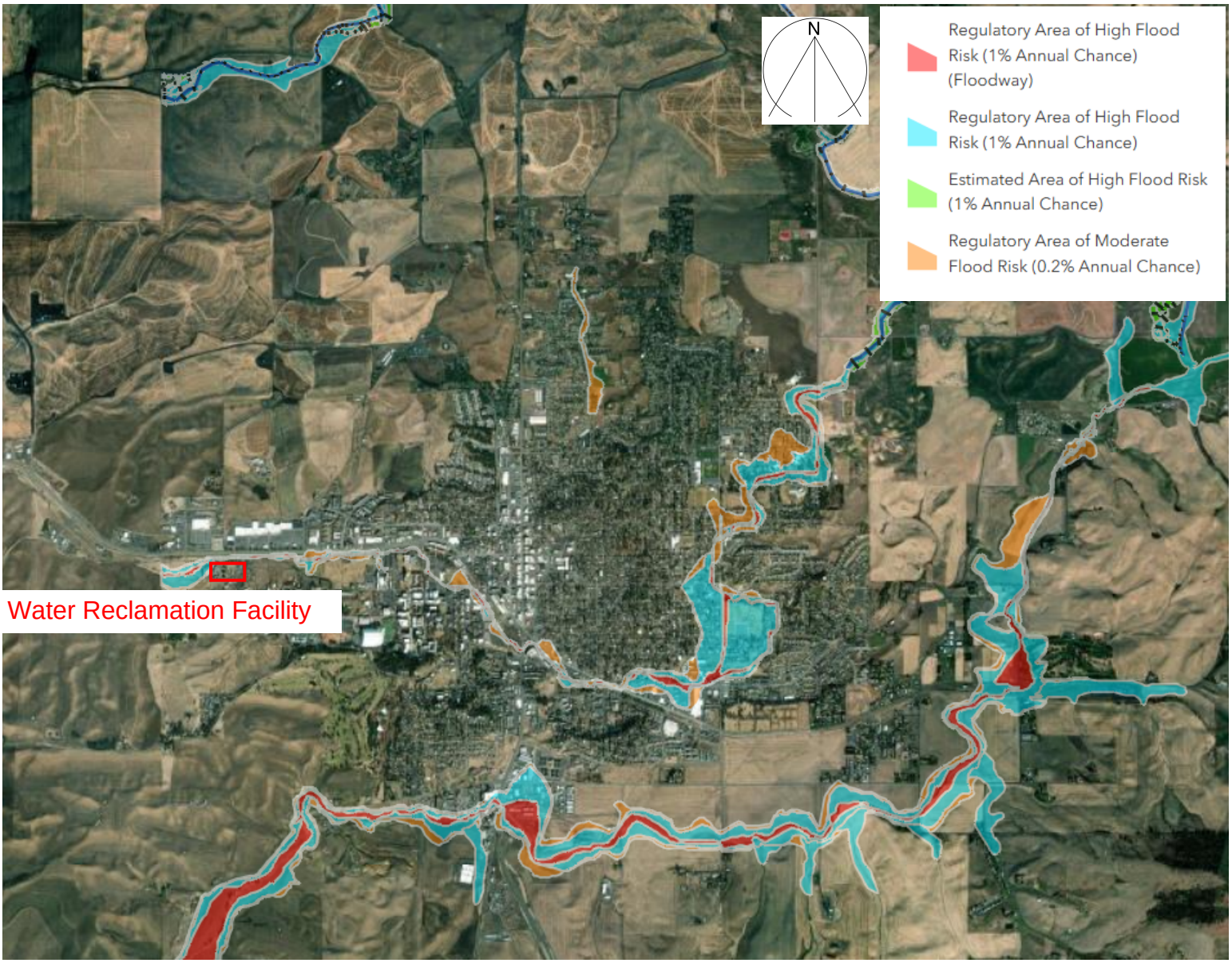
City of Moscow

Latah County, Idaho

ZONING MAP

Created & Maintained by the ENGINEERING DIVISION
Updated April,2024

Flood Map


N
Regulatory Area of High Flood Risk (1% Annual Chance) (Floodway)
Regulatory Area of High Flood Risk (1% Annual Chance)
Estimated Area of High Flood Risk (1% Annual Chance)
Regulatory Area of Moderate Flood Risk (0.2% Annual Chance)
Water Reclamation Facility

WETLANDS

Estuarine and Marine Deepwater
Estuarine and Marine Wetland
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
Lake
Other
Riverine
N
Water Reclamation Facility

WILD AND SCENIC RIVERS

Ref#	Property Name	Street & Number	Level of Significance - Local	Level of Significance - State	Listed Date	Property ID
78001072	Administration Building, University of Idaho	University of Idaho campus	FALSE	TRUE	2/14/1978	78001072
95001058	Cordelia Lutheran Church	S. of the jct. of Genesee-Troy and Danielson Rds.	TRUE	FALSE	8/31/1995	95001058
77000465	Cornwall, Mason, House	308 S. Hayes St.	FALSE	TRUE	12/2/1977	77000465
79000799	Davids' Building	3rd and Main Sts.	TRUE	FALSE	12/11/1979	79000799
8000250	Deesten Farmstead	3611 US 95 S	TRUE	FALSE	4/2/2008	8000250
78001073	First Methodist Church	322 E. 3rd St.	FALSE	TRUE	10/5/1978	78001073
80001329	Fort Russell Neighborhood Historic District	Roughly bounded by Jefferson, Monroe, 2nd and D Sts.	FALSE	TRUE	11/26/1980	80001329
1E+08	Fort Russell Neighborhood Historic District (Boundary Increase)	Roughly bounded by Jefferson, E. D, Hays & E. 3rd Sts..	TRUE	FALSE	9/25/2017	80001329
78001074	Hotel Moscow	4th and Main Sts.	TRUE	FALSE	11/30/1978	78001074
96000945	Kappa Sigma Fraternity, Gamma Theta Chapter	918 Blake St.	TRUE	FALSE	9/3/1996	96000945
1001305	Kenworthy Theatre	508 S. Main St.	TRUE	FALSE	11/29/2001	1001305
78001075	Lieuallen, Almon Asbury, House	101 S. Almon St.	TRUE	FALSE	1/3/1978	78001075
74000743	McConnell, W. J., House	110 S. Adams St.	FALSE	TRUE	11/21/1974	74000743
78001076	McConnell-McGuire Building	Main and 1st Sts.	FALSE	TRUE	2/7/1978	78001076
77000466	Memorial Gymnasium	University of Idaho campus	FALSE	TRUE	10/5/1977	77000466
79000800	Moscow Carnegie Library	110 S. Jefferson St.	TRUE	FALSE	6/18/1979	79000800
5000710	Moscow Downtown Historic District	Generally bounded by 1st St., 6th St., Washington St., and the alley bet. Main and Jackson	TRUE	FALSE	7/22/2005	5000710
92000416	Moscow High School	410 3rd E.	TRUE	FALSE	5/5/1992	92000416
73000686	Moscow Post Office and Courthouse	Washington and 3rd Sts.	FALSE	TRUE	7/3/1973	73000686
1001304	Nu Art Theatre	516 S. Main St.	TRUE	FALSE	11/29/2001	1001304
77000467	Ridenbaugh Hall	University of Idaho campus	FALSE	TRUE	9/14/1977	77000467
93001335	Sigma Alpha Epsilon Fraternity House	920 Deakin St.	TRUE	FALSE	12/2/1993	93001335
78001077	Skattaboe Block	Main and 4th Sts.	TRUE	FALSE	5/22/1978	78001077
9000294	Snow, Arthur, House	2949 Clyde Rd.	TRUE	FALSE	5/5/2009	9000294
83000287	University of Idaho Gymnasium and Armory	University of Idaho campus	FALSE	TRUE	1/3/1983	83000287

IPaC **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

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Location

Latah County, Idaho

Local offices

Washington Fish And Wildlife Office

(360) 753-9440
(360) 753-9405

510 Desmond Drive Se, Suite 102

Lacey, WA 98503-1263

Idaho Fish And Wildlife Office

(208) 378-5243
(208) 378-5262

1387 South Vinnell Way, Suite 368
Boise, ID 83709-1657

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Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

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The following species are potentially affected by activities in this location:

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Suckley's Cuckoo Bumble Bee Bombus suckleyi No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/10885	Proposed Endangered

Flowering Plants

NAME	STATUS
Spalding's Catchfly Silene spaldingii Wherever found There is **proposed** critical habitat for this species. https://ecos.fws.gov/ecp/species/3681	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate

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regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts
For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

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Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

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Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the

maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

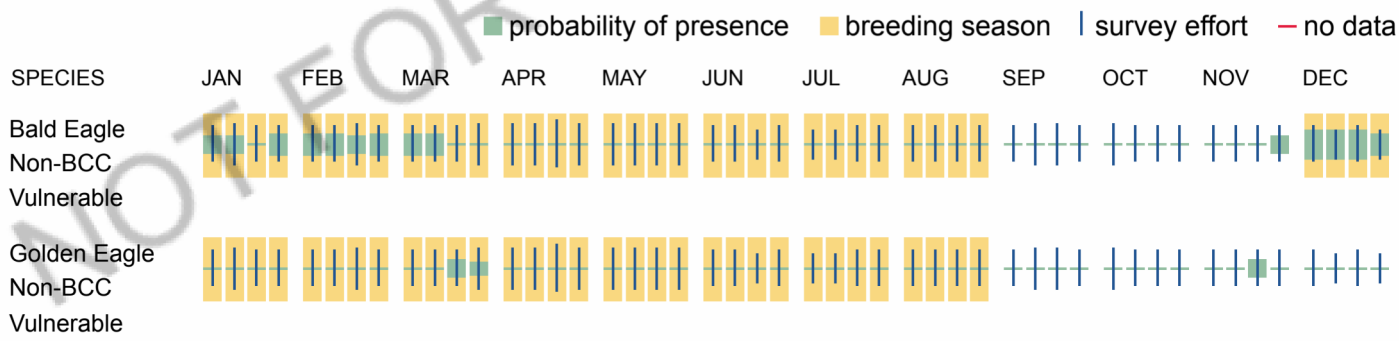
Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



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Bald & Golden Eagles FAQs

What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are an eagle (Bald and Golden Eagle Protection Act requirements may apply).

Proper interpretation and use of your eagle report

On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort line or no data line (red horizontal) means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide you in knowing when to implement avoidance and minimization measures to eliminate or reduce potential impacts from your project activities or get the appropriate permits should presence be confirmed.

How do I know if eagles are breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If an eagle on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the phenology graph in your “IPaC PROBABILITY OF PRESENCE SUMMARY” at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:
The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

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Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Migratory birds

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

Measures for Proactively Minimizing Migratory Bird Impacts

Your IPaC Migratory Bird list showcases birds of concern, including Birds of Conservation Concern (BCC), in your project location. This is not a comprehensive list of all birds found in your project area. However, you can help proactively minimize significant impacts to all birds at your project location by implementing the measures in the Nationwide avoidance and minimization measures for birds document, and any other project-specific avoidance and minimization measures suggested at the link Measures for avoiding and minimizing impacts to birds for the birds of concern on your list below.

Ensure Your Migratory Bird List is Accurate and Complete

If your project area is in a poorly surveyed area, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles document, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

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Review the FAQs

The FAQs below provide important additional information and resources.

NAME	BREEDING SEASON
American Avocet Recurvirostra americana This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 21 to Aug 10
American White Pelican pelecanus erythrorhynchos This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/6886	Breeds Apr 1 to Aug 31
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Dec 1 to Aug 31
Black Swift Cypseloides niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Black Tern Chlidonias niger surinamenisis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3093	Breeds May 15 to Aug 20
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
California Gull Larus californicus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 1 to Jul 31
Calliope Hummingbird Selasphorus calliope This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9526	Breeds May 1 to Aug 15

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Cassin's Finch Haemorhous cassinii — Breeds May 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9462

Clark's Grebe Aechmophorus clarkii — Breeds Jun 1 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Evening Grosbeak Coccothraustes vespertinus — Breeds May 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Franklin's Gull Leucophaeus pipixcan — Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Golden Eagle Aquila chrysaetos — Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/1680

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Lewis's Woodpecker Melanerpes lewis — Breeds Apr 20 to Sep 30

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9408

Long-eared Owl asio otus — Breeds Mar 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

NOT FOR CONSULTATION

Marbled Godwit Limosa fedoa — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

Northern Harrier Circus hudsonius — Breeds Apr 1 to Sep 15
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/8350

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Pectoral Sandpiper Calidris melanotos — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Rufous Hummingbird Selasphorus rufus — Breeds Apr 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/8002

Sage Thrasher Oreoscoptes montanus — Breeds Apr 15 to Aug 10
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9433

Western Grebe aechmophorus occidentalis — Breeds Jun 1 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/6743

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Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (▪)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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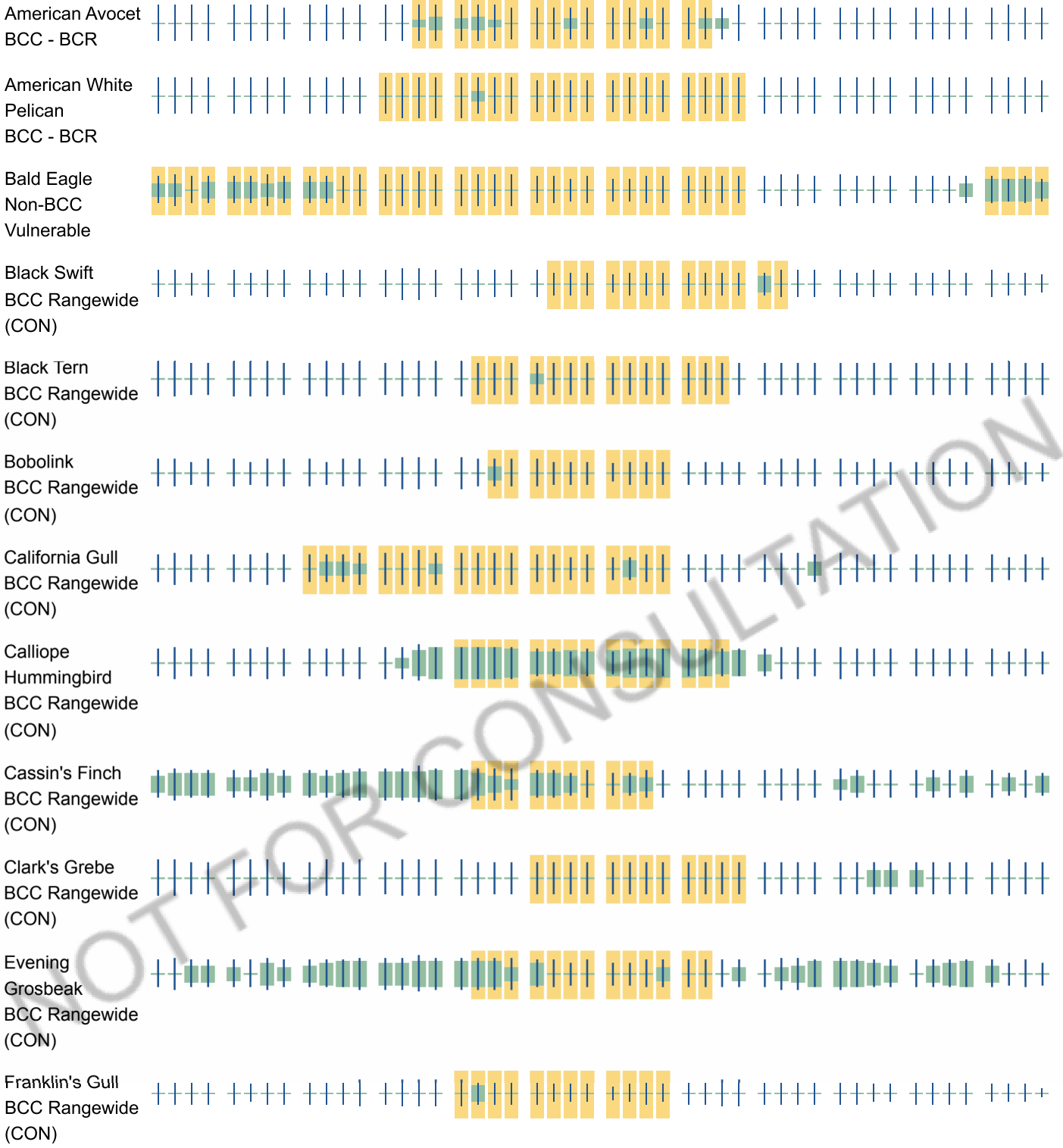
▪ probability of presence ▪ breeding season | survey effort – no data

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC



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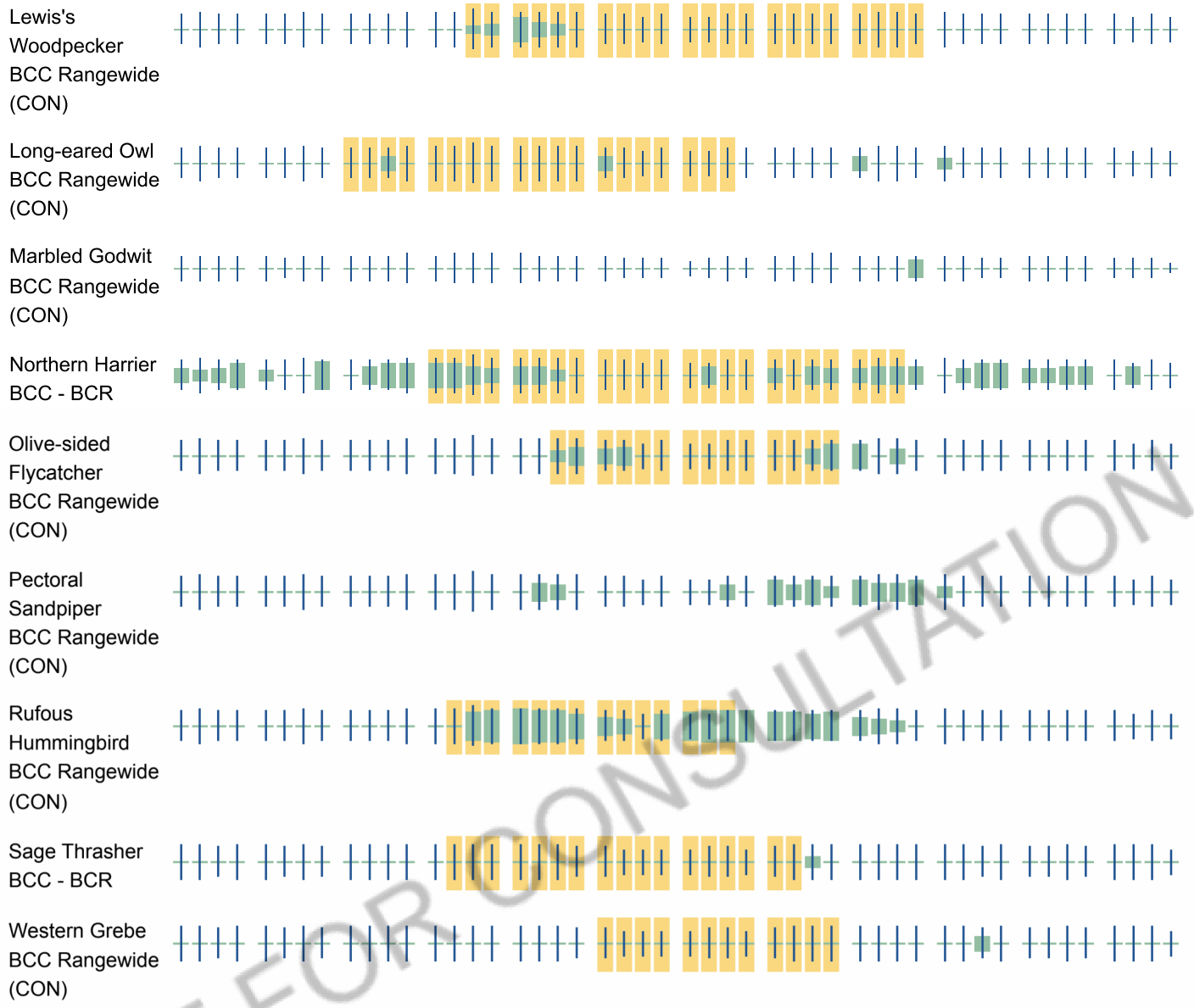

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Migratory Bird FAQs

Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Avoidance & Minimization Measures for Birds describes measures that can help avoid and minimize impacts to all birds at any location year-round. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is one of the most effective ways to minimize impacts. To see when birds are most likely to occur and breed in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location, such as those listed under the Endangered Species Act or the Bald and Golden Eagle Protection Act and those species marked as “Vulnerable”. See the FAQ “What are the

levels of concern for migratory birds?" for more information on the levels of concern covered in the IPaC migratory bird species list.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) with which your project intersects. These species have been identified as warranting special attention because they are BCC species in that area, an eagle (Bald and Golden Eagle Protection Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, and to verify survey effort when no results present, please visit the Rapid Avian Information Locator (RAIL) Tool.

Why are subspecies showing up on my list?

Subspecies profiles are included on the list of species present in your project area because observations in the AKN for **the species** are being detected. If the species are present, that means that the subspecies may also be present. If a subspecies shows up on your list, you may need to rely on other resources to determine if that subspecies may be present (e.g. your local FWS field office, state surveys, your own surveys).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating, or resident), you may query your location using the RAIL Tool and view the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your IPaC migratory bird species list has a breeding season associated with it (indicated by yellow vertical bars on the *phenology graph in* your "IPaC PROBABILITY OF PRESENCE SUMMARY" at the top of your results list), there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and

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3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Bald and Golden Eagle Protection Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially BCC species. For more information on avoidance and minimization measures you can implement to help avoid and minimize migratory bird impacts, please see the FAQ “Tell me more about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds”.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Proper interpretation and use of your migratory bird report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please look carefully at the survey effort (indicated by the black vertical line) and for the existence of the "no data" indicator (a red horizontal line). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list does not represent all birds present in your project area. It is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list and associated information help you know what to look for to confirm presence and helps guide implementation of avoidance and minimization measures to eliminate or reduce potential impacts from your project activities, should presence be confirmed. To learn more about avoidance and minimization measures, visit the FAQ "Tell me about avoidance and minimization measures I can implement to avoid or minimize impacts to migratory birds".

Interpreting the Probability of Presence Graphs

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. A taller bar indicates a higher probability of species presence. The survey effort can be used to establish a level of confidence in the presence score.

How is the probability of presence score calculated? The calculation is done in three steps:

The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

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To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season ()
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data ()
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

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Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND
- PEM1C
- PEM1A
- PEM1Ch

FRESHWATER FORESTED/SHRUB WETLAND
- PFO1C
- PFO1A

FRESHWATER POND
- PUBHx
- PUBHh
- PUBFh
- PUBF

RIVERINE
- R3UBH
- R4SBC
- R4SBCx
- R5UBFx
- R5UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

NOTE: This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

Data limitations

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The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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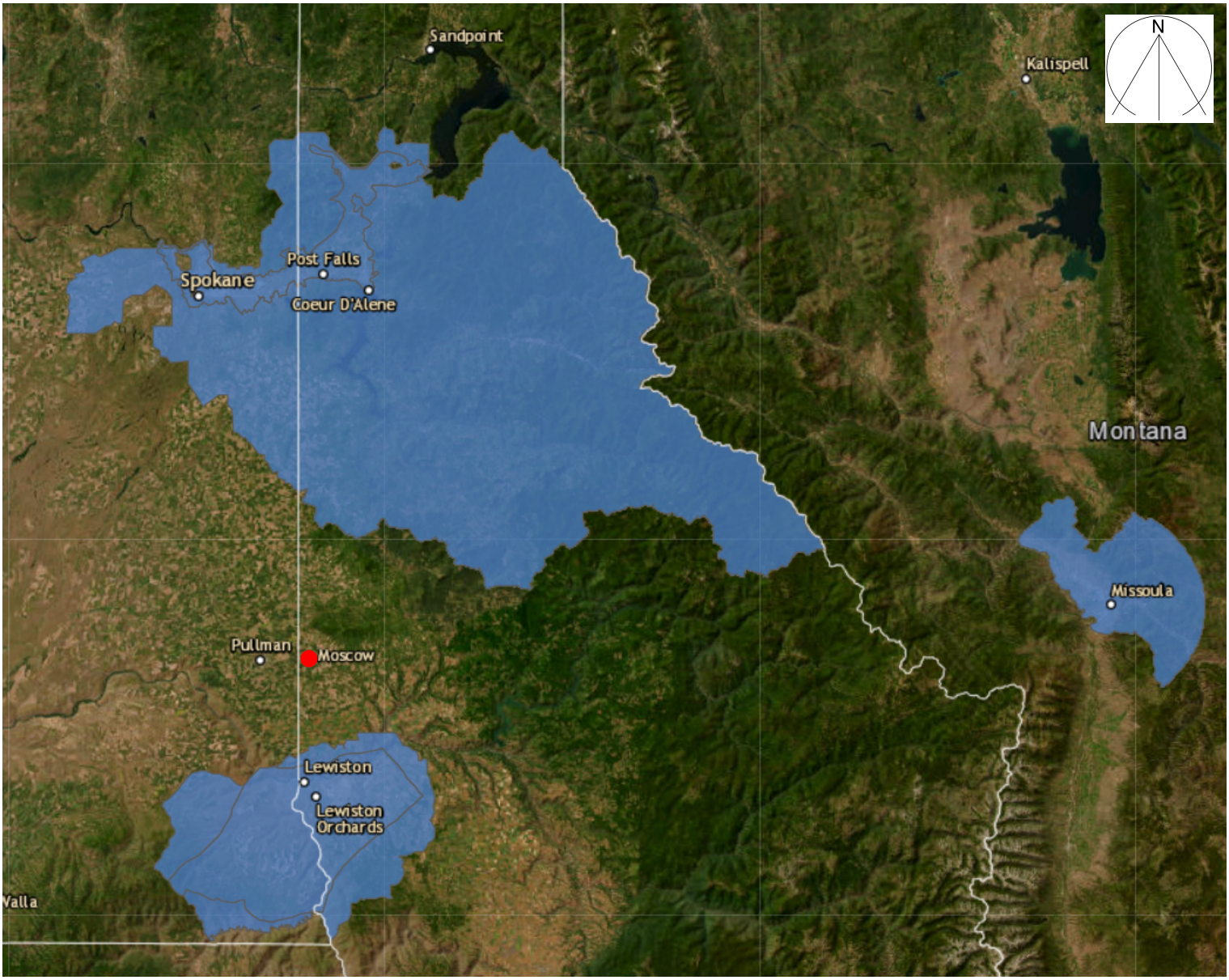
Sole Source Aquifer Map



Economic Development

COMPREHENSIVE PLAN

CHAPTER SIX

6.1 INTRODUCTION

The phrase "economic development" means different things to different people. For the purposes of this Comprehensive Plan, it means strengthening and diversifying the City's economy by building upon existing assets, providing business and employment opportunities for City residents, and taking steps to create an environment that offers greater potential for upward mobility. Economic development is not just about "growth." In fact, "growth", by itself, does not necessarily mean "development", which builds capacity and enhances quality of life. In Moscow, growth will certainly occur, but the challenge is to tap the creative energy of the City's people and leverage the City's assets and quality of life to enhance the community's social and economic capacity.

The economic development strategy is set out in detail in the City of Moscow Economic Development Strategy Plan, which is available as a separate document. The strategy is driven by three broad, overarching goals followed by more specific goals for the multiple strategic components listed at the end of this chapter:

- Provide for sustainable economic growth and employment opportunities where existing and new businesses can thrive, while preserving and enhancing the character of the community.
- Enhance and strengthen the regional economy utilizing the strengths and assets of the region.
- Promote and enhance the arts and cultural resources as catalysts for economic development and tourism.

6.2 ECONOMIC CONTEXT[1]

6.2.1 The Region

Moscow is a key player in a regional economy. There are significant economic ties among Moscow, Latah County, Pullman, and Whitman County, Washington. Moscow is not only a participant in a regional economy, but also a national

1 Data used in this chapter were provided by EMSI an economic consulting firm located in Moscow. *See* http://www.economicmodeling.com

and international economy, and each has a varying level of impact upon the City's economic health. However, for the purposes of this Comprehensive Plan, the principal economic context for the City of Moscow will be Moscow, Latah County, the City of Pullman, and Whitman County, Washington.

Regionally, recent research reveals that Moscow is trending toward a role as a residential community for employers located within the region. If this trend continues, Moscow's residential population will increasingly bear the burden of the cost of delivering the infrastructure and services that support the City's exceptional quality of life. As such, a key objective for economic development is to create a better jobs-housing balance within the City.

6.2.2 Major Employers and Industries

Moscow's major employers are heavily represented in the education, healthcare, and government fields. **Table 6.1, Major Employers in Moscow (2017)**, sets out the figures for the number of employees who worked for each of Moscow's major employers in 2017. **Table 6.2, Major Employers in the Region (2017)**, shows prominent employers for Moscow residents located outside of Moscow.

Table 6.1
Major Employers In Moscow (2017)

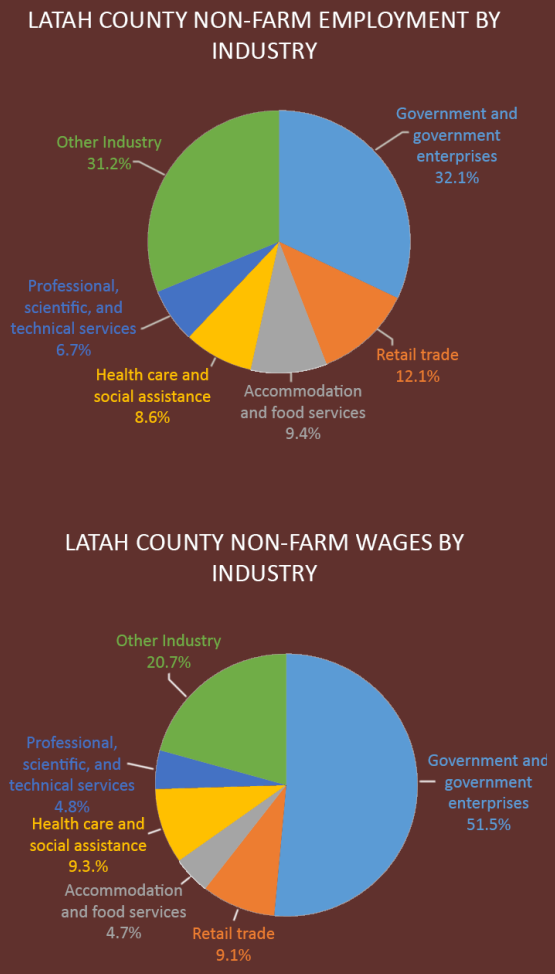
Employer	Type	Employees
University of Idaho	Education	1,997
Gritman Medical Center	Health Care Services	380
City of Moscow	Government	200
Latah County	Government	160 (not all in Moscow)
Wal-Mart	Department Store	150
Moscow School District	Education	140
Economic Modeling Specialist Inc.	Professional Services	130
Good Samaritan	Health Care Services	110
Winco Foods	Grocer	99
Moscow Family Medicine	Health Care Services	90

Table 6.2
Major Employers in the Region (2017)

Employer	Type	Employees
Washington State University	Education	5,194
Schweitzer Engineering	Professional, Scientific, and Technical Services	2,344

With respect to the overall number of jobs in the community, Moscow's top five industries are government and government enterprises (including the University of Idaho), retail, accommodation and food services, health care and social assistance, and professional and technical services, which together accounted for a total of 14,089 jobs in 2015. With respect to earnings per worker, the top five industries with more than 20 employees are government (including the University of Idaho), wholesale trade, manufacturing, health care and social services, and finance and insurance. With respect to job growth from 2011 to 2015, top industries included educational services, retail trade, construction, accommodation and food services, and professional, scientific and technical services. Altogether, these industries added 926 jobs to the Moscow economy between 2011 and 2015. **Figure 6.1, Employment and Income,** illustrates major employment industries within the latah county.

Figure 6.1
Employment and Income



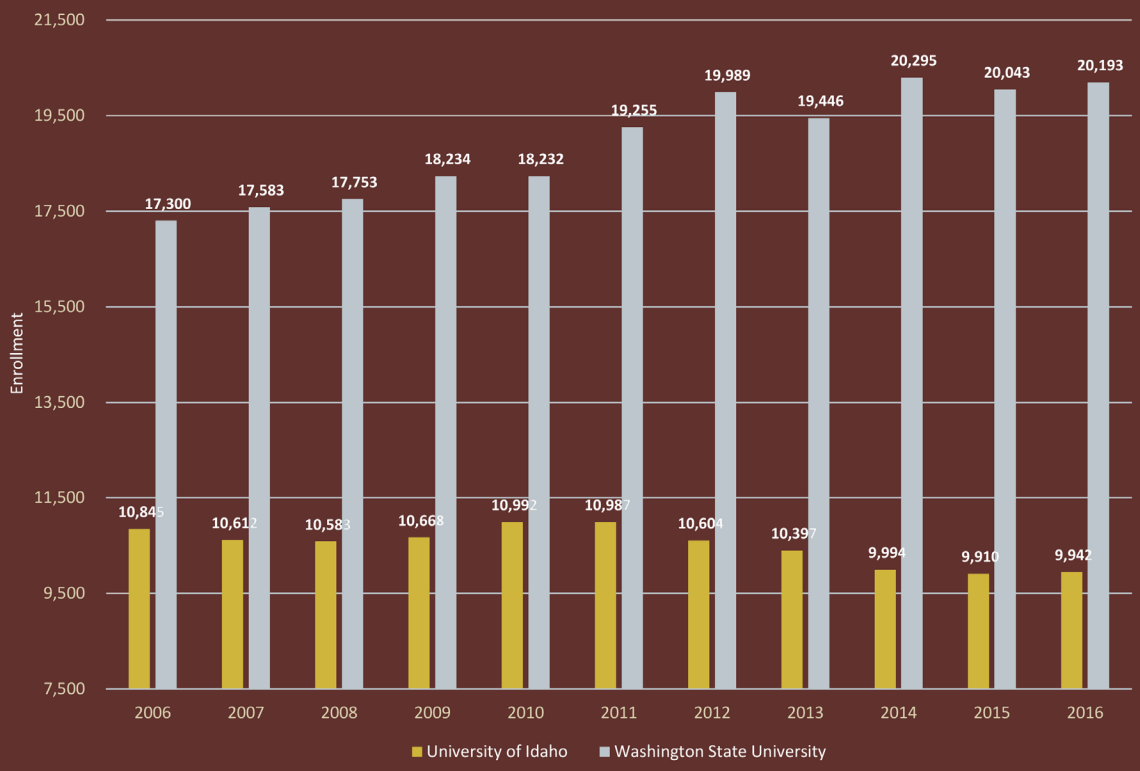
6.2.3 University of Idaho

The University of Idaho is the economic engine of the City of Moscow. A study completed by Steven Peterson and Stephen Pool (An Analysis of the Economic Growth of Moscow and the Regional Economy, 2013)concluded that approximately 50 percent of the local economy is supported by the University of Idaho for all sources of spending, and that every student at UI creates $57,400 in sales, $31,000 in wage and salary earnings, and three quarters of a job in the community while enrolled.

Consequently, a significant economic indicator for Moscow and Latah County is the size of the University of Idaho's student population. On-campus enrollment at the University of Idaho peaked at 10,992 in 2010 and since that time has fallen to 9,942 in 2016. See **Figure 6.2, UI and WSU Enrollment**, (next page).

As of 2018, the University of Idaho employs 1,997 people, which includes 684 faculty members, 786 classified staff, and 527 administrative/professional.

Figure 6.2
UI and WSU Enrollment



Source: University of Idaho Institutional Research Office; Washington State University Institutional Research Office

6.2.4 Washington State University

Washington State University (WSU) is eight miles from Moscow. WSU has a 620-acre core campus with 21,193 students enrolled in the 2016-2017 school year. WSU enrollment (head count) has grown steadily between 2006 and 2016, increasing by 2,893 students during the time period. See **Figure 6.2, UI and WSU Enrollment.**

In addition to its student population, WSU employs 4,418 people, including 1,481 faculty members, 1,546 classified staff, and 1,391 administrative/professional. WSU reports that 730 of its employees live in Moscow as of 2016. As such, WSU Pullman is an important employer for Moscow residents.

WSU brings a source of good jobs to the region, along with notable programs in biotechnology, veterinary medicine, hospitality management, and business.

6.2.5 Healthcare

For more than 100 years, Gritman Medical Center has been the principal health care facility in Moscow. In addition to providing a 25-bed full-service hospital

facility to City residents, Gritman Medical Center is an important part of the City's economy. In 2016, Gritman paid $25.8 million in wages and salaries and another $6.2 million in benefits. In 2016, the average hourly wage at Gritman was $32.60, with an additional 24.18 percent of that value provided in benefits. Gritman provides 380 full-time equivalent positions (FTEs) that employ approximately 279 full-time employees and 222 part-time employees.

In addition to the hospital, there are three rural clinics located in the unincorporated areas, and a large number of doctors' offices of all types. Gritman Medical Center and several community physicians also established the Palouse Surgery Center on West "A" Street in Moscow in 2004, which provides outpatient surgical services.

In 2016 Gritman constructed an addition 54,000 square foot medical office facility located directly across from the hospital on Main Street which houses CHAS Latah Community Health (a sliding-scale payment clinic), cardiac rehabilitation services, oncology services, and a medical education instructional space for the University of Idaho's WWAMI (Washington, Wyoming, Alaska, Montana, Idaho) medical extension program.

6.2.6 Manufacturing

According to the U.S. Bureau of Economic Analysis (BEA), in 2006, 421 people worked in Latah County's manufacturing sector for an average wage of $38,914. By 2015, employment in the sector grew to 478 people who earned an average wage of $42,136.

6.2.7 Agriculture

Latah County has extraordinarily productive soils for agriculture. Like many areas of the country (and the State of Idaho) where farms are being consolidated or disappearing altogether, in Latah County the number of farms decreased slightly from 1,104 in 2007 to 1,053 in 2012.[2] In 2012, 60.5 percent of the total land area in Latah County was used for agriculture.[3]

The U.S. BEA estimates that an average of 1,123 people were employed in agriculture in Latah County in 2015.[3] Agricultural employment peaked in 2011 at 1,130.

- In 2015, there were 26 forestry and logging businesses in Latah County with an annual average employment of 247 people.

2 Source: U.S. Census of Agriculture

3 Estimates are for covered and noncovered employment for NAICS categories 111 Crop Production; 112 Animal Production; 1151 Support Activities for Crop Production; and 1152 Support Activities for Animal Production.

6.2.8 Information

The information sector includes the publishing industries (software publishing; traditional publishing and publishing exclusively on the Internet); the motion picture and sound recording industries; broadcasting industries (including traditional broadcasting and those broadcasting exclusively over the Internet); telecommunications industries; industries known as Internet service providers and web search portals; data processing industries, and information services industries. U.S. BEA reports there were 209 part-time and full-time jobs in this sector in Latah County in 2015.

6.2.9 Retail

Within the primary trade area of Moscow, defined as a five-mile radius from downtown, it is estimated that in 2016 retailers generated $302 million in sales while demand (retail potential) for retail products totaled $309 million. This appears to reflect a relatively balanced supply and demand of retail trade and that Moscow continues to serve as a retail hub on the Palouse. There are several retail sectors that experience significant leakage to outside markets including automobile sales, electronics and appliance stores, lawn, building materials and garden supply stores, gasoline stations, and general merchandise stores. Third quarter 2016 data from the U.S. Bureau of Labor Standards (BLS) show that retailers in Latah County employed 1,889 people, with an average weekly wage of $445, which (assuming two weeks of time off) is about $22,250 annually.

6.2.10 Tourism

Statewide, tourism is Idaho's third largest industry. Within Moscow, the University of Idaho provides cultural opportunities, Division II collegiate sports, and periodic visits by parents (especially at the beginning and end of the semester). Arts attractions (e.g., studios, galleries, art tours, and events) and cultural events (e.g., farmer's market, festivals) provide an additional draw. Additionally, hunting, fishing, river sports, and camping are significant attractions in the areas surrounding Moscow.

6.2.11 Construction

Construction is a highly visible industry that creates wealth in the community. It also has multiplier effects in terms of building materials sales, the provision of housing and commercial, industrial, and civic space, and improvements to existing buildings. Yet, the construction sector is a small component of the City's labor force.

The U.S. BLS reports that the average construction employment in Latah County in 2015 was 410 people, up from 372 in 2012. Average wages were $31,991 in 2016 compared to $29,698 in 2012, or a 7.7% increase during that time period.

6.3 OTHER ECONOMIC INDICATORS

6.3.1 Labor Force

Latah County's labor force is relatively stable in size, fluctuating between 17,003 and 19,631 for the past ten years. In 2016, there were 19,093 people in Latah County's labor force. Of them, 18,443 were employed resulting in a low 3.4% unemployment rate. In Whitman County, the 2016 labor force was 23,979 strong. Of those, 21,834 are employed.

Table 6.3
Underemployment (2016)[1]

County	Underemployed
Latah County	**14.4%**
Benewah County	13.7%
Nez Perce County	16.6%
Shoshone County	12.5%
Clearwater County	18.4%
State of Idaho	18.2%

1 Source: State of Idaho Department of Labor, regional statistics.

6.3.2 Unemployment

The University of Idaho has a stabilizing effect on Moscow's economy in terms of employment. Indeed, while neighboring counties that do not have a significant university presence have experienced instability in employment, particularly during the 1980s and early 1990s, Latah County and Whitman County have enjoyed low and stable unemployment rates.

6.3.3 Underemployment

In 2013, the "underemployment rate" in Latah County was 14.4 percent, up from 10.3 percent in 2006. See **Table 6.3, Underemployment (2016).** That number compares favorably with underemployment in adjacent Idaho counties and the state as a whole. The definition for "underemployment" is complex and can vary across disciplines. However, the general rules are:

- Those already working with skill and educational levels that do not match their current occupations or their fringe or salary compensation can be considered underemployed.
- If workers' current jobs do not match their desire to work full-time, they can be considered underemployed.

The population of "underemployed" workers is significant in the Moscow economy because:

- Population growth is slow and unemployment is low, resulting in a relatively small pool of people who are unemployed and actively looking for work; and,
- Reductions in underemployment naturally correspond to increases in income and job responsibilities, which benefit the local economy and

provide additional stability in the workforce.

6.3.4 Demographics

Population in the Latah County/Whitman County region (including Moscow) grew by 10.5% between 2006 and 2015 (annual growth of about 827 people, or 1 percent annually). During that same time period Moscow's population grew by 10.3 percent, while Latah County's population (without Moscow) grew by only 4.5 percent. Similarly, Pullman's population grew by 19 percent while Whitman County (without Pullman) grew by only 0.5 percent. These numbers reflect the migration of people from the rural to urban areas and the relatively flat growth rate within the rural county areas. For example, in 1980 approximately 43 percent of the total Latah County population resided outside the City of Moscow, compared to only 35.6 percent in 2015. This trend is reflected in the City of Pullman and Whitman County population counts as well. Additionally, economic development efforts will be impacted by the following anticipated changes to the area's demographics by 2021:

- According to EMSI Inc. forecasts, the 25 to 39 age cohort is anticipated to increase by 657 people or 10.5 percent, and the 65-84 age cohort is also expected to increase by 387 people or 17 percent.
- Additionally, the 50 to 59 age cohort is expected to fall by 102 people or 5 percent.
- Household size is expected to remain constant at 2.29 by 2021.
- EMSI also predicts that per capita income will increase by 9.6 percent, or 1.92 percent annually, rising from $20,675 to $22,656. However, this increase is unlikely to keep pace with inflation, so in real terms, per capita purchasing power will likely decline modestly.

Despite all the above, there is no evidence that changing demographics are affecting one fundamental -- that Moscow's residents are, on the whole, creative and passionate people.

6.3.5 The "Creative Class"

The "creative class" is a group of people that one well-known researcher has concluded are the key to twenty-first century economic development.[4] The hypothesis is that the creative class provides the ideas and creativity that form the basis for knowledge-based industry. According to the literature, members of the creative class are footloose professionals who are always seeking the "next best thing," and an environment of "Technology, Talent, and Tolerance."[5]

Creative class occupations are well represented in Moscow, and the proportion

4 Richard Florida, Professor of Business and Creativity at the University of Toronto's Rotman School of Management, gained widespread recognition for the "creative class" hypothesis with his book The Rise of the Creative Class.

5 A more complete analysis of the creative class hypothesis and its relevance to economic development in Moscow is provided in the Economic Development Strategy Plan.

of creative class workers is increasing slowly. In 2008, 27.8% of Moscow's workers were members of the creative class, up from 27.3% in 2000.

6.4 COMMUNITY INPUT

6.4.1 Generally

In sum, there is broad agreement that Moscow's economic base of the City should be strengthened and diversified in the following ways:

- The City should set the stage for spinning off independent, knowledge-based industries from the universities. There are several notable success stories in this regard, including EMSI, Comtech AHA, Alturas Analytics, and Eco-Analysts. These companies offer high-paying jobs and bring dollars in from other places by exporting their products and services.
- The City should take steps to improve the performance of its principal economic engines. That is, the City should coordinate with the University of Idaho to improve student recruitment and retention rates, and should position itself to be attractive to retirees who will support arts and culture and use the services offered by Gritman Medical Center.
- Retail and housing construction should be considered secondary to knowledge-based and "high-tech" jobs that bring money to the local economy from sources outside of Moscow and the immediate region. However, while not widely viewed as "economic development" in itself, retail is an important part of the City's economy and quality of life and should not be taken for granted.
- Light industrial businesses and professional-technical training opportunities (that are not necessarily highly technical in nature) should round out the set of primary jobs that fuel the local economy.

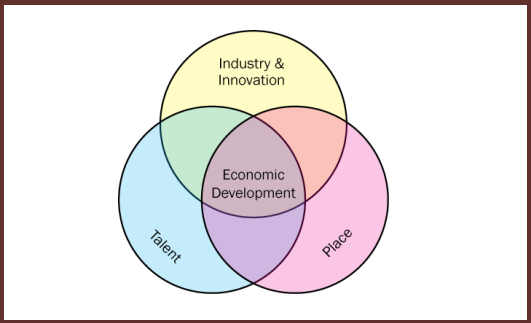
6.5 ECONOMIC DEVELOPMENT STRATEGIES

6.5.1 Generally

It is the overarching goal of the Plan to "provide for the sustainable economic growth and employment opportunities where existing and new businesses can thrive, while preserving and enhancing the character of the community." To achieve this end, it is recommended that the City implement a comprehensive economic development strategy based upon the following four principal components:

- Leverage existing assets.
- Grow industries that are compatible with the City's character and quality of life.
- Strengthen productive networks.
- Reduce the cost of doing business.

Figure 6.3
Economic Development Model



Economic development occurs where industry and innovation find talent in a place that offers a quality of life that attracts and retains both.

Industry & Innovation. "Industry" considers a full complement of activities, from traditional industrial employers to entrepreneurship, as well as the physical infrastructure (e.g., industrial parks, sites, transportation etc.) and business climate to support those activities.

"Innovation," refers to opportunities for expanding existing companies, as well as targets for startups or recruitment. All of these things are keys to the economic development plan.

Talent. "Talent" refers to people that have the skills and values to make organizations effective. It is more than a skilled workforce. It is also about cultivating the existing talent pool and bringing talented people to the community. It refers to groups as diverse as students, retirees, and entrepreneurs. It also involves ensuring that the employees and companies continue to have a reason to stay in the area.

Quality of Place. Assessing the "quality of place" involves viewing the assets of the City through the eyes of the talent it wishes to attract and retain. Quality of place considers what is attractive to a range of residents. The idea accommodates growth and recognizes the benefits of change. It recognizes that one person's "good place to raise a family" might be another's "there's nothing to do in this town." Quality of place is about providing options, not just for current residents, but for future residents as well.

The economic development model is based on the overlap of industry and innovation, human talent, and quality of place. See **Figure 6.3, Economic Development Model.** At the broadest scale, the assets of the City are its highly educated workforce, university and medical infrastructure, a beautiful natural setting, and the generally attractive character of the built environment. The City can help develop its economy by creating a physical and regulatory environment in which the people who are attracted to Moscow can create and grow new businesses. In some cases, the City or other entities should help new industries to lower overhead costs. Helpful programs include grants for certain purposes, micro-loans, low-interest loans, coordinated marketing strategies, technical assistance with regulatory compliance issues, and, if the risk is justified, additional incubator space, and an industrial park.

6.5.2 Leveraging Existing Assets

Quality of Place

Businesses not dependent on regional agriculture locate in Moscow in large part due to the City's exceptional quality of life. Among the physical aspects that contribute to the City's quality of life are its pedestrian-friendly human scale; small-town, historic character, and abundant outdoor recreational opportunities. The social aspects include the City's civic organizations and social clubs, active citizen participation in local government, and a low crime rate. The cultural aspects include the cultural base of two universities and a vibrant arts community. The quality of place is in many ways exceptional. People stay in Moscow because they want to.

Education, Culture, and the Arts

Education, culture, and the arts are a critical part of Moscow's quality of place. They are also a significant part of the local economy in their own right.

In terms of their contribution to quality of place, educational opportunities and access to arts and cultural opportunities are important considerations for attracting and retaining the "knowledge-based" workforce. Good schools are often one of the most significant considerations for highly-educated parents who are considering relocation. A strong and active public library is essential to attracting and retaining such residents. It is important to ensure that the Moscow Public Library has the necessary physical resources to continue and enhance its services in promotion of literacy and lifelong learning. It is expected that Moscow's growing population of senior citizens would also enjoy access to continuing education, such as University course audits, distinguished speakers, and lecture programs. See **Figure 6.4, Lifelong Learning.** The local emphasis on education, culture, and the arts provides jobs for educators and artists and promotes tourism.

Figure 6.4
Lifelong Learning

Lifelong learning is a way for Universities to reach out to local senior citizens to provide access to the academic resources of the University through course audits and/or a specialized lecture series. In Moscow, such a program would potentially:

1. Help to strengthen the tie between the University of Idaho and the community;
2. Make the City more attractive to retirees by providing an additional educational/cultural opportunity; and
3. Increase the University's donor base.

By way of example, Florida Atlantic University (main campus in Boca Raton, Florida) created a "Lifelong Learning Society" in the 1980s, which now has more than 30,000 members who attend courses, lectures, and cultural events on four campuses in the South Florida region. By 2006, members of FAU's LLS donated more than $1 million to endowed professorships, graduate fellowships, and undergraduate scholarships; and approximately $6.5 million to two state-of-the-art lecture halls.

Lifelong learning can be established with relatively low overhead. Operations on the scale of FAU's LLS are not necessary for a successful program.

Downtown

Moscow's Historic Downtown extends from First Street to Sixth Street, and centers on Main Street (spanning from Washington Street to the alley between Main Street and Jackson). The heart of downtown is Friendship Square, a pedestrian mall with amenities that include ample seating, a fountain, a message board, and a tot lot. Many aspects of Downtown Moscow are addressed in **Chapter 2, Community Character and Land Use, Section 2.4, Downtown.**

Downtown is a mixed-use district, with offices, institutional and governmental uses, residential units, and ground-floor retail. Although peripheral auto-oriented retail development with national chain tenants has pushed the downtown to adapt, to date it has not significantly undermined its viability and special character. That is because the location, character, and quality of downtown make it an ideal location for dining, entertainment, and specialty retail. Indeed, downtown business owners noted that people come from as far as 100 miles away to the area's unique retail stores and restaurants.

Downtown is a source of community pride that contributes to the City's exceptional quality of life, a "driver" for economic development. In more specific economic development terms, downtown is a center of gravity for the target industries of financial services, healthcare, real estate, dining, entertainment, and tourism. It is also a potential center for higher-end, residential-over-retail products positioned toward professionals and active seniors who do not want the maintenance responsibilities of single-family housing.

University of Idaho

The University of Idaho is an exceptional asset to the community not only as an employer, but also as an intellectual and cultural resource. As a premier research institution, the University of Idaho provides opportunities for commercialization of intellectual capital and the transfer of technology to private enterprise within the community. The University also brings a wide array of cultural, athletic, and other entertainment and enrichment opportunities that would not otherwise be possible in a community of Moscow's size. As such, the University should be viewed as an asset to utilize and support for the betterment of the local and regional economy.

Local Business Community

Moscow also possesses an active and vibrant local business community. As with the community's residents, the business community is deeply committed and economically and socially invested in the future of the community. This level of commitment within the local business community is an asset and a strong partnership that can be utilized to drive the community forward toward prosperity.

6.5.3 Growing Compatible Target Industries

Generally

The compatible target industries that are described in this section are the broad categories of industries that the City should actively promote due to their compatibility within the community. They are identified based on their physical and resource needs; the availability of a qualified workforce; their likely impact on the local economy; their potential for growth in jobs, earnings, and income; and their relationships to other industries or needs in the community. It is expected that growth in these industries will support other sectors of the economy, including retail, restaurant, entertainment, and construction.

Arts , Entertainment and Recreation

According to the U.S. BEA, employment in arts, entertainment, and recreation

grew by 97 jobs, or 27 percent, between 2006 and 2015, and now represents 2.1 percent of the total part-time and full-time jobs in Latah County.

Arts are a key part of the City's culture, its self image (Moscow is the "Heart of the Arts"), and its quality of place. The City should support the arts community by:

- Ensuring that appropriate areas are zoned for "live work" units that could include artist workspace and galleries in a neighborhood with residential character;
- Investing in public art and ensure that artistic elements are integrated into new infrastructure investments; and,
- Creating a program of incentives for artists who relocate to Moscow.

Professional, Scientific and Technical Services

Professional, scientific and technical services are growth industry sectors in Moscow and the region. Between 2006 and 2015, employment in this sector grew by 139 jobs, or over 11 percent, and now represents 6.4 percent of all jobs in Latah County with average annual wages of $40,417 in 2015.

The College of Engineering is still the third largest at the University and is a nationally recognized research institution for engineering industries. Moreover, with innovation and expansion, engineering businesses have great potential to increase earnings and wages over time.

Healthcare and Social Services

Healthcare is a significant sector of the economy, and will likely grow as the 55+ age cohort grows. Healthcare is also a knowledge-based, low-impact, and potentially high-paying industry. Between 2006 and 2015, employment in this sector grew by 100 jobs, or 24.1 percent, with annual average wages of $33,643. This sector now represents 8.1 percent of all employment and 9.2 percent of all wages in Latah County.

Tourism

Tourism continues to be a growing industry within Latah County. In 2016, the State of Idaho reported $11.5 million in lodging sales (up 5.4% over 2015), and wages within accommodations and food service and arts, entertainment and recreation industries totaled over $36 million and represented 5% of all wages within Latah County. Although tourism jobs are not generally high-paying, they do provide opportunities for student employment and supplemental income. Between 2006 and 2015, employment grew within the accommodation and food services sector by 36 jobs, or 1.9 percent, and now represents 8.9 percent of all jobs and 4.6 percent of all wages in Latah County.

Tourists spend money in the local economy without placing extensive service demands on the City. As such, the City should enhance its position regarding tourism by expanding its community events (and the marketing of those events), and highlighting its downtown, parks, and access to outdoor recreation opportunities in the region.

6.5.4 Zoning and Available Land

The City's historic policy of using "holding zones" for land that is not yet proposed for development has lead to, as of 2016, approximately 200 acres within the City limits being zoned Farm/Ranch (FR) and Agriculture/Forestry (AF). This land is predominately located in areas identified as appropriate for commercial, office, and industrial development.

There are also many acres of the City that are zoned Motor Business (MB) that may be appropriate for light industrial uses. In 2015, the City amended the MB district to allow indoor light industrial uses without a conditional use permit.

Finally, although the Zoning Code currently has many elements that protect and enhance community character, more work should be done in this regard. Moscow appreciates quality, and commercial property owners want assurances that their property will not be devalued by incompatible construction on neighboring property. To this end, the City recently amended requirements for street tree planting, buffer yards, and landscaping.

Finally, the City should take steps to upgrade the character of the industrial zone without overburdening it. First, side and rear setbacks should be established so that the use of adjacent properties is not unfairly restricted by fire codes or other functional considerations. Second, enhanced landscaping and aesthetic development standards should be implemented to improve the physical appearance and compatibility of industrial development.

6.5.5 Strengthening Networks

University Linkages

The University of Idaho and Washington State University represent huge sectors of the City's economy. Strengthening ties between these universities, their host cities, and the private sector will improve opportunities for economic development through technology transfer to the private sector.

By way of example, the University of Idaho received over $100 million dollars in competitive research awards during 2016. The research areas of emphasis associated with these grants and contracts included:

- Biomedical and molecular biology research
- Agricultural and natural resources plant, animal, and fisheries research

- Environmental and ecological research
- Energy and water resources research
- Bioremediation and subsurface science research
- Nanotechnology and material sciences research
- Educational program design and assessment research

The University has a number of research centers and institutes that have great potential to spin off related industries in areas such as transportation technology, advanced materials research, nano technology, environmental sciences, and biomolecular research.

Business Networks and Training

There are several entities involved in business networking and assistance in Moscow. They include:

- The Partnership for Economic Prosperity (PEP) is a non-profit organization dedicated to bringing business, government, education and community leadership together for the purpose of strengthening the Latah County economy through the retention and expansion of existing business and industry, the attraction and recruitment of new businesses, and the continuing diversification of Latah County's economic base.
- The Clearwater Economic Development Agency (CEDA) is a regional economic development organization that manages more than $2 million in public loan funds; participates in infrastructure planning, grant writing, and contract administration; provides technical assistance, and plans workforce development programs.
- The Moscow Chamber of Commerce is an organization that is intended to strengthen, promote, and lead the business community, while preserving and enhancing the quality of life in Moscow. The Chamber is involved in promotion, information, education, and networking for local businesses.
- The Palouse Knowledge Corridor (PKC) is a local non-profit organization that focuses on promoting entrepreneurialism and business development in the Latah County-Whitman County region.

The City works closely with all of these entities to provide entrepreneurial training, business networking, publicity, and low-cost facilities for business development.

6.5.6 Business Development Costs

"Hard" Infrastructure

On the whole, the target industries are not (at least not directly) heavily dependent on significant improvements to "hard" public infrastructure such as highways, water supply, or industrial wastewater treatment. However, bottlenecks in the

existing water, wastewater, and stormwater systems (addressed in **Chapter 5, Public Utilities, Services, and Growth Capacity**) should be resolved in order to improve the capacity of the City to accommodate both residential and nonresidential development.

Another important issue is the alignment of U.S. 95. The future alignment in the southern part of the City is as yet uncertain with a new lawsuit that was filed against the project during the summer of 2017. The final resolution of the new highway alignment must be resolved in order to promote investment in the southern portion of the City. This is particularly important because near-downtown industries will likely relocate to the southern part of the City. As such, the City should seek to resolve any uncertainty and conflict regarding the alignment as soon as possible.

Water supply is also an important issue for economic development. Although the target industries are not highly water dependent, an increase in the City's population will likely involve additional pressure on the water supply. As discussed in **Chapter 5, Public Utilities, Services, and Growth Capacity**, the City must develop a sustainable water supply, which should include a conservation component as strong as reasonably possible.

Palouse River Drive serves more than 60 acres of land that is anticipated to develop as professional office, almost 100 acres of industrial land, and almost 30 acres of Auto-Urban Commercial land. Currently, the property along the road is largely undeveloped, but where there is development, there is no evidence of access management. Future development along Palouse River Drive should be subject to access management standards to preserve the function of the road as a minor arterial, as shown on **Map 3.1, Thoroughfare Plan**.

"Soft" Infrastructure

High-speed internet access opens the door to developing knowledge-based industries that rely on large data sets and reliable communications among a number of locations. As the speed and reliability of the communications infrastructure improves, the range of opportunity for economic development increases.

Fiber optic lines run between Moscow and Pullman, and from Pullman to the "outside world." The lines that run from the University of Idaho library into Moscow are owned by the City of Moscow, and the lines that run from the library to Pullman, Washington are owned by the Port of Whitman. The nearest "point of presence" (that is, location for servers and internet interconnections) is in Pullman, so local internet service providers must generally lease fiber between their Moscow offices and the Pullman point of presence. The challenge

for Moscow is that, although the City is internally well wired for high-speed access, the connections to the outside world are somewhat limited, and dedicated access is expensive.

Alturas Technology Park

Alturas Technology Park is located south of S.H. 8 and west of Mountain View Road. It was established to provide a location for technology-oriented businesses. Many of the businesses located in Alturas are graduates of the prior University of Idaho Business Technology Incubator.

A special zoning district was formed to encourage a cohesive and consistent district to stimulate economic development. Alturas has fostered economic growth and diversification by establishing a place for research and technology companies to locate and grow in the company of related businesses. Lots are generally built to suit the particular needs of companies that are locating in (or relocating to) Alturas.

Legacy Crossing

The Legacy Crossing district was established in 2008. Its purpose is to guide the development and redevelopment of the agricultural industry corridor along the railroad and Paradise Creek alignment between the University of Idaho and downtown. The intention of Legacy Crossing is to spur the transition of properties from former agricultural and/or industrial uses to new high-intensity mixed-use developments to create a vibrant place for economic activity and to enhance the integration of the University of Idaho and downtown.

Additional Publicly-Supported Development

Sometimes proactive planning and zoning are not enough to bridge the gap between the cost of development and the ability of businesses to pay those costs. If it turns out that this is the case in Moscow, the City could make targeted investments to support economic development. These may include:

- Developing an industrial park to the south of Palouse River Drive, east of U.S. 95, to provide space for small businesses to grow and job opportunities to diversify.
- Encouraging the development of one or more multi-tenant office buildings (or attractive rental office space in a mixed-use building) to provide a transition space for businesses that do not yet have the resources to purchase a building.

6.6 ECONOMIC DEVELOPMENT GOALS AND OBJECTIVES

6.6.1 General Economic Development Goals

- Provide for sustainable economic growth and employment opportunities where existing and new businesses can thrive, while preserving and enhancing the character of the community.
- Enhance and strengthen the regional economy utilizing the strengths and assets of the region.
- Promote and enhance the arts and cultural resources as catalysts for economic development and tourism.

6.6.2 Leveraging Existing Assets

Objectives:

A. Provide for the diversification of the local economy while maintaining and enhancing the character of Moscow.

B. Strengthen and enhance the vitality of downtown as the community's civic core.

C. Reposition the industrial areas currently located near downtown to another location so as to allow for downtown redevelopment with modern mixed-use developments.

D. Strengthen the physical linkage between Downtown Moscow and the University of Idaho.

E. Expand and enhance the promotion of education, arts, and culture.

Implementation Actions:

1. Ensure that new commercial development is consistent and compatible with the character of Moscow and contributes to the community's quality of life.
2. Allow for development and redevelopment of mixed-use projects in and around the downtown area to bring added activity and vitality to the downtown area.
3. Invest in the public infrastructure (sidewalks, street furnishings, signage, etc.) within the downtown area to enhance the appearance and character of downtown.
4. Identify and rezone appropriate areas in the southern part of the City to allow the relocation of current near-downtown industrial and agricultural support uses.
5. Continue to support the work of the Moscow Arts Commission to develop and promote festivals and cultural events, and integrate public art and artistic elements within public and private developments.
6. Increase the physical capacity of the Moscow Public Library, expanding

its programming, collections and meeting space, and making innovative library uses, such as a makerspace, possible.

6.6.3 Growing Compatible Industries

Objectives:

A. Increase the supply of land available for modern commercial, office, and light industrial uses.

B. Make the development review process more "user-friendly" and efficient, without compromising the quality and character of development.

C. Provide a positive regulatory environment for investment in research, technology, and light industrial uses.

Implementation Actions:

1. Proactively zone land for needed future commercial, office and light industrial uses as identified upon the **Map 2.2, Future Land Use and Growth Plan**. (The areas designated for nonresidential development on **Map 2.2, Future Land Use and Growth Plan,** provide enough land to accommodate projected demand, plus a 25 to 30 percent surplus to promote a healthy land market.)

6.6.4 Strengthening Networks

Objectives:

A. Continue to foster strong relationships among the City of Moscow, the University of Idaho, Latah County, the City of Pullman, Washington State University, and Whitman County.

B. Promote efforts of local and regional economic development agencies to provide education, training, and networking for local businesses and entrepreneurs.

Implementation Actions:

1. Enhance coordination of economic development activities among the City of Moscow, University of Idaho, City of Pullman, Washington State University, Latah and Whitman Counties, and the economic development organizations within the region.
2. Create better physical linkages between the City and the University of Idaho through the redevelopment of the historic industrial areas near downtown.
3. Continue to support regional transportation and transit services to enhance regional employment and economic integration.
4. Continue to promote and enhance education, training, and networking programs to support local business development.

6.6.5 Business Development Costs

Objectives:

A. Ensure capacity for growth in the water, wastewater, and stormwater systems.

B. Provide a sustainable water supply.

C. Provide adequate streets to support traffic generated by planned employment and retail centers.

D. Improve the reliability and speed of internet access in the City, and reduce the cost of access.

E. Provide increased certainty for investment in industrial uses in the southern part of the City.

Implementation Actions:

1. Implement infrastructure and water supply recommendations of **Chapter 5, Public Utilities, Services, and Growth Capacity.**
2. Plan for the orderly development of transportation systems as described within **Chapter 3, Community Mobility** and the **Map 3.1, Thoroughfare Plan**.
3. Provide an inventory of sites for light industrial uses with varying levels of infrastructure and services, in order to ensure that a portion of the available industrial sites are affordable to emerging businesses with few service needs.
4. Support efforts to establish high-speed internet connections to provide faster, more reliable communications between the Moscow-Pullman region and major internet trunks such as the Inland Northwest GigaPop, an advanced fiber-optic network that enables regional, high-speed data exchange.
5. Work with industrial landowners within the south portion of the City to resolve engineering and regulatory issues surrounding the area's floodplain designation.

Prime and other Important Farmlands

This table lists the map units in the survey area that are considered important farmlands. Important farmlands consist of prime farmland, unique farmland, and farmland of statewide or local importance. This list does not constitute a recommendation for a particular land use.

In an effort to identify the extent and location of important farmlands, the Natural Resources Conservation Service, in cooperation with other interested Federal, State, and local government organizations, has inventoried land that can be used for the production of the Nation's food supply.

Prime farmland is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil quality, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. The water supply is dependable and of adequate quality. Prime farmland is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

For some of the soils identified in the table as prime farmland, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures.

A recent trend in land use in some areas has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops, such as citrus, tree nuts, olives, cranberries, and other fruits and vegetables. It has the special combination of soil quality, growing season, moisture supply, temperature, humidity, air drainage, elevation, and aspect needed for the soil to economically produce sustainable high yields of these crops when properly managed. The water supply is dependable and of adequate quality. Nearness to markets is an additional consideration. Unique farmland is not based on national criteria. It commonly is in areas where there is a special microclimate, such as the wine country in California.

In some areas, land that does not meet the criteria for prime or unique farmland is considered to be *farmland of statewide importance* for the production of food, feed, fiber, forage, and oilseed crops. The criteria for defining and delineating farmland of statewide importance are determined by the appropriate State agencies. Generally, this land includes areas of soils that nearly meet the requirements for prime farmland and that economically produce high yields of crops when treated and managed according to acceptable farming methods. Some areas may produce as high a yield as prime farmland if conditions are favorable. Farmland of statewide importance may include tracts of land that have been designated for agriculture by State law.

In some areas that are not identified as having national or statewide importance, land is considered to be *farmland of local importance* for the production of food, feed, fiber, forage, and oilseed crops. This farmland is identified by the appropriate local agencies. Farmland of local importance may include tracts of land that have been designated for agriculture by local ordinance.

Report—Prime and other Important Farmlands

Prime and other Important Farmlands–Latah County, Idaho		
Map Symbol	**Map Unit Name**	**Farmland Classification**
2vz59	Athena silt loam, moist, 0 to 8 percent slopes	All areas are prime farmland
8	Driscoll-Larkin complex, 7 to 25 percent slopes	Farmland of statewide importance
10	Garfield silt loam, 3 to 30 percent slopes	Farmland of statewide importance
23	Larkin silt loam, 3 to 12 percent slopes	Farmland of statewide importance
24	Larkin silt loam, 12 to 35 percent slopes	Not prime farmland
25	Latah silt loam, 0 to 3 percent slopes	Prime farmland if drained
26	Latahco silt loam, 0 to 3 percent slopes	Prime farmland if drained
27	Latahco-Lovell complex, 0 to 3 percent slopes	Prime farmland if drained
28	Latahco-Thatuna complex, 0 to 5 percent slopes	Prime farmland if drained
33	Naff-Palouse complex, 7 to 25 percent slopes	Farmland of statewide importance
34	Naff-Thatuna complex, 7 to 25 percent slopes	Farmland of statewide importance
35	Palouse silt loam, 3 to 7 percent slopes	All areas are prime farmland
36	Palouse silt loam, 7 to 25 percent slopes	Farmland of statewide importance
37	Palouse-Latahco complex, 0 to 3 percent slopes	Prime farmland if drained

Prime and other Important Farmlands–Latah County, Idaho		
Map Symbol	**Map Unit Name**	**Farmland Classification**
44	Southwick silt loam, dry, 3 to 12 percent slopes	Farmland of statewide importance
45	Southwick silt loam, 12 to 25 percent slopes	Not prime farmland
46	Southwick silt loam, 25 to 35 percent slopes	Not prime farmland
47	Southwick silt loam, 7 to 35 percent slopes, eroded	Not prime farmland
48	Spokane ashy loam, 5 to 25 percent slopes	Not prime farmland
51	Taney ashy silt loam, dry, 7 to 25 percent slopes	Farmland of statewide importance, if drained
53	Thatuna silt loam, 3 to 7 percent slopes	All areas are prime farmland
54	Thatuna-Naff complex, 25 to 40 percent slopes	Not prime farmland
56	Tilma-Naff complex, 7 to 25 percent slopes	Farmland of statewide importance, if drained
57	Tilma-Thatuna complex, 7 to 25 percent slopes	Farmland of statewide importance, if drained
65	Westlake-Latahco complex, 0 to 3 percent slopes	Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
Ls1	Schumacher-Libertybutte complex, 5 to 25 percent slopes	Farmland of statewide importance

Data Source Information

Soil Survey Area: Latah County, Idaho
Survey Area Data: Version 14, Aug 22, 2024

Ref#	Property Na	State	County	City	Street & Nu	Status	Request Ty	Last Action	Restricted /	Acreage of	Area of Sigr	Category of
78001072	Administrat	IDAHO	Latah	Moscow	University c	Listed	Single	2/14/1978	FALSE	0.9	EDUCATIO	BUILDING
95001058	Cordelia Lu	IDAHO	Latah	Moscow	S. of the jct	Listed	Single	8/31/1995	FALSE	2.1	EUROPEAN	BUILDING
77000465	Cornwall, M	IDAHO	Latah	Moscow	308 S. Haye	Listed	Single	12/2/1977	FALSE	0.9	COMMERC	BUILDING
79000799	Davids' Bui	IDAHO	Latah	Moscow	3rd and Ma	Listed	Single	########	FALSE	0.9	COMMERC	BUILDING
8000250	Deesten Fa	IDAHO	Latah	Moscow	3611 US 95	Listed	Multiple	4/2/2008	FALSE	10.5	AGRICULTI	SITE
78001073	First Metho	IDAHO	Latah	Moscow	322 E. 3rd S	Listed	Single	10/5/1978	FALSE	0.9	ARCHITEC	BUILDING
80001329	Fort Russel	IDAHO	Latah	Moscow	Roughly bo	Listed	Add.Doc.	8/7/2018	FALSE	40	ARCHITEC	district
1E+08	Fort Russel	IDAHO	Latah	Moscow	Roughly bo	Listed	Boundary	9/28/2017	FALSE	87	ARCHITEC	district
78001074	Hotel Mosc	IDAHO	Latah	Moscow	4th and Ma	Listed	Single	########	FALSE	0.9	COMMERC	BUILDING
96000945	Kappa Sigm	IDAHO	Latah	Moscow	918 Blake S	Listed	Single	9/3/1996	FALSE	0.9	ARCHITEC	BUILDING
1001305	Kenworthy	IDAHO	Latah	Moscow	508 S. Mair	Listed	Multiple	########	FALSE	0.9	ENTERTAIN	BUILDING
78001075	Lieuallen, A	IDAHO	Latah	Moscow	101 S. Almo	Listed	Single	1/3/1978	FALSE	0.9	EXPLORAT	BUILDING
74000743	McConnell,	IDAHO	Latah	Moscow	110 S. Adar	Listed	Single	########	FALSE	0.9	POLITICS/(	BUILDING
78001076	McConnell-	IDAHO	Latah	Moscow	Main and 1s	Listed	Single	2/7/1978	FALSE	0.9	COMMERC	BUILDING
77000466	Memorial G	IDAHO	Latah	Moscow	University c	Listed	Single	10/5/1977	FALSE	0.9	ART; ARCH	BUILDING
79000800	Moscow Ca	IDAHO	Latah	Moscow	110 S. Jeffe	Listed	Single	6/18/1979	FALSE	0.9	ARCHITEC	BUILDING
5000710	Moscow Dc	IDAHO	Latah	Moscow	Generally b	Listed	Single	7/22/2005	FALSE	18	COMMERC	DISTRICT
92000416	Moscow Hi	IDAHO	Latah	Moscow	410 3rd E.	Listed	Multiple	5/5/1992	FALSE	1	EDUCATIO	BUILDING
73000686	Moscow Po	IDAHO	Latah	Moscow	Washingtor	Listed	Single	7/3/1973	FALSE	0.9	ARCHITEC	BUILDING
1001304	Nu Art Thea	IDAHO	Latah	Moscow	516 S. Mair	Listed	Multiple	########	FALSE	0.9	ENTERTAIN	BUILDING
77000467	Ridenbaugh	IDAHO	Latah	Moscow	University c	Listed	Single	9/14/1977	FALSE	0.9	ARCHITEC	BUILDING
93001335	Sigma Alph	IDAHO	Latah	Moscow	920 Deakin	Listed	Single	12/2/1993	FALSE	0.9	ARCHITEC	BUILDING
78001077	Skattaboe E	IDAHO	Latah	Moscow	Main and 4t	Listed	Single	5/22/1978	FALSE	0.9	ARCHITEC	BUILDING
9000294	Snow, Arthu	IDAHO	Latah	Moscow	2949 Clyde	Listed	Single	5/5/2009	FALSE	0.9	ARCHITEC	BUILDING
83000287	University c	IDAHO	Latah	Moscow	University c	Listed	Multiple	1/3/1983	FALSE	2.5	ARCHITEC	BUILDING

External Lir	Level of Sig	Level of Sig	Level of Sig	Level of Sig	Level of Sig	Listed Date	Name of Mu	NHL Desigr	Other Nam	Park Name	Property ID
https://cata	FALSE	FALSE	FALSE	FALSE	TRUE	2/14/1978					78001072
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	8/31/1995			Swedish Evangelical Lu		95001058
https://cata	FALSE	FALSE	FALSE	FALSE	TRUE	12/2/1977					77000465
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	########					79000799
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	4/2/2008					8000250
https://cata	FALSE	FALSE	FALSE	FALSE	TRUE	10/5/1978					78001073
	FALSE	FALSE	FALSE	FALSE	TRUE	########					80001329
	FALSE	TRUE	FALSE	FALSE	FALSE	9/25/2017					80001329
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	########					78001074
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	9/3/1996					96000945
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	########	Motion Picture Theater		Buildings in Idaho MPS		1001305
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	1/3/1978					78001075
https://cata	FALSE	FALSE	FALSE	FALSE	TRUE	########					74000743
https://cata	FALSE	FALSE	FALSE	FALSE	TRUE	2/7/1978					78001076
https://cata	FALSE	FALSE	FALSE	FALSE	TRUE	10/5/1977					77000466
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	6/18/1979					79000800
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	7/22/2005					5000710
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	5/5/1992	Public School Building		1912 Whitworth Schoo		92000416
https://cata	FALSE	FALSE	FALSE	FALSE	TRUE	7/3/1973			Moscow Federal Buildi		73000686
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	########	Motion Picture Theater		Buildings in Idaho MPS		1001304
https://cata	FALSE	FALSE	FALSE	FALSE	TRUE	9/14/1977					77000467
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	12/2/1993					93001335
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	5/22/1978					78001077
https://cata	FALSE	TRUE	FALSE	FALSE	FALSE	5/5/2009					9000294
https://cata	FALSE	FALSE	FALSE	FALSE	TRUE	1/3/1983	Tourtellotte and Hummel		Architecture TR		83000287

Back to:

State Map | Western U.S. map | Home Page

NOTE:
To print data frame (right side), click on right frame before printing.

1981 - 2010

- Daily Temp. & Precip.
- Daily Tabular data (~23 KB)
- Monthly Tabular data (~1 KB)
- NCDC 1981-2010 Normals (~3 KB)

1971 - 2000

- Daily Temp. & Precip.
- Daily Tabular data (~23 KB)
- Monthly Tabular data (~1 KB)
- NCDC 1971-2000 Normals (~3 KB)

1961 - 1990

- Daily Temp. & Precip.
- Daily Tabular data (~23 KB)
- Monthly Tabular data (~1 KB)
- NCDC 1961-1990 Normals (~3 KB)

Period of Record

- Station Metadata
- Station Metadata Graphics

General Climate Summary Tables

- Temperature
- Precipitation
- Heating Degree Days
- Cooling Degree Days
- Growing Degree Days

Temperature

- Daily Extremes and Averages
- Spring 'Freeze' Probabilities
- Fall 'Freeze' Probabilities
- 'Freeze Free' Probabilities
- Monthly Temperature Listings
  - Average

MOSCOW U OF I, IDAHO (106152)

Period of Record Monthly Climate Summary

Period of Record : 11/07/1893 to 05/31/2016

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	A
Average Max. Temperature (F)	34.9	40.2	47.6	56.9	65.4	72.6	83.0	82.7	73.2	60.0	44.5	36.3	
Average Min. Temperature (F)	22.6	26.0	30.6	35.6	41.1	46.3	50.2	49.6	44.0	37.3	30.6	24.9	
Average Total Precipitation (in.)	3.01	2.18	2.35	1.94	2.06	1.67	0.71	0.79	1.20	1.88	3.07	2.95	
Average Total SnowFall (in.)	16.1	8.8	5.0	1.2	0.1	0.0	0.0	0.0	0.0	0.3	5.5	12.6	
Average Snow Depth (in.)	4	2	0	0	0	0	0	0	0	0	0	2	

Percent of possible observations for period of record.
Max. Temp.: 99.1% Min. Temp.: 99.1% Precipitation: 99.3% Snowfall: 98.3% Snow Depth: 80%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

Appendix B

AGREEMENT FOR SEWAGE COLLECTION, CONVEYANCE, AND DISPOSAL SERVICES BETWEEN CITY OF MOSCOW, IDAHO AND SOUTHEAST MOSCOW WATER AND SEWER DISTRICT

THIS AGREEMENT FOR SEWAGE COLLECTION, CONVEYANCE AND DISPOSAL SERVICES is made and entered into this 28 day of September, 2016, by and between the City of Moscow, Idaho, a municipal corporation of the State of Idaho (hereinafter "CITY"), and Southeast Moscow Water and Sewer District (hereinafter "DISTRICT").

W I T N E S S E T H:

WHEREAS, DISTRICT owns a domestic wastewater sewage collection and conveyance system that serves the area within DISTRICT's service area; and

WHEREAS, DISTRICT has contracted with CITY since October 15, 1980 for sewage conveyance and disposal services with connections to CITY facilities to provide adequate conveyance and proper treatment of DISTRICT sewage; and

WHEREAS, DISTRICT desires to contract with CITY for sewerage conveyance and disposal services with connections to CITY facilities to provide adequate conveyance and proper treatment of DISTRICT sewage; and

WHEREAS, CITY desires to contract with DISTRICT for conveyance of sewage collected within City limits and outside DISTRICT service area through DISTRICT facilities;

NOW THEREFORE, in consideration of the covenants and agreements hereinafter set forth to be kept and performed by the parties hereto, it is mutually agreed as follows:

I. CITY AGREES:

1. To permit DISTRICT to continue connection to CITY sewer facilities, providing adequate and proper sewage conveyance and treatment service to DISTRICT. All connections shall be made in accordance with sound engineering practices and in a manner designated by CITY.

2. To maintain, operate and keep in good repair DISTRICT's sewer collection and conveyance mains, laterals, force mains and pumping stations as necessary to service DISTRICT. Property owners within DISTRICT shall remain responsible for maintenance and repair of service lines from the lateral or main to the individual property owner's premises.

3. The cost of said service shall be provided through the sewer service charge. Maintenance, operation, and repair, as the terms are used in this section in respect to DISTRICT, shall not include cases of major breaks in DISTRICT's sewer pipelines or damage to DISTRICT's pumping facilities occasioned by unusual conditions, major failures, or natural disasters, including earthquakes or floods, resulting in a loss costing more than fifty percent (50%) of

CITY's annual revenue collected from within DISTRICT's service area. In such cases, the cost of repairing such major breaks or damage beyond the fifty percent (50%) of CITY's annual revenue, shall be the full responsibility of DISTRICT.

4. To collect from each DISTRICT sewer user within DISTRICT's service area, the sewer service charges as more specifically provided for hereinbelow. CITY further agrees to collect any additional connection fees or sewer service fees charged by DISTRICT for DISTRICT's purposes and shall turn over such funds monthly to DISTRICT. CITY shall have first priority on any funds collected to meet the sewer service charges of CITY. CITY shall make all reasonable efforts to bill delinquent accounts. On January 1 and July 1 of each year, CITY shall certify to DISTRICT all delinquent accounts older than three (3) months. DISTRICT to use all statutory power granted to DISTRICT to collect said delinquent accounts for payment owed to CITY, which amount collected shall be paid by DISTRICT to CITY.

5. To process applications and to issue permits for all connections to DISTRICT's sewer system. CITY shall provide DISTRICT with copies of said applications within fifteen (15) days of receipt of same, and CITY shall provide DISTRICT with copies of said permits within fifteen (15) days of issuance of same. CITY shall provide inspection for all such connections and, for this service, each individual applicant shall pay CITY the same inspection fee as is charged customers within CITY limits, plus five dollars ($5). All service 'taps' shall be made by CITY and each individual applicant shall pay CITY the same 'tap' fee as is charged customers within CITY limits, plus five dollars ($5). These added fees shall not be charged to DISTRICT's patrons who are within CITY limits.

6. To manage through its Administrative Authority, the rules and regulations adopted by DISTRICT. The Administrative Authority of CITY shall enforce compliance with said rules and regulations to the extent allowed by law. CITY shall notify DISTRICT of all violations for which compliance cannot be legally obtained and DISTRICT shall take all necessary steps provided for by State law to diligently enforce any adopted rules and regulations.

7. CITY will hold DISTRICT and its officers harmless from any and all claims that may arise as a result of CITY's sole negligence in operation of the system.

II. DISTRICT AGREES:

1. To comply with all Federal and State regulations, relating to sewer systems, applicable to CITY and DISTRICT.

2. To take all necessary steps to adopt, keep current and enforce a resolution and standards concerning the collection and disposal of sewage within DISTRICT's service area. Such resolution and standards shall be in substantially the same form as the applicable ordinance and standards of CITY as amended from time to time by the City Council, which said Resolution and standards are herewith attached, marked as Exhibits 1 and 2 respectively, and by this reference made a part of this Agreement. Such resolution and standards must receive City Council approval prior to implementation by DISTRICT.

3. To delegate by proper order, authority to CITY and its employees to perform the duties required by this Agreement.

4. To require all residents and property owners within DISTRICT's service area to connect their houses and other structures requiring sewage disposal to DISTRICT's adjacent sewers within ninety (90) days after the resident or property owner receives notice from DISTRICT to connect, as per Idaho Code.

5. To impose sewer service charges by resolution on property within DISTRICT's service area served by or available to be served by, sewer lines owned by DISTRICT in an amount sufficient to cover CITY's sewer service charges in accordance with the most current fee schedule as adopted by the City Council. CITY's fee structure applied to CITY residents shall apply to DISTRICT patrons, with the exception of additional monthly surcharge. DISTRICT shall take all available legal steps to collect and enforce the sewer service fees charged by DISTRICT which CITY has not been able to collect. Such delinquent sewer service charges shall be turned over by DISTRICT to CITY provided CITY has not already been paid by DISTRICT for said delinquent sewer service charges. The sewer service charges imposed by DISTRICT's resolution shall state that new sewer hookups shall be charged the current sewer service fees to property ninety (90) days after the owner thereof is given notice of an available sewer, or when actual connection occurs, whichever occurs first.

6. To maintain and, when requested by CITY, to provide copies of all easements rights-of-way and permits required for DISTRICT's sewer system, along with assurances that the system is located within the easement or right-of-way areas.

7. To construct all new DISTRICT lines and facilities at gradients, in such sizes and locations, and of such capacity as to substantially meet standards set by CITY. Individual service connections along existing public rights-of-way shall be served by extensions of public sewer lines constructed in compliance with CITY standards, where required by CITY. In such instances, the public sewer will be required to be extended at the expense of the individual requesting connection to public sewer. Public sewer lines provided by a developer shall become property of DISTRICT. DISTRICT will require dedication to DISTRICT of the new sewer lines constructed by the developer and shall require dedication of public easements to DISTRICT for sewer mains not located within public rights-of-way. CITY, within thirty (30) days of issuance, shall provide notice to DISTRICT of all hookup permits approved for construction of new public sewer lines within DISTRICT.

8. To provide to CITY certification by DISTRICT's engineer that additions or modifications to the system are tested to CITY's standards; laid to line and grade within prescribed tolerances; and bedded and backfilled in accordance with the adopted specifications. DISTRICT's standards shall be same as CITY's standards. It is understood that CITY reserves the right of final approval on any additions, connections, or modifications to the system prior to the connection of any new user to the system, which said approval will not be unreasonably withheld.

9. That for and in consideration of CITY supplying DISTRICT the above-referenced services, DISTRICT hereby expresses its intent, through its Board of Directors, not to oppose

annexation of any portion of DISTRICT by CITY when CITY desires annexation. The DISTRICT's Board does not purport to bind individual property owners within the DISTRICT to agree to annexation or to oppose annexation because the Board lacks statutory power to do so.

10. To maintain and, when requested by CITY, provide certification from the North Latah County Highway District that the Highway District approves the installation, operation and maintenance of existing and new public sewer lines in the public rights-of-way. Restrictions to the use of the rights-of-way are given in a 'Cooperative Agreement' between the North Latah County Highway District and DISTRICT, attached hereto as Exhibit 3.

11. To turn over to CITY, upon annexation of DISTRICT, the entire sewer system, together with any improvements, operating property, rights-of-way and easements, located within the annexed area. CITY will not owe any compensation to DISTRICT for said transfer.

12. To transfer its right and interest in any guarantees, warranties, real or implied, associated with the contracts, subcontracts, material, equipment and other related items associated with DISTRICT's system, to CITY at the point in time that CITY accepts the system after annexation or upon dissolution of DISTRICT.

13. That CITY reserves the right to modify any and all of DISTRICT's equipment and/or system where CITY finds said modification is necessary, without cost to DISTRICT and without approval of DISTRICT.

III. THE PARTIES AGREE:

1. That the basic monthly sewer service charge by CITY to DISTRICT's customers shall be uniform within each classification of users (residential, commercial, or industrial) for all users located within DISTRICT's service area. This rate shall be the same as the monthly charges for residential, commercial, or industrial users inside the City limits of CITY and said monthly sewer service charges shall be retained by CITY for provision of sewage conveyance and disposal services. In addition to the monthly sewer service charges, all users located within DISTRICT's service area shall be charged a surcharge of three dollars ($3) per month. Two dollars ($2) per month of the surcharge shall be retained by CITY for administrative services to DISTRICT consisting of account billing and collection, and accounting. The remaining one dollar ($1) of the surcharge shall be conveyed to DISTRICT for the cost of administrative services not provided by CITY. For those properties that are located both within DISTRICT's service area and City limits, said surcharge of three dollars ($3) shall be reduced to one dollar ($1) with said surcharge conveyed to DISTRICT.

2. DISTRICT's connection fee shall be the same as CITY's General Facilities Charge (GFC) with seventy percent (70%) allocated to DISTRICT's reserve fund and thirty percent (30%) to CITY's sewer capital fund.

3. For any connection in an area beyond DISTRICT's service area, which results in flow through DISTRICT's boundaries that will receive service from DISTRICT's facilities, both CITY's GFC and seventy percent (70%) of DISTRICT's connection fee shall apply. In such

cases, CITY shall retain the entire CITY GFC and the DISTRICT shall receive the seventy percent (70%) of DISTRICT's connection fee for the respective capital and reserve funds.

4. That CITY has the authority to review and approve the construction plans and specifications for any alterations or expansion of the system. All sewers constructed within DISTRICT's boundaries shall conform to CITY standards for sewer line construction. Any additional cost for alterations or expansion required by CITY that increases system capacities in order to provide service to areas that are outside DISTRICT's boundaries and within CITY limits, shall be borne by CITY as provided in Section IV. of this Agreement.

5. Applications for expansion of DISTRICT's system within DISTRICT's boundaries and for changes in DISTRICT's boundaries must receive approval by the City Council and DISTRICT Board. To initiate an expansion of DISTRICT's system or boundaries, DISTRICT's Board of Directors shall submit such request in writing to the City of Moscow Mayor and City Council defining the system additions or modifications, revised boundaries, information on potential added sewer loads, and the reasons for the expansion. All such boundary modifications shall be in accordance with applicable Idaho Code, including any future amendments or changes to Idaho Code.

6. That the design, construction and inspection of all facilities and improvements within DISTRICT shall be in accordance with plans approved by the Idaho State Department of Environmental Quality and the parties hereto.

7. That upon the request of either party hereto, to negotiate with each other relative to amendments to this Agreement, provided that any such amendments shall be in writing and approved by both the City Council and DISTRICT, except as otherwise provided herein.

8. That the terms of this Agreement shall be reviewed at least every ten (10) years by CITY and DISTRICT. Any proposed changes must be approved by the City Council and DISTRICT's Board of Directors. This Agreement shall be in effect from the date of approval of DISTRICT and City Council to March 1, 2026. This Agreement may be renewed for one (1) additional ten (10) year term if approved by both City Council and DISTRICT's Board.

IV. NON-DISTRICT FLOW CONVEYANCE:

1. In recognition of the likelihood of annexation by CITY of lands outside DISTRICT's boundaries and the anticipated need to convey sewage from the annexed areas through DISTRICT's facilities, this Agreement authorizes CITY to pass sewage through DISTRICT's facilities as specified herein.

2. Pursuant to this Agreement, DISTRICT shall allow discharge of sewage collected by CITY from areas outside DISTRICT's boundaries into DISTRICT's facilities, and shall transmit such sewage through DISTRICT's facilities to the downstream CITY collection system. CITY shall be responsible for the delivery of the sewage from the areas outside DISTRICT's boundaries to DISTRICT's facilities.

3. CITY shall have no duty or obligation to construct, upgrade or replace sewer facilities in CITY's service area that exist on the effective date of this Agreement, and DISTRICT shall accept such sewer facilities "as is" for delivery and transmission of sewage from areas outside DISTRICT's boundaries. After the effective date of this Agreement, any new sewer facilities that deliver or transmit sewage from areas outside DISTRICT's boundaries to DISTRICT shall be constructed consistent with CITY's approved Comprehensive Sanitary Sewer System Plan and adopted construction standards. CITY's sewer facilities outside DISTRICT's boundaries, and CITY's connection to DISTRICT's facilities, shall remain under the ownership and operation of CITY, separate and apart from DISTRICT.

4. DISTRICT shall accept sewage from CITY's facilities outside DISTRICT's boundaries until DISTRICT, in consultation with CITY, can demonstrate that there is insufficient capacity in DISTRICT's sewer system to accept additional sewage. After determining that there is such insufficient capacity, DISTRICT shall notify CITY in writing of DISTRICT's intention to restrict acceptance of, or to stop accepting, additional sewage from CITY twelve (12) months after the effective date of such notice. DISTRICT shall be under no obligation to construct any new or additional sewage facilities and DISTRICT shall not be required to accept additional sewage flows that will exceed the design capacity of the system.

5. Except as provided herein, should any portion of DISTRICT's sewer system become surcharged (i.e., sewage level rises above the crown [top] of the sewer pipe), due to combined flows from CITY and DISTRICT exceeding DISTRICT's capacity, CITY shall immediately take action to reduce flows to a level where the surcharging no longer exists. Any additional connections will only be allowed if and when CITY facilitates improvements to CITY's or DISTRICT's system to allow such connections without surcharging the DISTRICT's system. If either party has knowledge of surcharge conditions present, both parties will communicate and authorize temporary ceasing of issuance of additional permits for connections, which would contribute flow to DISTRICT's system, until said conditions are alleviated or remedied. CITY shall monitor altered system to confirm surcharge conditions have ceased.

6. DISTRICT shall provide for conveyance of CITY's sewage flows through future DISTRICT constructed capacity upgrades of DISTRICT's conveyance facilities. DISTRICT and CITY hereby agree to jointly fund design and construction and to design and construct conveyance capacity upgrades of DISTRICT's conveyance facilities to the downstream CITY system on a proportional cost sharing basis as defined herein.

7. When it becomes necessary for DISTRICT to construct conveyance system capacity upgrades for the benefit of DISTRICT's patrons, CITY shall participate in funding DISTRICT's capital costs of design and construction of those new conveyance upgrades based on the ratio of the designed peak conveyance capacity reserved for CITY flows to the total designed peak conveyance capacity of the new conveyance upgrades. CITY may unilaterally determine to increase the peak conveyance capacity reserved for CITY flows on the condition that CITY provide additional capital cost funding to comply with the funding ratio requirement. For purposes of this Agreement, for any future conveyance capacity upgrades to DISTRICT's sewer system where CITY participated in the capital cost and reserves a proportional share of design flow capacity in said upgrades, DISTRICT shall

remain as owner and operator and shall provide for the operation and maintenance of those systems until such time as DISTRICT's sewer system is conveyed to CITY.

8. CITY shall pay DISTRICT for all new connections to CITY's system that contribute flow to DISTRICT's facilities at the time of connection to CITY's system. The payments shall be a one-time charge of seventy percent (70%) of adopted DISTRICT Connection Fees in effect at the time of the connection to CITY's system. Acceptance of such payment shall be considered approval by DISTRICT of use of DISTRICT facilities by the new connections with no further compensation to DISTRICT required.

9. CITY shall report to DISTRICT, within sixty (60) days of actual hook-up, all new sewer connections to CITY sewer system that will result in flow through DISTRICT's facilities. The report shall include the ownership, property address, and billing address for the property served. CITY shall consult with DISTRICT regarding applications which have potential to substantially increase flows to DISTRICT's system.

10. All CITY facilities as described herein shall be constructed, operated and maintained by CITY. Where CITY utilizes any DISTRICT facilities, CITY shall be responsible for any damage to DISTRICT's facilities resulting from CITY's use, or use by its customers. Repairs to DISTRICT's facilities made necessary by such damage shall be performed as jointly determined by CITY and DISTRICT through review of repair and/or replacement options appropriate for the specific component of the facilities. The cost for such repairs, as jointly agreed upon by CITY and DISTRICT, will be billed to CITY. DISTRICT shall not be liable for any claims by third parties arising from acts or damages by CITY or its customers in using DISTRICT's facilities pursuant to this Agreement.

IN WITNESS WHEREOF, the PARTIES hereto have caused this Agreement to be executed as of the date set forth herein by their duly authorized representatives.

DISTRICT:

Southeast Moscow Water and Sewer District

Lois Pritchett

Lois Pritchett, President

ATTEST:

Marge Nelson

Marge Nelson, Secretary

CITY:

City of Moscow, Idaho

Bill Lambert

Bill Lambert, Mayor

ATTEST:

Laurie M. Hopkins, City Clerk

RESOLUTION NO. 84-8C

SOUTHEAST MOSCOW WATER AND SEWER DISTRICT SEWERS

SECTION:

1. Purpose of Sewer System
2. Definition of Terms
3. Premises to Connect to Public Sewer
4. Sanitary Facilities Required
5. Sewers Property of District
6. Extension of Public Sewers
7. Construction Specifications for Sewer
8. As-Built Plans Required
9. Sewer Extensions; Property of District
10. Sewer Extensions; Filing of Costs
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1: PURPOSE OF SEWER SYSTEM. For the purpose of promoting health, safety and the general welfare of the Southeast Moscow Water and Sewer District, a system for the collection, transmission and disposal of sanitary sewage shall be constructed, extended, maintained, repaired, replaced, operated and removed within the boundaries of the Southeast Moscow Water and Sewer District by which to provide an adequate system for the collection, transmission and disposal of sanitary sewage from domestic, commercial, industrial and such other uses and purposes for which said system may be used.

h 2: DEFINITION OF TERMS. Terms used in this Ordinance shall have the meanings herein given to them.

ADMINISTRATIVE AUTHORITY:	A duly appointed qualified officer of the District charged with the administrative and/or enforcement of the provisions of this Resolution. Said Administrative authority shall be appointed by the Chairman of the Board.
BUILDING DRAIN:	The building drain is that part of the lowest piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the side sewer beginning two feet (2') outside the building wall.

BIOCHEMICAL OXYGEN DEMAND (abbreviated B.O.D.):	The quantity of oxygen, expressed in parts per million by weight, utlized in the biochemical as oxidation of organic matter under standard laboratory determinations made in accordance with procedures set forth in "Standard Methods", for five (5) days B.O.D. determination.
BOARD:	Board members elected by the District.
COMMERCIAL USER:	All persons not specifically classified as domestic or as an industrial waste contributor.
COMPOSITE SAMPLE:	Not less than twelve (12) individual samples taken at not less than thirty (30) minute intervals for a period of not less than six (6) hours.
DISTRICT:	Southeast Moscow Water and Sewer District
DWELLING UNIT:	A building or structure or portion thereof that is constructed and used primarily for residential purposes.

GARBAGE: The residue from the preparation, cooking and dispensing of food, and from the handling, storage and sale of food products and produce.

GROUND GARBAGE: The residue from the preparation, cooking, and dispensing of food that has been shredded to such degree that all particles will be carried freely in suspension under the flow conditions normally prevailing in public sewers with no particle greater than one-half inch (1/2") in any dimension.

INDUSTRIAL WASTES: The liquid wastes from industrial processes as distinct from sanitary sewage.

HOUSE SERVICE LINE: The extension from the building drain to the public sewer and is sometimes referred to as a service connection or side sewer.

MG: Million gallons.

PH: The logarithum (base 10) of the reciprocal of the hydrogenion concentration expressed in moles per liter and is measure of the acidity or alkalinity of a solution. It shall be determined by one of the procedures outlined in "Standard Methods".

PARTS PER MILLION: A weight-to-weight ratio; the parts per million value multiplied by the factor 8.345 shall be equivalent to pounds per million gallons of water.

PERSON: Any individual, firm, company, association, society, corporation, group, or other entity.

PRIVATE SEWER: A sewer serving one or more buildings, residences, or properties, constructed by private contract.

PUBLIC SEWER: Any sewers that are owned and controlled by the District that serves one or more persons, even though those sewers may not have been constructed with District funds.

SANITARY SEWAGE: Wastes that are derived principally from dwellings, business buildings, institutions, and industrial waste, exclusive of storm and surface waters.

SANITARY SEWER: A sewer that conveys sanitary sewage or industrial wastes, or a combination of the two (2), and into which storm, surface, and ground waters or unpolluted industrial wastes are not admitted.

SERVICE CHARGE: The charge levied on all users of the sewage system.

SERVICE TAP: A connection of side sewer to public sewer.

SEWAGE TREATMENT PLANT: Wastewater treatment plant.

SEWAGE: Wastewater

SEWER: A pipe or conduit for conveying wastewater or any other waste liquids.

SEWERAGE SYSTEM: The facilities for the collection, transportation, pumping, treatment and final disposition of sewage, or any and all such facilities.

SIDE SEWER: The extension from the building drain to the public sewer and shall mean house service line.

STANDARD METHODS: The examination and analytical procedures set forth in the most recent edition of "Standard Methods for the Examination of Water, Sewage, and Industrial Wastes", published jointly by the American Public Health Association, the American Water Works Association, and the Federation of Sewage and Industrial Wastes Association.

STANDARD SEWAGE: Sewage and acceptable wastes that are within specifications regarding ph, B.O.D., dissolved oxygen, suspended solids, and grease.

STORM SEWER or STORM DRAIN: A pipe or conduit which carries ground water drainage, storm surface waters, and unpolluted cooling or process waters, but excludes sewage and polluted industrial wastes.

SUSPENDED SOLIDS (S.S.): Solids that either float on the surface of, or are in suspension in water, sewage, or industrial waste, and which are removable by a laboratory filtration device. Quantitative determination of suspended solids shall be made in accordance with procedures set forth in "Standard Methods".

UNPOLLUTED WATER: Any water or liquid containing none of the following: Free or emulsified grease or oil; acids or alkalies, substances that may impact taste and odor or color characteristics; toxic or poisonous substances in suspension, colloidal state or solution; odorous or otherwise obnoxious gases. It shall contain not more than thirty (30) mg/l each of suspended solids or biochemical oxygen demand. Analytical determination shall be made in accordance with procedures set forth in "Standard Methods".

SECRETARY AND TREASURER:	Secretary and Treasurer of the Southeast Moscow Water and Sewer District.
USER CHARGE:	A charge levied on all users of the sewage system.
WASTEWATER:	The water-carried human, animal or household wastes in a public or private sewer, and may include industrial wastes.
WASTEWATER TREATMENT PLANT:	An assemblage of devices, structures, and equipment for treating domestic, commercial, and industrial waste.

3: PREMISES TO CONNECT TO PUBLIC SEWER. The Administrative Authority is hereby empowered, and it is hereby made his duty in all cases where there is a public sewer in any street, or easement in the District to compel every owner of land, buildings, or premises used for human occupancy, employment, recreation, or used for other purposes requiring sanitary facilities and abutting on such street, or easement or within three hundred feet (300') of the same, to construct or cause to be constructed a sufficient side sewer in the manner herein prescribed which shall connect said land, building or premises, and all water closets and pipes therein or thereon used as a receptacle or conduct of sewage with such nearest accessible public sewer within ninety (90) days after date of official notice, unless in the opinion of the Administrative Authority such connection is impracticable by reason of the topography of the ground or weather conditions.

If any connection to a public sewer shall not be made within the above required time and in a manner provided in this Resolution, the Administrative Authority may forthwith cause the same to be made and file a statement of the costs required with the Board.

If any need repair to a building sewer or connection to a public sewer shall not be made within the time and in the manner provided in this code, the Administrative Authority may cause the necessary repairs to be made and file a statement of the costs with the Board.

The Board shall certify the amount of the costs of making such connections or repairs to the Treasurer of the District, notify the owner of said costs, and shall also file a declaration of lien against the property as outlined in Sections 42-44 of this Resolution.

4: SANITARY FACILITIES REQUIRED. Every person owning any land or premises used in the manner and situated within the limits prescribed in the foregoing section, in all cases where there is a public sewer in any street, highway, alley or easement, shall make sufficient house drain and side sewer from his house, lot or premises connected with such sewer, and the Administrative Authority shall have power in all cases where there is a public sewer as aforesaid to cause said person to install suitable sanitary facilities in said house, lot or premises and to cause such connections to be made, and shall give his agents or tenants notice in writing, specifying the time when such drain and facilities must be completed; provided, such time shall not exceed ninety (90) days.

A separate and independent side sewer shall be provided for every building, residence or property, except as approved by the Board.

5: SEWERS PROPERTY OF THE DISTRICT. All sewers located within the District sewer system in any street or alley or easement shall belong to the District and no private sewer, except as otherwise provided in this Resolution, shall be deemed valid and binding upon the District or any of its inhabitants. It is the intent and purpose of this Resolution to abolish all private sewers within the District sewer system except as herein provided. The District shall own all sewer connections constructed by private persons along any street or alley or easement. The District shall own, control and operate all sewers laid or placed along any street or alley or easement within the District boundary. Side sewers as defined by this Resolution shall not be owned or maintained by the District.

6: EXTENSION OF PUBLIC SEWERS. Extension including the construction of new sewage systems, sewage treatment plants or systems, other waste treatment or disposal facilities, or for modification or expansion to existing sewage treatment plants or systems, waste treatment or disposal facilities, to the public sewer system by a sewer user at his own expense shall have prior approval and shall be in accordance with the standards and designs of the District. Plans, specifications, and any other pertinent information relating to the proposed extension shall be submitted to the Administrative Authority for approval.

The Administrative Authority shall secure all necessary Federal and State approvals prior to approving the submittal. No construction of the proposed facilities shall commence until such approvals are obtained in writing.

7: CONSTRUCTION SPECIFICATIONS FOR SEWERS. Specifications for the construction of sewers shall be enforced by the Board. The Board is hereby empowered to prepare and put into effect standards governing sewer construction in the District, herein referred to as "standards". Copies of the standards shall contain specifications relative to materials, construction, procedure, inspection, testing, backfilling and responsibilities in sewer installations. Specific installations not fully covered by the standards shall be ruled upon by the Administrative Authority at the time of occurrence. The standards revisions thereof and additions thereto shall be issued by the Administrative Authority. Copies of the standards thereto shall be issued by the Administrative Authority or the authorized representative of the District.

8: AS-BUILT PLANS REQUIRED. No deviation shall be made from the approved plans and specifications without the prior approval of the Administrative Authority. Within thirty (30) days of the completion of construction of the extension to the public sewer system, complete and accurate plans and specifications depicting the actual construction, alteration, or modification performed, must be submitted to the Administrative Authority together with such other pertinent information as may be required.

9: SEWER EXTENSIONS; PROPERTY OF DISTRICT. The extension to the sewer system by the user, when accepted, shall thereafter constitute a part of the sewer system of the District. All rights, title and interest in and to such extensions shall be held by the District and be used, operated, maintained and managed by the District as part of its sewer system.

10: SEWER EXTENSIONS; FILING OF COSTS. All sewers located in any street, alley or easement in the District shall belong to the District, except as otherwise provided in this resolution, and in the event that any person shall make a connection with the District sewer system and such connection shall be available to others who might connect with such connection, the person so first connecting with the sewer shall, as soon as such connection is made, file with the Administrative Authority, an itemized statement of the costs of building such connection sewer. The Administrative Authority, together with the District Engineer, shall audit and determine the reasonable costs of such connection through any streets, alleys or easement, and file a report thereon with the Board, and in the event that the Administrative Authority and the District Engineer shall determine that the cost of such connecting sewer is less than that submitted by the person constructing such sewer, the Administrative Authority and the District Engineer shall hold a hearing and give such person ten (10) days written notice of such hearing and at such hearing evidence may be taken by the District Engineer and the Administrative Authority of the cost of such sewer and at the close of such hearing the Administrative Authority and the District Engineer shall file a written report with the

District Secretary of their determination of the costs and expenses of building and connecting such sewer with any sewer, and which determination shall be subject to review by the Board at its next regular meeting after the filing of such report. It shall be the duty of the Secretary to give the person building such connecting sewer written notice of the regular meeting of the Board and that the costs of building such sewer will be settled at such meeting, and the Board shall have the power to fix the cost of such connecting sewer, which determination shall be final and binding upon all parties.

11: SEWER EXTENSIONS; PERMITTING SERVICE TAPS; COSTS TO BE PAID. The Administrative Authority may permit other connections to be made with such connecting sewer by other parties upon payment to the District of the proportionate share of the cost of constructing such sewer extension properly payable by the person wishing to connect thereon, if the application to connect is made within five (5) years of the date of the connector sewer construction. The amount of payment to be made for such connection shall be based upon the original cost of such sewer extension, as determined by the Administrative Authority and District Engineer, taking into consideration the probable future use of such sewer by other connections. No extra allowance shall be made for interest upon the original investment in such connecting sewer, and no deduction shall be made for depreciation thereon.

If the property proposed to be connected with such connecting sewer abuts upon or is adjacent to such sewer, the owner of the same shall

pay to the District for so connecting that proportion of the total original cost of such connecting sewer which the frontage of all the property he owns abutting upon or adjacent to such connecting sewer bears to the total frontage capable of being served by such connecting sewer. In the event the property proposed to be connected with such connecting sewer does not abut upon and is not adjacent to such connecting sewer, then the owner of such property shall pay such fee as reasonably compensates the original builder for the use thereof. Such amounts shall be fixed by the Water Administrative Authority and the District Engineer. All decisions of the said Administrative Authority and Engineer under this Section shall be subject to review by the Board, after reasonable notice to the party concerned, and may be modified or reversed by the Board.

Costs for connections to connector sewers made later than five (5) years after connector sewer construction date, shall be as required in Section 2 of Resolution No. 1980-2.

12: SEWER EXTENSIONS; PERSON FIRST CONSTRUCTING MAY RECEIVE MONEY FROM LATER CONNECTIONS. Upon payment of any money to the District by persons desiring to connect with such sewer, the person first constructing such connecting sewer, or his successors or assigns, shall be entitled to such moneys upon filing a claim therefor with the Secretary to be allowed by the Board as other bills against the District are allowed and paid.

13: PERMIT REQUIRED FOR SIDE SEWER CONSTRUCTION AND REPAIR; The owner of premises shall be responsible for all construction and maintenance

expense related to installing and maintaining side sewers and private sewers located on said premises. When any side sewer or private sewer connected with any public sewer or drain becomes obstructed, broken or out of order, the Administrative Authority shall, if the owner of such premises fails to repair the same after two (2) days notice so to do, cause such drain to be removed and reconstructed, repaired, altered or cleansed, as he may deem expedient, at the expense of the owner, agent or occupant of such premises as aforesaid. No person shall relay, repair any side sewer connecting with any of the public sewers, nor shall any opening be made into the same until the person making the same shall obtain a side sewer permit.

14: PERMIT REQUIRED TO WORK ON SEWERS. It shall be unlawful for any person to uncover, make any connection with or opening into, use, alter or disturb any public or private sewer or appurtenance thereof, without first obtaining a written permit from the Administrative Authority, and no construction of a side sewer shall be commenced without first obtaining such permit. An application for a side sewer permit shall state the location of the sewer, the number of the lot and block, and the number of the building to be connected, and the type of occupancy.

It shall be unlawful for any person to extend any private sewer or side sewer beyond the limits of the building or property for which a permit has been given without obtaining an additional permit for the desired extension.

Whenever any side sewer or other connection is made with any public sewer or private sewer, or any part of such side sewer or other connection is constructed, the said work shall be inspected by the Administrative Authority or an authorized agent of the District.

There shall be two (2) classes of side sewer permits:

(A) For single dwelling units, and,

(B) All units other than single dwelling units, including multiple dwelling units, commercial establishments and industrial establishments.

The owner or his agent shall make application for a side sewer permit on a form furnished by the Administrative Authority. The permit application shall be supplemented by any plans, specifications or other information considered pertinent in the judgment of the Administrative Authority.

Whenever a person desires to construct a side sewer intended to be connected with or discharged into any sewer, he shall, before beginning work upon the same, file with the Administrative Authority the plan thereof, which shall show the whole course of the side sewer from the connection with the sewer to its terminus at the house or premises with the location of all branches and fixtures to be connected therewith. Said plans, or a copy thereof, shall be left on file with the Secretary. If, upon investigation of said plan, the Administrative Authority shall find that the same does not

conform to the requirements of this Resolution and pursuant standards, said Administrative Authority shall not issue any permit for its construction or connection with any public sewer, and it shall be unlawful to construct said sewer or to connect the same either directly or indirectly with any public or private sewer. Suitability or adequacy of structures or means of metering, measuring, sampling or otherwise determining the nature, quantity or quality of sewage shall be determined and inspected by the Administrative Authority.

A side sewer permit shall be valid only for a period not to exceed ninety (90) days from the date of issuance and, if such side sewer construction is not completed and inspected within that time, the permit shall be automatically rendered null and void and an additional permit shall be obtained prior to continuing or beginning construction. The existence of a side sewer permit shall in no way be construed as making permissible any work for which an excavation permit may be required by the provisions of this Resolution.

All costs and expense incident to the installation and connections of a side sewer shall be borne by the owner.

The owner performing the said installation and connection shall indemnify the City from any loss or damage that may directly or indirectly be occasioned by the installation of the side sewer.

Existing side sewers may be used in connection with new buildings only when they are found on examination and test by the Administrative Authority to meet all requirements of this resolution and pursuant standards.

Old building sewers, including septic tank lines, may be used only when they are found, on examination and tests (if required by the Administrative Authority), to meet all requirements of this Resolution and pursuant standards. This examination and tests shall be at the owner's expense. The owner or his agent shall demonstrate to the Administrative Authority no connections to such building sewer or septic tank line exists that conveys any materials that are prohibited by this Resolution.

15: EXCAVATION PERMIT REQUIRED. No permit shall be granted to do side sewer work in any street, alley or public place until the applicant has first obtained the permit for excavation as required by the North Latah County Highway District. Applicant shall pay all costs associated with obtaining permit.

16: RIGHT TO REVOKE PERMISSIONS. All permits or permissions given under this Resolution shall be subject to the condition that the Board may at any time revoke and annul the same for just and proper cause and the permittee or his successors in interest, shall have no right to claim any damage in consequence of such permit or permission being revoked or annulled. Said just cause shall exist when the permittee violates any law, ordinance, resolution, or other order regulating sewers in the District or violates the terms of the permit or permission granted by the District or the Board.

The issuance or granting of a permit or approval of plans shall not prevent the Administrative Authority from thereafter requiring the

correction of errors in said plans and specifications or from preventing construction operations being carried on thereunder when in violation of this Resolution or of any other Resolution or from revoking any certificate of approval when issued in error.

17: SEWER TAPS. The applicant shall excavate the sewer line intended for tapping in such a manner as to provide a safe and adequate access as determined by the Administrative Authority. An authorized representative of the District will make the tap on the sewer line (private or public). The applicant shall be responsible for completion of the side sewer in accordance with his permit and the provisions of this Resolution.

18: FEES. Before any permit is issued for the installation or alteration of plumbing or sewers, or before any sewer connection permit is issued, the person making the application therefor shall pay to the District or the authorized agent of the District fees set from time to time by resolution of the Board for the following necessary functions:

(A) Sewer Connection Fee: Required for all new sewer users wishing to connect to a public or private sewer one or more years after the date of this Resolution.

(B) Sewer Tapping Fee: Required for connection directly to an existing public or private sewer line.

(C) Service Inspection Fee: Required for all services to be connected with a public or private sewer.

Every permit issued by the Administrative Authority under the provisions of this Resolution shall expire by limitation and become null and void, if the work authorized by such permit is not commenced within sixty (60) days from date of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of one hundred twenty (120) days. Before such work can be recommended, a new permit shall be first obtained to do so, and the fee therefor shall be one-half (1/2) of the amount required for a new permit for such work, provided no changes have been made, or will be made, in the original plans and specifications for such work; and provided, further, that such suspension or abandonment has not exceeded one year.

19: CONSTRUCTION SPECIFICATION FOR SIDE SEWERS. Specification for the construction of side sewers shall be enforced by the Administrative Authority. The Board is hereby empowered to prepare and to put into effect standards governing side sewer construction in the District, herein referred to as "standards". The standards shall contain specifications relative to materials, construction, procedure, inspection, backfilling and responsibilities in side and private sewer installations. Specific installations not fully covered by the standards shall be ruled upon by the Administrative Authority at the time of occurrence. The standards, revisions thereto and additions thereof shall be issued by the Adminis-

trative Authority. Copies of the standards may be obtained from the Administrative Authority or the authorized representative of the District.

20: CONSTRUCTION AND SPECIFICATIONS FOR PRIVATE SEWERS. Specifications for construction of private sewers shall be by the Administrative Authority. Specifications for private sewers shall be those for side sewers, except as modified or deemed necessary by the Administrative Authority. Private sewers shall be constructed only as permitted specifically by the Board. Each branch to a private sewer serving a single residence, building or property shall be considered a side sewer and shall be subject to all permits, fees and user costs. Only the part carrying the sewage of two (2) or more side sewers shall be considered a private sewer. A tapping permit shall be required for all private sewers. All private sewers shall have an easement, fifteen (15) feet in width running the length of the sewer, naming the District as the grantee and authorizing the existence of the private sewer on the property involved and authorizing all users of the private sewer to have access and maintenance rights.

21: NOTICE OF INSPECTIONS. Notice in writing must be given the authorized agent of the District by any person desiring to make connection with any public or private sewer or drain at least five (5) hours previous to the time of making such connection, stating when such work will be ready for inspection, and the Administrative Authority or agent, shall inspect the same. The connection must be made in the manner prescribed in this Resolution and to the satisfaction of said Administrative Authority before the trench is filled. When any person desires to lay or drive

any pipe in any alley or easement in which a public, private or side sewer is laid, he shall give at least twenty four (24) hours' notice to the North Latah County Highway District.

22: SEWAGE TO BE DISCHARGED INTO SEWERAGE SYSTEM. All sanitary sewage, or other polluted waters, shall be discharged into the sewerage system. It shall be unlawful for any person to dispose otherwise of said sewage, wastes and polluted waters except as otherwise authorized by Administrative Authority.

23: UNPOLLUTED WATER NOT PERMITTED IN SANITARY SEWER. It shall be unlawful for any person to discharge or cause to be discharged any storm water, ground water, roof runoff, subsurface drainage, cooling water or unpolluted water to any sanitary sewer.

24: UNPOLLUTED WATER DISCHARGED TO STORM DRAIN. Storm water shall be discharged to such sewers as are specifically designated as storm drains, or to a natural outlet approved by the Administrative Authority.

25: TYPES OF WASTES PROHIBITED FROM PUBLIC SEWERS. Except as hereinafter provided, no person shall discharge or cause to be discharged any of the following described waters or waters to any public sewer:

(A) Any water or waste which may contain more than one hundred (100) parts per million by weight of animal or vegetable fat, oil or grease.

(B) Any gasoline, benzene, naptha, fuel oil, or other flammable liquid, solid or gas, or other petroleum products and derivatives.

(C) Any garbage that has not been properly shredded.

(D) Any ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch manure, or other solid or viscous substance capable of causing obstruction to the flow in sewers or other interferences with the proper operations of the sewage system.

(E) Any waters or wastes having ph lower than five and five-tenths (5.5) or higher than ine (9.0) or having any other corrosive property capable of causing damage or hazard to sewer structures, equipment, personnel of the sewage system, or to be adversely active on sewer treatment processes.

(F) Any waters or wastes containing a toxic or poisonous substance in sufficient quantity to injure or interfere with sewage treatment processes, constitute a hazard to humans or animals, or create any hazard in the receiving waters of the sewage treatment plant.

(G) Any waters or wastes containing suspended solids of such character and quantity that unusual attention or expense is required to handle such materials at the sewage treatment plant.

(H) Any noxious or malodorous solids, liquids, or gases which either singly, or by interaction with other substances, are capable of creating a public nuisance or hazard to life or preventing entry into sewers for their maintenance or repair.

26: DISCHARGE OF CERTAIN WATERS, WASTES, ETC., POSSESSING CHARACTERISTICS LIKELY TO CAUSE HARM. No person shall discharge or cause to be discharged into a sewer any of the following described substances, materials, waters or wastes if it appears likely in the opinion of the Administrative Authority or technical expertise at his disposal that such wastes can harm either the sewers, sewage treatment process, or equipment, have an adverse effect on the receiving stream, or can otherwise endanger life, limb, public property, or constitute a nuisance. In forming his opinion as to the acceptability of these wastes, the Administrative Authority will give consideration to such factors as the quantities of subject wastes in relation to flows and velocities in the sewers, materials of construction of the sewers, nature of the sewage treatment process, capacity of the sewage treatment plant, degree to treatability of wastes in the sewage treatment plant, and other pertinent factors. The substances prohibited are:

(A) Any liquid or vapor having a temperature higher than one hundred fifty degrees (150°) Fahrenheit (65°C).

(B) Septic tank effluent.

(C) Any water or waste containing fats, wax, grease, or oils, whether emulsified or not, containing substances which may solidify or become viscous at temperatures between thirty two degrees (32°) Fahrenheit and one hundred fifty degrees (150°) Fahrenheit (0 and 65°C).

(D) Any waters or wastes containing strong acid iron pickling wastes, or concentrated plating solutions whether neutralized or not.

(E) Any ground or unground fruit peelings and cores from canneries and packing plants. Cull fruits and vegetables. Fruit and vegetable pits and seeds.

(F) Any waters or wastes containing phenols or other taste or odor producing substances, in such concentrations exceeding limits which may be established by the Administrative Authority or expertise at his disposal as necessary, after treatment of the composite sewage, to meet the requirements of the State, Federal, or other public agencies or jurisdiction for such discharge to the receiving waters.

(G) Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the Administrative Authority at his disposal in compliance with applicable State or Federal regulations.

(H) Materials which exert or cause:

1. Unusual concentrations of inert suspended solids (such as, but not limited to, fullers earth, lime slurries, and lime residues) or of dissolved solids (such as, but not limited to sodium sulfate).

2. Excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions).

3. Unusual five (5) day BOD (biochemical oxygen demand), or chlorine requirements in such quantities as to constitute a significant load on the sewage treatment works.

4. Unusual volume of flow or concentration of wastes constituting "slugs" as defined herein.

5. Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed, or are amenable to treatment only to such degree that the sewage treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters.

27: ACTION UPON DISCHARGE HAVING DELETERIOUS EFFECT. If any waters or wastes are discharged, or are proposed to be discharged into

the sewers which in the judgment of the Administrative Authority may have a deleterious effect upon the sewage works, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the Administrative Authority shall:

(A) Reject the wastes, and/or

(B) Require pretreatment to an acceptable condition for discharge to the public sewers, and/or

(C) Require control over the quantities and rates of discharge, and/or

(D) Require additional payment to cover the added cost of handling and treating the wastes nor covered by existing taxes or sewer charges under the provisions.

If the Administrative Authority permits the pretreatment or equalization of waste flows, the design and installation of the plants and equipment shall be subject to the review and approval of the Administrative Authority. Where preliminary treatment facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at his expense.

28: POWERS AND AUTHORITY OF INSPECTORS.

(A) Right of Entry Generally: The Administrative Authority or the authorized representative of the District, bearing proper identification and credentials, shall be permitted to enter all properties for the purpose of inspection, observation, measurement, sampling, and testing in accordance with the provisions of this Resolution.

(B) Observance of Safety Rules: While performing the necessary work on private properties referred to above, the Administrative Authority or authorized representative of the District shall observe all safety rules applicable to the premises established by the owner and the owner shall be held harmless for injury or property damage asserted against the owner and growing out of the gauging and sampling operation except as such may be caused by negligence or failure of the owner to maintain safe conditions.

(C) Right of Entry on Private Properties Through Which District Holds Easement: The Administrative Authority and other duly authorized representatives of the District, bearing proper credentials and identification, shall be permitted to enter all private properties through which the District holds a duly negotiated easement for the purposes of, but not limited

to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the sewage works lying within said easement. All entry and subsequent work, if any, on said easement, shall be done in full accordance with the terms of the duly negotiated easement pertaining to the private property involved.

29: AUTHORITY OF DISTRICT TO WAIVE CERTAIN REQUIREMENTS. The District may waive certain requirements in these rules and regulations when special conditions indicate that the purpose of these requirements and regulations can be achieved without strict adherence to all of the provisions and requirements. Variances shall be determined and approved for the specified time limits by the Administrative Authority with technical expertise he considers necessary.

30: SEWER RATES. The schedule of rates, fees, tools and charges for the sanitary sewer facilities and services furnished by or through, or for the use of, the District Sewer System, which rates, fees, tolls, and charges shall be from time to time set forth by a resolution of the Board and thereby found and declared to be reasonable and just, taking in account and consideration the cost value of the system and the cost of maintaining and operating the system, and the proper and necessary allowances for the depreciation thereof and the amounts necessary for the retirement of all bonds and other securities payable from the revenues of the system, accruing interest on all such bonds, and reserves therefor, be and the same thereby, fixed, established, levied, imposed and otherwise prescribed.

31: WHEN DUE AND PAYABLE, BILLING PERIODS FINES FOR OVERDUE ACCOUNTS, DELINQUENT ACCOUNTS, FINES FOR DELINQUENT ACCOUNTS. Whenever a resolution setting forth the sewer rates as prescribed in Section 30 of this Resolution is adopted by the Board, such resolution shall include the period of time for which billings are to be assessed, the due date for payment of billings, the amount of fines to be assessed on accounts not paid when due, the time at which overdue accounts shall be deemed delinquent, the amount of fines to be assessed on delinquent accounts, and any other such policy, rules, or regulations relating to the procedure for billing accounts and collection.

32: TRAPS. Where installed, all grease, oil and sand traps shall be maintained by the owner or occupant, at his expense, in continuously efficient operation at all times.

33: OTHER PERMITS. No permit shall be issued for the construction of any building or structure in the District unless the plans and specifications show connections in compliance with this Resolution.

34: VIOLATION. It shall be unlawful to occupy or use any building or structure in violation of this Ordinance and any violation of this Ordinance shall be punishable as a misdemeanor.

35: RULES AND REGULATIONS. The Administrative Authority is hereby authorized to adopt rules, regulations, and standards to carry out and enforce the provisions of this Resolution.

36: INVALIDATION CLAUSE. If any section, paragraph, clause or provision of this Ordinance shall be held to be invalid for any reason, such invalidity shall not affect the validity of enforceability of the remaining provisions thereof.

37: LIABILITY TO DISTRICT. Any person who shall violate any provisions of this Resolution shall be liable to the District for any expense, loss, damage, cost of inspection or cost of correction incurred by the District or their Authorized Agent by reason of such violation, including any expenses incurred by the District in collecting from such person of such loss, damage, expense, cost of inspection or cost of correction.

38: NOTICE OF VIOLATION. Any person found to be violating any provision of this chapter shall be served by the District with personal or registered mailed notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease all violations and make all necessary corrections.

39: CONTINUED VIOLATION; PENALTY. Any person who shall continue any violation beyond the time limit provided for in Section 38 shall, in addition to the items of expense provided in Section 37, become liable to the District for a penalty in the amount of ten percent (10%) of such expense items, together with interest thereon at ten percent (10%) per annum from the date of the time limit provided in Section 38.

40: CRIMINAL PENALTY. Any person, firm or corporation who willfully violates any of the terms or conditions of this Resolution shall be guilty of a misdemeanor, and on conviction thereof, shall be subject to a fine of not more than $250.00.

41: CIVIL LIABILITY FOR DAMAGES. Any person, firm or corporation who willfully or negligently breaks, damages, destroys, uncovers, defaces or tampers with any structure, appurtenance, or piece of equipment which is a part of the District sewerage facilities, or who willfully or negligently throws, dumps or otherwise introduces any dirt, rocks, sticks, debris, or any other foreign matter in the District sewerage system shall be liable to the District for the costs of repair thereof.

42: LIEN. In the event that any person, firm or corporation fails to pay any fee or charge as set forth in this Resolution or pursuant Resolution, within ninety (90) days after the same is billed by the District or their authorized agent, the unpaid balance plus interest shall become and remain a lien against the property.

43: LIEN ATTACHMENT. The Administrative Authority shall certify periodically the delinquencies to the District Secretary and Treasurer at which time the lien shall attach.

44: LIEN INTEREST. The lien shall be for all charges, interest at ten percent (10%) per year, or as otherwise set by the Board, from the

date due until paid, and shall attach to the premises to which the services were furnished.

45: LIEN FORECLOSURE. Upon the expiration of sixty (60) days after the attachment of the lien herein, the District may bring suit in foreclosure by civil action in the Latah Superior Court.

46: DATE OF EFFECT: This Resolution shall be in full force and effect from and after the 1st day of June, 1981.

DATED this 15th day of October, 1980.

CHAIRMAN: David E. Williams
David E. Williams

BOARD: Sam Schaper

Dottie Warnick

Frances Burklund

Exhibit 2

RESOLUTION NO. C-1-81

SOUTHEAST MOSCOW WATER AND SEWER DISTRICT

CONSTRUCTION STANDARDS AND SPECIFICATIONS

1. CONSTRUCTION STANDARDS AND SPECIFICATIONS. This Resolution establishes standards for the construction of all collector sewers, side sewers or service sewers that connect into the District system, as provided in Sections 7, 19 and 20 of Resolution No. C-4-80.

2. CITY OF MOSCOW STANDARDS ADOPTED. The City of Moscow Standard Construction Specifications, March 1978, are hereby adopted by the District.

3. EXCEPTIONS. PVC gasketed sewer pipe, SDR 35, conforming to ASTM 3034, shall be used for all new gravity sanitary sewer and service construction.

4. DATE OF EFFECT. This Resolution shall be in full force and effect from and after the 20th day of OCTOBER, 1981.

DATED this 20th day of October, 1981.

CHAIRMAN: David E. Williams

BOARD: Robert Haggard

Sam Schaper

Frances Burklund

Kathleen Warnick

COOPERATIVE AGREEMENT BETWEEN NORTH LATAH COUNTY HIGHWAY DISTRICT AND SOUTHEAST MOSCOW WATER AND SEWER DISTRICT RELATING TO THE PROVISION OF WATER AND SEWER SERVICES

This Cooperative Agreement Relating to the Provision of Water and Sewer Services ("Agreement") is entered into as of this ____ day of _____, 2014 ("Effective Date"), by and between the North Latah County Highway District, a body politic and corporate of the state of Idaho ("NLCHD") and the Southeast Moscow Water and Sewer District, a governmental subdivision and body corporate of the state of Idaho ("SMWSD").

RECITALS:

A. NLCHD, organized as provided by law, is a body politic and corporate of the state of Idaho and, as such has the powers specified in Idaho Code section 40-1301 et seq. and in other Idaho statutes, which power lies in its commissioners or by agents or officers acting under their authority or authority of law.

B. NLCHD has exclusive general supervisory authority over all public highways, public streets and public rights-of-way under their jurisdiction and, acting through its commissioners, has power to manage and conduct the business and affairs of NLCHD.

C. SMWSD, organized as provided by law, is a governmental subdivision of the state of Idaho and a body corporate with all powers of a public or quasi-municipal corporation and, as such, has the powers specified in Idaho Code section 42-3201 et seq. and in other Idaho statutes, which power lies in its directors.

D. SMWSD has power and authority, as provided by law, to construct and maintain works and establish and maintain facilities, including along any public highway, to enter into contracts and agreements, cooperative and otherwise, affecting the affairs of the SMWSD for the purposes of supplying water for domestic, commercial and/or industrial purposes and providing for sewage disposal, to extend its water lines to the source of water supply and to extend its sewer lines to an appropriate outlet.

E. It is the intent of the state of Idaho legislature, as expressed in Idaho Code section 40-210, that NLCHD and SMWSD, among other public highway agencies and utilities providing utility services to the public, engage in cooperative measures to provide economic utility facilities and services for residents of the state of Idaho.

F. NLCHD and SMWSD have been parties to that certain Right-of-Way Permit entered into on September 30, 1980 in regard to SMWSD's use of public highway and public rights-of-way under NLCHD's jurisdiction for the provision of water and sewer services to the public and now desire to enter into this Agreement to continue cooperative measures that provide the public served by SMWSD with economic water and sewer facilities and services.

WITNESSETH:

NOW THEREFORE, in consideration of the covenants and agreements hereinafter set forth to be kept and performed by NLCHD and SMWSD, it is mutually agreed as follows:

I. NLCHD AGREES:

1. To permit SMWSD to operate, administer, construct, install, establish, maintain, repair, remove, abandon and/or relocate facilities, equipment, pipelines and other works and/or installations (individually or collectively, as determined by context, "Facilities") to supply water for domestic, commercial and/or industrial purposes and to provide for sewage collection and disposal within SMWSD's jurisdiction under, upon and over public highways and/or public rights-of-way within NLCHD's jurisdiction in compliance with any and all applicable requirements set forth in the latest published edition of the (i) Idaho Standards For Public Works Construction (ISPWC) Manual and/or NLCHD modifications to the ISPWC Manual, (ii) Highway Standards and Policies for the NLCHD (iii) any and all applicable City of Moscow, Idaho public works standards and/or policies and (iv) any and all other, applicable federal, state and/or local statutes, rules, law, ordinances and/or regulations related thereto.

2. To take all reasonable actions to perform those duties and/or responsibilities of the NLCHD required by law and/or this Agreement in the furtherance of the intent and purposes of this Agreement.

II. SMWSD AGREES:

1. To operate, administer, construct, install, establish, maintain, repair, remove, abandon and/or relocate Facilities to supply water for domestic, commercial and/or industrial purposes and to provide for sewage collection and disposal within SMWSD's jurisdiction under, upon and/or over public highways and/or public rights-of-way within NLCHD's jurisdiction in compliance with any and all applicable requirements set forth in the latest published edition of the (i) Idaho Standards For Public Works Construction (ISPWC) Manual and/or NLCHD modifications to the ISPWC Manual, (ii) Highway Standards and Policies for the NLCHD (iii) any and all applicable City of Moscow, Idaho public works standards and/or policies and (iv) any and all other, applicable federal, state and/or local statutes, rules, law, ordinances and/or regulations related thereto.

2. To notify NLCHD in writing in advance of and to obtain NLCHD's prior written approval for any construction, installation, repair, removal and/or relocation of any Facilities (the "Work") located or to be located under, upon and/or over public highways and/or public rights-of-way within NLCHD's jurisdiction.

3. To have an Idaho-licensed, professional engineer (i) prepare the plans and specifications for any Work considered public work under Chapter 12 of Title 54 of the Idaho Code and (ii) review construction of any such Work to ensure that applicable standards for any such Work are being used, met and, as applicable, tested prior to inspection and/or approval and

acceptance by NLCHD. Work shall not be done without prior written approval of plans and specifications by NLCHD.

4. To maintain Facilities in a good, workmanlike, serviceable and safe condition, free from waste, so far as affected by SMWSD's operations, to the reasonable satisfaction of NLCHD, in a manner that NLCHD's improvements and/or other public or utility improvements located on public rights-of-way and public highways within NLCHD's jurisdiction shall not be damaged, impaired, or adversely affected, including, but not limited to, placing, maintaining, keeping and/or resetting manholes, manhole covers and any other Facilities located within the travelled surface of the roadway, in a manner and at a grade that, to the reasonable satisfaction of NLCHD, does not constitute a hindrance, obstacle or impediment to public travel.

5. To conduct all Work in an expedient manner with minimum interference or interruption of traffic on any public highways and public rights-of-way within NLCHD's jurisdiction and to take, at SMWSD's sole cost and expense, such measures as necessary or as directed by NLCHD to ensure the safety of those using any such public highways or public rights-of-way during periods of construction and/or maintenance.

6. At SMWSD's sole cost and expense, to remove any surplus material and clean up any work site and repair, restore and/or replace to NLCHD's then existing highway standards and subject to NLCHD's prior approval thereof, any damage to public highways and/or public rights-of-way and/or improvements thereon within NLCHD's jurisdiction caused and/or occasioned by SMWSD's Work and/or negligence and/or failure to abide by any term and/or provision of this Agreement. Notwithstanding the above, at NLCHD's sole election, NLCHD shall have the option to repair, restore and/or replace any such damage road surfaces, facilities or improvements at the expense of SMWSD and SMWSD shall reimburse NLCHD therefor upon written notice by NLCHD.

7. To expressly assume full responsibility for proper maintenance of the Facilities and full and strict liability for any and all damages of every nature to persons or property caused by SMWSD's operations, maintenance and/or Work in connection with SMWSD's rights and duties under this Agreement.

8. For itself, its agents, officers, directors, employees, contractors, subcontractors or invitees, their successors and assigns (collectively "Indemnitors") to release, defend (with counsel reasonably satisfactory to NLCHD) and indemnify the NLCHD and all of the commissioners, officers, employees, contractors and agents, their successors and assigns (collectively known as "Indemnitees"), from and against all claims, causes of action, proceedings, losses, damages, liability, cost, and expense (including, but not limited to, the property and employees of each party) ("Liability") when arising or resulting from performance by Indemnitors, or any of them, of operations, maintenance and/or Work under, upon and/or over public highways and/or public rights-of-way within NLCHD's jurisdiction, or SMWSD's breach of any provision of this Agreement. It is the express intent of the parties that Indemnitors and each of them will indemnify and hold harmless Indemnitees from any and all claims, suits or actions arising from any cause whatsoever as set forth above regardless of the existence or degree of fault or negligence on the part of Indemnitees or other Indemnitors, except to the

extent the Liability was attributable to the gross negligence, willful misconduct or criminal acts of a particular Indemnitee, it being understood and agreed that any Indemnitee not acting in such a manner shall still be entitled to the full benefits of this indemnity. Indemnitors and each of them waive any and all rights to claim and/or assert any type of express or implied indemnity against Indemnitees. This indemnity shall survive termination of this Agreement. It is the intention of the parties that should any term of this indemnity provision be found to be void or unenforceable, the remainder of the provision shall remain in full force and effect.

9. To comply, at SMWSD's expense, with all applicable laws, regulations, rules and orders with respect to the use of public highways and/or public rights-of-way within NLCHD's jurisdiction, regardless of when they become or became effective, including, without limitation, those relating to construction, grading, signage, health, safety, noise, environmental protection, hazardous materials, waste disposal and water and air quality and to furnish satisfactory evidence of such compliance upon request of NLCHD. Before beginning any Work under this Agreement, SMWSD shall also obtain, at SMWSD's expense, any and all permits, licenses and approvals required for construction and operation of the Work and shall provide NLCHD with copies of such approvals.

III. NLCHD AND SMWSD AGREE:

10. This Agreement is made subject and subordinate to the prior and continuing rights set forth in Title 40 of the Idaho Code for the public to use public highways and/or public rights-of-way within NLCHD's jurisdiction and for NLCHD to exercise, discharge and/or perform rights and duties under law. NLCHD reserves all rights to construct, reconstruct and maintain and for the public to use any and all existing and future improvements and appurtenances to public highways and public rights-of-way within NLCHD's jurisdiction and, in the event that any public highways and/or public rights-of-way within NLCHD's jurisdiction is/are constructed and/or reconstructed in the future so as to require the relocation of SMWSD's Facilities, SMWSD shall assume and pay all costs incident to relocation of any such Facilities. This Agreement is also subject to all rights granted to others under Idaho law to construct, reconstruct, maintain and operate certain facilities, including but not limited to, oil and gas pipelines, electrical power systems, fiber optic and other telecommunication systems under, upon and over public highways and/or public rights-of-way within NLCHD's jurisdiction.

11. Any dispute arising between NLCHD and SMWSD regarding Work and/or maintenance of Facilities or repair and/or restoration of NLCHD's improvements and/or regarding any other construction related matter under this Agreement shall be resolved by an Idaho-licensed, professional engineer appointed by NLCHD and such professional engineer's decision in regard to any such matter shall be promptly complied with, as applicable, by SMWSD and/or NLCHD.

12. That the terms of this Agreement shall be reviewed at least every ten (10) years by NLCHD and SMWSD and that any proposed changes must be approved by NLCHD's Board of Commissioners and SMWSD's Board of Directors. This Agreement shall be in effect until December 31, 2044 or upon an earlier annexation or dissolution event by which either party's jurisdiction and/or authority in connection with this Agreement becomes null and void.

13. Notices. All notices required or permitted to be given under this Agreement shall be in writing and mailed postage prepaid by certified or registered main, return receipt requested, or by personal delivery, to the appropriate address indicated below.

North Latah County Highway District
1132 East White Avenue
Moscow, Idaho 83843

with copy to: Landeck & Forseth P.C.
Attorneys at Law
693 Styner Avenue, Suite 9
PO Box 9344
Moscow, Idaho 83843

Southeast Moscow Water and Sewer District
_____
_____

14. Attorney Fees. If any legal proceeding should be instituted by either of the parties to enforce the terms of this Agreement or to determine the rights of the parties under this Agreement, the prevailing party in any such proceeding shall be awarded, in addition to all court costs, a reasonable sum for attorney fees.

15. The rights and obligations of the parties under this Agreement shall be interpreted in accordance with the laws of the state of Idaho.

16. This Agreement constitutes the complete expression of the agreement between the parties and supersedes any prior agreements, whether written or oral, concerning the subject of this Agreement, which are not fully expressed in this Agreement. The parties intend this Agreement to be an integrated agreement. Any modification of or addition to this Agreement must be approved in writing by both parties.

North Latah County Highway District, a body politic and corporate of the state of Idaho, acting through its Board of Commissioners

By:_____

_____
[print name]
Its Chairman

Southeast Moscow Water and Sewer District, a political subdivision of the state of Idaho, acting through its Board of Directors

By:_____

_____
[print name]
Its Chairman

DRAFT

STATE OF IDAHO)
) ss.
County of Latah)

On this ____ day of _____, 2014, before me, the undersigned, a Notary Public in and for said State, personally appeared _____, known or identified to me to be Chairman of the Board of Commissioners of the North Latah County Highway District, an Idaho body corporate and politic, whose name is subscribed to the foregoing instrument, and acknowledged to me that the North Latah County Highway District executed the same.

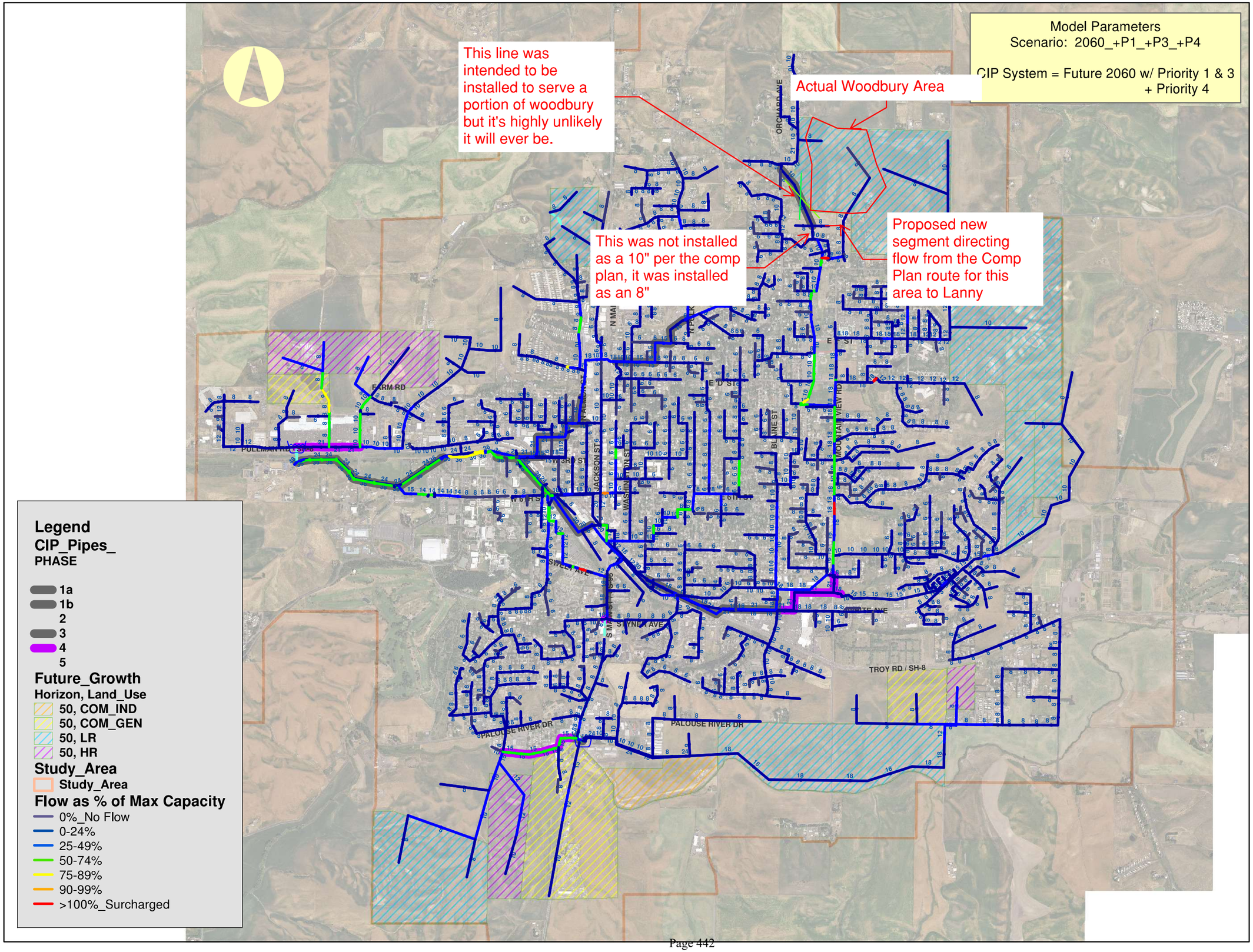
_____
NOTARY PUBLIC for Idaho
My commission expires:_____

STATE OF IDAHO)
) ss.
County of Latah)

On this ____ day of _____, 2014, before me, the undersigned, a Notary Public in and for said State, personally appeared _____, known or identified to me to be Chairman of the Board of Directors of the Southeast Moscow Water and Sewer District, a governmental subdivision and body corporate of the state of Idaho, whose name is subscribed to the foregoing instrument, and acknowledged to me that the Southeast Moscow Water and Sewer District executed the same.

_____
NOTARY PUBLIC for Idaho
My commission expires:_____

DRAFT



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Prepared for:
CITY of MOSCOW, IDAHO

Project:
COMPREHENSIVE SEWER SYSTEM PLAN

Title:
CIP SYSTEM UTILIZED CAPACITY - 2060 Peak Hour Flows

Appendix Figure

Appendix D

USE OF SEWAGE EFFLUENT
UNIVERSITY OF IDAHO

This agreement is by and between the City of Mosocw, a Municipal Corporation, and the University of Idaho, a Constitutional Corporation, organized and working under and by virtue of the Constitution of the State of Idaho.

WHEREAS, the City of Moscow and the University of Idaho recognize the necessity of implementing the following goals:

1. Conservation of underground water supply in the Moscow Basin for domestic use;

2. Reduction of electrical energy required for pumping of water;

3. Reduction of fertilizer requirements for large irrigated greens areas;

4. Improvement in the quality of discharged sewage effluent; and

5. Creation of a long-term uninterruptible source of irrigation water supply.

WHEREAS, the City of Moscow and the University of Idaho, in order to accomplish the goals stated above, deem it essential to put to beneficial use the effluent discharge from the City of Moscow sewage treatment plant for University use, to include watering intramural fields, athletic fields, lawn areas, plantings, and the golf course, and

WHEREAS, the City of Moscow sewage treatment plant is in close proximity to the University of Idaho campus.

NOW THEREFORE, the City of Moscow does hereby grant, bargain, and convey to the University of Idaho the perpetual right to collect impound the effluent discharged from the City of Moscow's sewage treatment plant at the chlorine contact chamber wier and to put such effluent to said beneficial use.

The University of Idaho further agrees that during such time as the University is not utilizing the effluent for the above purposes, that the City of Moscow shall have the right to use the storage tank to enhance the sewage treatment plant operation, specifically to allow the discharged effluent to flow through the tank before being discharged into Paradise Creek.

Quality control of discharged effluent shall be the responsibil: of the City of Moscow who will ensure that standards of NPDES permit ID-002149-1 and all other applicable standards regarding effluent limi tations and monitoring requirements are met.

77

77-9

The City of Moscow will pay all operation and maintenance costs during the period when the facility is operated solely to enhance discharge quality, and the University of Idaho will assume any costs of additional treatment of the effluent which may be required specifically for irrigation use.

FOR THE CITY OF MOSCOW

Paul Mann, Mayor

Date June 21, 1977

FOR THE UNIVERSITY OF IDAHO

Sherman Carter

Date June 14, 1977

Close

Water Right Report : 87-7201(Decreed/Active)

Water Right Owners

Owner Type	Name	Address	City	State	Postal Code
Attorney	THOMPSON, TRAVIS L	MARTEN LAW LLP 163 SECOND AVE W PO BOX 63	TWIN FALLS	ID	83303-0063
Current Owner	BOARD OF REGENTS OF THE UNIVERSITY OF IDAHO	875 PERIMETER DR MS 3168	MOSCOW	ID	83844-3168

Water Right Status

Priority Date : 11/21/1996
Basis : Decreed
Status : Active

Water Source

Source	Source Qualifier	Tributary	Tributary Qualifier
WASTE WATER		PARADISE CREEK	

Points Of Diversion (Location)

Source	Township	Range	Section	Govt. Lot	QQQ	QQ	Q	County	Diversion Type
WASTE WATER	39N	06W	12	0		SE	SW	LATAH	

Water Uses

Beneficial Use	From	To	Diversion Rate	Volume
WATER QUALITY IMPROVEMENT	01/01	12/31	0.27 CFS	195.00 AFA
WATER QUALITY IMPROVEMENT STORAGE	01/01	12/31		195.00 AFA
AESTHETIC STORAGE	01/01	12/31		195.00 AFA
DIVERSION TO STORAGE	01/01	12/31	0.27 CFS	
TOTAL			0.27 CFS	195.00 AFA

Places of Use

Printable View | Paged View

Place of Use Legal Description : WATER QUALITY IMPROVEMENT (LATAH county)

Township	Range	Section	Lot	QQQ	QQ	Q	Acres
39N	06W	12	4		SW	SW	
39N	06W	12			SE	SW	

Place of Use Legal Description : WATER QUALITY IMPROVEMENT STORAGE (LATAH county)

Township	Range	Section	Lot	QQQ	QQ	Q	Acres
39N	06W	12	4		SW	SW	
39N	06W	12			SE	SW	

Place of Use Legal Description : AESTHETIC STORAGE (LATAH county)

Township	Range	Section	Lot	QQQ	QQ	Q	Acres
39N	06W	12	4		SW	SW	
39N	06W	12			SE	SW	

Conditions

Code	Condtions
	Water quality improvement and aesthetic storage uses are for wetlands.

01M	After specific notification by the department, the right holder shall install a suitable measuring device or shall enter into an agreement with the department to determine the amount of water diverted from power records and shall annually report the information to the department.
072	This right authorizes an annual volume of water to fill the storage facility and the amount required to replace losses through evaporation.
004	This right does not grant any right-of-way or easement across the land of another.
PIN	Parcel No. RPM00000120195
C18	This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Idaho Code § 42-1412(6).

Dates

Licensed Date :
Decreed Date : 8/18/2023
Permit Proof Due Date : 5/1/2002
Permit Proof Made Date : 4/19/2002
Permit Approved Date : 4/25/1997
Permit Moratorium Expiration Date :
Enlargment Use Priority Date :
Enlargement Statute Priority Date :
Application Recevied Date: 11/21/1996
Protest Deadline Date:

Other Information

State or Federal :
Water District Number : NWD
Generic Max Rate Per Acre : 0
Generic Max Volume Per Acre : 0
Civil Case Number :
Decree Plantiff :
Decree Defendant :
Swan Falls Trust or Nontrust :
Swan Falls Dismissed :
DLE Act Number :
Cary Act Number :
Mitigation Plan: False

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Close

Water Right Report : 87-7026(Decreed/Active)

Water Right Owners

Owner Type	Name	Address	City	State	Postal Code
Attorney	THOMPSON, TRAVIS L	MARTEN LAW LLP 163 SECOND AVE W PO BOX 63	TWIN FALLS	ID	83303-0063
Current Owner	BOARD OF REGENTS OF THE UNIVERSITY OF IDAHO	875 PERIMETER DR MS 3168	MOSCOW	ID	83844-3168

Water Right Status

Priority Date : 3/16/1977
Basis : Decreed
Status : Active

Water Source

Source	Source Qualifier	Tributary	Tributary Qualifier
WASTE WATER		PARADISE CREEK	

Points Of Diversion (Location)

Source	Township	Range	Section	Govt. Lot	QQQ	QQ	Q	County	Diversion Type
WASTE WATER	39N	06W	12	0		SE	SW	LATAH	

Water Uses

Beneficial Use	From	To	Diversion Rate	Volume
IRRIGATION	4/01	11/01	1.78 CFS	522.00 AFA
TOTAL			1.78 CFS	522.00 AFA

Places of Use

Printable View | Paged View

Place of Use Legal Description : IRRIGATION (LATAH county)

Show 10 entries Search:

Township	Range	Section	Lot	QQQ	QQ	Q	Acres
39N	05W	7	4		SW	SW	21.0
39N	05W	7			SE	SW	1.0
39N	05W	18			NE	NW	6.0
39N	05W	18	1		NW	NW	5.0
39N	05W	18	2		SW	NW	27.0
39N	05W	18			SE	NW	4.0
39N	05W	18			NE	SW	13.0
39N	05W	18	3		NW	SW	41.0
39N	05W	18	4		SW	SW	25.0
39N	05W	18			SE	SW	3.0

Showing 1 to 10 of 13 entries Previous 1 2 Next

Irrigation Totals

Total Acres	Acre Limit
174.00	

Conditions

Code	Condtions
L08	Return flow if discharged to a surface water system shall meet Idaho water quality standards.
C18	This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Idaho Code § 42-1412(6).
S40	The use of water for irrigation under this right may begin as early as March 15, provided other elements of the right are not exceeded. The use of water before April 1 under this remark is subordinate to all water rights having no subordinated early or late irrigation use and a priority date earlier than the date a partial decree is entered for this right.
PIN	Parcel No. RPM00000120195 for Point of Diversion
C05	Right includes accomplished change in place of use pursuant to Idaho Code § 42-1425.
M01	A measuring device of a type approved by IDWR shall be maintained as a part of the diverting works.
E56	The rights listed below are limited to the irrigation of a combined total of 737.4 acres in a single irrigation season. Combined Right Nos.: 87-2014, 87-2018, 87-2031, 87-7026, 87-7141, 87-7162
R62	This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 3.0 afa per acre at the field headgate for irrigation of the place of use.

Dates

Licensed Date :
Decreed Date : 7/28/2023
Permit Proof Due Date : 12/1/1978
Permit Proof Made Date : 10/30/1978
Permit Approved Date : 11/6/1976
Permit Moratorium Expiration Date :
Enlargment Use Priority Date :
Enlargement Statute Priority Date :
Application Recevied Date: 8/2/1976
Protest Deadline Date:

Other Information

State or Federal :
Water District Number : NWD
Generic Max Rate Per Acre : 0
Generic Max Volume Per Acre : 0
Civil Case Number :
Decree Plantiff :
Decree Defendant :
Swan Falls Trust or Nontrust :
Swan Falls Dismissed :
DLE Act Number :
Cary Act Number :
Mitigation Plan: False

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Wetlands #7500

Memorandum of Understanding
Paradise Creek Watershed Restoration Artificial Wetlands Demonstration Project

1. **Parties.** This Memorandum of Understanding ("MOU") is between The Regents of the University of Idaho, a public corporation, state educational institution and body politic and corporate organized and existing under the Constitution and laws of the State of Idaho ("University") acting through the Idaho Water Resources Research Institute ("Research Institute"), the City of Moscow ("City") and the Palouse-Clearwater Environmental Institute ("Environmental Institute").

2. **Purposes** of this MOU are to:
   a) Define the responsibilities and expectations of the Parties in designing and constructing a Wetlands Demonstration Project [Paradise Creek Watershed Restoration.]
   b) Establish the conditions of use of University property for the Project
   c) Establish a framework for future cooperation between the organizations and agencies participating in the Project.

3. **Funding** to support design and construction of the Project will be provided through a Section 319 grant, Phase Two: Paradise Creek Watershed Restoration, from the Idaho Division of Environmental Quality ("IDEQ") and the United States Environmental Protection Agency ("EPA") to the Environmental Institute.

4. **Goal** of the Project is to demonstrate the beneficial effects of Wetlands in improving the water quality of Paradise Creek through a private/public cooperative research effort.

5. **Objectives** of the Project include:
   a) To demonstrate an innovative treatment technology for potential point and non-point source pollution which is less expensive than traditional treatment methodologies.
   b) To learn about the functions and values of Wetlands in enhancing stream water quality through participation and research associated with the Project.
   c) To demonstrate how Wetlands can enhance the quality of water entering Paradise Creek.
   d) To optimize the effectiveness of Wetlands in enhancing stream water quality through research, design and operations.
   e) To demonstrate that "artificial" Wetlands can provide many of the same treatment functions as natural Wetlands.
   f) To develop an artificial Wetlands demonstration project which can serve as a model project for the Inland Northwest.

6. **Description of the Project:**
   a) Phase Two: Paradise Creek Watershed Restoration consists of development of an artificial Wetlands area to demonstrate the effectiveness of Wetlands to enhance treatment of various point and non-point sources of discharge that currently drain into Paradise Creek.

b) The artificial Wetlands will be sited on University property adjacent to the Idaho/Washington state line, between the Burlington Northern Railroad right-of-way and the north bank of Paradise Creek.

c) The artificial Wetlands will consist of two separate systems: (1) a subsurface flow and (2) a free water system occupying approximately 4.2 acres including internal berms.

d) The water surface area of approximately 3.26 acres will be divided into ten long, narrow Wetland cells. Eight of the cells will be straight channels approximately 394 feet long and 36 feet wide. Two remaining Wetland cells to the south will follow the meandering contours of the creek. Small islands and finger dikes will break up wide areas in the irregular channels.

e) A complete description of the Project and tasks appears in the Project Proposal submitted to IDEQ by Environmental Institute.

7. **Roles and Responsibilities of the Parties:**

a) University agrees to:

i) Provide a site for the project as shown on the site map at Addendum A.

ii) Provide assistance to Research Institute for ongoing maintenance of the artificial Wetlands demonstration area.

iii) Grant permission to Environmental Institute to construct the Wetlands demonstration as described in this MOU.

b) Research Institute agrees to:

i) Provide technical and scientific review and approval of design, construction and current and future uses of the site as an artificial demonstration Wetlands.

ii) Serve as representative for University on issues related to implementation of this MOU.

iii) Develop short-term and long-term education and research program goals.

iv) Coordinate use of the constructed artificial Wetlands as a university-wide teaching and research facility.

v) Develop, write and produce promotional materials for the education and research components.

vi) Coordinate priority uses of the Wetlands demonstration site with University administration.

vii) Complete planning for long-term operation, maintenance and disposition of constructed artificial Wetlands.

viii) Develop and implement a cost share strategy for education and research user programs to contribute to the long-term operation and maintenance of the facility.

ix) Assume responsibility for operation and maintenance of the facility with assistance from Environmental Institute and other University departments.

x) Submit applications, in the name of the University, for all permits associated with ongoing operation of the Wetlands demonstration site.

c) City agrees to:

i) Maintain the Wastewater Treatment Plant (WWTP) effluent delivery system pursuant to criteria allowed by City's NPDES permit.

ii) Assure continued flow of Wastewater Treatment Plant effluent to the Wetlands facility, subject to prior water rights and contingent upon regulatory approval, if required.

iii) Cooperate in research of wetland treatment of municipal water plant effluent.

d) Environmental Institute agrees to:

i) Administer the Section 319 grant, Phase Two: Paradise Creek Watershed Restoration subject to prior approval by University.

ii) Coordinate and oversee project design, engineering, and construction subject to review and approval by University through Idaho Water Resources Research Institute at critical points.

iii) Provide volunteer labor to assist with Project construction.

iv) Provide volunteer labor on an ongoing basis for the purpose of light maintenance.

v) Prepare (or ensure that the contractor prepares) applications for all permits required for construction.

vi) Provide for code-compliant access during construction.

vii) Ensure that all volunteers have executed hold harmless statements in favor of University, on a form approved by University before permitting any volunteer to participate in any activity on University property, and deliver originals of all executed forms to University.

viii) Issue contracts for construction as needed, subject to review and approval by University.

ix) Perform hydraulic engineering to enable delivery of municipal water plant effluent to Wetlands.

8. **Project Benefits** include:

a) Creation of a research and demonstration site for free water-surface and subsurface flow Wetlands systems.

b) Construction of a model demonstration project which will be used by City and University to evaluate a larger-scale Wetland treatment facility, both for temperature stabilization and nutrient removal.

c) Providing education regarding the function and value of Wetlands in treatment of potential point and non-point sources of stream water pollution through trails, observation areas and interpretive signs which explain how Wetlands can be used as a water treatment facility and habitat enhancement area.

d) Providing a site for research and training in biology, life sciences, hydrology, aquatic ecology, engineering and other sciences related to Wetlands ecology for University students and faculty.

9. **Project Evaluation**:
   a) A Water Quality Monitoring Workplan will be developed by the Parties and submitted for approval by IDEQ.
   b) Inflow and outflow to and from the Wetlands will be monitored with a flow-proportional continuous monitoring device and by means of grab samples during high flow events.

10. **General Provisions**:
   a) This MOU is intended to support, and not conflict with, Contract No. QC012700, Contract Amendment #1, between IDEQ and Environmental Institute.
   b) If this MOU conflicts with NPDES or other permits issued to University, City, or other Parties to this MOU, the conflicting terms will be renegotiated by the Parties.
   c) Applications for temporary permits associated with construction will be filed by Environmental Institute; such permits will be issued to Environmental Institute.
   d) Applications for permits associated with ongoing operation and maintenance will be filed by Research Institute on behalf of University; such permits will be issued to University.
   e) University assumes no responsibility to provide for future public access to the site.
   f) Environmental Institute shall restrict access to the site to those individuals approved by University.

11. **Amendment**
   a) Proposed changes to this MOU will be submitted in the form of an amendment, and will take effect upon the written agreement of all Parties to this MOU.
   b) Any of the Parties may propose changes to this MOU.

12. **Term.**
   a) This MOU will terminate upon 30-days written notice of any Party's intent to discontinue performing its responsibilities under this MOU. Written notice must be provided to all other Parties.
   b) This MOU will be reviewed every five years to assess its adequacy, effectiveness and continuing need.
   c) If this MOU is terminated prior to completion of construction, whether unilaterally or by Agreement, PCEI shall be responsible for returning University's property to its condition prior to this MOU.

13. **Additional Parties** may be added to this MOU if they agree to all portions of this MOU and any amendments to it and if existing Parties agree such additional parties may be added.

14. **Notices**. Any notice under this MOU shall be in writing and be delivered in person or by public or private courier service (including U. S. Postal Service Express Mail) or certified mail with return receipt requested or by facsimile. All notices shall be addressed to the Parties at the following addresses or at such other addresses as the Parties may from time to time direct in writing:

Notice to University and Research Institute will be provided to:
Director
Idaho Water Resources Institute
University of Idaho
Moscow, ID 83844-3011

Notice to City will be provided to:
City Engineer
City Hall
Moscow, Idaho 83843

Notice to Environmental Institute will be provided to:
Executive Director
Palouse-Clearwater Environmental Institute
P. O. Box 8596
Moscow, Idaho 83843

15. **Venue: Governing Law.** It is specifically negotiated and agreed between the Parties that in the event any legal proceeding shall be instituted between them, such legal proceeding shall be instituted in the courts of the County of Latah, the State of Idaho, and each of the parties agrees to submit to the jurisdiction of such courts. It is further agreed that this MOU shall be governed by the laws, including conflicts of laws, in the State of Idaho as an agreement to be performed within the State of Idaho.

16. **Severability.** If any term or provision of this MOU shall, to any extent be determined by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this MOU shall not be affected thereby, and each term and provision of this MOU shall be valid and be enforceable to the fullest extent permitted by law; and it is the intention of the parties hereto that if any provision of this MOU is capable of two constructions, on of which would render the provision void and the other of which would render the provision valid, such provision shall have the meaning which renders it valid.

17. **Indemnity.** Environmental Institute shall indemnify, defend and hold City harmless from and against any and all claims, losses, damages, injuries, liabilities and all costs, including attorneys fees, court costs and expenses and liabilities incurred in or from any such claim, arising from any breach or default in the performance of any obligation on Environmental Institute's part to be performed under the terms of this MOU, or arising from any act, negligence or the failure to act of Environmental Institute, or any of its agents, contractors, employees, invitees, volunteers, or guests. Environmental Institute, upon notice from City, shall defend City at Environmental Institute 's expense by counsel reasonably satisfactory to City. Environmental Institute, as a material part of the consideration of City, hereby waives all claims in respect thereof against City.

This indemnification does not apply when such claims, losses, damages, injuries, liabilities, costs, and expenses are the result of negligent acts, errors, omissions or fault on the part of City, its employees or agents.

18. **Indemnity.** Environmental Institute shall indemnify, defend and hold University harmless from and against any and all claims, losses, damages, injuries, liabilities and all costs, including attorneys fees, court costs and expenses and liabilities incurred in or from any such claim, arising from any breach or default in the performance of any obligation on Environmental Institute's part to be performed under the terms of this MOU, or arising from any act, negligence or the failure to act of Environmental Institute, or any of its agents, contractors, employees, invitees, volunteers, or guests. Environmental Institute, upon notice from University, shall defend University at Environmental Institute 's expense by counsel reasonably satisfactory to the University. Environmental Institute, as a material part of the consideration of University, hereby waives all claims in respect thereof against University.

This indemnification does not apply when such claims, losses, damages, injuries, liabilities, costs, and expenses are the result of negligent acts, errors, omissions or fault on the part of University, its employees or agents.

19. **Force Majeure.** Any prevention, delay or stoppage due to strikes, lockouts, labor disputes, acts of God, inability to obtain labor or materials or reasonable substitutes therefore, governmental restrictions, governmental regulations, governmental controls, enemy or hostile governmental action, civil commotion, fire or other casualty, and other causes beyond the reasonable control of the party obligated to perform, shall excuse the performance, except for the payment of money, by such party for a period equal to any such prevention, delay or stoppage.

20. **No Assignment of Contract.** No assignment of this MOU or of any right accruing under this MOU shall be made, in part or in whole.

21. **Entire Agreement.** This MOU and the other documents to be executed by the Parties, embody the entire agreement relative to the subject matter hereof, and there are no oral agreements existing relative to the subject matter hereof which are not expressly set forth herein or in the documents to be executed hereunder and covered hereby, and in the case of any conflicts between any such documents, this MOU shall control.

FOR THE UNIVERSITY:

12/2/96
Jerry Wallace Date
Vice President for Finance and Administration
University of Idaho

FOR ENVIRONMENTAL INSTITUTE:

10/29/96
Thomas C. Lamar Date
Executive Director
Palouse-Clearwater Environmental Institute

FOR RESEARCH INSTITUTE:

11/26/96
Leland L. Mink Date
Director
Idaho Water Resources Research Institute

FOR THE CITY OF MOSCOW:

11/13/96
Paul C. Agidius Date
Mayor
City of Moscow

Appendix E

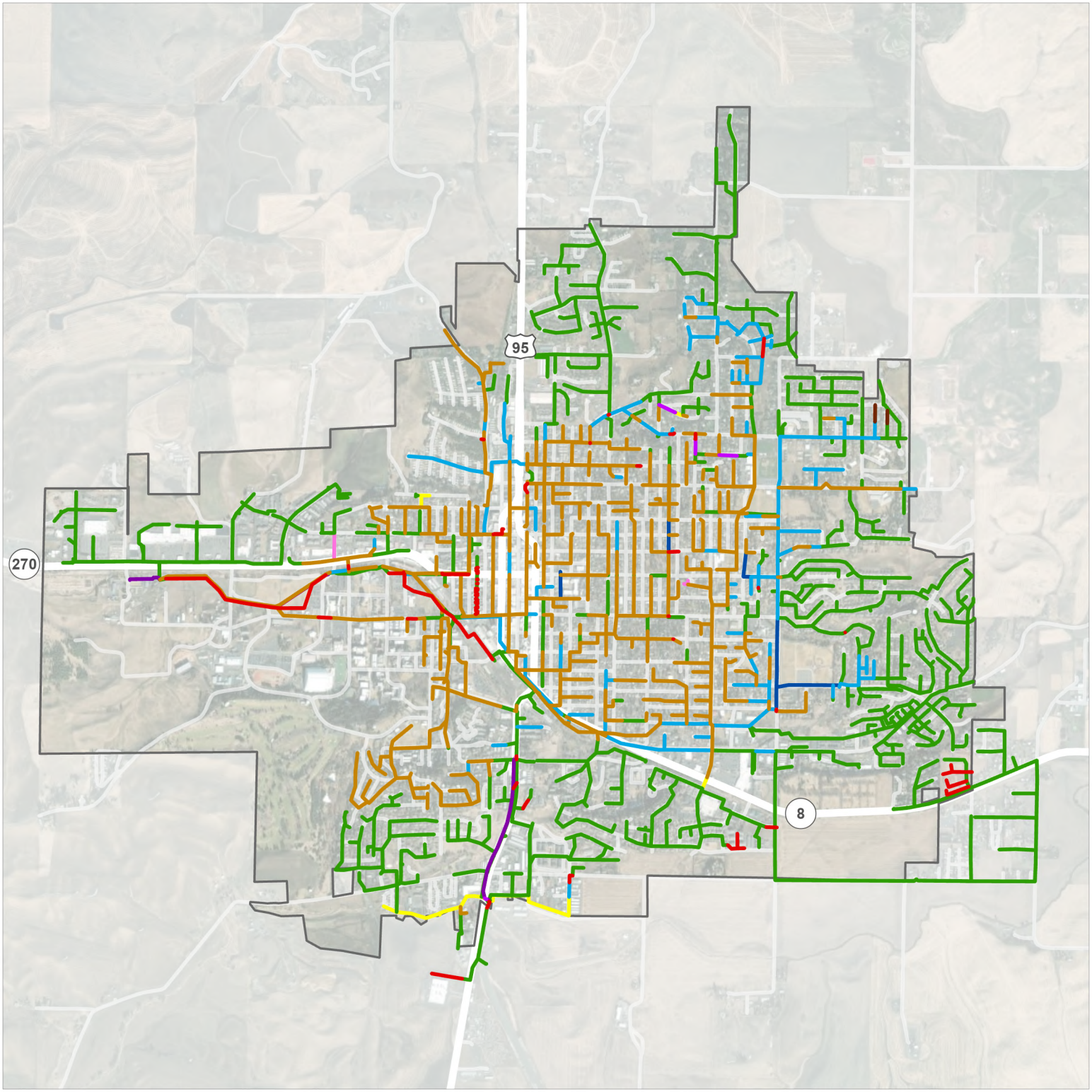
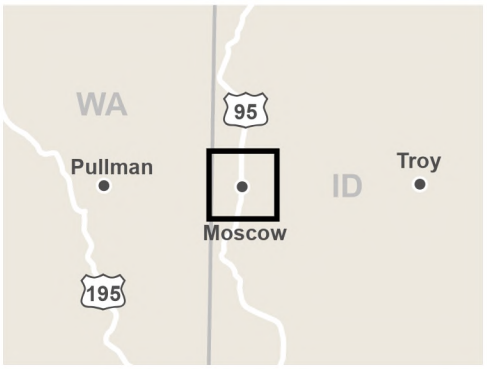


FIGURE 6-1
Existing Pipeline Material
Wastewater Facilities Planning Study
Moscow, Idaho

- Asbestos Cement
- Cast Iron
- Clay Tile
- Concrete
- Cured In Place
- Ductile Iron
- Polyethylene
- Polyvinyl Chloride
- Transite
- Vitrified Clay
- Other
- City Limits

0 ¼ Mile

N



KELLER ASSOCIATES

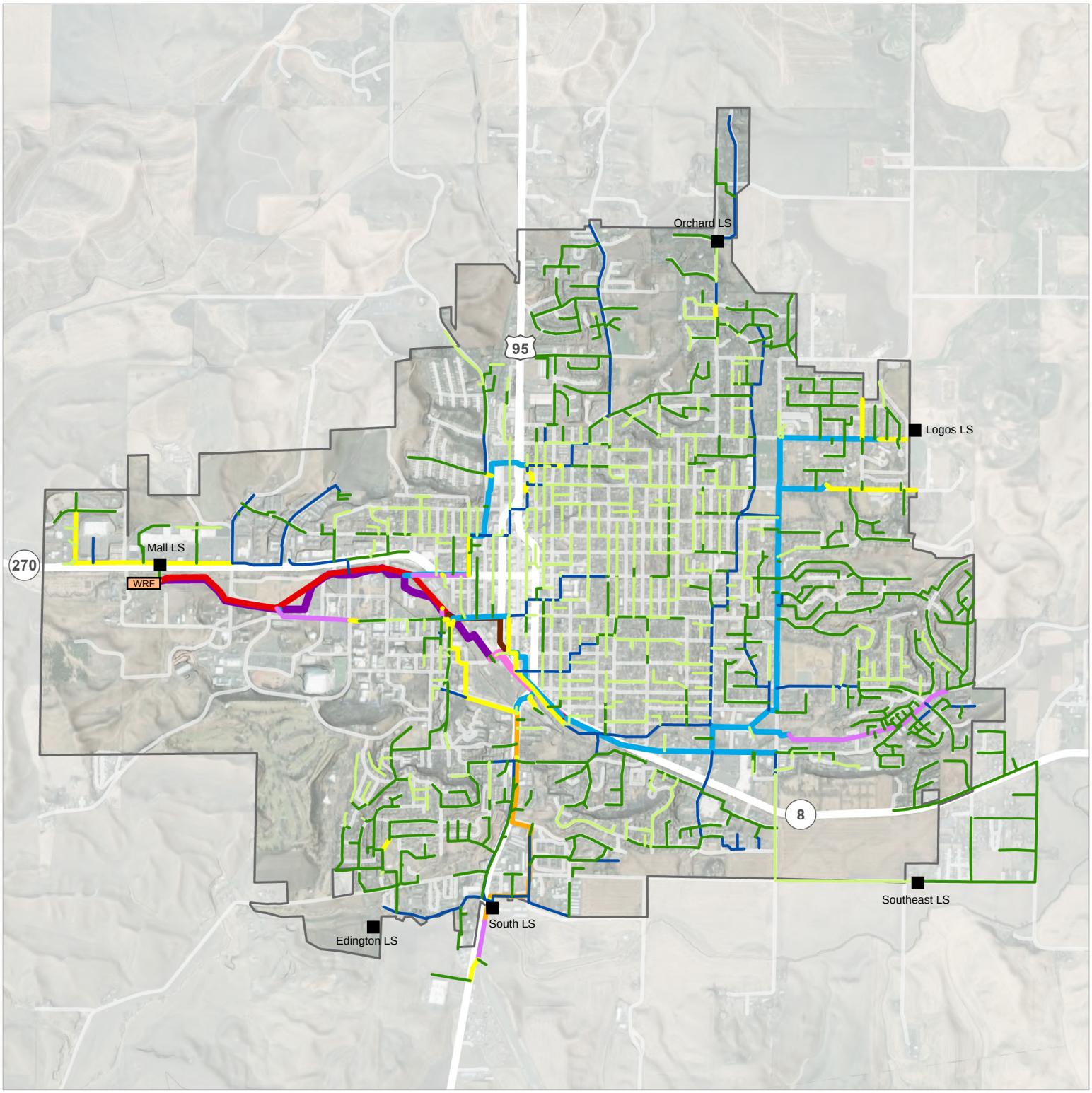


FIGURE 6-2
Existing Pipeline Size
Wastewater Facilities Planning Study
Moscow, Idaho

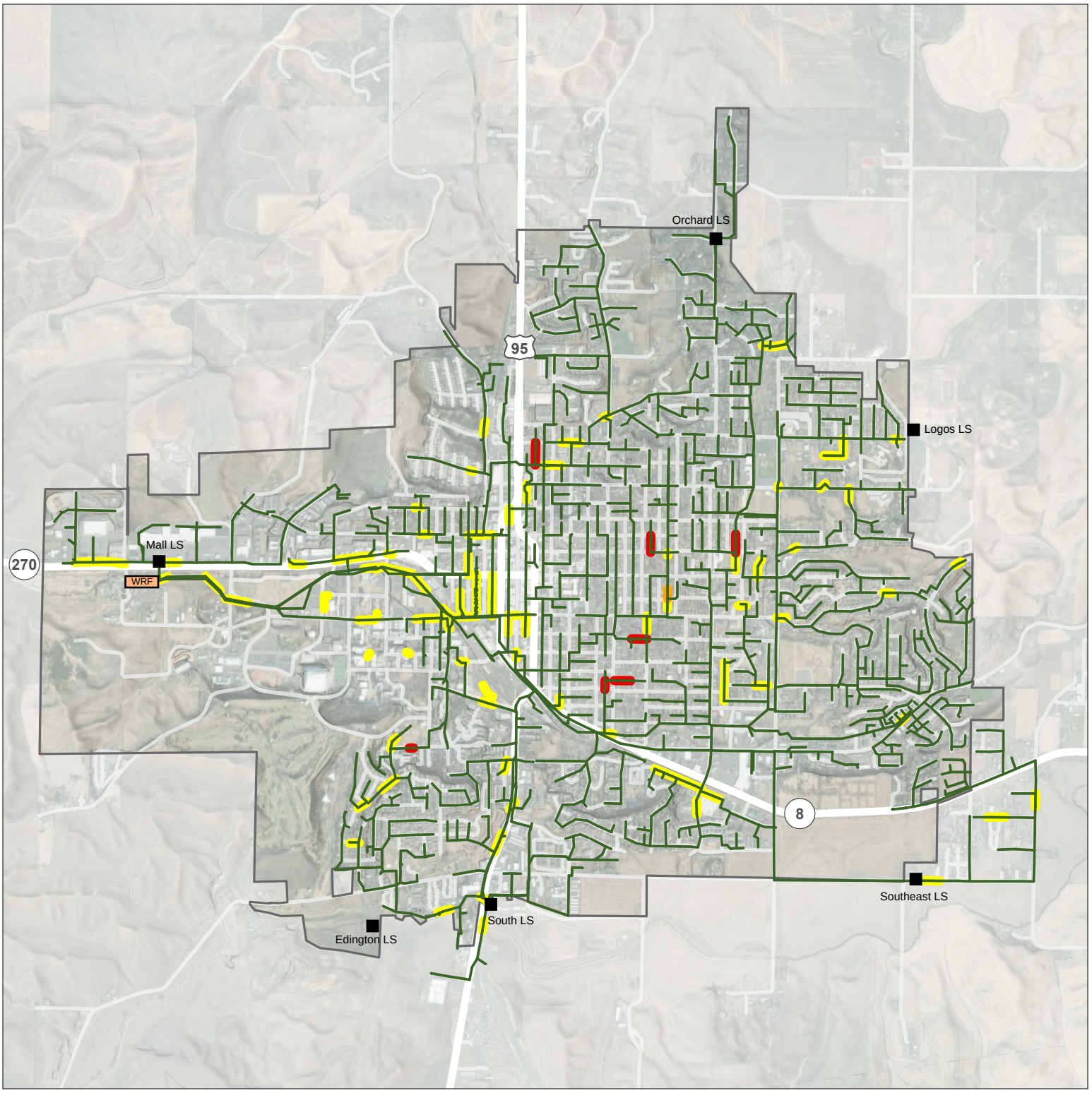


FIGURE 6-3
CCTV and Minimum Slope Deficiencies
Wastewater Facilities Planning Study
Moscow, Idaho

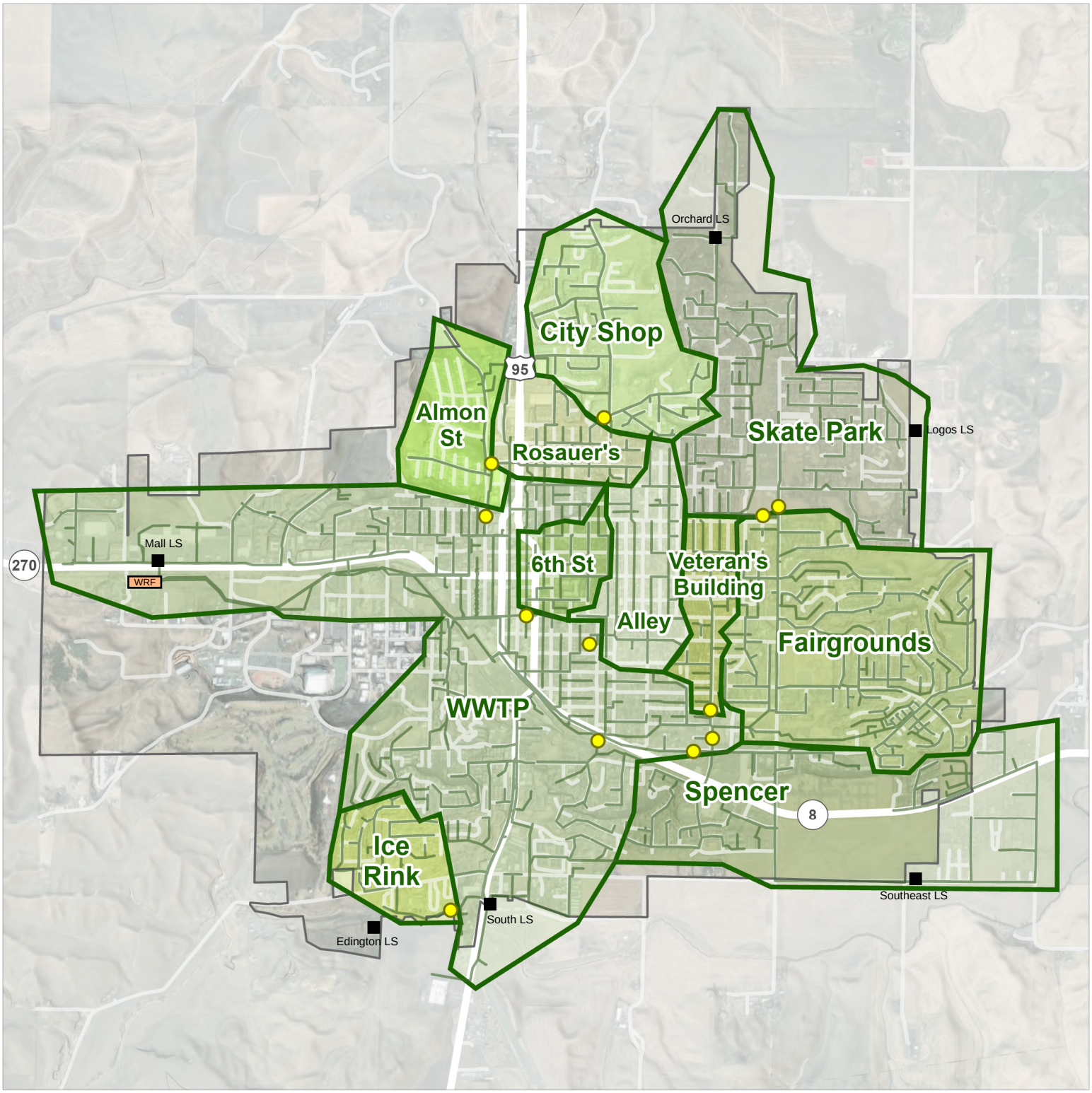
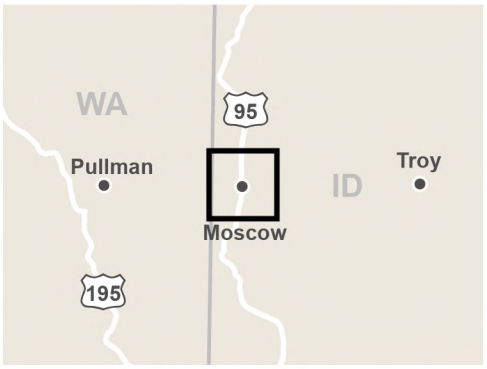


FIGURE 6-4
Flow Monitoring Locations and Basins
Wastewater Facilities Planning Study
Moscow, Idaho



Flow Monitoring Locations
Existing Pipes
Basins
City Limits
0 ¼ Mile
N

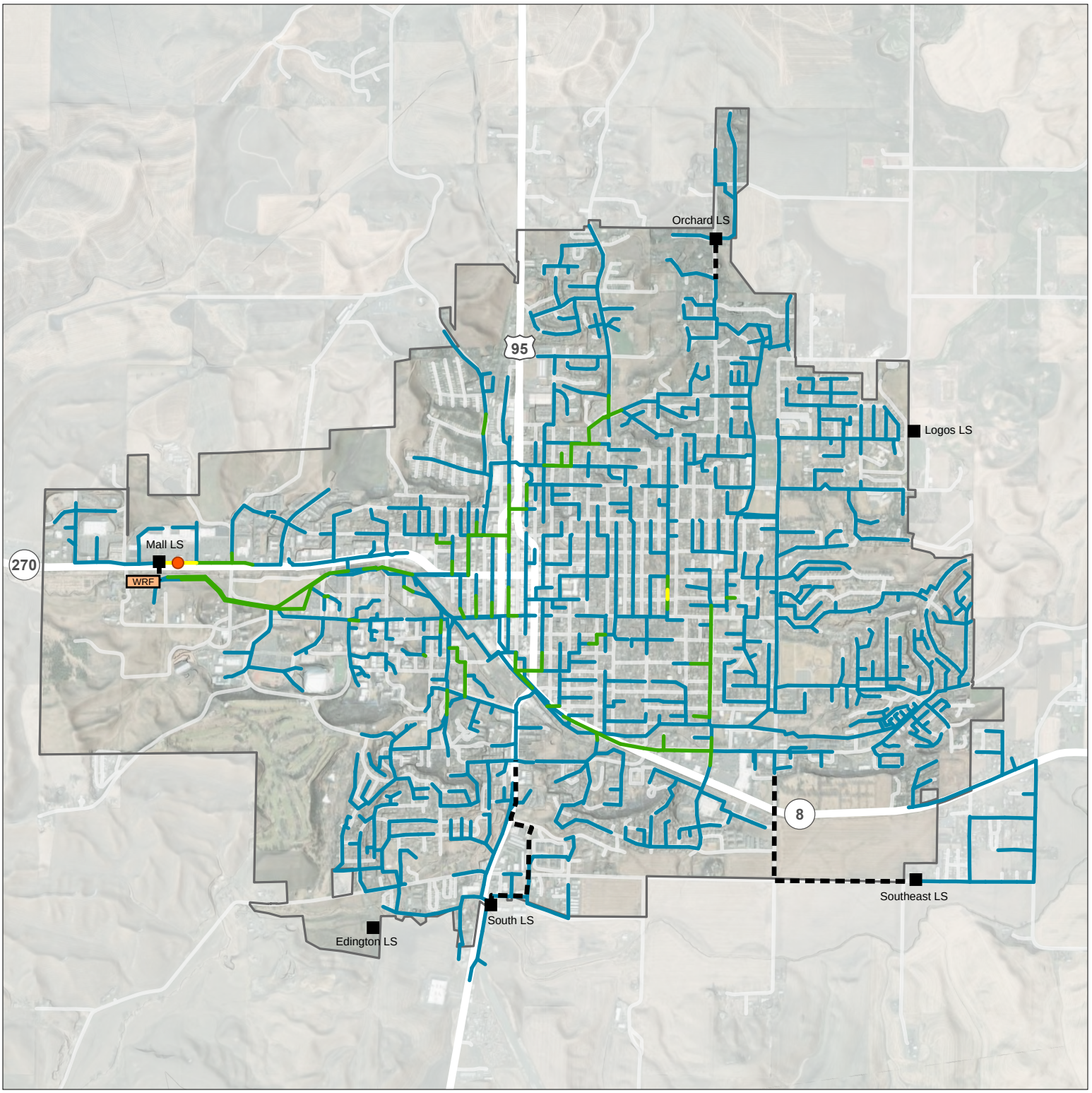


FIGURE 6-5

Existing Max Day Capacity

Wastewater Facilities Planning Study

Moscow, Idaho

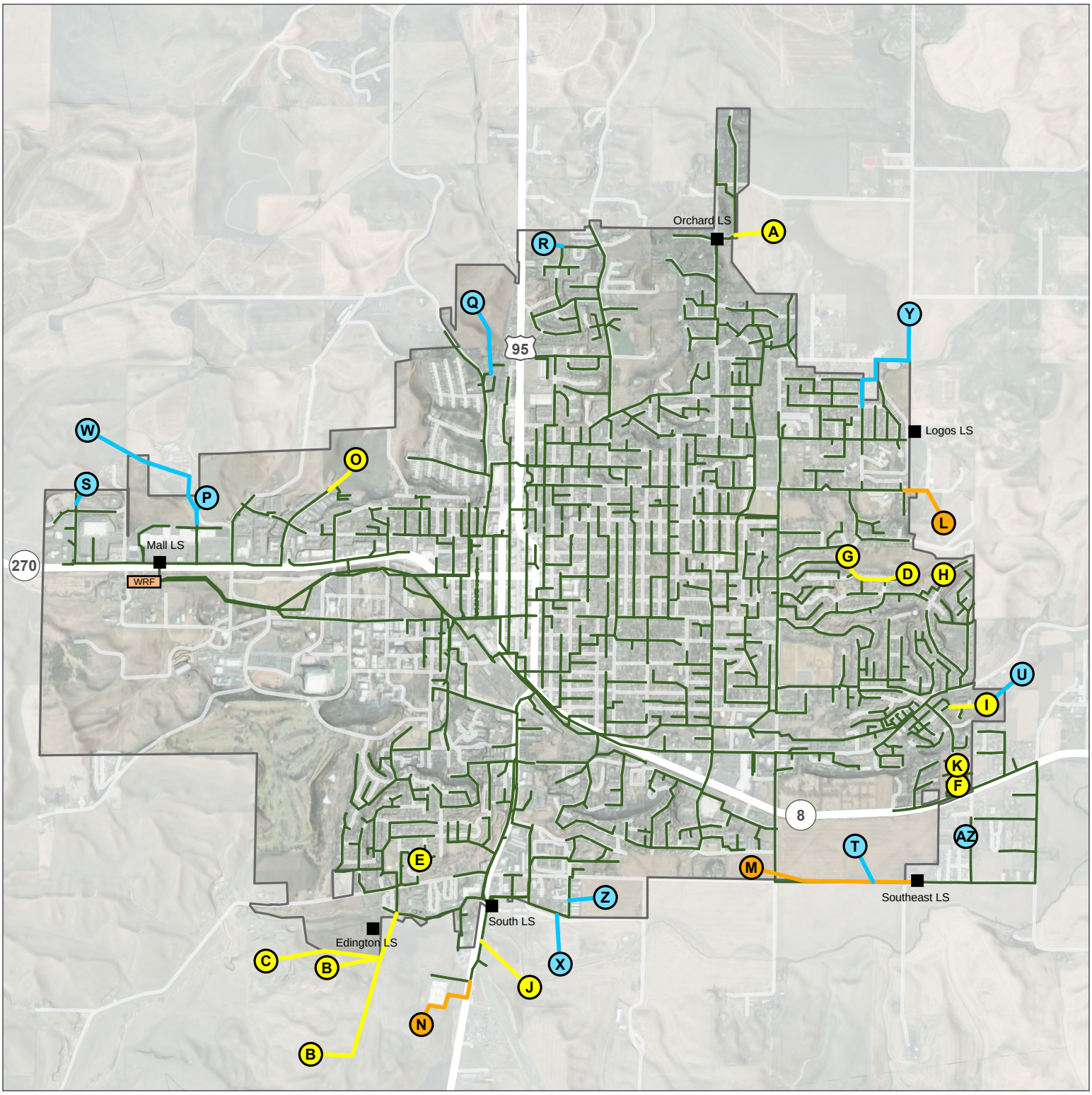


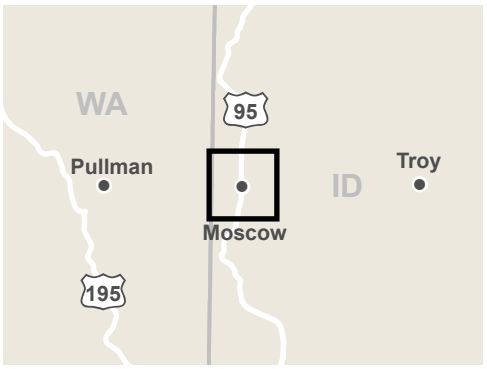
FIGURE 6-6
Future Growth Areas
Wastewater Facilities Planning Study
Moscow, Idaho

Pipeline Improvements
- 10 Year
- 20 Year
- 50 Year
- Existing Pipes

- 10-Year Growth
- 20-Year Growth
- Beyond 20 Year Growth
- City Limits

0 ¼ Mile

N



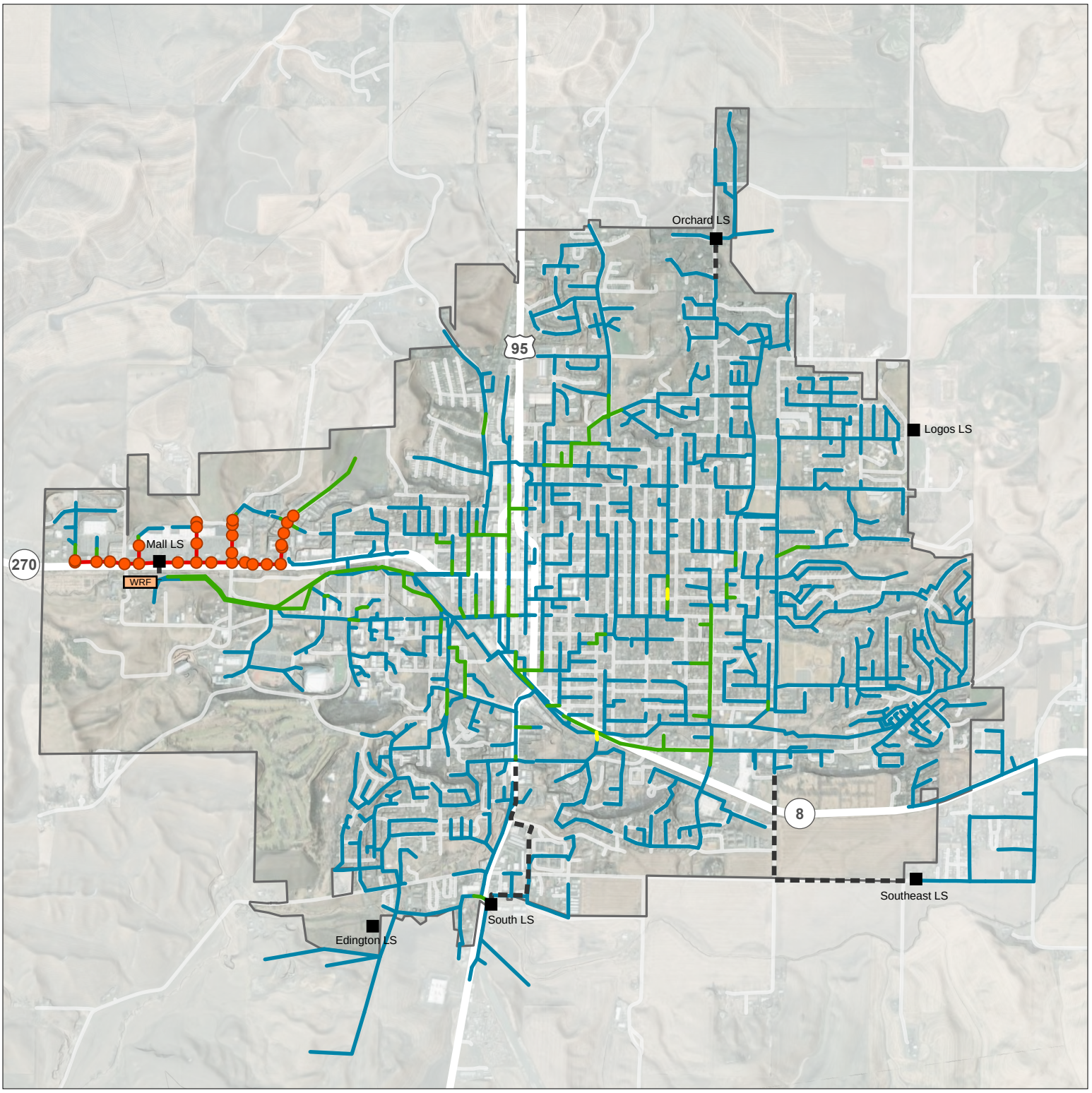


FIGURE 6-7
Gravity Capacity - 10-year
Wastewater Facilities Planning Study
Moscow, Idaho

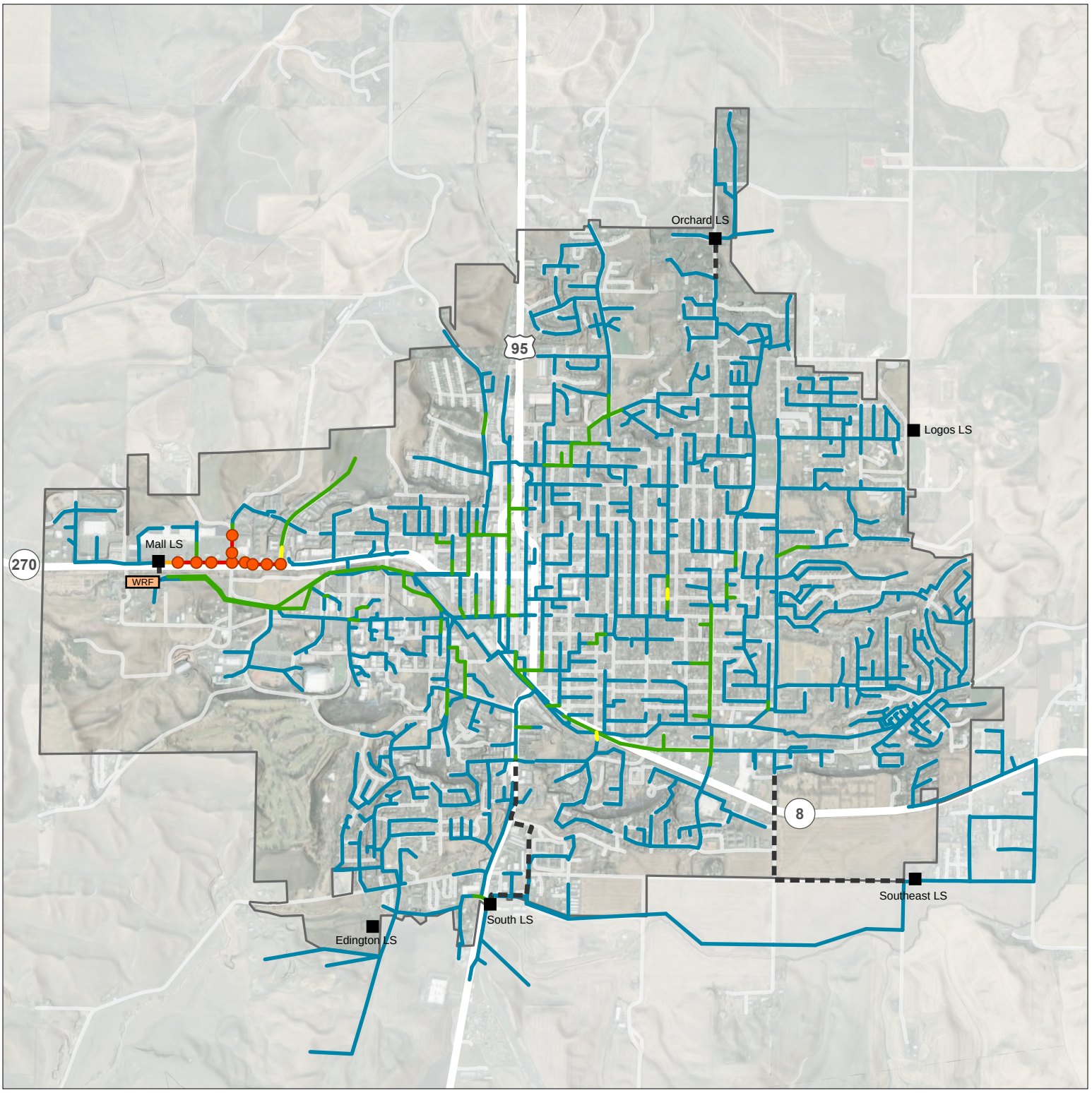


FIGURE 6-8

Gravity Capacity - 10-year with Planned Improvement Projects

Wastewater Facilities Planning Study

Moscow, Idaho

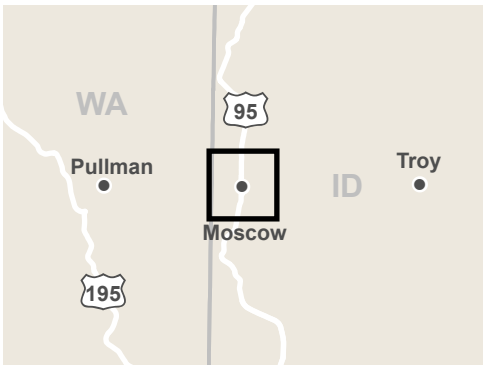
Pipes- Max Full Depth (d/D)

- < 0.5
- 0.5 - 0.75
- 0.75 - 0.85
- 0.85 - 0.99
- > 0.99

- Surcharged Manhole
- Forcemain
- City Limits

0 ¼ Mile

N



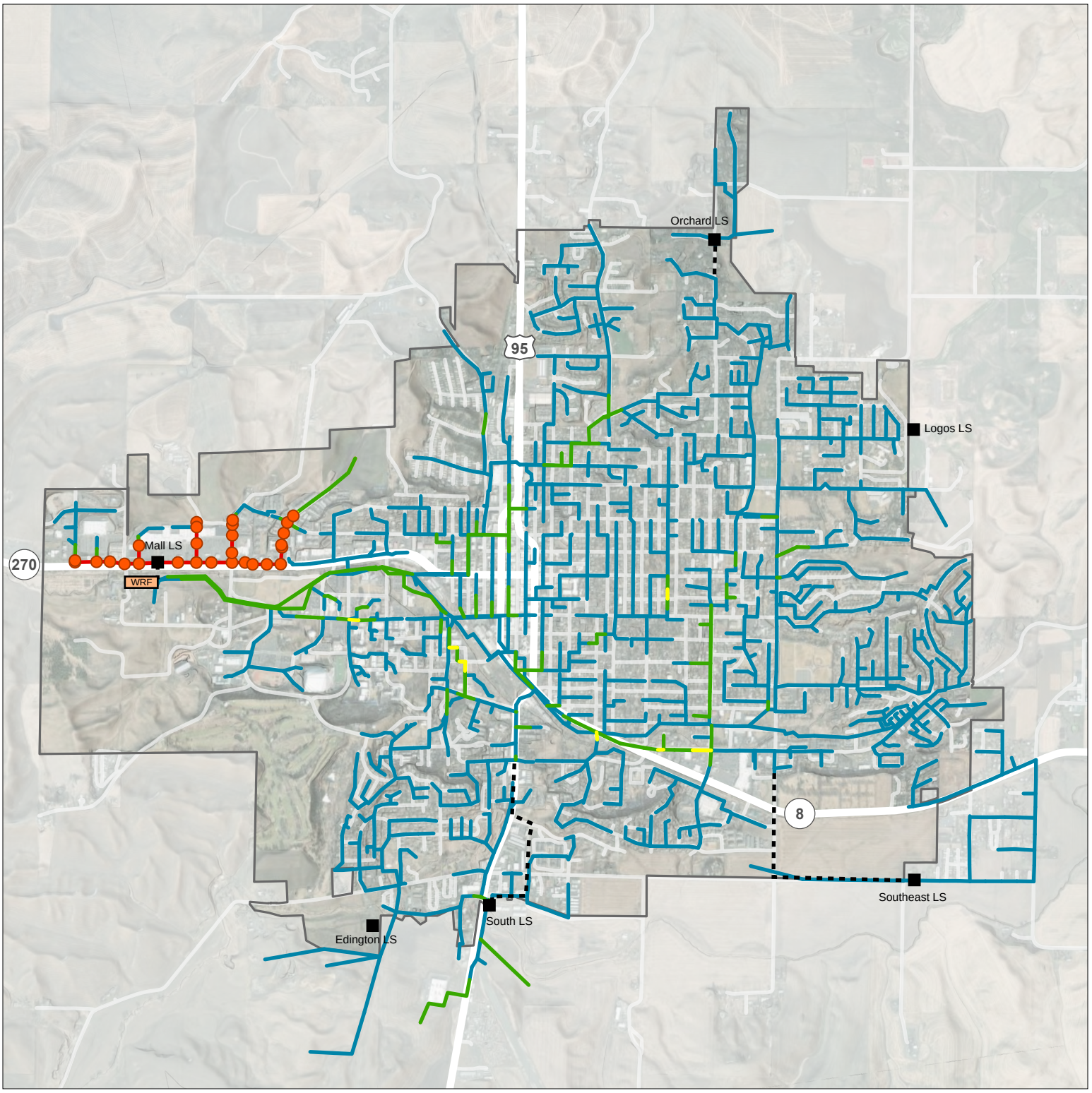


FIGURE 6-9

Gravity Capacity - 20-year

Wastewater Facilities Planning Study

Moscow, Idaho

Pipes- Max Full Depth (d/D)

- < 0.5
- 0.5 - 0.75
- 0.75 - 0.85
- 0.85 - 0.99
- > 0.99

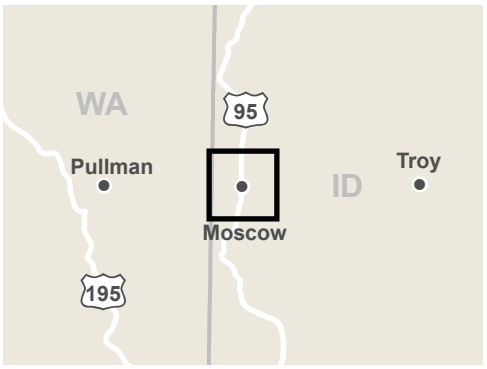
Surcharged Manhole

Forcemain

City Limits

0 ¼ Mile

N



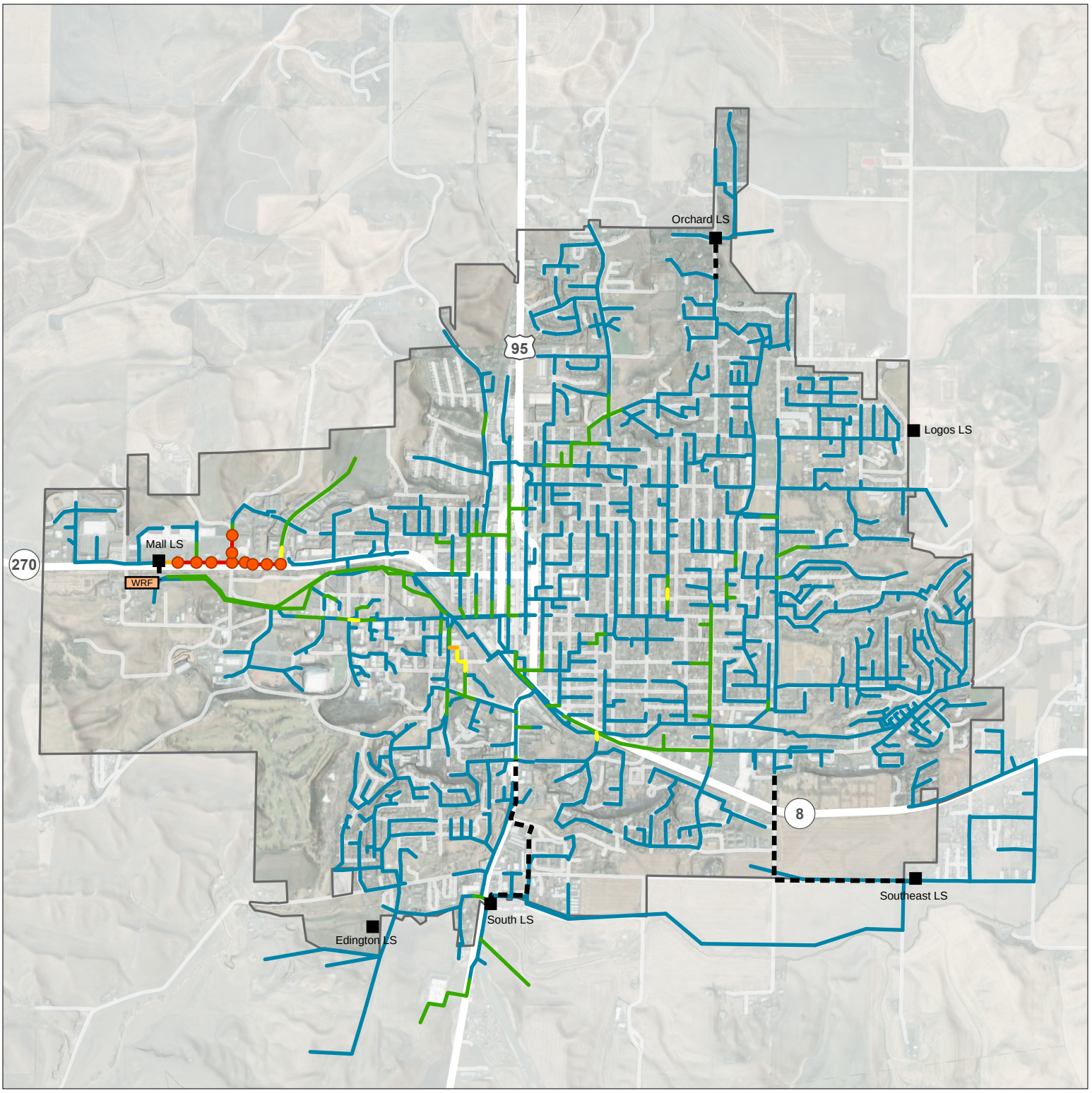


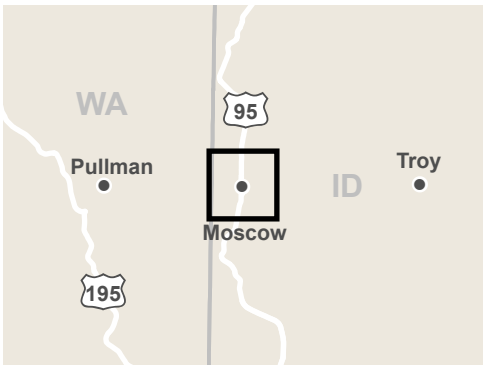
FIGURE 6-10
Gravity Capacity - 20-year with Planned Improvement Projects
Wastewater Facilities Planning Study
Moscow, Idaho

Pipes- Max Full Depth (d/D)

- < 0.5
- 0.5 - 0.75
- 0.75 - 0.85
- 0.85 - 0.99
- > 0.99

- Surcharged Manhole
- Forcemain
- City Limits

0 ¼ Mile



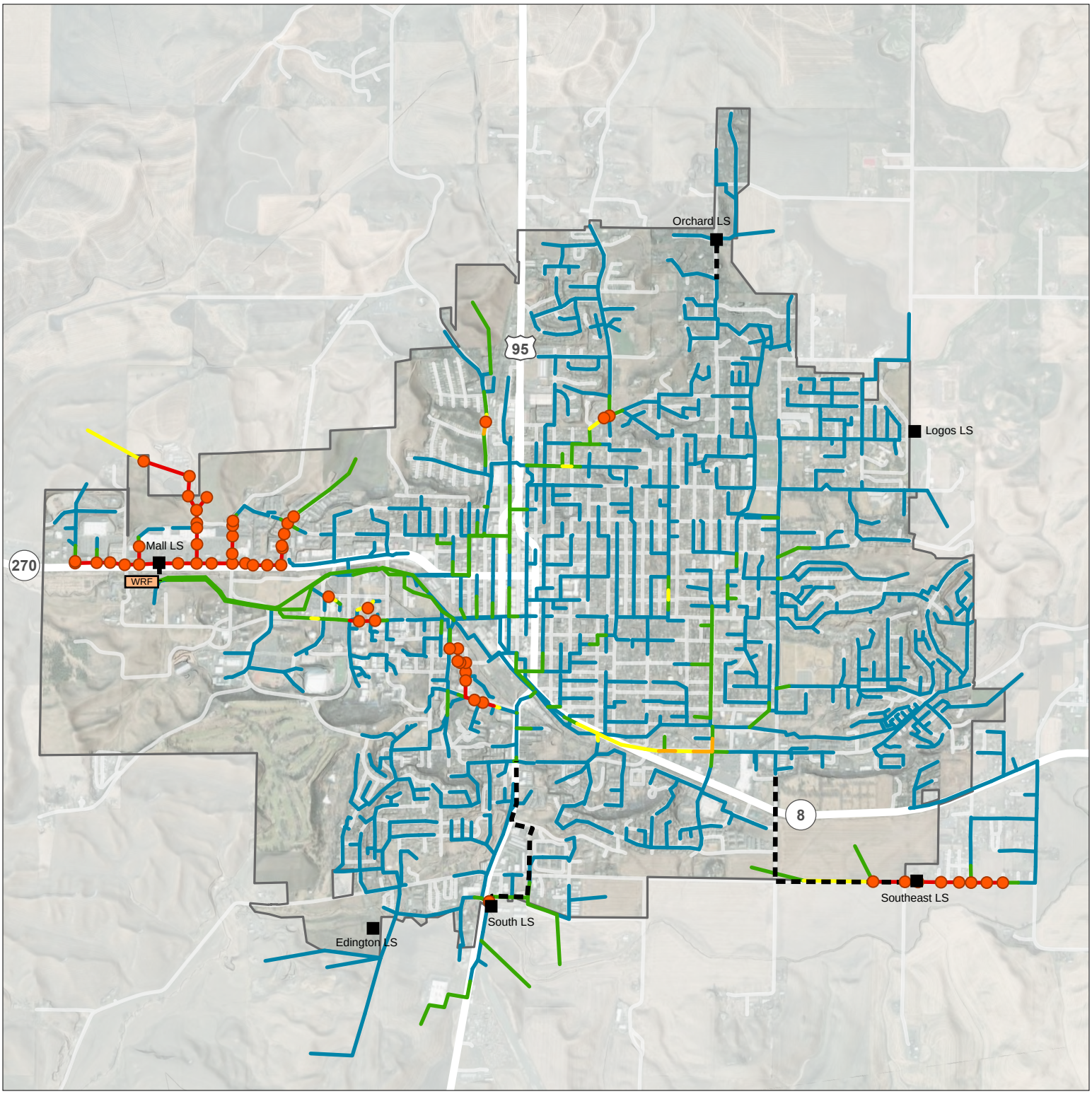


FIGURE 6-11

Gravity Capacity - 50-year

Wastewater Facilities Planning Study

Moscow, Idaho

Pipes- Max Full Depth (d/D)

- < 0.5
- 0.5 - 0.75
- 0.75 - 0.85
- 0.85 - 0.99
- > 0.99

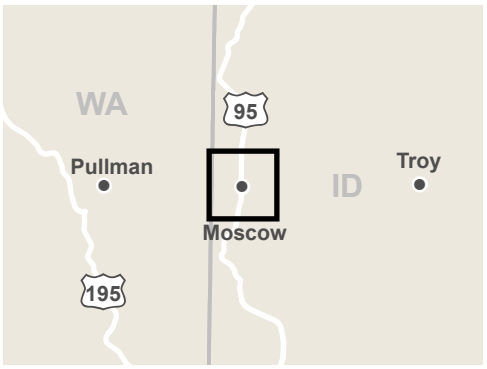
Surcharged Manhole

Forcemain

City Limits

0 ¼ Mile

N



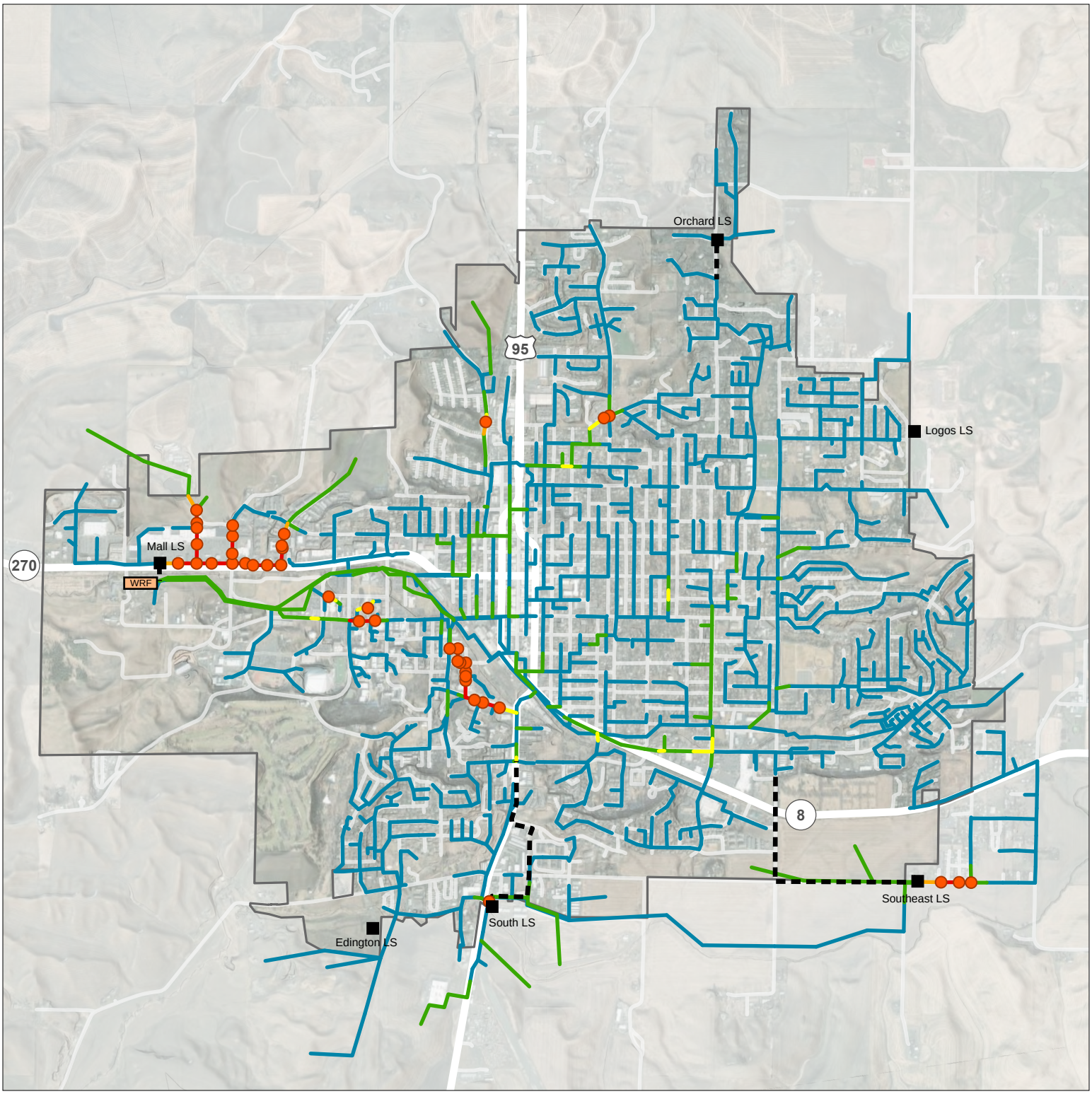


FIGURE 6-12

Gravity Capacity - 50-year with Planned Improvement Projects

Wastewater Facilities Planning Study

Moscow, Idaho

Pipes- Max Full Depth (d/D)

- < 0.5
- 0.5 - 0.75
- 0.75 - 0.85
- 0.85 - 0.99
- > 0.99

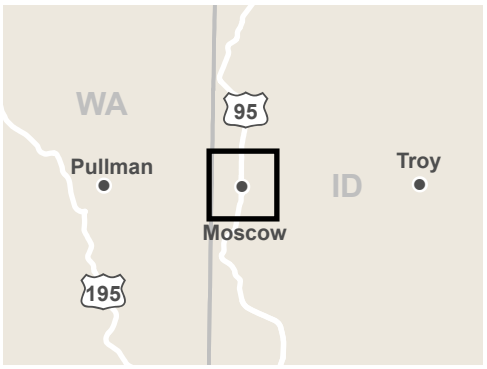
Surcharged Manhole

Forcemain

City Limits

0 ¼ Mile

N



Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

Model Calibration Results

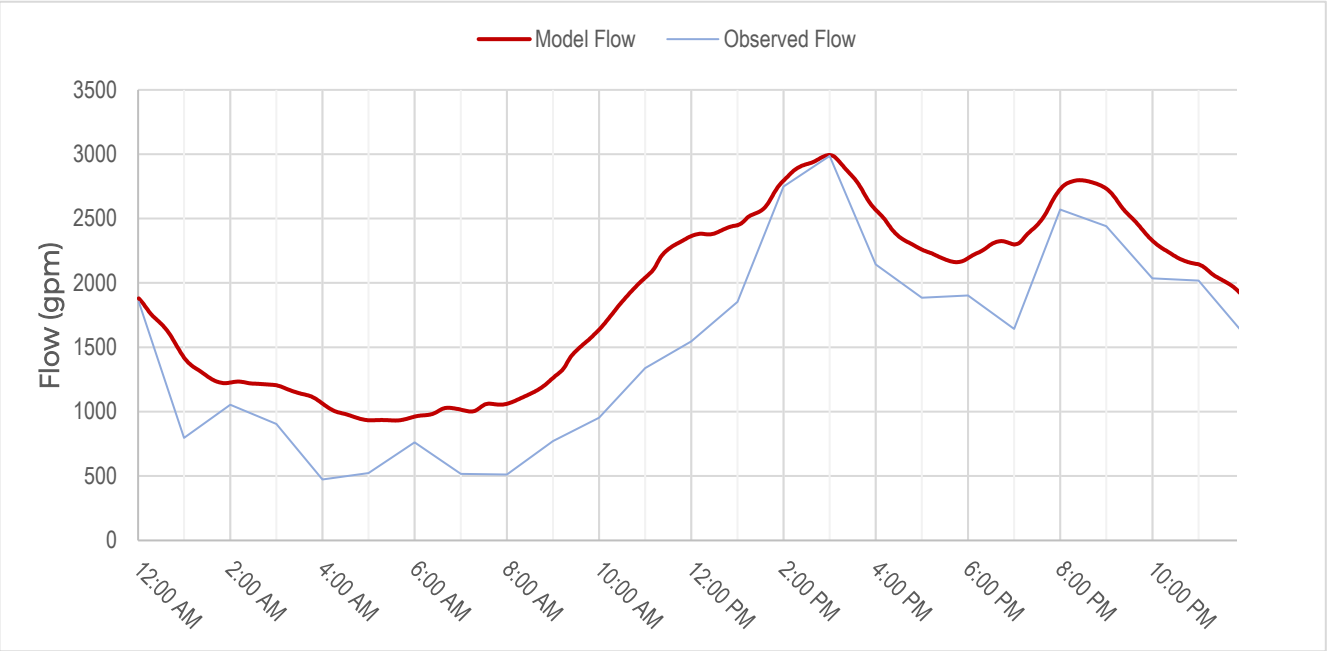
Location	Observed Daily Flow Volume (gal)	Modeled Daily Flow Volume (gal)	Percent Difference		Observed Peak Flow (gpm)	Modeled Peak Flow (gpm)	Percent Difference
Flow Monitor Site 1	228,044	202,008	-11.4%		252	263	4.1%
Flow Monitor Site 2	23,055	24,399	5.8%		35	33	-3.2%
Flow Monitor Site 3	92,783	100,956	8.8%		140	140	0.3%
Flow Monitor Site 5	109,180	128,481	17.7%		179	182	1.5%
Flow Monitor Site 7	786,337	781,007	-0.7%		715	728	1.9%
Flow Monitor Site 8	33,821	36,563	8.1%		66	63	-4.2%
Flow Monitor Site 9	47,822	49,382	3.3%		100	102	1.4%
Flow Monitor Site 10	131,841	134,277	1.8%		214	217	1.5%
Flow Monitor Site 11	91,129	99,404	9.1%		143	143	-0.3%
WWTP	2,178,501	2,732,674	25.4%		2987	2995	0.2%

Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

Model Calibration Results

Site Number:	**WWTP**
Flow Monitoring Period:	**11/1/2023 - 12/2/2023**
Calibration Day:	**11/4/2023**

Parameter	Average Daily Flow (gpm)	Peak Flow (gpm)
Observed Data	1513	2987
Model Data	1898	2995
Difference	25.4%	0.2%

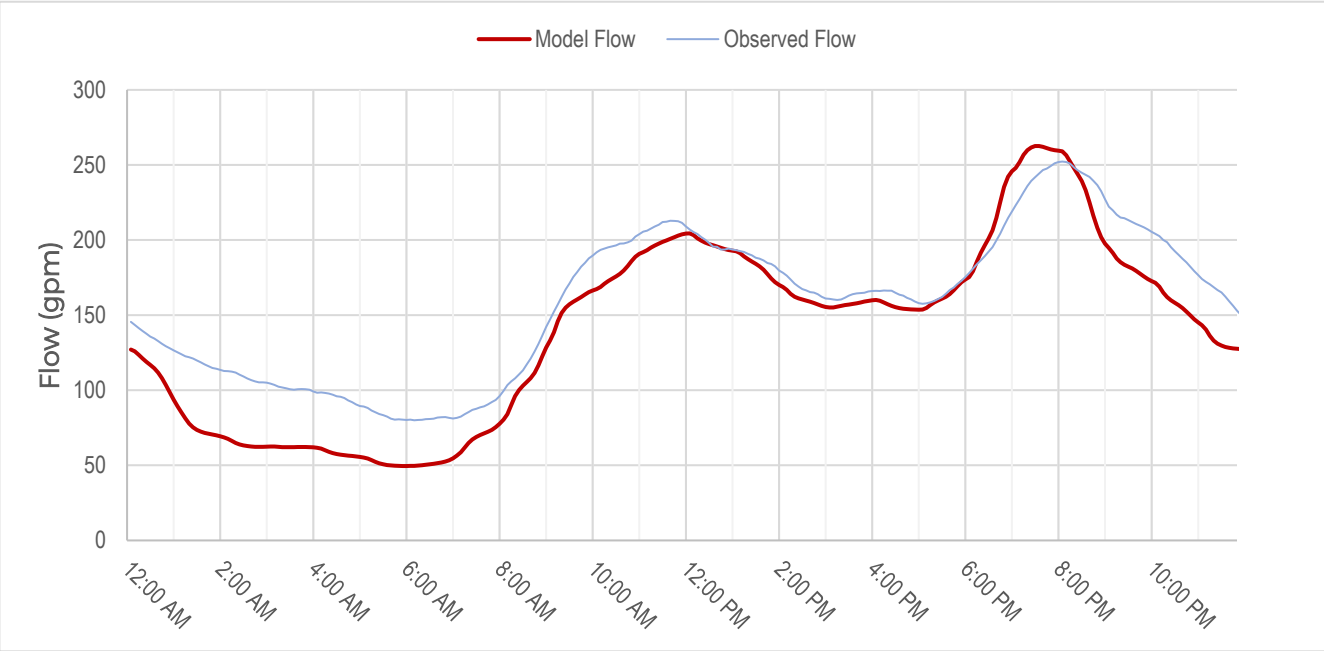


Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

Model Calibration Results

Site Number: 1 - Almon St
Flow Monitoring Period: 10/11/2023 - 11/16/2023
Calibration Day: 11/4/2023

Parameter	Average Daily Flow (gpm)	Peak Flow (gpm)
Observed Data	158	252
Model Data	140	263
Difference	-11.4%	4.1%

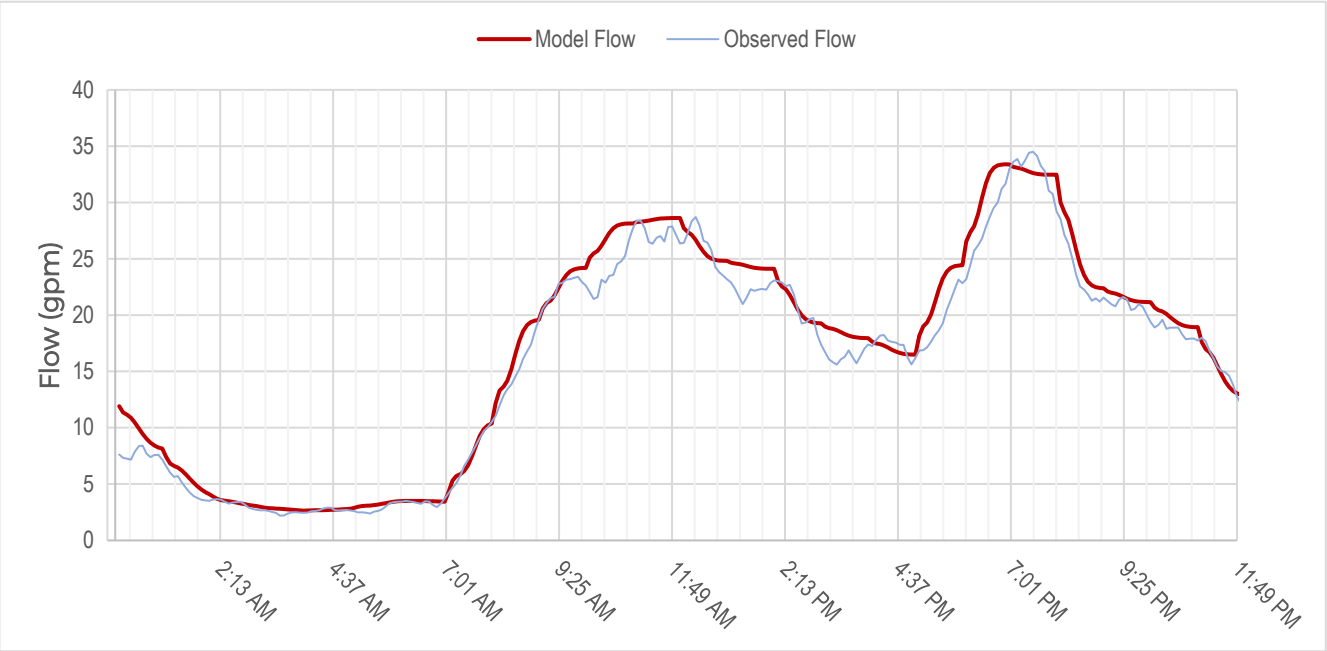


Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

Model Calibration Results

Site Number: 2 - Ice Rink
Flow Monitoring Period: 10/11/2023 - 11/16/2023
Calibration Day: 11/4/2023

Parameter	Average Daily Flow (gpm)	Peak Flow (gpm)
Observed Data	16	35
Model Data	17	33
Difference	5.8%	-3.2%

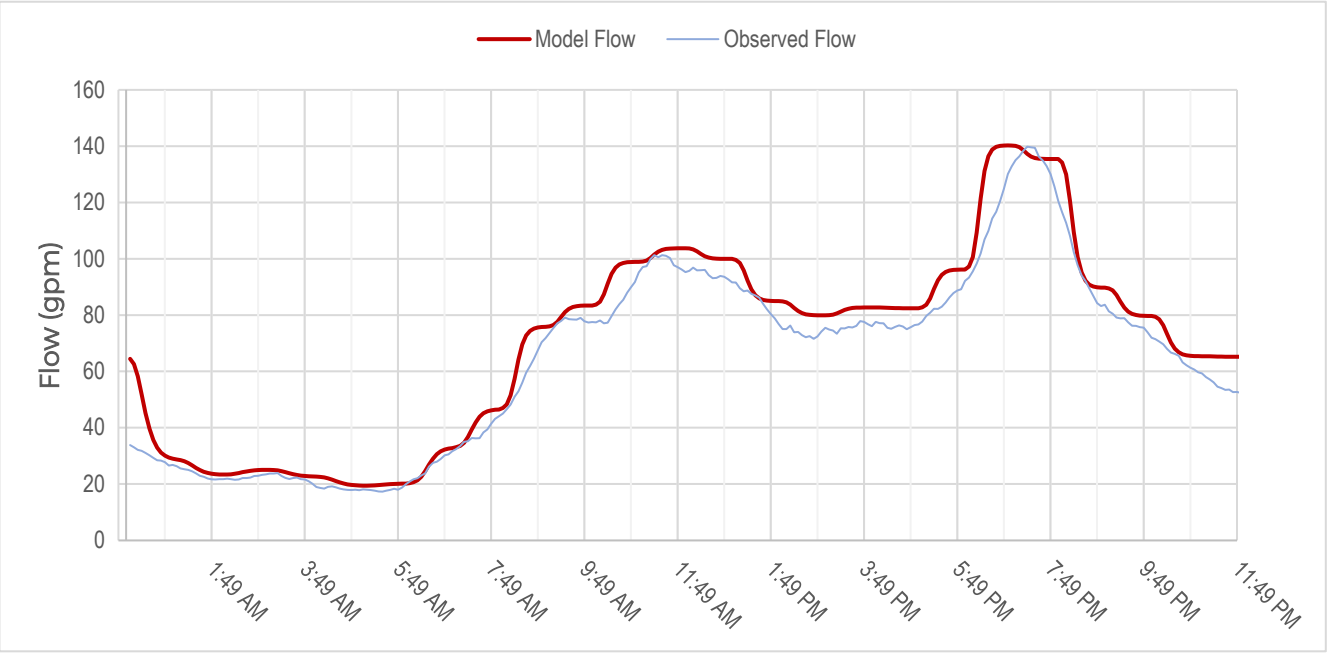


Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

Model Calibration Results

Site Number: 3 - City Shop
Flow Monitoring Period: 10/11/2023 - 11/16/2023
Calibration Day: 11/4/2023

Parameter	Average Daily Flow (gpm)	Peak Flow (gpm)
Observed Data	64	140
Model Data	70	140
Difference	8.8%	0.3%

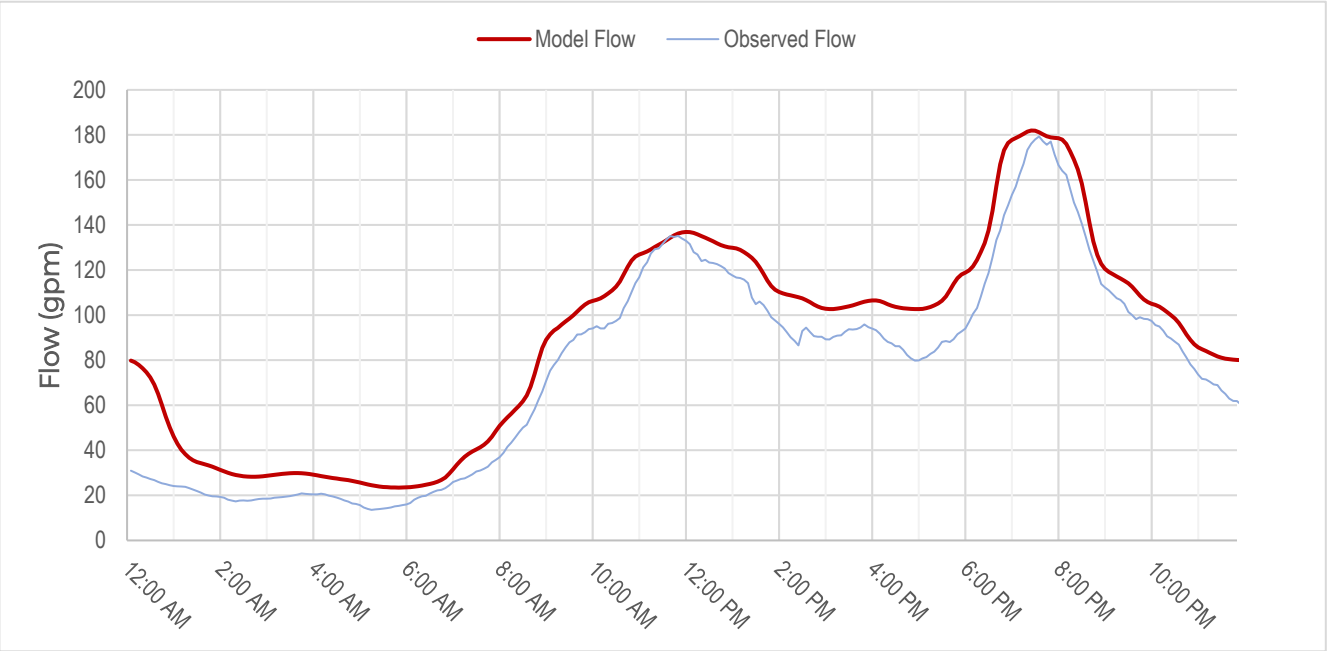


Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

Model Calibration Results

Site Number: 5 - Rosauer's
Flow Monitoring Period: 10/11/2023 - 11/16/2023
Calibration Day: 11/4/2023

Parameter	Average Daily Flow (gpm)	Peak Flow (gpm)
Observed Data	76	179
Model Data	89	182
Difference	18%	1%

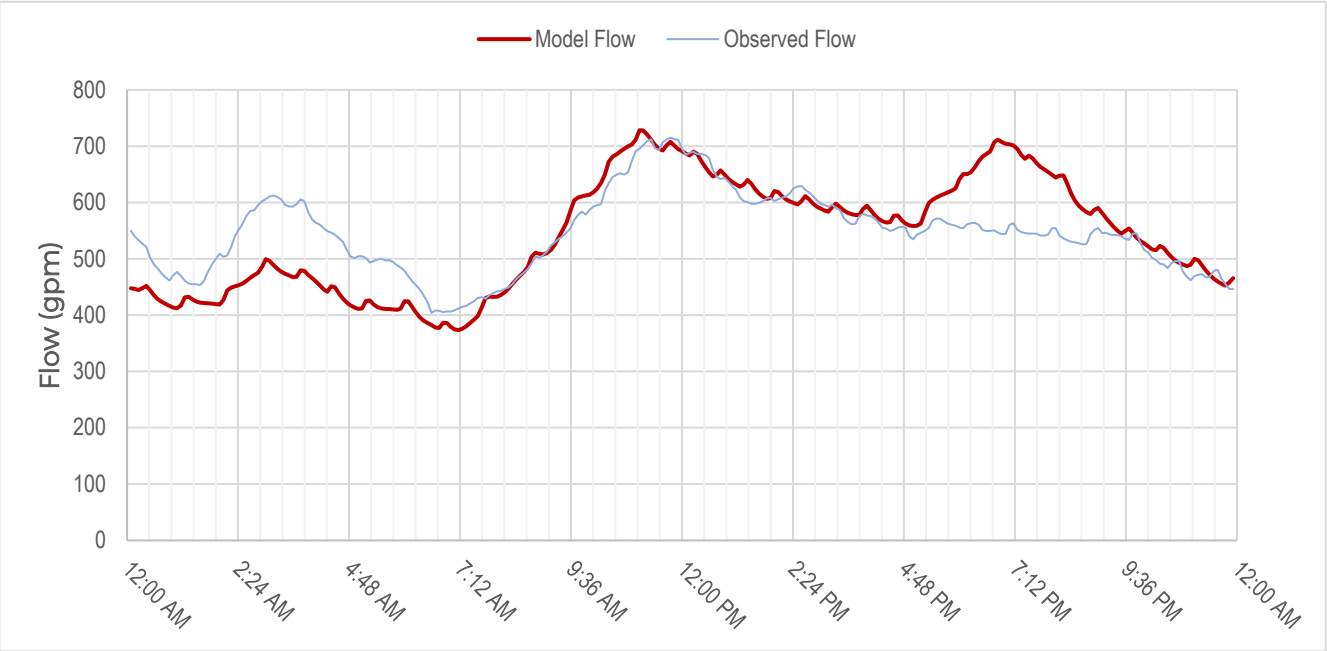


Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

Model Calibration Results

Site Number: 7 - Spence
Flow Monitoring Period: 12/19/2024 - 12/31/2024
Calibration Day: 12/28/2024

Parameter	Average Daily Flow (gpm)	Peak Flow (gpm)
Observed Data	546	715
Model Data	542	728
Difference	-1%	2%

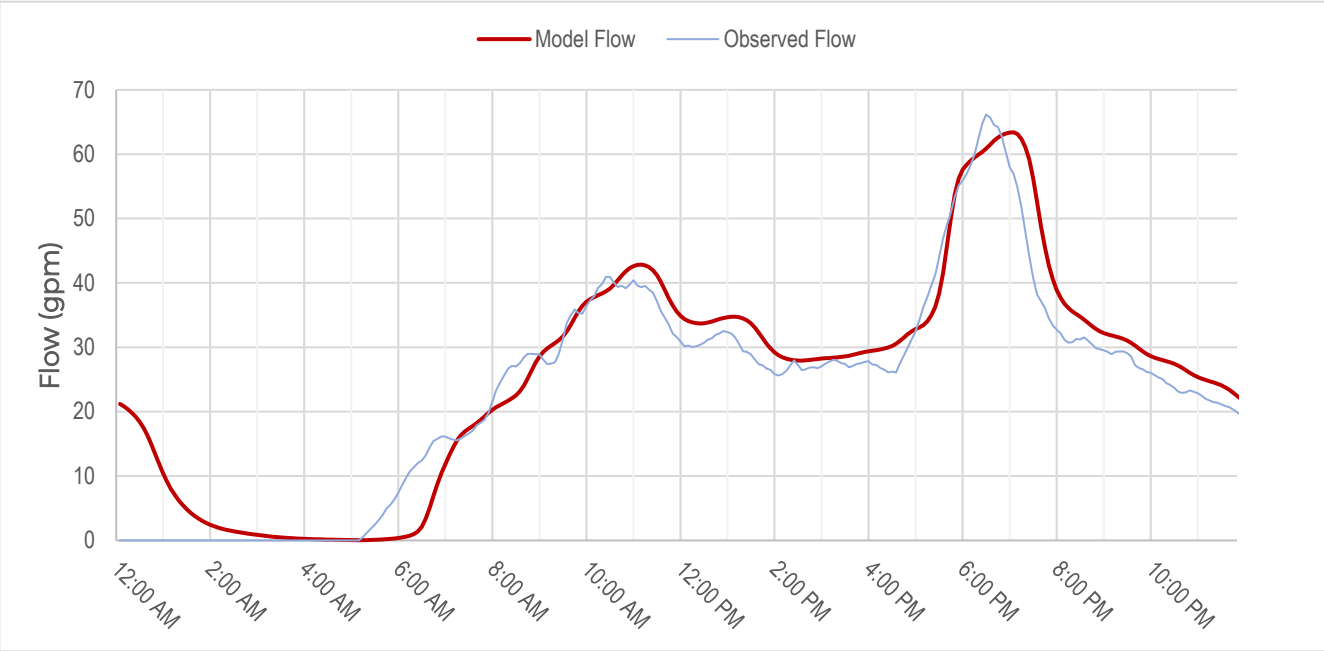


Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

Model Calibration Results

Site Number: 8 - Skate Park
Flow Monitoring Period: 10/11/2023 - 11/16/2023
Calibration Day: 11/4/2023

Parameter	Average Daily Flow (gpm)	Peak Flow (gpm)
Observed Data	23	66
Model Data	25	63
Difference	8%	-4%

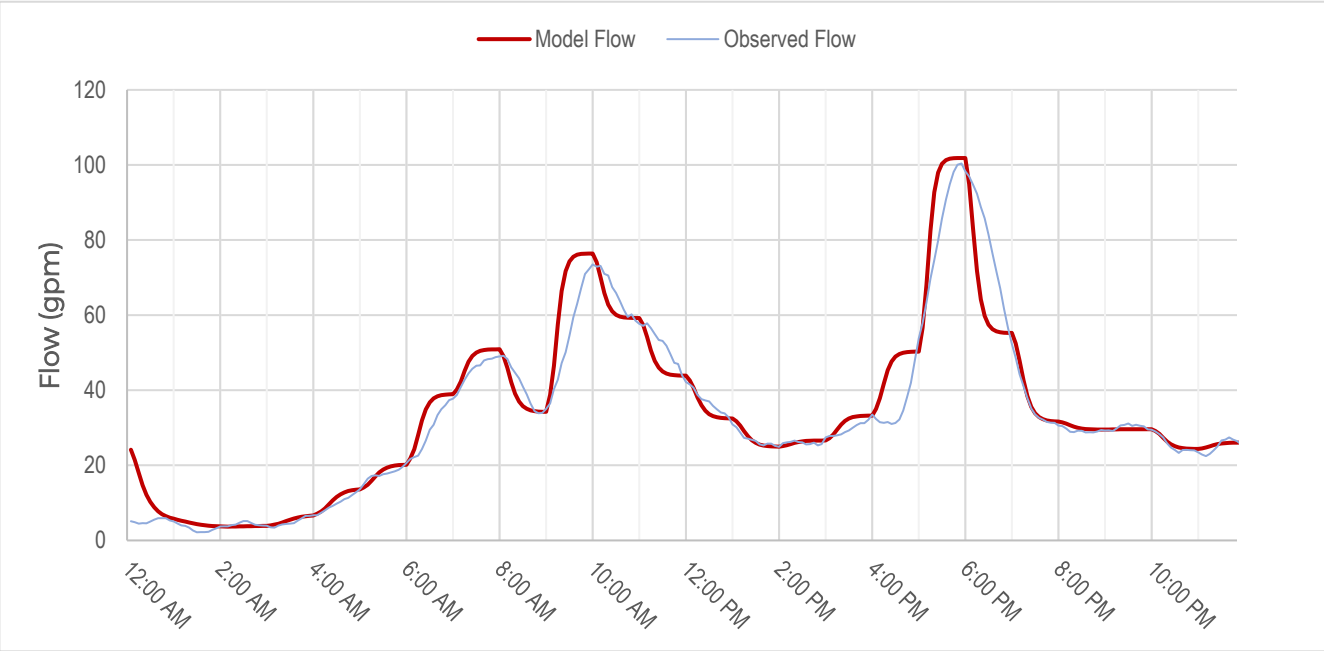


Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

Model Calibration Results

Site Number: 9 - 6th Street
Flow Monitoring Period: 10/11/2023 - 11/16/2023
Calibration Day: 11/4/2023

Parameter	Average Daily Flow (gpm)	Peak Flow (gpm)
Observed Data	33	100
Model Data	34	102
Difference	3%	1%

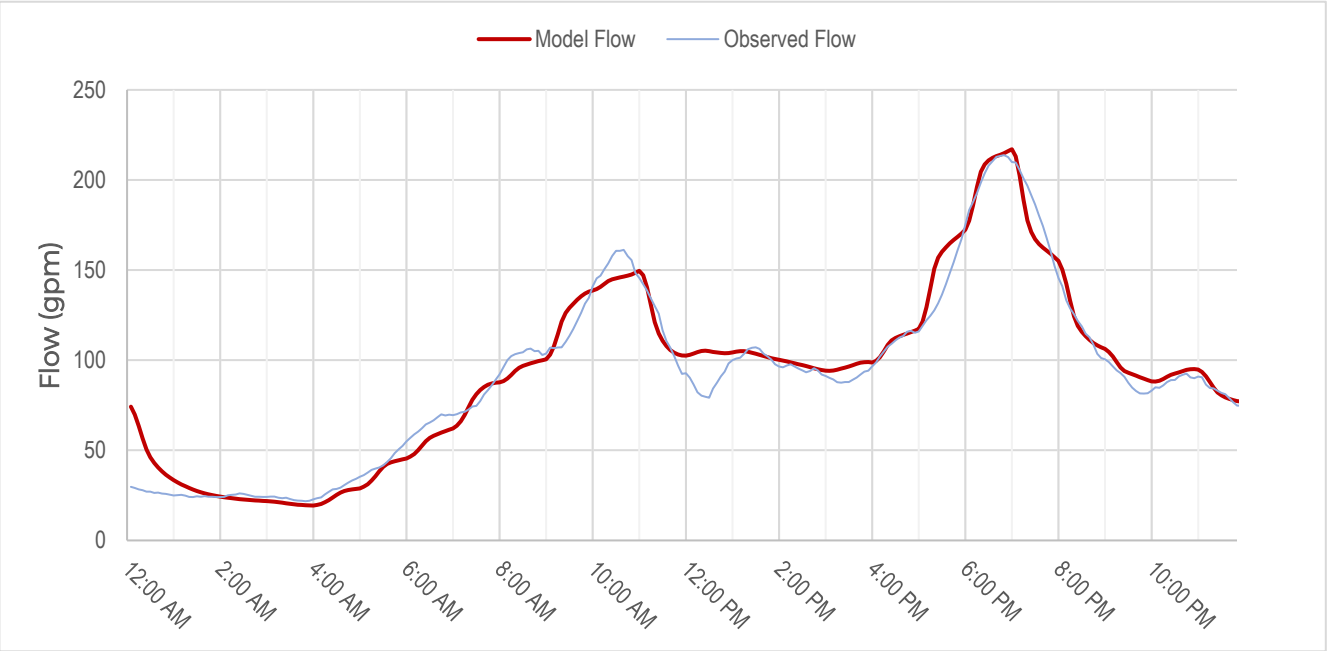


Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

Model Calibration Results

Site Number:	**10 - Veteran's Building**
Flow Monitoring Period:	**10/11/2023 - 11/16/2023**
Calibration Day:	**11/4/2023**

Parameter	Average Daily Flow (gpm)	Peak Flow (gpm)
Observed Data	92	214
Model Data	93	217
Difference	2%	2%

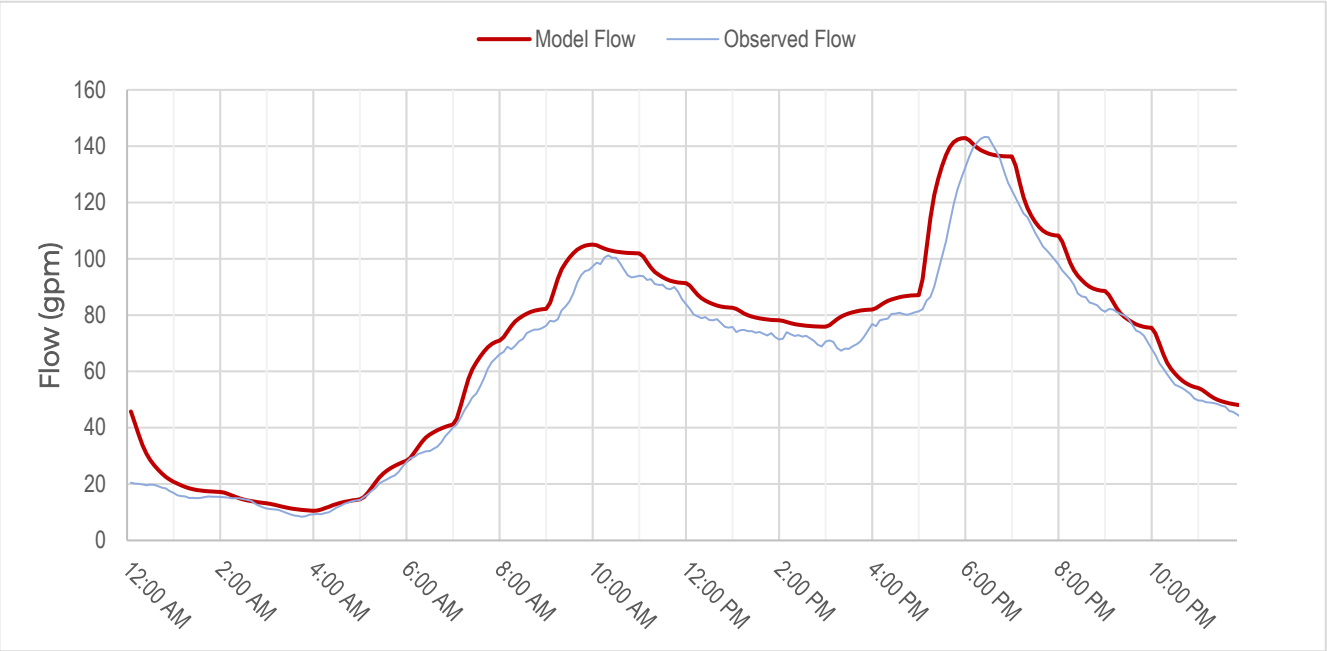


Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

Model Calibration Results

Site Number: 11 - Alley
Flow Monitoring Period: 10/11/2023 - 11/16/2023
Calibration Day: 11/4/2023

Parameter	Average Daily Flow (gpm)	Peak Flow (gpm)
Observed Data	63	143
Model Data	69	143
Difference	9%	0%



Appendix F

STAFF INTERVIEW FORM

Employee Information

- **Name:** Adam Martian
- **Job Title/Position:** Conveyance Operator
- **Years working at the city:** 3
- **Primary Responsibilities:** Clean and inspect sewer pipes

Use additional pages if necessary

Section 1: Current Operations

1. **What aspects of the current sewer maintenance operations work well?**
   (e.g., tools, procedures, communication, staffing)

Our plan to have the city cleaned once a year and inspected in 3 seems to work well.

2. **What challenges do you encounter in day-to-day operations?**
   (e.g., equipment reliability, manpower, response time)

Oddities of our system such as old pipes, unexpected failures in the system, and breaks/roots.

3. **Are there any specific locations in the sewer system that require frequent attention or are prone to issues? If yes, please specify.**

yes. We have a monthly list and a weekly manhole. There are a few other manholes we keep our eyes on since they have proved to be an issue in the past.

4. **Do you feel that the current maintenance schedule is effective? Why or why not?**

yes. I feel like our goal to clean the whole city ~~was~~ in a year is good.

Section 2: Equipment and Resources

5. **Are there any tools, vehicles, or equipment you feel are inadequate or outdated? Please explain.**

No not in my opinion. Our supervisor does a good job with keeping our equipment up to date.

6. **What additional equipment or resources would improve your ability to perform your duties?**

7. **Do you have sufficient access to spare parts and consumables for repairs and maintenance? If not, what is lacking?**

Yes

Section 3: Training and Communication

8. **Do you feel adequately trained for your job responsibilities? Are there any specific training topics you would like to see offered?**

yes. There are a few uncommon events that I am not too familiar with. But generally I feel well trained.

9. **Is communication between staff, supervisors, and other departments effective? If not, how could it be improved?**

I feel like it is good. I might need to work on better explaining myself.

10. **Are you familiar with the city's emergency response plan for sewer system failures? If not, what additional guidance or training would be helpful?**

yes. a little reminder here and there wouldn't hurt.

Section 4: Recommendations and Feedback

11. **What do you think is the most critical issue affecting the sewer system that needs to be addressed?**

Our outdated 6" Clay pipes.

12. **Are there any new technologies or practices you believe should be implemented to improve operations?**

13. **What additional support from management or leadership would help you perform your job more effectively?**

14. **Is there anything else you would like to share about your experience or suggestions for improving the sewer system's operation and maintenance?**

STAFF INTERVIEW FORM

Employee Information

- **Name**: Lesa Mosher
- **Job Title/Position**: Water Reclamation Conveyance Operator
- **Years working at the city**: 5
- **Primary Responsibilities**: Lift station maint. CCTV operator Jet operator

Use additional pages if necessary

Section 1: Current Operations

1. **What aspects of the current sewer maintenance operations work well?**
   (e.g., tools, procedures, communication, staffing)

Equipment & procedures

2. **What challenges do you encounter in day-to-day operations?**
   (e.g., equipment reliability, manpower, response time)

3. **Are there any specific locations in the sewer system that require frequent attention or are prone to issues? If yes, please specify.**

Yes. We have monthly and quarterly lines (sewer) that must be cleaned do to condition and usage.

One particular manhole must be washed once a week due to improper grade.

4. **Do you feel that the current maintenance schedule is effective? Why or why not?**

Yes. It ensures there are no sewer back ups in that area.

Section 2: Equipment and Resources

5. **Are there any tools, vehicles, or equipment you feel are inadequate or outdated? Please explain.**

6. **What additional equipment or resources would improve your ability to perform your duties?**

7. **Do you have sufficient access to spare parts and consumables for repairs and maintenance? If not, what is lacking?**

Yes

Section 3: Training and Communication

8. **Do you feel adequately trained for your job responsibilities? Are there any specific training topics you would like to see offered?**

Pump maint. & troubleshooting classes and the same for lift station. If they had more hands on training rather than verbal.

9. **Is communication between staff, supervisors, and other departments effective? If not, how could it be improved?**

10. **Are you familiar with the city's emergency response plan for sewer system failures? If not, what additional guidance or training would be helpful?**

Section 4: Recommendations and Feedback

11. **What do you think is the most critical issue affecting the sewer system that needs to be addressed?**

Grease that is poured down residental areas. Flushable wipes.

12. **Are there any new technologies or practices you believe should be implemented to improve operations?**

13. **What additional support from management or leadership would help you perform your job more effectively?**

14. **Is there anything else you would like to share about your experience or suggestions for improving the sewer system's operation and maintenance?**

STAFF INTERVIEW FORM

Employee Information

- **Name:** Marc Bramscome
- **Job Title/Position:** Water Reclamation Conveyance Supervisor
- **Years working at the city:** 4.5 years
- **Primary Responsibilities:** oversee and direct all parts of the conveyance system

Use additional pages if necessary

Section 1: Current Operations

1. **What aspects of the current sewer maintenance operations work well?**
   (e.g., tools, procedures, communication, staffing)

- Jet truck work great
- We are learning the envirosight camera truck
- The 4 staff members is a good amount
- The crews work well together and help each other out.
- Current cleaning of all city lines each year is helping with back ups

2. **What challenges do you encounter in day-to-day operations?**
   (e.g., equipment reliability, manpower, response time)

- Aging of the jet truck. If it is down we do not have a backup.
- I would like to see a 5 year replacement plan on the JET to keep it as reliable as possible.

3. **Are there any specific locations in the sewer system that require frequent attention or are prone to issues? If yes, please specify.**

Yes we have over 26 miles of 6 inch Clay sewer lines. We are constantly jetting and doing root abatement on these old small lines. I would like to be proactive in starting to replace a percentage of these lines each year.

4. **Do you feel that the current maintenance schedule is effective? Why or why not?**

Yes, we have been able to reduce the number of backups significantly because the crew is doing a good job keeping up on the maintenance with jetting and root abatement.

We lack some maintenance on the 2 dry well lift stations because of the lack of access with confined space entry.

Section 2: Equipment and Resources

5. **Are there any tools, vehicles, or equipment you feel are inadequate or outdated? Please explain.**

The jet is 4+ years old set to replace at 7 years, with the hours we put on it I would like to see a 5 year replacement until we can replace enough old line to limit the jetting requirements

6. **What additional equipment or resources would improve your ability to perform your duties?**

- Back up pump to bypass lift stations for an emergency would be nice,

- A 2500 gallon sucker and water truck would be nice for emergency and to provide some flushing of trouble area's

7. **Do you have sufficient access to spare parts and consumables for repairs and maintenance? If not, what is lacking?**

We are able to purchase and have spare parts as needed.

Section 3: Training and Communication

8. **Do you feel adequately trained for your job responsibilities? Are there any specific training topics you would like to see offered?**

9. **Is communication between staff, supervisors, and other departments effective? If not, how could it be improved?**

10. **Are you familiar with the city's emergency response plan for sewer system failures? If not, what additional guidance or training would be helpful?**

Yes, we have a very detailed emergency response plan

Section 4: Recommendations and Feedback

11. **What do you think is the most critical issue affecting the sewer system that needs to be addressed?**

- Keeping up with capital improvements
- Working on replacing old 6 inch Clay lines
- Trying to update and get rid of the last dry well, we are designing the mall now and hopefully South East in the near future

12. **Are there any new technologies or practices you believe should be implemented to improve operations?**

13. **What additional support from management or leadership would help you perform your job more effectively?**

14. **Is there anything else you would like to share about your experience or suggestions for improving the sewer system's operation and maintenance?**

STAFF INTERVIEW FORM

Employee Information

- **Name**: _____
- **Job Title/Position**: _____
- **Years working at the city**: _____
- **Primary Responsibilities**: _____

_____

Use additional pages if necessary

Section 1: Current Operations

1. **What aspects of the current sewer maintenance operations work well?**
   (e.g., tools, procedures, communication, staffing)

_____

_____

_____

_____

_____

_____

_____

2. **What challenges do you encounter in day-to-day operations?**
   (e.g., equipment reliability, manpower, response time)

_____

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3. **Are there any specific locations in the sewer system that require frequent attention or are prone to issues? If yes, please specify.**

4. **Do you feel that the current maintenance schedule is effective? Why or why not?**

Section 2: Equipment and Resources

5. **Are there any tools, vehicles, or equipment you feel are inadequate or outdated? Please explain.**

6. **What additional equipment or resources would improve your ability to perform your duties?**

7. **Do you have sufficient access to spare parts and consumables for repairs and maintenance? If not, what is lacking?**

Section 3: Training and Communication

8. **Do you feel adequately trained for your job responsibilities? Are there any specific training topics you would like to see offered?**

9. **Is communication between staff, supervisors, and other departments effective? If not, how could it be improved?**

10. **Are you familiar with the city's emergency response plan for sewer system failures? If not, what additional guidance or training would be helpful?**

Section 4: Recommendations and Feedback

11. **What do you think is the most critical issue affecting the sewer system that needs to be addressed?**

12. **Are there any new technologies or practices you believe should be implemented to improve operations?**

13. **What additional support from management or leadership would help you perform your job more effectively?**

14. **Is there anything else you would like to share about your experience or suggestions for improving the sewer system's operation and maintenance?**

Appendix G

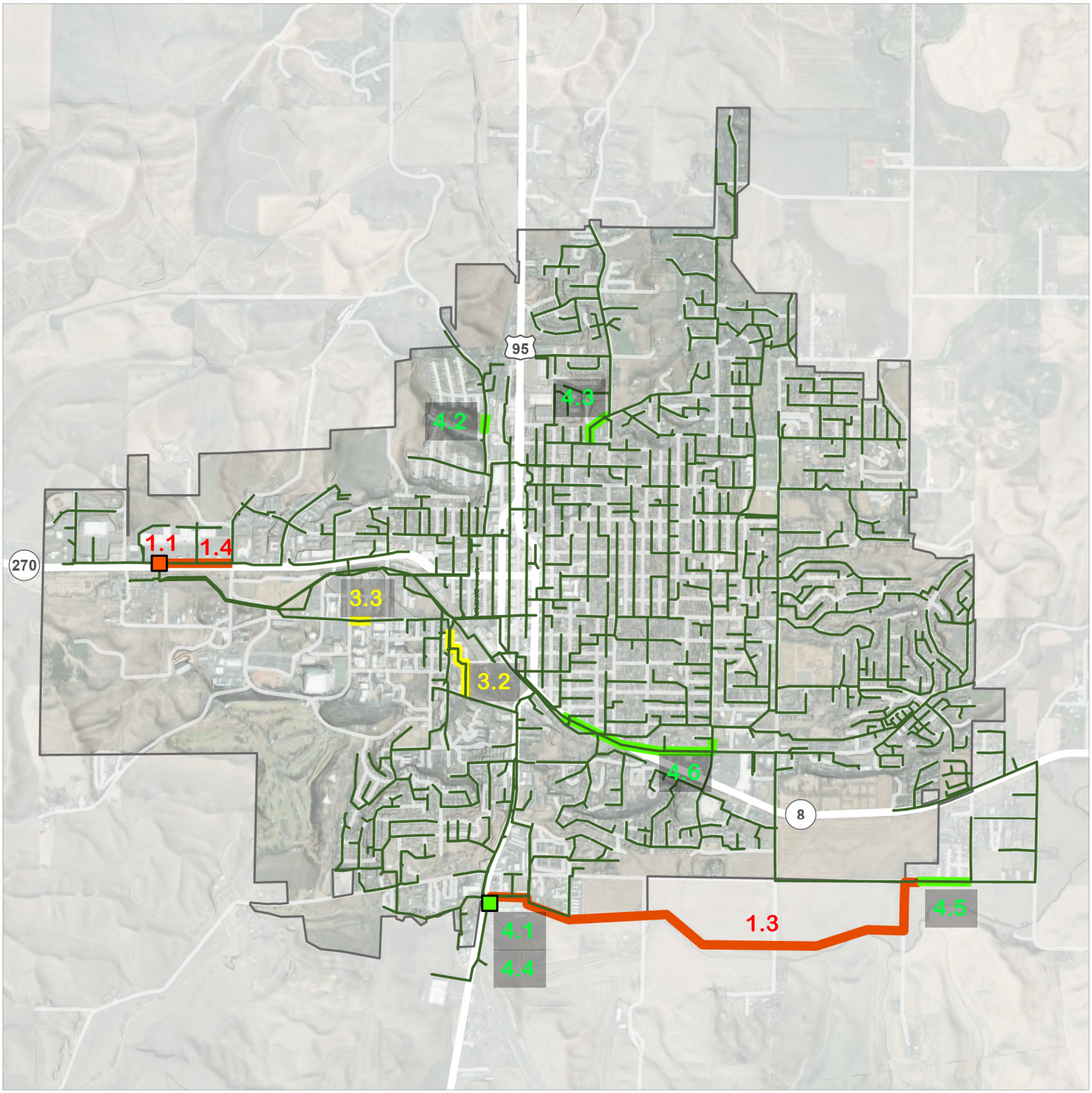


FIGURE 8-1
Capital Improvement Plan
Wastewater Facilities Planning Study
Moscow, Idaho

Client: City of Moscow
Project: WW Conveyance Master Plan
Project No.: 223119

CIP Prioritization Criteria

Priority	Description
1	- Addresses lift station and forcemain capacity issues under existing flows - Address surcharging in the conveyance system under existing flows - City desired priority projects or in-progress projects
2	- Address anticipated deficiencies within the 10-year period
3	- Address surcharging in the conveyance next 10-20 years
4 / Future	- Improvements to accommodate future growth - Address surcharging in the conveyance system beyond the 20-year period - Address lift station capacity issues beyond the 20-year period

ID#	Project Name	Project Trigger	Total Estimated Cost (2025 Dollars)
Priority 1 Improvements (2025-2030)			
1.1	Mall LS and Forcemain Upgrade	Lift Station and Forcemain Capacity	In Progress
1.2	Southeast LS Bypass Pipeline	Lift Station and Gravity Pipeline Capacity	$ 6,449,000
1.3	Formalize Connection Agreement with U of I		$ 50,000
1.4	Mall LS / Highway 8 Trunkline Upsize	Gravity Pipeline Capacity	$ 993,000
		Total Priority 1 Improvements (rounded)	**$ 7,492,000**
Priority 2 Improvements (2030-2035)			
2.1	Comprehensive Sewer System Plan Update	10-year FPS Update	$ 250,000
		Total Priority 2 Improvements (rounded)	**$ 250,000**
Priority 3 Improvements (2035 - 2045)			
3.1	Comprehensive Sewer System Plan Update	20-year FPS Update	$ 250,000
3.2	Railroad St, College St, and Deakin Ave Upsize	20-year Gravity Pipeline Capacity	$ 1,345,000
3.3	6th St Upsize	20-year Gravity Pipeline Capacity	$ 332,000
		Total Priority 3 Improvements (rounded)	**$ 1,927,000**
		TOTAL SYSTEM IMPROVEMENTS COSTS (rounded)	**$ 9,669,000**
Growth / Developer Driven Improvements			
4.1	South LS Pump Upsize	50-year Capacity Constraints	**N/A**
4.2	Almon St Upsize	50-year Gravity Pipeline Capacity	**N/A**
4.3	Moscow City Shop / Van Buren St Upsize	50-year Gravity Pipeline Capacity	**N/A**
4.4	Palouse River Dr Upsize	50-year Gravity Pipeline Capacity	**N/A**
4.5	South Lift Station Upstream Pipeline Upsize	50-year Gravity Pipeline Capacity	**N/A**
4.6	Blaine St / White Ave / HWY 8 Upsize	50-year Gravity Pipeline Capacity	**N/A**

Notes

The cost estimate herein is concept level information only based on our perception of current conditions at the project location and its accuracy is subject to significant variation depending upon project definition and other factors. This estimate reflects our opinion of probable costs at this time and is subject to change as the project design matures. This cost opinion is in **2025** dollars and does not include escalation to time of actual construction. Keller Associates has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. Keller Associates cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein."

Project Title:	Location:
Mall LS and Forcemain Upgrade	**HWY 8, Pullman Rd**

Project Identifier:

1.1

Need for Project:

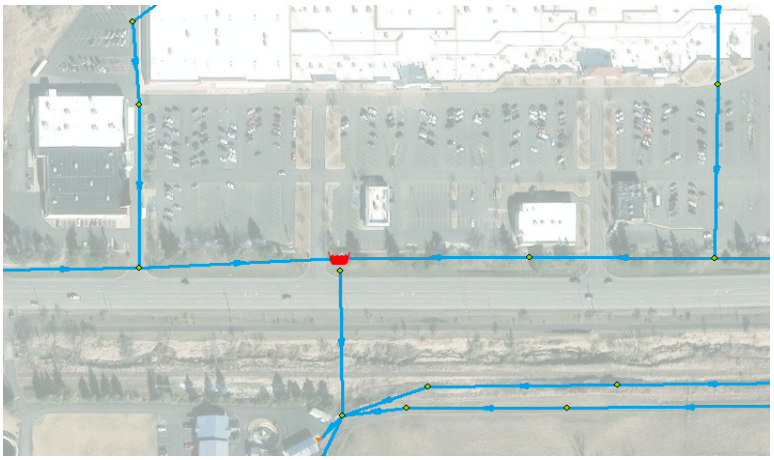
In both existing and future scenarios, the Mall lift station is undersized to handle peak hour flows with its firm capacity.

Objective:

Upgrade the Mall LS to handle existing and future flows into the Mall LS

Design Considerations:

Project is already underway, City to confirm pump sizing with existing and future flows presented in Chapter 4 of the Master Plan.



General Line Item	Estimated Quantity	Unit	Unit Price	Item Cost (Rounded)	Total Cost (2025 Dollars)
Project Already in Progress	N/A	LF	#N/A	#N/A	
				Construction Subtotal	***#N/A***
Additional Elements					
Mobilization and General Conditions			10%	#N/A	
				Subtotal	***#N/A***
Contingency			30%	#N/A	
				Subtotal	***#N/A***
Contractor Overhead and Profit			15%	#N/A	
				Total Construction Subtotal	***#N/A***
Plans and Contract Documents					
Design, Legal, and Construction Services			25%	#N/A	
				Total Project Costs (rounded)	**#N/A**

The cost estimate herein is concept level information only based on our perception of current conditions at the project location and its accuracy is subject to significant variation depending upon project definition and other factors. This estimate reflects our opinion of probable costs at this time and is subject to change as the project design matures. This cost opinion is in 2025 dollars and does not include escalation to time of actual construction. Keller Associates has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. Keller Associates cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein.

Project Title:	Location:
Southeast LS Bypass Pipeline	**South of Palouse River Dr, from Southeast Lift Station to South Lift Station**

Project Identifier:

1.2

Need for Project:

10-year and beyond anticipated flows are expected to exceed the firm capacity of the Southeast lift station. Based on elevation, the lift station can be bypassed and flow by gravity to the South LS

Objective:

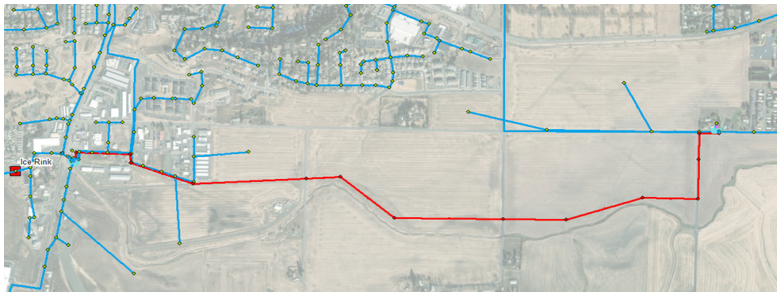
Bypass and abandon the Southeast lift station

Design Considerations:

Aquiring easements through property

Determining if South LS wetwell or an upstream manhole is better suited to connect new pipeline.

Coordination with Palouse River location for necessary offsets



General Line Item	Estimated Quantity	Unit	Unit Price	Item Cost (Rounded)	Total Cost (2025 Dollars)
21-inch PVC Pipe - Excavation, Backfill	3,440	LF	$ 233	$ 803,000	
18-inch PVC Pipe - Excavation, Backfill	6,960	LF	$ 221	$ 1,540,000	
Existing Utility Protection & Coordination	10,400	LF	$ 5	$ 53,000	
Natural Surface Repair	7,700	LF	$ 5	$ 40,000	
Gravel Road Repair (Trench Width - 4')	1,400	LF	$ 11	$ 16,000	
Full lane (14') Pavement Repair	1,300	LF	$ 106	$ 138,000	
Easements (if necessary)	1	LS	$ 100,000	$ 100,000	
Asphalt Surface Repair	150	SY	$ 94	$ 15,000	
48-Inch, Standard Manhole	23	EA	$ 9,571	$ 223,000	
60-Inch, Standard Manhole	11	EA	$ 16,749	$ 193,000	
Connect to Existing Manhole	3	EA	$ 5,273	$ 16,000	
				Construction Subtotal	***$ 3,137,000***
Additional Elements					
Mobilization and General Conditions			10%	$314,000	
				Subtotal	***$3,451,000***
Contingency			30%	$1,035,000	
				Subtotal	***$4,486,000***
Contractor Overhead and Profit			15%	$673,000	
				Total Construction Subtotal	***$5,159,000***
Plans and Contract Documents					
Design, Legal, and Construction Services			25%	$1,290,000	
				Total Project Costs (rounded)	**$ 6,449,000**

The cost estimate herein is concept level information only based on our perception of current conditions at the project location and its accuracy is subject to significant variation depending upon project definition and other factors. This estimate reflects our opinion of probable costs at this time and is subject to change as the project design matures. This cost opinion is in 2025 dollars and does not include escalation to time of actual construction. Keller Associates has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. Keller Associates cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein.

Project Title:	Location:
Formalize Connection Agreement with U of I	**N/A**

Project Identifier:

1.3

Need for Project:

The University of Idaho owns a small network of pipelines that connect into the City of Moscow's sewer conveyance system. The agreement between the University and City has been informal to date.

Objective:

Formalize a connection agreement with the University of Idaho.

Design Considerations:

Costs of running conveyance system

Ownership of different portions of system

General Line Item	Estimated Quantity	Unit	Unit Price	Item Cost (Rounded)	Total Cost (2025 Dollars)
Formalize Connection Agreement with U of I	1	LS	$ 50,000	$ 50,000	
				Project Subtotal	***$ 50,000***
Additional Elements					
Mobilization and General Conditions				$0	
				Subtotal	***$50,000***
Contingency				$0	
				Subtotal	***$50,000***
Contractor Overhead and Profit				$0	
				Total Construction Subtotal	***$50,000***
Plans and Contract Documents					
Design, Legal, and Construction Services				$0	
				Total Project Costs (rounded)	**$ 50,000**

The cost estimate herein is concept level information only based on our perception of current conditions at the project location and its accuracy is subject to significant variation depending upon project definition and other factors. This estimate reflects our opinion of probable costs at this time and is subject to change as the project design matures. This cost opinion is in 2025 dollars and does not include escalation to time of actual construction. Keller Associates has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. Keller Associates cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein.

Project Title:	Location:
Mall LS / Highway 8 Trunkline Upsize	**Highway 8 / Pullman Rd**

Project Identifier:

1.4

Need for Project:

The existing 12" pipeline to the east of the Mall LS shows potential for surcharging in existing peak hour conditions

Objective:

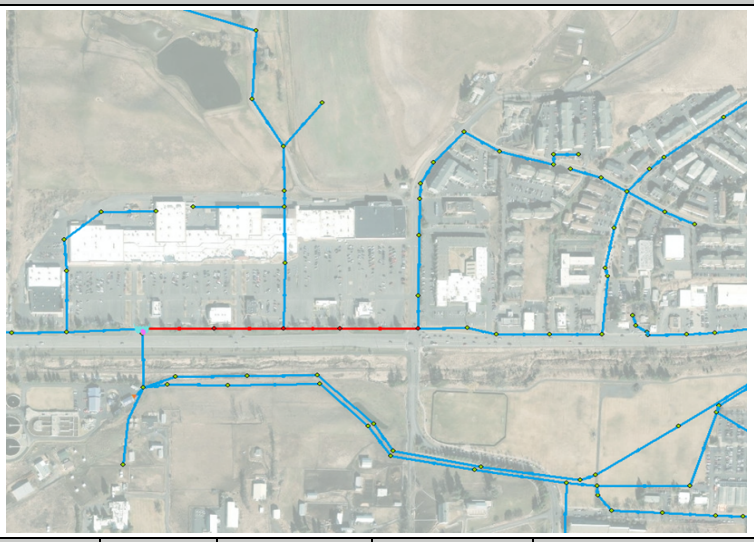
Increase the pipeline size to handle existing and future (50-year) peak hour flows

Design Considerations:

Proximity to Highway 8 / Pullman Rd, coordinate work with highway district / ITD

Maintain road access for parking lot of shopping district

Maintain/restore landscaping



General Line Item	Estimated Quantity	Unit	Unit Price	Item Cost (Rounded)	Total Cost (2025 Dollars)
18-inch PVC Pipe - Excavation, Backfill	1,500	LF	$ 221	$ 332,000	
Landscape Restoration	1,400	LF	$ 24	$ 35,000	
Existing Utility Protection & Coordination	1,500	LF	$ 5	$ 8,000	
Asphalt Surface Repair	80	SY	$ 94	$ 8,000	
60-Inch, Standard Manhole	5	EA	$ 16,749	$ 84,000	
Connect to Existing Manhole	3	EA	$ 5,273	$ 16,000	
				Construction Subtotal	***$ 483,000***
Additional Elements					
Mobilization and General Conditions			10%	$48,000	
				Subtotal	***$531,000***
Contingency			30%	$159,000	
				Subtotal	***$690,000***
Contractor Overhead and Profit			15%	$104,000	
				Total Construction Subtotal	***$794,000***
Plans and Contract Documents					
Design, Legal, and Construction Services			25%	$199,000	
				Total Project Costs (rounded)	**$ 993,000**

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Project Title:	Location:
Comprehensive Sewer System Plan Update	**City of Moscow**

Project Identifier:

2.1

Need for Project:

A facility plan update should be routinely completed based on growth that has occurred since the last facility plan.

Objective:

Update of the current facility plan based on wastewater facility conditions, current flows, and updated growth projections.

General Line Item	Estimated Quantity	Unit	Unit Price	Item Cost (Rounded)	Total Cost (2025 Dollars)
Facility Planning Study Update	1	LS	$ 250,000	$ 250,000	
				Construction Subtotal	***$ 250,000***
Additional Elements					
Mobilization and General Conditions				$0	
				Subtotal	***$250,000***
Contingency				$0	
				Subtotal	***$250,000***
Contractor Overhead and Profit				$0	
				Total Construction Subtotal	***$250,000***
Plans and Contract Documents					
Design, Legal, and Construction Services				$0	
				Total Project Costs (rounded)	**$ 250,000**

The cost estimate herein is concept level information only based on our perception of current conditions at the project location and its accuracy is subject to significant variation depending upon project definition and other factors. This estimate reflects our opinion of probable costs at this time and is subject to change as the project design matures. This cost opinion is in 2025 dollars and does not include escalation to time of actual construction. Keller Associates has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. Keller Associates cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein.

Project Title:	Location:
Comprehensive Sewer System Plan Update	**City of Moscow**

Project Identifier:

3.1

Need for Project:

A facility plan update should be routinely completed based on growth that has occurred since the last facility plan.

Objective:

Update of the current facility plan based on wastewater facility conditions, current flows, and updated growth projections.

General Line Item	Estimated Quantity	Unit	Unit Price	Item Cost (Rounded)	Total Cost (2025 Dollars)
Facility Planning Study Update	1	LS	$ 250,000	$ 250,000	
				Construction Subtotal	***$ 250,000***
Additional Elements					
Mobilization and General Conditions				$0	
				Subtotal	***$250,000***
Contingency				$0	
				Subtotal	***$250,000***
Contractor Overhead and Profit				$0	
				Total Construction Subtotal	***$250,000***
Plans and Contract Documents					
Design, Legal, and Construction Services				$0	
				Total Project Costs (rounded)	**$ 250,000**

The cost estimate herein is concept level information only based on our perception of current conditions at the project location and its accuracy is subject to significant variation depending upon project definition and other factors. This estimate reflects our opinion of probable costs at this time and is subject to change as the project design matures. This cost opinion is in 2025 dollars and does not include escalation to time of actual construction. Keller Associates has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. Keller Associates cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein.

Project Title:	Location:
Railroad St, College St, and Deakin Ave Upsize	**Railroad St, College St, and Deakin Ave from Sweet Ave to 6th St**

Project Identifier:

3.2

Need for Project:

Anticipated 20-year flows are shown to exceed the capacity trigger of these pipelines and 50-year flows cause surcharging

Objective:

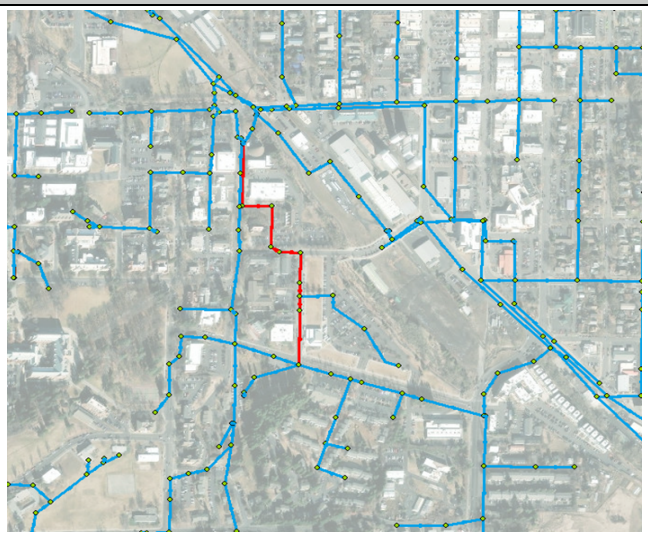
Upsize pipelines to convey future flows

Design Considerations:

Pipelines go through University of Idaho campus, coordinate work with University

Pipeline is roughly within the centerline of the road, maintain access to parking lots / residencies during construction

Consider trenchless replacement technology



General Line Item	Estimated Quantity	Unit	Unit Price	Item Cost (Rounded)	Total Cost (2025 Dollars)
15-inch PVC Pipe - Excavation, Backfill	1,700	LF	$ 203	$ 345,000	
Full lane (14') Pavement Repair	1,700	LF	$ 106	$ 179,500	
Existing Utility Protection & Coordination	1,700	LF	$ 5	$ 8,700	
Connect to Existing Manhole	3	EA	$ 5,273	$ 15,900	
48-Inch, Standard Manhole	11	EA	$ 9,571	$ 105,300	
Reconnect Services (existing)	12	EA	$ 33	$ 410	
				Construction Subtotal	***$ 654,810***
Additional Elements					
Mobilization and General Conditions			10%	$65,000	
				Subtotal	***$719,810***
Contingency			30%	$216,000	
				Subtotal	***$935,810***
Contractor Overhead and Profit			15%	$140,000	
				Total Construction Subtotal	***$1,075,810***
Plans and Contract Documents					
Design, Legal, and Construction Services			25%	$269,000	
				Total Project Costs (rounded)	**$ 1,345,000**

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Project Title:	Location:
6th St Upsize	**6th Ave from Rayburn to east of Ag Biotech Building**

Project Identifier:

3.3

Need for Project:

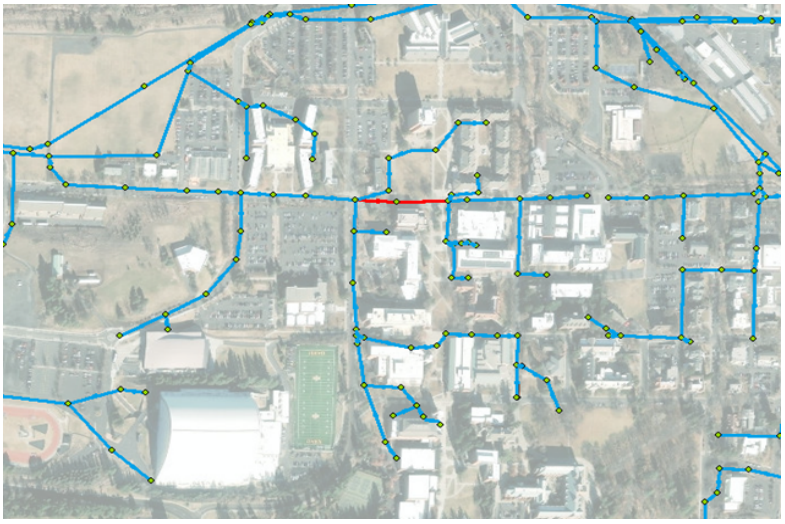
Anticipated 20-Year flow rates produced on the Campus of UofI exceed the pipe segment's capacity.

Objective:

Increase pipe capacity to handle 20-year flows

Design Considerations:

These pipes are City-owned but on the University of Idaho campus. Coordinate work and potential project cost with the University. Location and magnitude of flows from new builds on campus should be verified before beginning this project, flow monitoring recommended



General Line Item	Estimated Quantity	Unit	Unit Price	Item Cost (Rounded)	Total Cost (2025 Dollars)
15-inch PVC Pipe - Excavation, Backfill	450	LF	$ 203	$ 91,400	
Full lane (14') Pavement Repair	450	LF	$ 106	$ 47,500	
Existing Utility Protection & Coordination	450	LF	$ 5	$ 2,300	
Connect to Existing Manhole	2	EA	$ 5,273	$ 10,600	
48-Inch, Standard Manhole	1	EA	$ 9,571	$ 9,600	
				Construction Subtotal	***$ 161,400***
Additional Elements					
Mobilization and General Conditions			10%	$16,000	
				Subtotal	***$177,400***
Contingency			30%	$53,000	
				Subtotal	***$230,400***
Contractor Overhead and Profit			15%	$35,000	
				Total Construction Subtotal	***$265,400***
Plans and Contract Documents					
Design, Legal, and Construction Services			25%	$66,000	
				Total Project Costs (rounded)	**$ 332,000**

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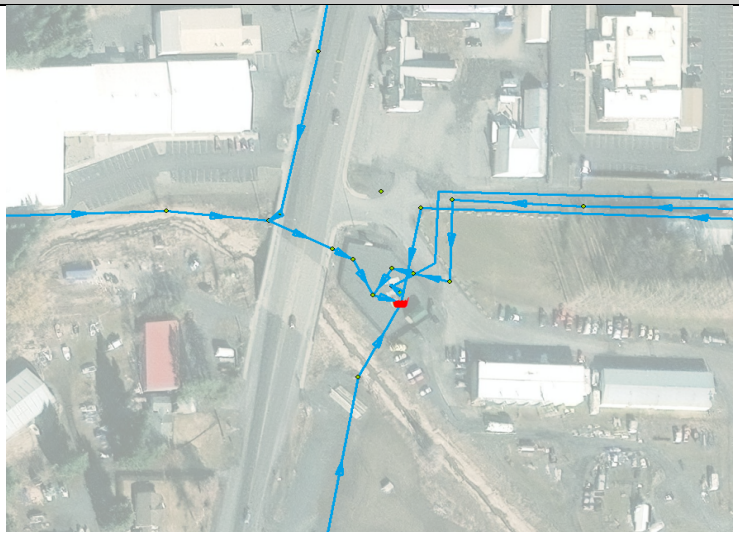
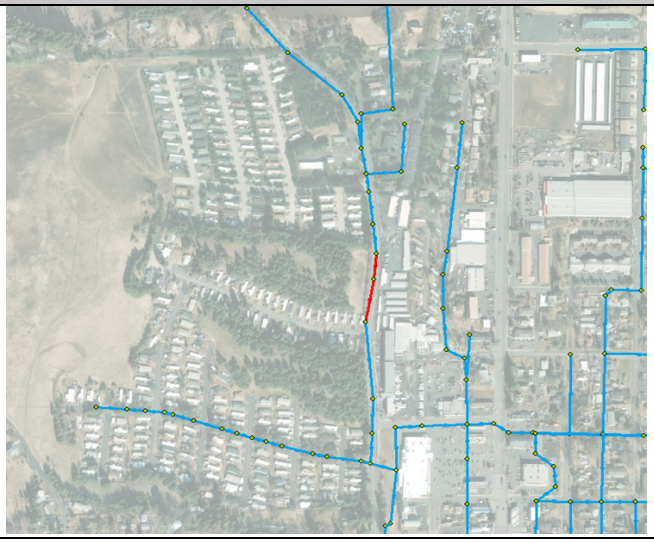
Project Title:	Location:
South LS Pump Upsize	**Hwy 95**
Project Identifier: **4.1**	

Need for Project:
- Between the 20-year and 50-year window, anticipated peak flows are anticipated to exceed the firm capacity of the South lift station

Objective:
- Upgrade the pump station to convey anticipated peak hour flows

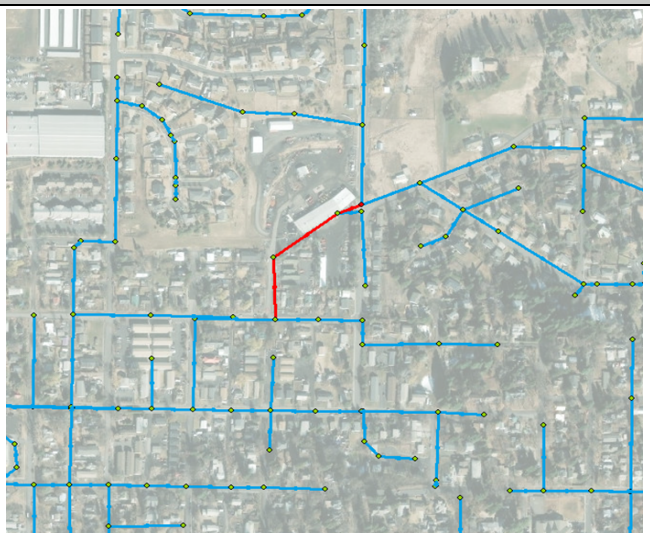
Design Considerations:
- Accomodate all anticipated growth upstream, including bypassed Southeast lift station basin flows
- Electrical upgrades
- Potential Wetwell upgrades

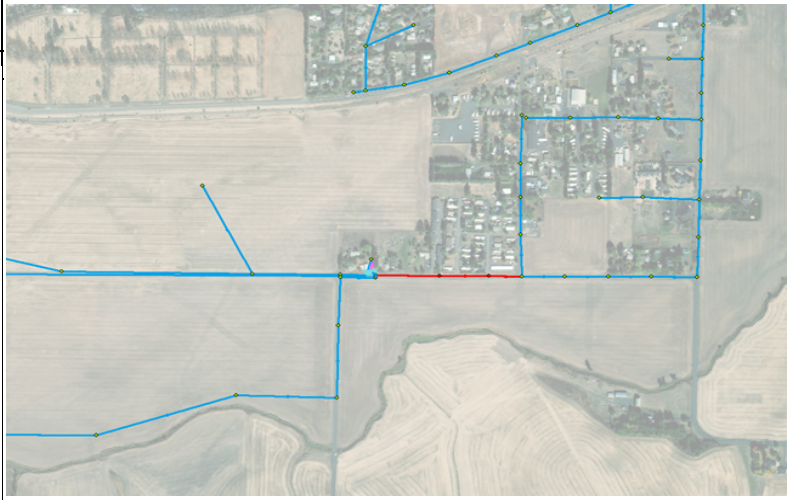
Project Title:	Location:
Almon St Upsize	**Almon St**
Project Identifier: **4.2**	

Need for Project:
- Anticipated 50-year flows are shown to exceed the capacity of this pipeline and cause surcharging in pipelines with lower slopes

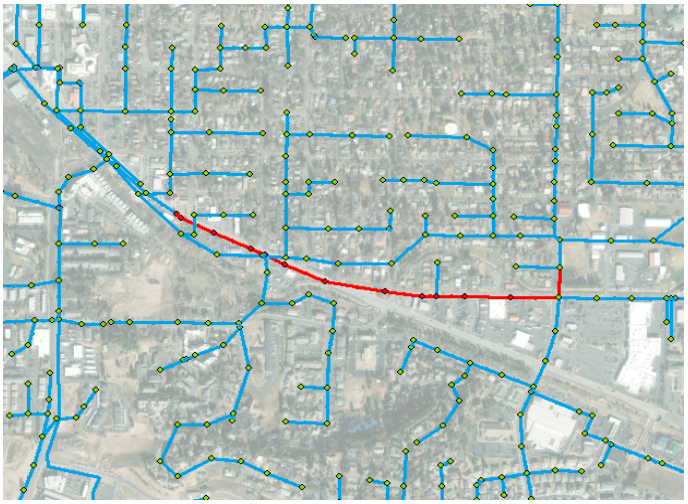
Objective:
- Upsize pipeline to convey anticipated future flows

Design Considerations:
- Pipeline is located within sidewalk, may require replacement.
- Traffic control may still be required
- Consider trenchless technology for upsize such as pipe bursting

Project Title:	Location:
Moscow City Shop / Van Buren St Upsize	**Public Ave, Van Buren St, South of Moscow City Shop**
Project Identifier: **4.3**	
Need for Project: Anticipated 50-year flows are shown to exceed the capacity of this pipeline and cause surcharging Objective: Upsize pipeline to convey anticipated future flows Design Considerations: Traffic control may still be required Maintain residential access Consider trenchless technology for upsize such as pipe bursting Easement may go through private property, coordinate with property owners	

Project Title:	Location:
Palouse River Dr Upsize	**Palouse River Dr**
Project Identifier: **4.4**	
Need for Project: Anticipated 50-year flows are shown to exceed the capacity of this pipeline and may cause surcharging Objective: Upsize pipeline to convey anticipated future flows Design Considerations: Maintain roadway access / residential access Potential traffic control	

Project Title:	Location:
South Lift Station Upstream Pipeline Upsize	**Hwy 95**
Project Identifier: **4.5**	
Need for Project: Anticipated 50-year flows are shown to exceed the capacity of this pipeline and may cause surcharging Objective: Upsize pipeline to convey anticipated future flows Design Considerations: Maintain roadway access / residential access Potential traffic control Avoid Highway Right-of-Way	

Project Title:	Location:
Blaine St / White Ave / HWY 8 Upsize	**Blaine St, White Ave, and Highway 8**
Project Identifier: **4.6**	

Need for Project:
- Anticipated 50-year flows are shown to exceed the 0.85 capacity of this pipeline and may require an upsize to prevent surcharging

Objective:
- Upsize pipeline to convey anticipated future flows

Design Considerations:
- Maintain roadway and highway access / business access
- Potential traffic control
- Highway Right-of-Way

City of Moscow
Comprehensive Water System Plan

October 2025

Certificate of Engineer

This Comprehensive Water System Plan for the City of Moscow has been prepared under the direction of the following Registered Professional Engineer.

Michael Boeck, P.E.

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Executive Summary

The City of Moscow (City) distributes drinking water throughout the area bounded by its City Limits, with the exception of an area in the southwest portion of the City that is served by the University of Idaho (UI). The City has prepared this 2025 Comprehensive Water System Plan (CWSP) in support of its continued commitment to providing safe and reliable drinking water to its customers.

The CWSP was developed considering the regulatory requirements and facility and design standards pertaining to public drinking water systems, as set forth in IDAPA 58.01.08 (Idaho Rules for Public Drinking Water Systems). The CWSP describes the City's water distribution facilities, operations, and compliance with state and federal drinking water regulations. It projects system needs over a 50-year planning horizon (i.e., through 2075), identifying system deficiencies and establishing capital project needs for the coming years.

Existing Water System

The City of Moscow was founded in 1887, with the City's first water supply well drilled in 1892. The water system has evolved over more than one hundred years and now relies on six active groundwater wells withdrawing water from the Wanapum and Grande Ronde aquifers in the Palouse Groundwater Basin. The total pumping capacity of these wells is approximately 12.6 million gallons per day (mgd). In recent years, approximately 99 percent of the City's supply came from the deeper Grand Ronde aquifer, with the remainder being withdrawn from the shallower Wanapum aquifer.

The City currently provides water service to a population of approximately 24,000 via a distribution system comprised of roughly 100 miles of water mains and three active reservoirs with a total storage volume of 4.5 million gallons. While the majority of the City's water customers are located in the Main Pressure Zone, six booster pump stations exist to lift water to customers located in higher elevation areas around the periphery of the City.

Multiple elements of system redundancy and reliability ensure that the City can provide service under a wide range of emergency conditions. Key system reliability features include: ability to meet current and projected demands even with the largest well out of service, standby emergency storage in excess of State requirements, standby power at most wells and booster pump stations, ten emergency interties with the neighboring UI water system, and a detailed emergency response plan that guides actions and procedures in the event of emergency situations.

Water Demand Forecast

Growth in the City is expected to result in a water system service population of approximately 26,500 in 2035 and up to 36,000 in 2075, assuming a 1% annual linear growth rate in both single-family and multi-family residences. This growth, coupled with related growth in the commercial and industrial sectors, translates to increased water demand. Average day water demand is projected to grow from approximately 2.2 mgd in 2025, to 3.6 mgd in 2075. Maximum day water demand in the City is approximately twice that of average day demand, due to peak

outdoor usage in the summer. Maximum day demand is projected to increased from approximately 4.7 mgd in 2025, to 7.7 mgd in 2075.

The water system will continue to be upgraded and expanded to meet needs associated with this growth, in addition to changing regulatory requirements.

Water Conservation

The City's interest in water conservation is driven by a desire to minimize its impact on the Grande Ronde and Wanapum aquifers and to comply with the September 1992 Ground Water Management Plan set in place by the Pullman-Moscow Water Resources Committee, now called the Palouse Basin Aquifer Committee (PBAC). Some of the City's many water conservation program elements include: distribution of low-flow devices and toilet leak detection kits, audits for outdoor irrigation, public information and educational events/materials, tiered rate structure, and rebates for lawn replacement and certain low water use appliances. These program elements were started in the late 1990s and have continued to evolve over the past three decades in response to changes in regulatory requirements, available water-saving technologies, and customer behaviors. The City's water conservation program has been successful, meeting water use reduction targets established regionally by PBAC and internal goals established by the City.

The City is in the process of updating its formal Water Conservation Plan, which was last adopted in 2016. The proposed amendments include modifications to the existing fixture and lawn replacement rebate programs, new rebates for instant hot water devices and commercial water conservation measures, new free water-saving devices, and formalization of minor updates to other elements. The updates are intended to build on current success and cover the next 10 years, at which time another update will be proposed.

Water Supply

The City currently utilizes groundwater rights for municipal supply and irrigation issued by the Idaho Department of Water Resources (IDWR). In 2019, IDWR authorized a water right "transfer" that authorized the use of each of the City's wells as an alternate point of diversion for each municipal right. This provides flexibility in how the City can operate the system, allowing for certain wells to be used more often when other wells are shut down for routine maintenance or because of an emergency failure.

In total, the City's municipal water rights are sufficient to meet projected water demands beyond the 50-year planning horizon. However, the City recognizes the importance of planning beyond the time horizon envisioned in the CWSP, so as to bolster the reliability of the system into the future. As such the City is actively engaged with long-range water supply planning efforts being conducted by PBAC.

For decades PBAC has studied the long-observed trend of declining aquifer levels in the Palouse Groundwater Basin and is working to secure a long-term, sustainable water future for the region. As part of that effort, PBAC has evaluated a range of potential alternative water supplies that could aid in meeting future water supply needs of the region and support sustainable management of the Palouse Basin groundwater supply. Such additional supplies that have been considered include expanded/enhanced conservation, water reclamation, aquifer storage and recovery, surface water storage, and regional surface water supplies.

As of 2025, PBAC's current focus is upon exploratory work to consider a potential project that would bring water from the Clearwater River to the Palouse as a supplemental supply. Water rights, permitting, and construction feasibility are being evaluated in an effort that is planned to conclude in 2026.

While an alternative supply will be necessary to ultimately meet the long-term needs of the region, water conservation also remains essential to sustaining our community's water needs now and into the future.

System Analysis

The City's water source, storage, and distribution system capacity have been assessed as part of this planning effort, to determine improvements needed to support current and future water demands.

The source capacity analysis indicates that the City's existing well sources have sufficient capacity to meet needs through 2075, under a range of scenarios. This, coupled with the long-range supply planning noted above, results in a sustainable supply to meet future needs beyond the 50-year planning horizon.

The storage capacity analysis indicates that while existing storage facilities are sufficient to meet needs in the near-term, there is a slight deficiency (0.15 million gallons) by 2045, which increases to a deficiency of 0.75 million gallons by 2075. The City is actively planning on additional storage infrastructure to address this future deficiency.

A computerized hydraulic model of the distribution system was used to examine the ability of the distribution system to adequately supply water under stressed conditions (i.e., during high water usage days in the summer, and fire fighting events). This model is a key working tool that not only was used during development of the CWSP but that will continue to be used by the City in the future as the system is modified to address deficiencies and respond to growth.

The hydraulic model identifies locations throughout the system that are deficient in meeting pressure and/or flow requirements. The water system provides pressures of 40-100 pounds per square inch (psi) to the majority of customers in the City. There are small, localized areas of lower pressure, where some service connections have between 30 to 40 psi. No improvements are necessary in these areas, as the deficiencies are small and a result of legacy conditions. There are also portions of the City with pressures that exceed 100-110 psi. The City has identified improvements to address these situations through increasing capacity of the existing distribution system and incorporating pressure reducing valves as part of future system expansions.

The distribution system is also designed to provide fire flow capability, supporting fire fighting goals that can range from 1,500 gallons per minute (gpm) for low and medium density residential areas to 3,500 gpm for industrial areas. The majority of the distribution system provides flows that achieve these goals. Small, localized areas of deficiencies have been identified and are addressed through planned capital improvements.

Capital Improvement Program

The CWSP outlines a capital improvement program (CIP) that describes the water system improvements that the City is planning to implement to address identified deficiencies and improve service to its customers. The CIP provides a detailed proposed schedule of projects and their associated costs for the 10-year planning period (2026-2035). Additional projects and associated costs that are expected to be implemented beyond 2035 are also included, so that the City can plan accordingly.

CIP projects relate to water supply/treatment, storage, distribution system, and capital-related maintenance/operations needs. In total, the City's 10-year CIP includes approximately $31.3 million in improvements. The largest near-term projects include filtration system improvements at Well 10, power and standby power upgrades at Well 9, improvements at other well sites, and select watermain replacement projects. The longer-term CIP includes approximately $55.5 million in additional improvements.

The City uses the CWSP CIP as a guide in developing shorter-term financial plans and in formulating its annual budget.

1. Introduction

The City of Moscow (City) distributes drinking water throughout the area bounded by its City Limits, with the exception of an area in the southwest portion of the City that is served by the University of Idaho. The City has prepared this 2025 Comprehensive Water System Plan (CWSP) in support of its continued commitment to providing safe and reliable drinking water to its customers.

The CWSP was developed considering the regulatory requirements and facility and design standards pertaining to public drinking water systems, as set forth in IDAPA 58.01.08 (Idaho Rules for Public Drinking Water Systems). The CWSP describes the City's water distribution facilities, operations, and compliance with state and federal drinking water regulations. It identifies capital project needs for the coming years, as well as the City's financial plan to fund these needs.

1.1. System Overview

The City of Moscow was founded in 1887, with the City's first water supply well drilled in 1892. The water system has evolved over more than one hundred years and now relies on six groundwater wells withdrawing water from the Wanapum and Grande Ronde aquifers in the Palouse Groundwater Basin.

The City, depicted in Figure 1-1, currently provides water service to a population of approximately 24,000 via a distribution system comprised of roughly 100 miles of water mains and three active reservoirs with a total storage volume of 4.5 million gallons.

Growth in the City is expected to result in a water system service population of approximately 26,500 in 2035 and up to 36,000 in 2075, assuming a 1% annual linear growth rate. The water system will continue to be upgraded and expanded to meet needs associated with this growth as well as changing regulatory requirements.

Further information on the City's service area, facilities, and operations is presented in subsequent chapters of this CWSP.

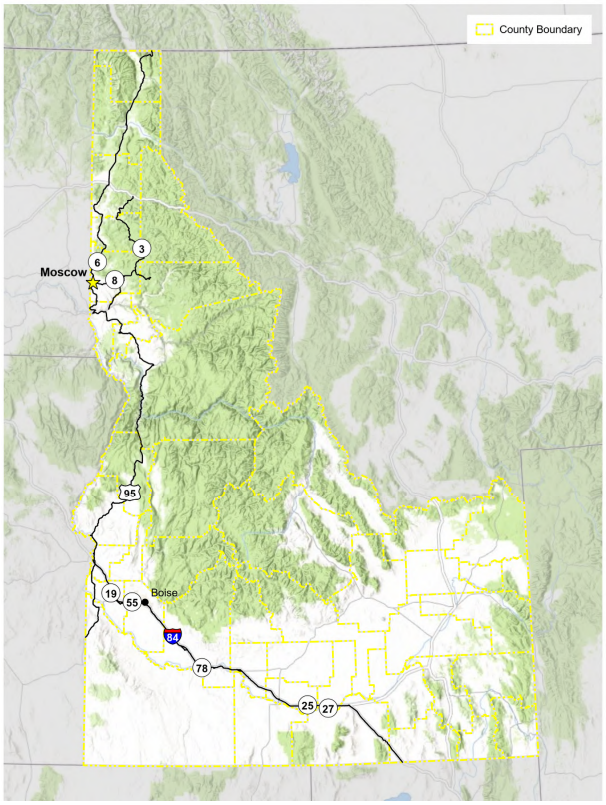


Figure 1-1 Location Map

1.2. Planning Objectives

This CWSP was developed to meet the following objectives:

- Provide estimates of expected population growth in the City's service area, as well as associated growth in water demands, to enable planning for new facilities or upgrades to existing facilities.
- Update a computerized hydraulic model of the distribution system to reflect existing infrastructure and current operating conditions/parameters. This model was a key working tool used during development of the CWSP to evaluate adequacy of City facilities and to plan for improvements. It will continue to be used by the City in the future as the system is modified to address deficiencies and respond to growth. The City also intends to build upon the existing hydraulic model to conduct a surge analysis in the future, so as to better understand pressure fluctuations and water hammer issues in the distribution system, with the goal of preventing main breaks.
- Summarize the long-range regional water supply planning efforts of the Palouse Basin Aquifer Committee (PBAC). The City's existing sources and planned near-term supply improvements are sufficient to meet needs through the 20-year planning horizon. Furthermore, existing groundwater rights are adequate to support demands through the 50-year planning horizon. However, due to observed declines in regional groundwater levels in the City's source aquifers, the City, in conjunction with its PBAC partners, is proactively considering alternative future supplies that could be used in conjunction with its existing groundwater wells to meet future growth needs while sustainably managing regional water resources. This CWSP documents the current pathway forward being implemented by PBAC with respect to such alternative supplies.
- Prepare a Capital Improvement Program (CIP) and review financial needs for implementation.
- Evaluate compliance with facility and design standards set forth in IDAPA 58.01.08 (Idaho Rules for Public Drinking Water Systems), primarily in sections 500 through 552. These standards have historically guided the development of the water system and are referenced throughout the CWSP as the basis for design and implementation of future system improvements.

1.3. Organization of Comprehensive Water System Plan

This Water Comprehensive Plan is organized in the following chapters:

Chapter 1: Introduction

Chapter 2: System Description

Chapter 3: Policies, Plans, and Agreements

Chapter 4: Demand Forecast

Chapter 5: Conservation Program

Chapter 6: Water Rights and Supply Options

Chapter 7: System Analysis

Chapter 8: Capital Improvement Plan

In addition to these chapters, the Appendices to this CWSP contain information related to the topics listed above.

2. Water System Description

2.1. Background and Description of Service Area

2.1.1. Water System Ownership and Management

The City of Moscow owns and operates its municipal public drinking water system. A vicinity map showing the location of Moscow is presented in Figure 2-1. A map showing the city limits is presented in Figure 2-2. The Idaho Department of Environmental Quality (IDEQ) water system identification number is ID2290023. An elected Mayor and City Council govern the City. The City's current physical and mailing addresses are:

Physical Address:
City of Moscow Public Works and Services
201 N. Main Street
Moscow, ID 83843

Mailing Address:
City of Moscow Public Works and Services
201 N. Main Street
Moscow, ID 83843

The Public Works Director – Deputy City Administrator is responsible for the management, operations, business administration, and final decisions related to the City's water system. The Public Utility Manager works directly for the Public Works Director – Deputy City Administrator. An organizational chart of the water system management is provided in Appendix 2-1.

2.1.2. Background

The following abbreviated excerpt from the 2019 City of Moscow Comprehensive Plan describes the early history of the City:

> *Although there was no permanent settlement by the three nomadic Native American tribes who visited the area to gather camas root and for other reasons, it was an important area to their cultures. The Nez Perce were the primary inhabitants of the area and became skilled horsemen. After the War of 1877, in which the United States government moved the tribes onto reservations, the horses had mostly been destroyed or confiscated.*
>
> *During the late 1870s, Moscow established itself as a center for business and trade. Previously having to travel 150 miles by wagon to Walla Walla, Washington, for goods and supplies, settlers of the area could now conduct business in the community. Early businesses included a dentist, doctor, sawmill, hotel, and blacksmith shop. The opening of the McConnell Maguire General Store in 1879 was large enough to draw consumers from nearby communities. By 1880 the population of Moscow had grown to 300 persons and the community continued to thrive with the establishment of a flourmill, church, brewery, and newspaper in the early 1880s. Soon, a school followed on land donated by homesteader John Russell and the first brick building that housed one of the first banks was constructed by Lieuallen in 1885.*

Moscow was incorporated on July 12, 1887, after growing in population partly due to the development of a Union Pacific Railroad depot. By the following year Moscow had become the largest city in Nez Perce County and requested to become the county seat. When that move failed, Representative Fred Dubois pushed a bill through the United States Congress to carve out Latah County from the northern part of Nez Perce County, thus creating the only county formed by an act of Congress. When Moscow became the county seat of Latah County, its citizens dropped their support for the county to join Washington in statehood.

Another great movement in 1888 included Moscow's journey to become the site for Idaho's land grant college, the University of Idaho. Congress had approved a measure severing the Idaho panhandle from the rest of the territory and attaching it to Washington; however the bill was stopped by President Grover Cleveland due to protests from Idaho Governor Edward A. Stevenson. This action angered the residents of the north who favored joining Washington, fueled by Lewiston's loss of the territorial capital to Boise in 1865. As a gesture of peace to the north, the 1889 territorial legislature designated Moscow as the location for the public university. Council Bill 20, known as the university's charter, was signed into law on January 30, 1889, and became a part of the state constitution when Idaho was admitted to the Union in 1890.

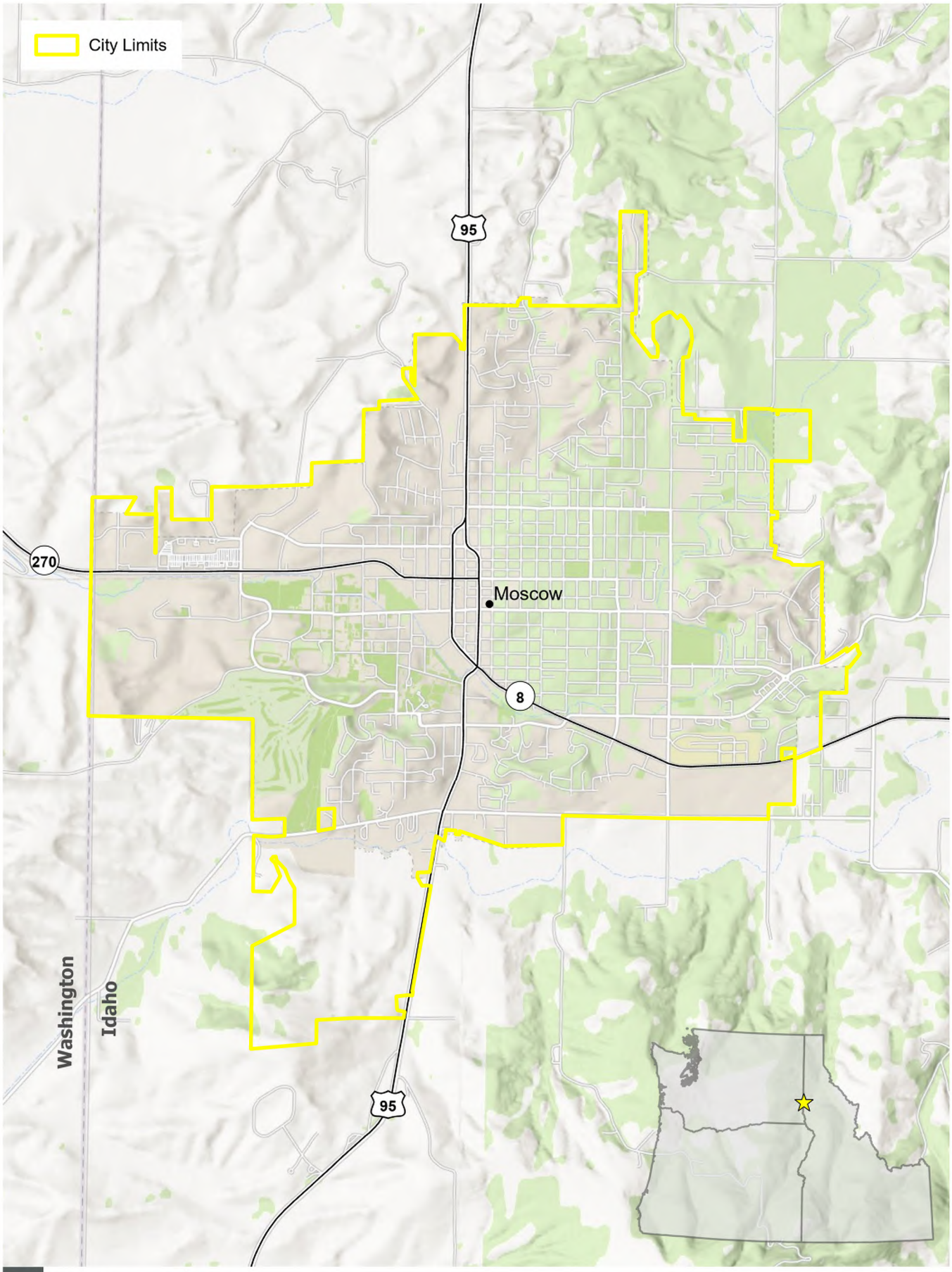
Moscow is a unique and vibrant community that prides itself in a strong sense of place, a high quality of life, and a place where people choose to live. The education industry established over 100 years ago continues to serve as the foundation of the community's economy and, along with the region's agricultural heritage, continues to contribute to Moscow's community character.

The first well was drilled in 1892 (Well No. 1). The well was artesian, but by 1914, the water level was reported to be over 100 feet below the surface. The University of Idaho (UI) maintains a separate water system within the City that also relies on groundwater as a source of supply. The systems are intertied for exchange of water during emergency conditions.

Throughout the growth and development of the Moscow water system, the City has been dependent upon the Palouse Groundwater Basin for its supply. The Basin consists primarily of two aquifers: the Wanapum (shallow) and Grande Ronde (deep). The Wanapum and Grande Ronde Formations are part of the Columbia River Basalt Group, which consists of thousands of feet of lava flows that covered much of eastern Washington and northeastern Oregon during eruptions that occurred millions of years ago.

A total of six production wells are now available for use in Moscow. Four wells draw water from the deeper Grande Ronde aquifer and the other two from the shallow Wanapum aquifer. In addition, two shallower wells were drilled near the cemetery within the Wanapum, but currently the wells are not in use. Both the Grand Ronde and Wanapum aquifers have historically experienced declining water levels. The Palouse Basin Aquifer Committee (PBAC) monitors groundwater levels in the area. It is a voluntary, multi-jurisdictional committee with representatives from the cities, counties, and universities in the Basin (Idaho: City of Moscow, Latah County and University of Idaho; Washington: Whitman County, City of Pullman, and Washington State University). PBAC works to ensure long-term, quality water supply for the Palouse Basin region. In their 2023 Annual Report, PBAC made the following statement concerning the declining aquifer levels:

In the 1990's, the decline rate was 1.3 feet per year. The current rate of decline in the basin is approximately 0.73 feet per year. While the rate of decline has decreased over the last 30 years, demonstrating that conservation efforts and technology advancements have been effective, the aquifer water levels continue to drop as demand outstrips supply.



VICINITY MAP
FIGURE 2-1
City of Moscow, Idaho

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MOSCOW COMPREHENSIVE WATER SYSTEM PLAN

City Limits
Area of City Impact
City Water Service Area
University of Idaho Water Service Area

95
270
8
Moscow
Washington
Idaho

0 0.5 mi

WATER SERVICE AREA
FIGURE 2-2
City of Moscow, Idaho

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A summary of the construction of major system features for the City of Moscow is provided in Table 2-1.

Table 2-1 History of the City of Moscow Water System

Date	Description
1875	Moscow established.
1892	Well No.1 drilled and University of Idaho opens.
1919	Northwest Tank constructed.
1925	Well No. 2 drilled.
1928	Well No. 3 drilled.
1940	Northeast Tank constructed.
1958	Taylor Booster Pump Station (BPS) constructed.
1955	Old Cemetery Well drilled – private well.
1955-1958	Well No. 6 drilled (began in 1955 completed in 1958).
1956	Pump in Well No. 1 lowered.
1963	Last pumping record of Well No.1 (later abandoned).
1964	Well No. 8 drilled.
1968	Southeast Tank and BPS constructed.
1971	Indian Hills BPS constructed.
1973	Ponderosa BPS constructed.
1978	Old Cemetery Well acquired from private party.
1980	Vista BPS constructed.
1982	Well No. 9 drilled.
1989	Stopped pumping Old Cemetery Well.
1989	White Avenue BPS constructed.
1990	Ponderosa BPS rebuilt.
1991	Vista Reservoir constructed.
1993	Moser BPS constructed.
1996	New Cemetery Well drilled.
1997	Indian Hills BPS rebuilt.
2006	Vista BPS replaced.
2016	New Vista, White, and Taylor booster pump stations constructed, replacing original pump stations.
2018	Northwest Tank taken offline.
2019	Well No. 10 installed.
2023	New Ponderosa and Indian Hills booster pump stations constructed, replacing original pump stations.

2.1.3. Physical Characteristics

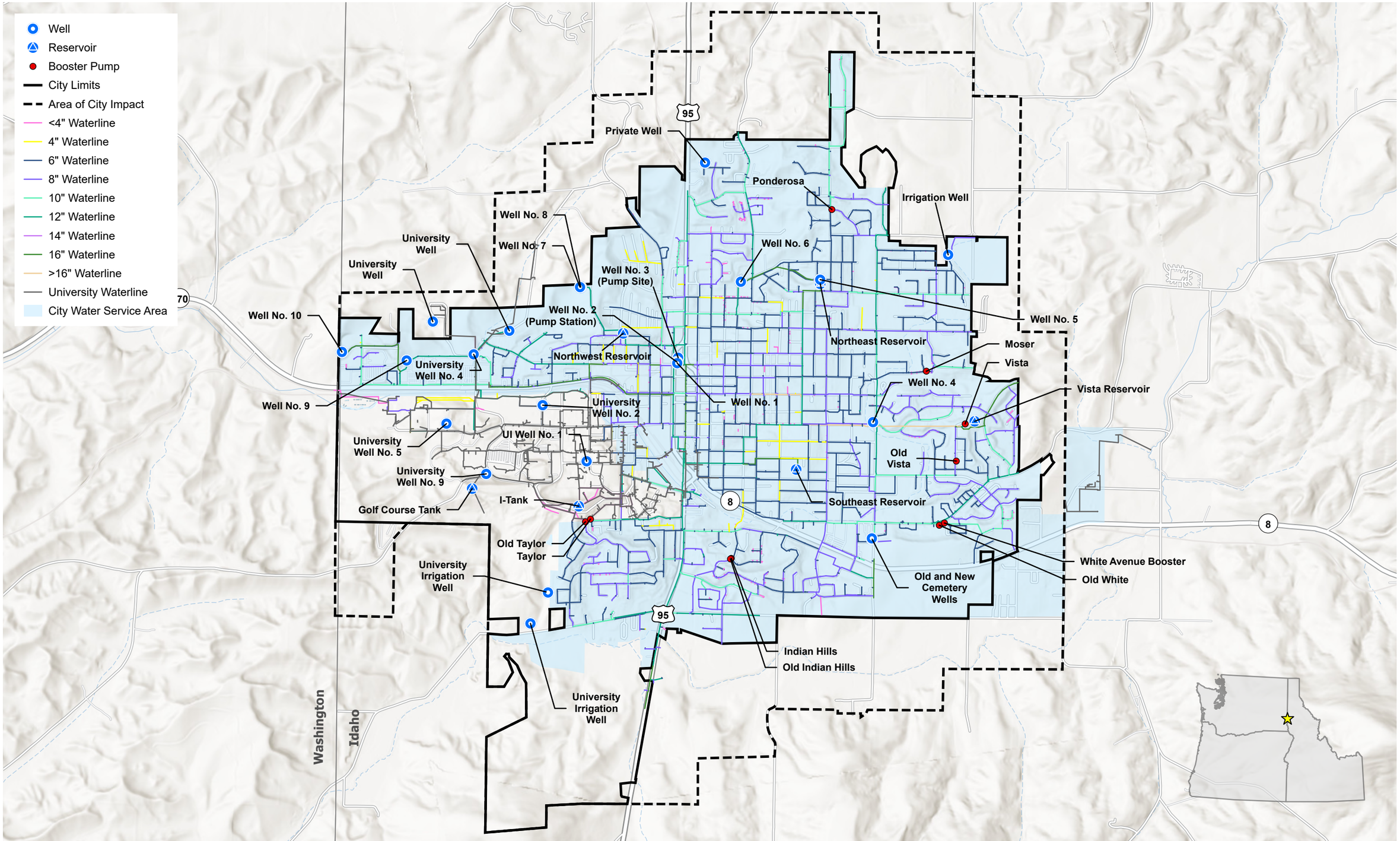
The following excerpts from the 2019 City of Moscow Comprehensive Plan describe the physical characteristics of the area:

> *Livestock and fruit were once bigger parts of the region's agricultural production and economy, but today the principal crops in the region are soft white winter wheat and rotations of pulse crops such as peas, lentils, and garbanzos. These pulse crops earned Moscow the home of the headquarter offices for the USA Dry Pea and Lentil Council, and neighboring Pullman, Washington, is host to the National Lentil Festival.*
>
> *The rolling hills of the Palouse were formed from windblown silt, or loess, that has been shaped by wind and snow and is more than 150 feet deep in some places. The predominant soil types are Palouse Silt Loam and Caldwell Silt Loam. The latter is found where drainage courses have cut through the deep soil and deposited alluvial material in their valleys. The earliest settlers found the region to be particularly suitable for agricultural uses despite the challenging topography. The unique water-retention qualities of the soil allows crops to mature over the dry summers without irrigation.*
>
> *To the northeast of Moscow, there are clay deposits rich in alumina and ilmenite, which is a source of titanium. Although additional mining could be possible in the area surrounding Moscow and Latah County, steps should be taken to ensure that such activity does not adversely affect the quality or quantity of water available to area residents.*
>
> *Moscow's climate is relatively mild. Average summer high temperatures are in the low 80s, and average winter low temperatures are in the 20s. The City averages 23.8 inches of total annual precipitation. January is generally the month with the greatest snowfall, averaging 16 inches of snowfall and four inches of snow depth.*
>
> *Paradise Creek and the South Fork of the Palouse River are the principal watercourses in the area. Paradise Creek originates in the Palouse Range to the northeast of Moscow. It runs along the east side of the City limits, cuts through the southeast corner of town, follows the Burlington Northern–Union Pacific Railroad rights-of-way through the center of town, and then continues west toward Pullman, Washington. The South Fork of the Palouse River and Paradise Creek both normally experience year-round flow. A small tributary named Hogg Creek cuts through the Northwestern area of the City and flows into Paradise Creek along Pullman Road.*

As stated previously, the City obtains its groundwater supply from the Palouse Groundwater Basin. The Basin also serves the cities of Pullman, Palouse, Uniontown, and Colton, as well as Washington State University, the University of Idaho, and rural residents. The water supply for the basin is withdrawn from several different geologic formations, the most productive of which is the Grand Ronde Basalt. Today, groundwater levels are declining, causing the basin to become the subject of numerous published studies, beginning in 1897 and continuing to the present. The City has implemented water conservation measures to reduce its impact on the aquifer, a comprehensive discussion of which is presented in Chapter 5: Water Conservation.

2.1.4. Inventory of Existing Facilities

Figure 2-3 shows the City's current water facilities. The water system consists of six active wells, three active storage reservoirs/tanks, seven booster pump stations (one of which is a peaking and fire demand booster station at the Southeast Reservoir), and approximately 96 miles of water distribution lines. The City has one pressure zone serving the majority of the City (Main Zone) with six smaller pressure zones located at a higher hydraulic gradient consisting of pockets of residential homes that are each served with booster stations that run constantly (no gravity storage within the boosted zones). The smallest boosted zone is the Moser Zone, which includes approximately 35 homes, while the largest boosted zone is the Taylor Zone, which includes approximately 205 homes. The Main Zone has a hydraulic grade line (HGL) at 2,790 feet, which is the overflow elevation for all storage reservoirs except for the Southeast Reservoir, which has an overflow elevation of 2,652 feet. Maps showing how water is moved between the pressure zones are shown in Figure 2-4 and Figure 2-5.



WATER SYSTEM FACILITIES
FIGURE 2-3
City of Moscow, Idaho

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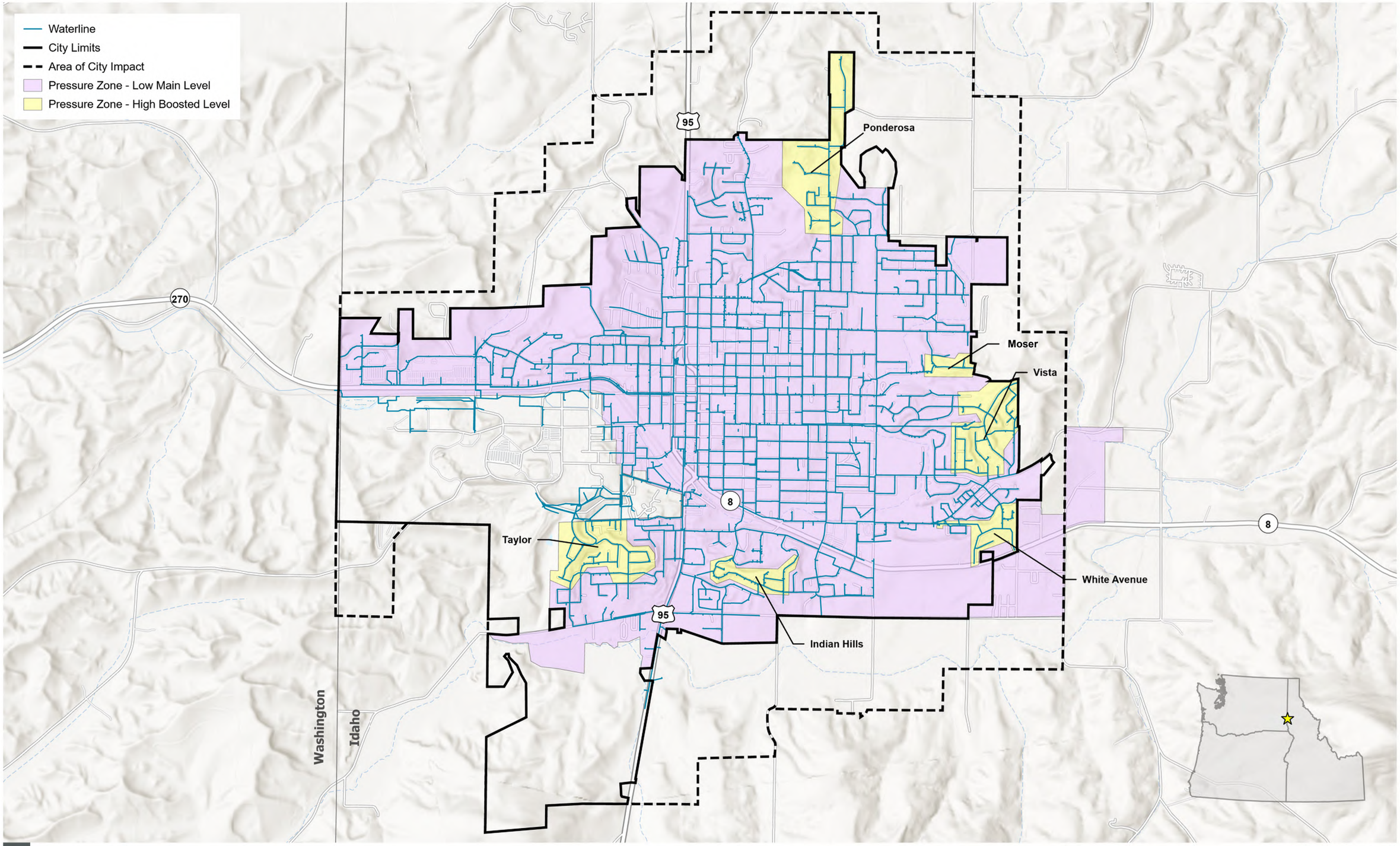
MOSCOW COMPREHENSIVE WATER SYSTEM PLAN



PRESSURE ZONES
FIGURE 2-4
City of Moscow, Idaho

\\BEL-SRV03\GISDATA\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_10378351\7.2_WIP\APRX\MOSCOW_WATER-SYSTEM_TK.APRX DATE: 6/20/2024

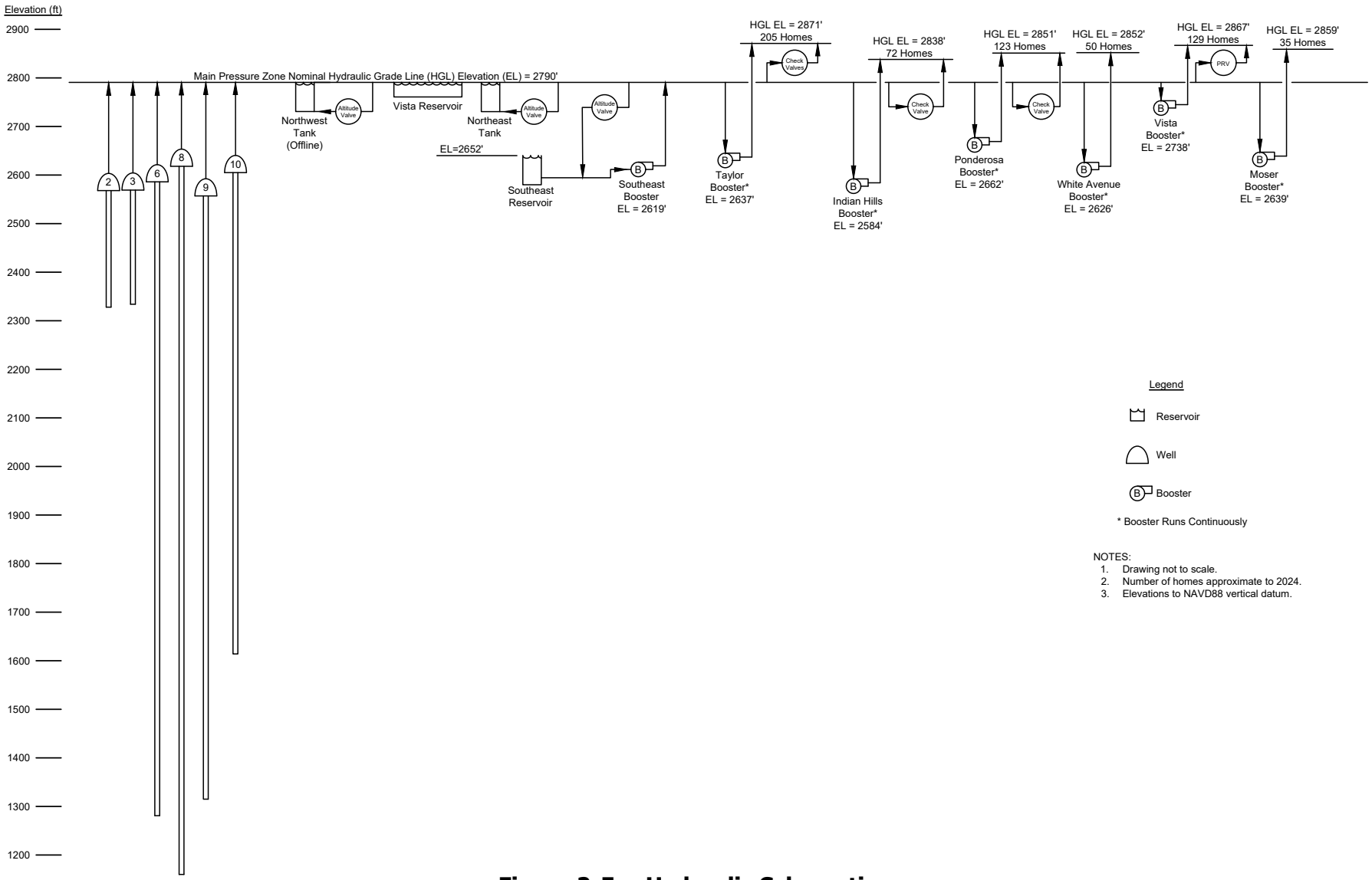


Figure 2-5. Hydraulic Schematic

2.2. Source and Quality of Supply

2.2.1. Wells

The Moscow drinking water supply is provided from groundwater wells which are all directly connected to the Main Zone. The first well for the city of Moscow was drilled in 1892. Well No. 1, located near the intersection of “A” and Jackson Streets, was originally a flowing artesian well, and the current water level is approximately 100 feet below the surface. Well No. 1 was eventually abandoned with the construction of Well No. 2. In 1925, Well No. 2 was drilled at the intersection of “A” and Jackson Streets. Well No. 3 was drilled at the same location in 1928. Well No. 4 was drilled in 1939 near Mountain View Road and Sixth Street, but no water was found, and it was abandoned. In 1948, Well No. 5 was drilled in the northeast section of town but was abandoned due to lack of production. Well No. 6 was drilled in 1955 near the intersection of Public Avenue and Van Buren Street to a depth of 280 feet and completed in 1958-59 to a depth of 1,305 feet. Also in 1955, the Old Cemetery Well was drilled, then was acquired by the City in 1978, and production was suspended in 1988-89 because of sand problems. Well No. 7 was drilled in 1961, but drill tools were lost in the shaft and the well was abandoned. Adjacent to Well No. 7, Well No. 8 was drilled in 1964 to a depth of 1,442 feet and put in operation in 1965. In 1982, Well No. 9 was drilled northwest of the Palouse Mall. In 1996, the New Cemetery Well was drilled adjacent to the Old Cemetery Well, but completion of this well has not yet occurred due to sanding problems. Well No. 10 was completed in 2017 to a depth of 991 feet at the west edge of “A” Street and put into use in 2019. Currently, Wells No. 2, 3, 6, 8, 9, and 10 are the sources for drinking water. The New Cemetery Well hasn’t been fully developed and may have some potential if the sand problems can be resolved. At this time, the facility is being used as a bulk water fill station.

The City’s well characteristics are shown on Figure 2-19 and are summarized in Table 2-2. Further information on each of the well sites currently in use is provided in the following sections.

2.2.1.1 Well 2

Well 2 (shown on Figure 2-6) was drilled in 1925 and has a capacity of approximately 650 gpm. The well is located within the City's Public Works facility on A Street. The well is equipped with a lineshaft turbine pump that has emergency power via an onsite generator. The motor is equipped with a variable frequency drive (VFD) but currently is operated on constant speed. The well has some sanding but no significant operational issues have been identified. Water from Well 2 passes through the City's Filter Plant before going to the distribution system.

Deficiencies or planned upgrades:

- Some sanding issues.
- No planned upgrades for the site.

Figure 2-6. Well 2

2.2.1.2 Well 3

Well 3 (shown on Figure 2-7) was drilled in 1928 and has a current capacity of approximately 930 gpm. The well is located within the City's Public Works facility on A Street. The well is equipped with a lineshaft turbine pump that has emergency power via an onsite generator. Well 3 has a new pump and motor that utilize a VFD; however, the VFD is currently only utilized for startup and shutdown of the pump. Water from Well 3 passes through the City's Filter Plant before going to the distribution system.

Well 3 has previously had detections of per- and polyfluoroalkyl substances (PFAS); the only site in the water system to have such detections.

The City has also observed issues with the well itself. Records show the well as having a liner but from recent observations, it appears the well has no liner or casing. Further investigations were blocked by what appeared to be an object within the well. The City plans on pulling the well pump to investigate the well casing and obstruction.

<u>Deficiencies or planned upgrades:</u>

- PFAS detection at well.
- Well investigation to determine casing condition and identify potential object in well.
- Potentially rehabilitate well after well investigation.

Figure 2-7. Well 3

2.2.1.3 Well 6

Well 6 (shown on Figure 2-8) was initially drilled in 1955 and redrilled in 1959, and has a capacity of approximately 900 gpm. The well is located at the same site as the City Shop off Van Buren Street and is housed within a newly constructed building (Figure 2-9). The well is equipped with a submersible pump. Emergency power is provided via an onsite generator. The motor is equipped with a VFD and operates to maintain a set downstream pressure or to flow at least 500 gpm. With this setpoint, the well operates continuously. Because of its constant use, the City maintains a spare pump and motor for the well.

The well site also has a MIOX onsite chlorine generation system (Figure 2-10) for providing a chlorine residual before discharging to the distribution system

Deficiencies or planned upgrades:

- City expects to replace the pump and motor for the well every five years due to continual use.

Figure 2-8. Well 6

Figure 2-9. Well 6 building

Figure 2-10. Well 6 MIOX onsite chlorine generation system

2.2.1.4 Well 8

Well 8 (shown on Figure 2-11) was drilled in 1964 and has a current capacity of approximately 900 gpm. The well is located in an area in the northwest portion of the City that is currently undeveloped but with the surrounding area planned to develop into a single family residential neighborhood. The well is equipped with a submersible pump. The motor is equipped with a soft start and then runs at constant speed. No backup emergency power exists for the well.

The well is located within a building that uses concrete masonry unit (CMU) construction for a portion of the building and wood panel construction around the well (Figure 2-12). To remove the pump, the roof and wood panel walls must be dissembled and removed. The existing roof is also in need of repairs.

Chlorine residual is added via a gas chlorine system which the City plans on switching to sodium hypochlorite.

Located outside, adjacent to the Well 8 building, is the capped Well 7.

When operating both Wells 6 and 8, the City has observed that the wells interfere with each other. To mitigate for this, the City plans on placing the submersible pump in Well 8 deeper. The well is already drilled deep enough to accommodate a lower setting.

Previously, the well discharged primarily towards the Northwest Tank. However, the pipeline conveying water to the Northwest Tank is leaking and in poor condition, and is currently offline.

Deficiencies or planned upgrades:

- Building improvements to change building to an all-CMU construction around the well with a new roof and skylight. Repair of the roof for the remaining portion of the building that is not replaced.
- Lower submersible pump deeper into the well.
- Repair/replace transmission piping conveying water towards Northwest Tank.
- Add additional site security as surrounding area is developed.
- Install fiber communications to site.
- Transition from chlorine gas to a sodium hypochlorite metering system. Bulk sodium hypochlorite generated by an existing MIOX unit at another facility would be brought to Well 8 to fill a storage tank that would supply the new metering system.

Figure 2-11. Well 8

Figure 2-12. Well 8 building

2.2.1.5 Well 9

Well 9 (shown on Figure 2-13) was drilled in 1982 and has a current capacity of approximately 2,200 gpm. The well is located towards the west end of the City behind a shopping mall on land leased from the University of Idaho covering only the footprint of the well building. The well is equipped with a submersible pump that only operates at constant speed. There is no onsite backup generator or generator hookups at the site.

The well is located within a building that uses CMU construction for a portion of the building and wood panel construction around the well (Figure 2-14). To remove the pump, the roof and wood panel walls must be dissembled and removed.

Chlorine residual is added via a gas chlorine system which the City plans on switching to a MIOX system similar to other well sites.

The pump is currently powered by medium voltage (2,300V) power making electrical repairs more difficult.

Deficiencies or planned upgrades:

- Replace existing submersible pump with a lineshaft turbine pump.
- Switch from 2,300V power to 480V power system with a soft start and/or VFD.
- Transition from chlorine gas to MIOX onsite chlorine generation system, potentially in combination with Well 10.
- Building improvements to change building to an all CMU construction around the well with a new roof and skylight.

Figure 2-13. Well 9

Figure 2-14. Well 9 building

2.2.1.6 Well 10

Well 10 (shown on Figure 2-15) is the City's newest well, drilled in 2017, and has a capacity of approximately 3,200 gpm. The well is located at the west end of the City. The well is equipped with a lineshaft turbine pump that operates on a VFD. Emergency power is available from an onsite generator.

The well is located within a newly constructed CMU building (Figure 2-16) that also houses the well's MIOX system.

The City has observed that Well 9 and 10 influence each other's capacity due to restrictions on piping in the distribution system (not influencing each other in the aquifer). The City has also observed higher levels of iron in the water from Well 10 and have received increased water quality complaints when running Well 10. Part of the original design report for Well 10 identified the potential need for sand filter treatment at the well for water quality. To address the water quality issues, the City has preliminary plans to add a sand filter at Well 10 and bring the discharge from Well 9 to the Well 10 site. The discharges from both Well 9 and 10 would run through the new sand filter system as well as using the existing MIOX system at Well 10 to treat both wells before discharging to the distribution system.

Due to long lead times, the City also plans on procuring a spare pump and motor for Well 10 in the event one needs to be replaced.

<u>Deficiencies or planned upgrades:</u>

- Addition of a sand filter system to treat iron.
- Transmission piping to convey Well 9 discharge to Well 10 site.
- Reconfigure MIOX system to provide treatment for combined Well 9 and 10 water.
- Procurement of spare Well 10 pump and motor.

Figure 2-15. Well 10

Figure 2-16. Well 10 building

2.2.1.7 Cemetery Well Site

The Cemetery Wells are currently inactive. The existing building (Figure 2-17) houses one of the wells and a treatment system that was used when the well was active.

While the wells are not used, the site is currently used for the sale of bulk water with a bulk water fill station (Figure 2-18) mounted on the side of the Cemetery Well building, allowing for an automated process for customers to purchase bulk water.

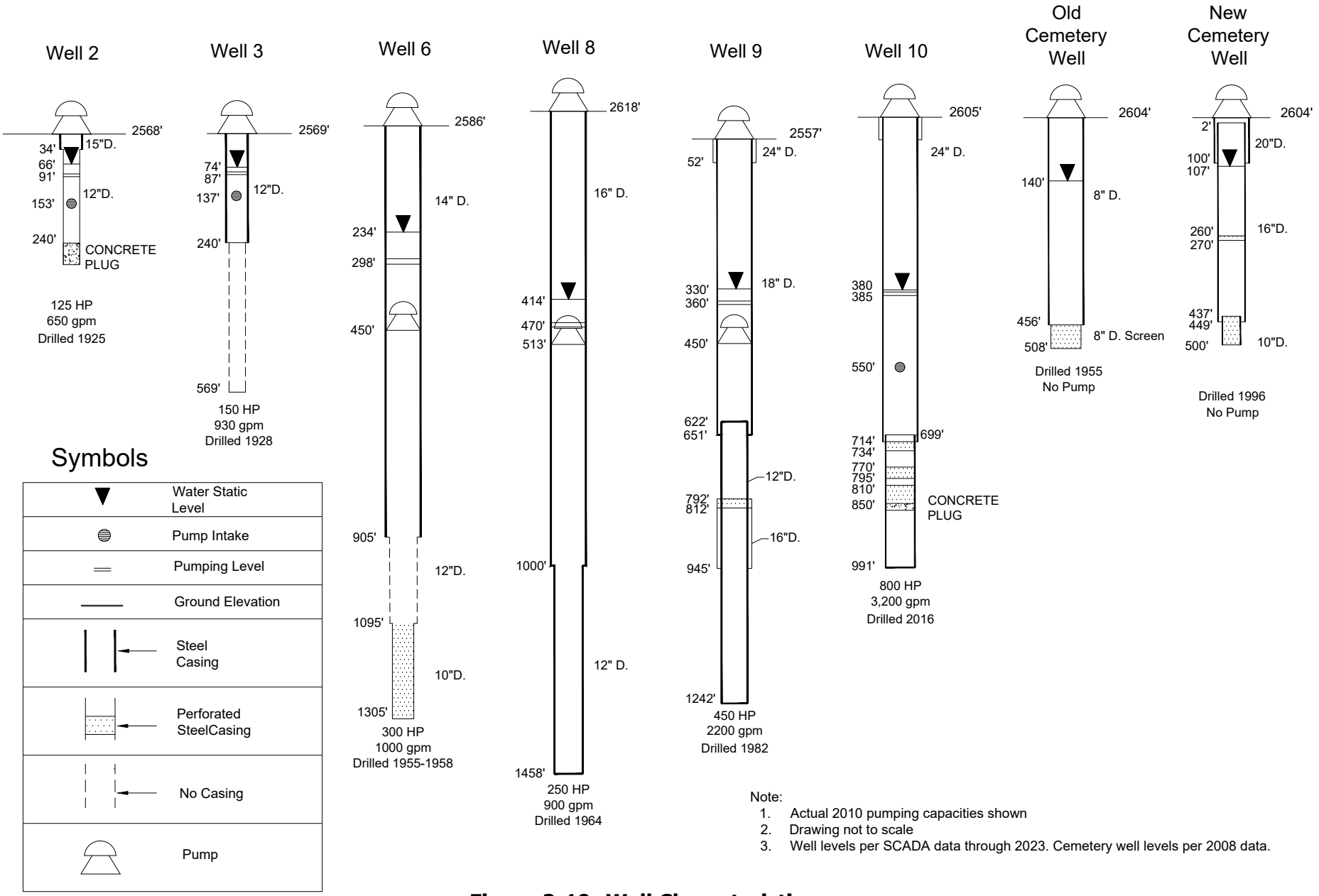
The City plans on eventually demolishing the well building. When this occurs, the fill station will be moved or reconfigured.

Deficiencies or planned upgrades:

- Demolition of Cemetery Well building.

Figure 2-17. Cemetery Well building

Figure 2-18. Bulk water fill station



Note:
1. Actual 2010 pumping capacities shown
2. Drawing not to scale
3. Well levels per SCADA data through 2023. Cemetery well levels per 2008 data.

Figure 2-19. Well Characteristics

Table 2-2 Summary of City of Moscow Well Characteristics

Characteristic	Well No. 2	Well No. 3	Well No. 6	Well No. 8	Well No. 9	Well No. 10	Old Cemetery Well	New Cemetery Well
Date Drilled/Redrilled	1925	1928	1955-1959	1964	1982	2017	1955	1996
Status	Active	Active	Active	Active	Active	Active	Inactive	Inactive/ Currently Used as a Fill Station
Wellhead Elevation (feet)	2568	2569	2586	2618	2557	2610	2604	2604
Pump Intake Depth (feet) bgs[1]	153	137	450	513	450	550	No Pump	No Pump
Well Diameter (inches) and Depth (feet) bgs	15" to 34' 12" to 240' Concrete plug at 240'	12" to 240' Uncased to 569'	14" to 905' Uncased 905' to1,095' 10" from 1,095' to 1,305'	16" to 1,000' 12" to 1,458'	24" from 0' to 52' 18" from 0' to 651' 12" from 622' to 1242' 16" from 792' to 945'	24" from 0' to 699 22" from 699 to 991' End cap and concrete plug at 850'	8" to 456' 8" screen to 508'	20" from 0' to100' 16" from 2' to 449' 10" from 437' to 500'
Well Depth (feet) bgs	240	569	1305	1458	1242	991	508	500
Well Casing Depth (feet) bgs	240	240	905	1458	1242	991	508	500
Screen Interval (feet) bgs	None	None	1095-1305	None	792- 812	714-734 770-795 810-580	456-508	260-270 437-500
Rated Capacity (gpm)[2]	1200	1400	1200	1150	2350	3,200	-	-
Actual Capacity (gpm)	650	930	900	900	2200	3,200	-	-
Pump Type	Lineshaft Turbine	Lineshaft Turbine	Submersible	Submersible	Submersible	Lineshaft Turbine	-	-
Motor Horsepower (HP)	125	150	300	250	600	800	-	-
Emergency Power	Generator	Generator	Generator	None	None	Generator	None	None

1. bgs = below ground surface
2. gpm = gallons per minute

2.2.2. Interties

The City's water system shares ten interties with the University of Idaho (UI) for emergency situations. The interties are all valved and remain closed under normal circumstances. The university system has higher pressure than the City system; therefore, in the event of a leak, the university system would flow into the City's system under normal circumstances.

In the thirty-year history of the City of Moscow and UI interties, water has only been supplied to the University on one occasion due to a fire on the campus. Because the interties are rarely used, they are not metered. The City and UI do not have a written agreement for shared water use between the systems as this has historically been a verbal agreement. Moscow does not purchase from other suppliers, nor does it provide water to any wholesale customers.

2.2.3. Quality of Supply

The City of Moscow has historically provided high quality water to its residents and is currently in compliance with water quality monitoring requirements. The City of Moscow regularly monitors for coliform bacteria, all regulated contaminants, and turbidity. The following is an excerpt from the Source Water Assessment Final Report by the Idaho Department of Environmental Quality dated September 2001, which addresses five of the six wells which are currently active:

> *On over 4,000 sampling events there have been only a few total coliform bacteria detections in composite water samples recorded since 1992. When re-sampled, total coliform was not found at any of the previous contaminated sample locations. These isolated microbial detections and two trace level detections of volatile organic compounds (VOC) represent the only significant water chemistry problems that have been recorded in the public water system. The inorganic compound (IOC) nitrate was detected on one occasion for Wells #2 and #3, but at levels well below the Maximum Contaminant Level (MCL). No detections of soluble organic carbon (SOC) are recorded for the system.*

Since writing the Assessment, the following statement appeared in the City of Moscow 2023 Annual Water Quality Report:

> *The City of Moscow has never had a sample exceed the Maximum Contaminant Level (MCL) for possible contaminants.*

2.3. Historic Production Characteristics

The City of Moscow has historically obtained its municipal water supply from groundwater, as described in Section 2.2.1. Originally, shallow wells in the Wanapum aquifer provided the City's water; however, due to declining water levels and water quality in that aquifer, deeper wells were later drilled into the Grande Ronde aquifer in the mid-1950s. Since the City began to pump from the Grande Ronde aquifer, the Wanapum aquifer has recovered substantially. Currently, the City has active wells in both aquifers. During 2021 through 2023, approximately 99 percent of the City's supply came from the deeper Grande Ronde aquifer (from Wells 6, 8, 9, and 10), while 1 percent of the City's supply came from the Wanapum aquifer (from Wells 2 and 3). Figure 2-20 provides a comparison of the amount of water historically withdrawn from the two aquifers.

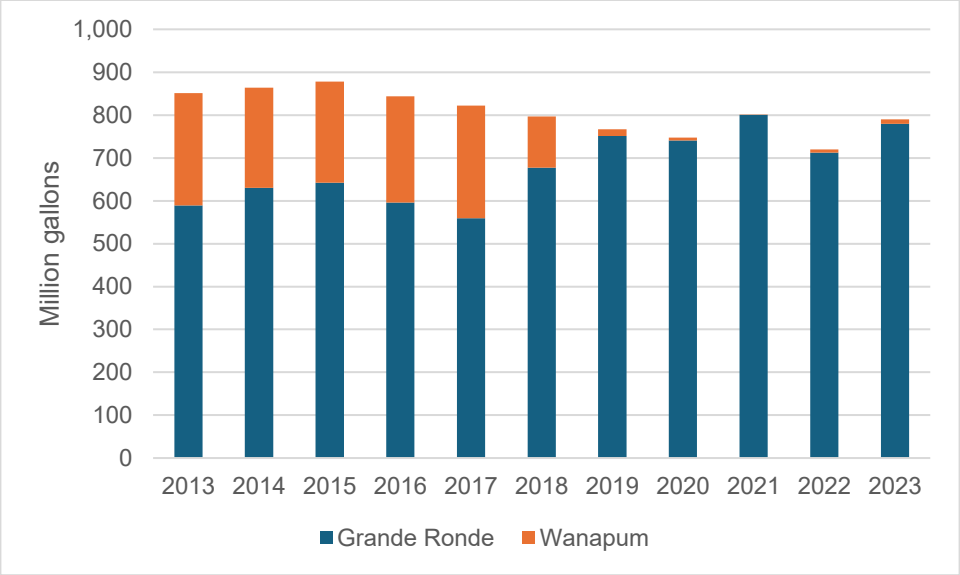


Figure 2-20. Grande Ronde vs. Wanapum Pumping Comparison

Historically, source meters have over-registered production primarily due to iron buildup on flow meter tubes and turbines that had to routinely be cleaned for accurate reading. This has been resolved with all flow measurement now using magnetic flow meters (magmeters).

Additional information regarding historical water production is presented in Chapter 4, along with comparisons of production to consumption by City customers.

2.4. Water Treatment Facilities

The City uses chlorine gas at Wells 8 and 9 with the remaining active wells using MIOX onsite generation systems to disinfect the groundwater prior to distribution. Additionally, before going to the distribution system, the discharge from Wells 2 and 3 pass through the Jackson Street Filtration Plant.

All sources contain some fluoride, which is naturally occurring at levels between 0.5 – 1.4 mg/L. The City does not add fluoride to any sources.

2.4.1. Jackson Street Filtration Plant

The Jackson Street Filtration Plant treats output from Wells 2 and 3. The facility contains four manganese green sand filters (Figure 2-21), commonly called cigar filters, that are 32 feet long and installed in a horizontal orientation. Only one filter tank is used at a time, allowing other filters to remain on standby or go through backwash cycles when not in use.

The facility also doses potassium permanganate and has a MIOX system for dosing chlorine.

The backwash system for the filters is currently a manual process, requiring two hours each time. With minimal well use at this site recently, each tank has required backwashing approximately twice per year. However, if a well at the site were to be operating continuously, backwashing

would typically need to occur every one to two days. The City plans on eventually automating the backwashing process.

Deficiencies or planned upgrades:

- Settlement is occurring under the filters. It is planned to have an engineer determine possible solutions to mitigate the settling issue.
- Recoat the interior of the filter tanks.
- Automate the filter backwash cycle.

Figure 2-21. Filter Plant green sand filters

2.5. Storage

The City's three active storage facilities have a total capacity of approximately 4.5 million gallons (MG). The three active facilities are the Northeast Tank, Vista Reservoir, and Southeast Reservoir. A fourth facility, the Northwest Tank, has been taken offline. A summary of the characteristics of the City's reservoirs is presented in Table 2-3 and reservoir locations are shown on Figure 2-4.

All of the storage facilities operate on the same hydraulic grade line except for the Southeast Reservoir, which has an overflow elevation lower than the Main Zone. Because of this, flows into the Southeast Reservoir are controlled by an altitude valve for filling, with the Southeast BPS used for pulling water from the Southeast Reservoir and into the Main Zone.

All wells operate off of levels within the Vista Reservoir. The Northwest and Northeast Tanks have altitude valves to shut off flows to those storage facilities prior to overflowing.

Table 2-3 Summary of City of Moscow Reservoir Characteristics

Characteristic	Northwest Tank	Northeast Tank	Vista Reservoir	Southeast Reservoir
Status	Offline	Active	Active	Active
Date of Construction	1919	1940	1991	1968
Storage Capacity (gallons)	250,000	500,000	2,000,000	2,000,000
Type of Construction	Riveted	Steel	Steel	Steel
Altitude Valve	Yes	Yes	No	Yes

2.5.1. Northwest Tank

The Northwest Tank (Figure 2-22) is located toward the northwest portion of the water system and is an elevated tank constructed in 1919 with a 0.25 MG storage volume. Due to structural deficiencies, the tank was taken offline in 2018. In addition to the structural issues, there are holes in the roof and the piping on site is also in poor condition, requiring the site to have significant piping replacements in order to bring the tank back online. The tank is currently used as a cell tower, so the City continues to maintain the tank (i.e., painting and structural inspections). The City plans on eventually replacing the tank with a new, relocated facility.

Deficiencies or planned upgrades:

- Structural and piping issues resulting in site being taken offline. Eventual replacement of facility with a new, relocated facility.
- Ongoing exterior painting and structural inspection while tank is continued to be used a cell tower.

Figure 2-22. Northwest Tank

2.5.2. Northeast Tank

The Northeast Tank (Figure 2-23) is located toward the northeast portion of the water system and is an elevated tank constructed in 1940 with a 0.5 MG storage volume. The tank's interior and exterior were both recoated in the last five years. The altitude valve for the tank has been retrofitted to be controlled through the City's SCADA system.

Deficiencies or planned upgrades:

- No identified deficiencies or planned upgrades for the site.

Figure 2-23. Northeast Tank

2.5.3. Vista Reservoir

The Vista Reservoir (Figure 2-24) is located toward the eastern portion of the water system and is an above grade steel reservoir constructed in 1991 with a 2 MG storage volume. The top portion of the exterior of the reservoir was repainted within the last couple years and every year the interior of the tank is cleaned. It is expected that the reservoir may need to be recoated in approximately 20 years.

Deficiencies or planned upgrades:

- No identified deficiencies or planned upgrades for the site.

Figure 2-24. Vista Reservoir

2.5.4. Southeast Reservoir

The Southeast Reservoir (Figure 2-25) is located toward the southeast portion of the water system and is an above grade steel reservoir constructed in 1968 with a 2 MG storage volume. The Southeast Booster Pump Station is located immediately adjacent to the reservoir. The Southeast Reservoir has an overflow elevation lower than the other storage facilities and the City's Main Pressure Zone, requiring the use of an altitude valve to control reservoir filling and the Southeast Booster Pump Station to convey water out into the distribution system from the reservoir. The Southeast Reservoir is used primarily to help meet summer peak and fire demands.

Deficiencies or planned upgrades:

- No identified deficiencies or planned upgrades for reservoir.

Figure 2-25. Southeast Reservoir and Southeast Pump Station

2.6. Booster Stations

Six booster pump stations (BPSs) exist to boost water from the Main Zone to six higher pressure zones. As there is no gravity storage within these boosted zones, the pump stations run continuously to meet demands at adequate pressure. All of these pump stations are equipped with a larger pump capable of meeting fire flow, except for the Moser BPS. A seventh booster pump station provides additional water into the main pressure zone from the Southeast Reservoir, for both operational and fire suppression purposes. A summary of the booster stations is provided in the following sections.

Specific booster pump station locations, and their respective pressure zones, are noted on Figure 2-4. A summary of the booster pump station characteristics is presented in Table 2-4.

Table 2-4 Summary of the City of Moscow Booster Station Characteristics

Characteristic	Taylor	Indian Hills	White	Vista	Moser	Ponderosa	Southeast
Name plate pump capacities	Two pumps with 1,650 gpm at 167 ft TDH One pump with 100 gpm at 77 ft TDH Two pumps with 200 gpm at 77 ft TDH	Two pumps with 1,500 gpm at 81 ft TDH Two pumps with 150 gpm at 74 ft TDH One pump with 22 gpm at 57 ft TDH.	Two pumps with 1,650 gpm at 113 ft TDH One pumps with 50 gpm at 73 ft TDH One pump with 150 gpm at 73 ft TDH	Two pumps with 200 gpm at 118 ft TDH Two pumps with 600 gpm at 121 ft TDH	One pump with 225 gpm at 65 ft TDH	Two pumps with 1,500 gpm at 81 ft TDH Two pumps with 150 gpm at 74 ft TDH One pump with 24 gpm at 83 ft TDH	One pump with 700 gpm at 180 ft TDH One pump with 1,300 gpm at 180 ft TDH One pump with 2,000 gpm at 180 ft TDH
Date installed	2019	2023	2019	2019	1993	2023	1968

2.6.1. Taylor BPS

The Taylor BPS (Figure 2-26 and Figure 2-27) is located on the southwest side of the City, south of the University of Idaho, and pumps into the Taylor Zone, which consists of approximately 205 homes. The current Taylor BPS was built in 2016.It is connected to the SCADA system via cellular.

There are a total of five pumps at the Taylor BPS: two pumps with 1,650 gpm at 167 ft TDH, two pumps with 200 gpm at 77 ft TDH, and one pump with 100 gpm at 77 ft TDH.

An onsite emergency generator is located at the site for backup power.

Deficiencies or planned upgrades:

- Cracking occurring in CMU walls.
- Fire pumps are currently on soft starts but are planned on being transitioned to VFDs.

Figure 2-26. Taylor BPS interior

Figure 2-27. Taylor BPS building

2.6.2. Indian Hills BPS

The Indian Hills BPS (Figure 2-28 and Figure 2-29) is located east of the Taylor BPS, but still along the south side of town and pumps into the Indian Hills zone, which consists of approximately 72 homes. The current Indian Hills BPS was built in 2023.

There are a total of five pumps at the Indian Hills BPS: two pumps with 1,500 gpm at 81 ft TDH, two pumps with 150 gpm at 74 ft TDH, and one pump with 22 gpm at 57 ft TDH. All pumps operate on VFDs. Currently, the smallest pump has been removed with that pump bay currently unfilled, but will soon be replaced.

An onsite emergency generator is located at the site for backup power. Site SCADA communication is currently via cellular; however, the City plans on changing this to fiber.

Deficiencies or planned upgrades:

- The City plans to relocate a pump from the Ponderosa BPS to this BPS, so as to fill the currently open pump bay.
- Change facility communication from cellular to fiber.

Figure 2-28. Indian Hills BPS interior

Figure 2-29. Indian Hills BPS exterior

2.6.3. White Avenue BPS

The White Avenue BPS (Figure 2-30 and Figure 2-31) is located in the southeast portion of Moscow and pumps into the White Avenue Zone, which consists of approximately 50 homes. The current White Avenue BPS was built in 2016.

There are a total of four pumps at the White Avenue BPS: two pumps with 1,650 gpm at 113 ft TDH, one pump with 50 gpm at 73 ft TDH, and one pump with 150 gpm at 73 ft TDH. The City is in the process of ordering a third duty pump to install in an existing empty pump bay at the pump station, due to anticipated growth in the White Avenue Zone.

An onsite emergency generator is located at the site for backup power.

Deficiencies or planned upgrades:

- Cracking occurring in CMU walls.
- Fire pumps are currently on soft starts but are planned on being transitioned to VFDs.

Figure 2-30. White Avenue BPS interior

Figure 2-31. White Ave BPS exterior

2.6.4. Vista BPS

The Vista BPS (Figure 2-32 and Figure 2-33) is located along the east side of Moscow near the Vista Reservoir, and pumps into the Vista Zone, which consists of approximately 129 homes. The current Vista BPS was built in 2016.

There are a total of four pumps at the Vista BPS: two pumps with 600 gpm at 121 ft TDH and two pumps with 200 gpm at 118 ft TDH. The two smaller pumps operate on VFDs while the two larger pumps are only on soft starters. The facility is connected to the SCADA system via fiber.

An onsite emergency generator is located at the site for backup power.

Deficiencies or planned upgrades:

- Fire pumps are currently on soft starts but are planned on being transitioned to VFDs.

Figure 2-32. Vista BPS interior

Figure 2-33. Vista BPS exterior

2.6.5. Moser BPS

The Moser BPS (Figure 2-34) is located along the east side of Moscow and pumps into the Moser Zone, which consists of approximately 35 homes. The Moser BPS only has a single pump that is not sized to provide high demand flows (such as fire). High demands are available to the Moser Zone directly through a check valve. The pump station resides in an underground vault placed in a sidewalk with a hatch and ladder to provide access. Electrical controls are located on an exterior mounted cabinet.

The pump does not operate on a VFD and no pressure relief valve exists in the Moser Zone. The pump continuously operates with a near dead-head condition during low demands.

There are plans to eventually decommission the Moser BPS by combining the Moser Zone with the Vista Zone and having the area served solely by the Vista BPS.

Deficiencies or planned upgrades:

- No fire pump for Moser Zone requiring peak flows to be delivered at a lower pressure directly from the Main Zone.
- No VFD for pump with pump continuously operating. Potential dead-head operating conditions when Moser Zone demands are low.
- Eventual plans to decommission Moser BPS when combining Moser Zone with Vista Zone.

Figure 2-34. Moser BPS

2.6.6. Ponderosa BPS

The Ponderosa BPS (Figure 2-35 and Figure 2-36) is located in the northeast portion of the City and pumps into the Ponderosa Zone, consisting of approximately 123 homes. The current Ponderosa BPS was built in 2023.

There are a total of five pumps at the Ponderosa Avenue BPS: two pumps with 1,500 gpm at 81 ft TDH, two pumps with 150 gpm at 74 ft TDH, and one pump with 24 gpm at 83 ft TDH. An empty space exists for the installation of an additional pump as growth occurs in the north part of Moscow.

An onsite emergency generator is located at the site for backup power.

Deficiencies or planned upgrades:

- No deficiencies identified.
- The City plans to remove the existing jockey pump and relocate it to the Indian Hills BPS. A new pump will then be installed at the Ponderosa BPS.

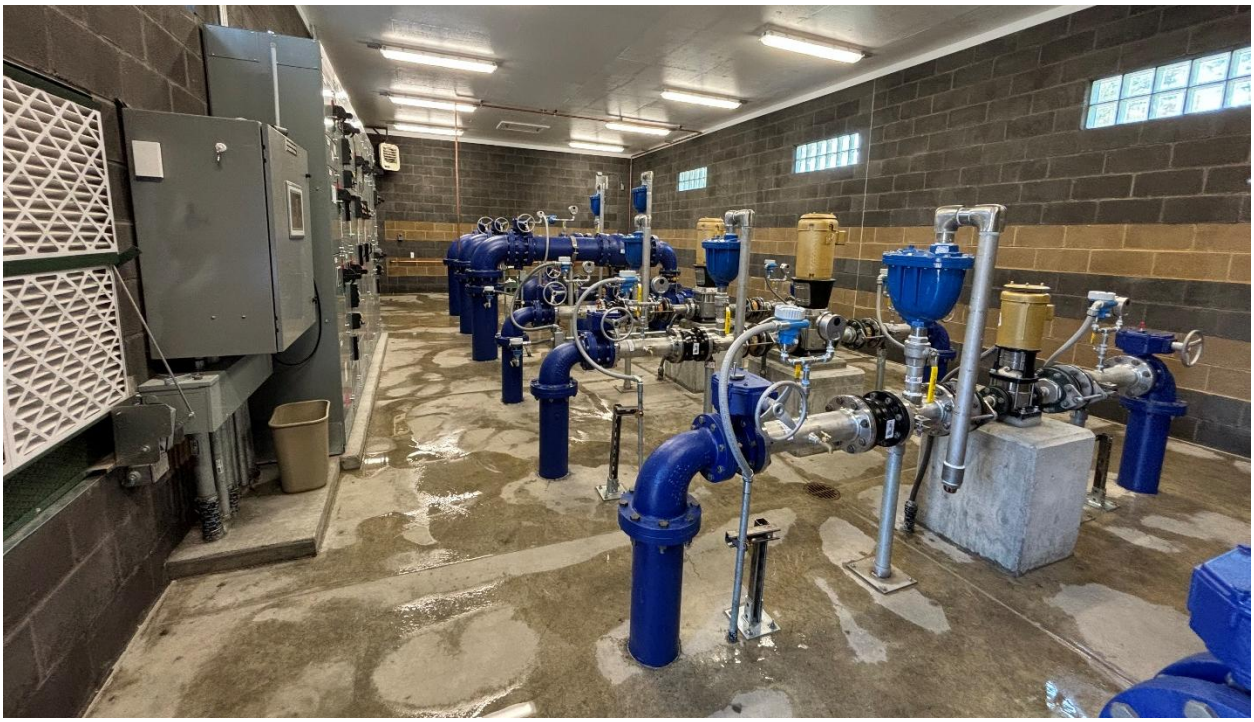


Figure 2-35. Ponderosa BPS interior

Figure 2-36. Ponderosa BPS exterior

2.6.7. Southeast BPS

The Southeast BPS (Figure 2-37) is located toward the south-central portion of Moscow adjacent to the Southeast Reservoir. This booster is used to boost water from the Southeast Reservoir into the Main Zone.

There are a total of three pumps at the Southeast BPS: one pump with 700 gpm at 180 ft TDH, one pump with 1,300 gpm at 180 ft TDH, and one pump with 2,000 gpm at 180 ft TDH. Currently, only one pump operates on a VFD with the other pumps operating only at constant speed. The City plans on adding VFDs to the remaining pumps as well as replacing the motor on one pump.

An onsite emergency generator is located at the site for backup power. A MIOX system is also located at the site for chlorine boosting.

The pump station recently had an electrical upgrade in 2021.

Deficiencies or planned upgrades:

- Add VFDs to Pump 2 and Pump 3.
- Replace motor on Pump 3.
- Replace siding on pump station building.

Figure 2-37. Southeast BPS interior

2.7. Distribution System

The City has approximately 96 miles of transmission and distribution piping ranging in size from 4 to 24 inches.

Hydrants are spaced at approximately 300-foot intervals in the central business district and in commercial areas and at approximately 600-foot intervals in residential areas.

2.8. Pressure Relief Valves

The City's boosted zones all include pressure relief valves that open to prevent possible over pressuring of the boosted zones as well as having setpoints that open the valves to increase water turnover for water quality.

2.9. Telemetry

The SCADA and Telemetry system has Programable Logic Controllers (PLC) and communicates to the water department building through a combination of cell or fiber networks. All software and programming is continually updated through a 3rd party programmer and City staff. The City's goal is to ultimately transition all cellular based systems to fiber.

Basic telemetry system information is shown in Table 2-5.

Table 2-5 Summary of City of Moscow Telemetry Characteristics

Item	Data
Year Constructed	2018
Manufacturer	Allen Bradley
Systems on Telemetry	Wells No. 2, 3, 6, 8, 9, and 10 Reservoirs NE, SE and Vista BPS: Indian Hills, Ponderosa, Taylor, Vista and White Ave
Communication	Fiber and cell
Graphical Interface	Avena InTouch
Alarm System	Win 911

2.10. Reliability and Emergency Operation

The City has incorporated the following elements into its water system infrastructure and operations to provide for reliability and to meet emergency operation requirements set forth in IDAPA 58.01.08, Section 501.07.

1) Redundant Water Supply. As described in more detail in Section 7.1, the City has conducted an analysis of its water sources and their ability to meet current and projected demands assuming the largest source is out of service.

2) Standby Storage. As described in more detail in Section 7.2, the City has conducted an analysis of its storage capacity and ability to meet needs when its groundwater sources

are unavailable (e.g., during power outages). As noted in Chapter 7, the City's existing storage reservoirs provide more than adequate volumes to meet IDEQ's 8-hour standby storage requirement. In addition, the City has analyzed the ability of its existing storage facilities to meet water needs assuming the largest reservoir and largest source are offline. Under such an extreme scenario, the City's storage volumes are not able to meet standby and fire suppression needs. The City's planned reservoirs (see Chapter 8 for details) will provide redundant storage to increase this element of system reliability.

3) Standby Power – Wells. As noted in Table 2-2, permanent standby generators (with automatic switch-over) are provided at Wells 2, 3, 6, and 10. Such facilities are not presently provided at Wells 8 and 9. However, Capital Improvement Program (CIP) Project M-4 will provide for provision of such emergency power facilities at each of these wells.

4) Standby Power – Booster Pump Stations. All booster pump stations that serve the high-level boosted zones have standby power except for the Moser BPS.

5) Emergency Response Plan. The City has prepared an emergency response plan to guide actions and procedures in the event emergency situations arise. This document, updated in 2020/2021 per the America's Water Infrastructure Act (AWIA) requirements, is maintained in hard copy in the Public Works Director's Office and the Water Manager's Office, along with a Vulnerability Assessment that was completed in 2004. The emergency response plan contains drinking water system incident response procedures, emergency notification checklists, emergency equipment lists, and emergency supplier vendor lists. This plan, along with drinking water system standard operating procedures, guides City staff efforts during emergency operations.

3. Service Area Policies, Plans, and Agreements

The City of Moscow's program to provide a comprehensive and reliable system for delivering water supply to its customers is part of a larger network of plans, policies, and agreements that address water supply and land use in the Moscow area. This chapter provides a brief description of selected plans, policies and agreements that relate to the Moscow public drinking water system.

3.1. City of Moscow Municipal Code

The operation of Moscow's water system is governed by Moscow's Municipal Code, which is established by the Moscow City Council through City ordinances. The municipal code is typically translated by Moscow staff into operational memoranda, policies, and guidelines.

The municipal codes related to the water system are contained in Title 5 Public Ways and Property and Title 7 Construction Regulations of the Moscow Municipal Code, as shown in Table 3-1. The pertinent chapters within those titles are described below and the full text is provided in Appendix 3-1.

Table 3-1 Water Related Municipal Codes

Title	Chapter	Topic
Title 5 Public Ways and Property	Chapter 4 Water Regulations	Contains the majority of the water service regulations.
Title 5 Public Ways and Property	Chapter 5 Restrictive Use of Water	Prohibits/restricts outdoor water use during water emergencies.
Title 5 Public Ways and Property	Chapter 17 Water Conservation	Prohibits outdoor irrigation between 10:00am and 6:00pm during the outdoor irrigation season.
Title 7 Construction Regulations	Chapter 9 Cross-Connections; Water Supply	Protection of public health of water consumers by control of actual and/or potential cross-connections. Defines inspection and testing requirements of all backflow assemblies.

3.1.1. Title 5 Public Ways and Property; Chapter 4 Water Regulations

This chapter of Title 5 of the municipal code contains the majority of the water service codes. The content primarily relates to conditions of service and rates, both of which are discussed in more detail below. The code also discusses other topics such as infrastructure ownership and water waste.

Key aspects related to conditions of service include the following:

- Property owners are required to connect to the public water system if a water line exists in the street/easement.

- The City does not have a duty to serve water outside the City limits. Water service outside the City limits can be discontinued at any time.
- Water service can be discontinued for non-payment.
- Water line extensions must meet the minimum specifications and standards established by the City. Plans must be submitted to the City for review and approval and the City will inspect new connections.
- Water line extensions will be paid for by the property owner requesting water service.

Key aspects related to rates include the following:

- All customers must receive water through a City-furnished, and customer paid for, water meter.
- The City has established charges for the installation of meters, connection fees, and late water payments.
- Customers pay a base rate for maintenance and operation of the water system.
- Customers also pay a volume charge. There are different per unit volume charges for: 1) customers within the City, 2) customers outside the City, and 3) the Moscow Cemetery Maintenance District.
- The water bill is the responsibility of the property owner; however, it can be paid by tenants or agents of the property owner.
- The City has established procedures to address disputed charges.

3.1.2. Title 5 Public Ways and Property; Chapter 5 Restrictive Use of Water

This chapter of Title 5 of the municipal code gives the city council and the mayor the authority to declare a water emergency if necessary and to prohibit and/or restrict outdoor water use during a water emergency.

3.1.3. Title 5 Public Ways and Property; Chapter 17 Water Conservation

This chapter of Title 5 of the municipal code documents the City's intent to promote the responsible use of water and focuses on outdoor irrigation. The primary focus is the establishment of an "outdoor irrigation season" outside of which irrigation is prohibited, with a prohibition of irrigation between 10:00am and 6:00pm during the declared outdoor irrigation season. An additional focus is the prohibition of watering impervious surfaces by an irrigation system.

The dates of the outdoor irrigation season are the period within each calendar year declared by the City during which Outdoor Irrigation is allowed within City limits. As weather conditions permit, the Outdoor Irrigation Season begins seventy-two (72) hours after the City declares the start of such Outdoor Irrigation Season. The City does declare and advertise the ending date of the Outdoor Irrigation Season at least two (2) weeks prior to such ending date.

Exemptions to the prohibition exist for certain uses such as:

- Efficient irrigation methods (e.g., soaker hoses, drip irrigation)
- Commercial nurseries
- Irrigation from non-potable sources (e.g., gray water, reclaimed water, rain water)
- Non-irrigation outdoor uses (e.g., dust control, fire protection, street cleaning)

Variances can be granted based on hardship or special circumstances (e.g., newly seeded lawn). Violations are considered misdemeanors and can be punished pursuant to Idaho state code. However, the City must attempt to contact the violator in order to resolve the issue prior to pursuing redress through the court system.

3.1.4. Title 7 Construction Regulations; Chapter 9 Cross-Connections; Water Supply

This chapter of Title 7 of the municipal code pertains to preventing contamination of the public water system by the control of actual and/or potential cross-connections through the installation and maintenance of approved backflow prevention assemblies. The chapter documents that the City has the authority to establish requirements more stringent than State requirements.

The chapter covers the following topics:

- Types of customers that are likely to be required to have backflow prevention assemblies
- Types of backflow prevention assemblies that are acceptable
- Identification of where backflow prevention assemblies should be installed
- Installation and cost of backflow prevention assemblies is the responsibility of the customer
- Annual inspections of backflow prevention assemblies are required
- Failure to comply with the requirements is grounds for termination of water service

3.2. City of Moscow Comprehensive Plan

The City of Moscow Comprehensive Plan (adopted December 2009, updated in 2019) documents the community's values and policies that guide the long-range physical development of the City and its Area of City Impact. Several sections of the Comprehensive Plan have direct relevance to this Comprehensive Water System Plan, as shown in Table 3-2 and discussed below.

Table 3-2 Comprehensive Plan Relevance

Chapter	Section	Relevance to Comprehensive Water System Plan
Chapter 1 – A Vision for Moscow	Section 1.2 Community Context	Current and projected population
Chapter 2 – Community Character and Land Use	Section 2.2 Housing Section 2.6 Land Use	Current housing and future needs Existing and future land use
Chapter 5 – Public Utilities, Services, and Growth Capacity	Section 5.3 Potable Water	Ability of the water system to support future growth

3.2.1. Chapter 1 – A Vision for Moscow

Chapter 1 of the Comprehensive Plan includes information related to current and projected population. This information was used as input in developing the demographics for the water demand forecast in Chapter 4 of this Comprehensive Water System Plan.

3.2.2. Chapter 2 – Community Character and Land Use

Chapter 2 of the Comprehensive Plan includes information related to existing and future housing and land use. That information was used as input in developing the demographics for the water demand forecast in Chapter 4 of this Comprehensive Water System Plan. Additionally, the land use information guided allocation of the water demand forecast across Moscow's water service area, for use in hydraulic modeling and system analysis.

Moscow's land use designations are provided in Table 3-3. The table groups the numerous land use designations into six land use categories, which are then correlated to the three demand forecasting categories. For example, the second row in the table shows that the Suburban Residential land use designation is put into the Low-Density Residential land use category, which is associated with the Single-Family demand forecasting category. This land use information is shown in Figure 3-1, which combines current land use with information on where the City anticipates planned and potential new developments driving growth in the next 10 years, next 11 to 20 years, and the timeframe beyond 20 years. This information is based on future growth areas identified in recent City planning analyses.

Table 3-3 Land Use

Land Use Designation	Definition	Land Use Category	Demand Forecasting Category
Agriculture	Rural lands adjacent to the City limits and throughout the Area of City Impact.	Agriculture / Outdoor Recreation	Not Given Demands
Suburban Residential	Individual residences on larger lots and acreages.	Low Density Residential	Single Family
Auto-Urban Residential	Subdivisions with lots ranging in size from 6,000 to 9,600 square feet and where there are no alleys.	Low Density Residential	Single Family
Auto-Urban Residential (Moderate Density)	Multiple-family and manufactured homes.	High Density Residential	Multifamily
Urban Residential	Near downtown neighborhoods that have garage access by way of alleys and also where there is a moderate incidence of accessory residential units.	High Density Residential	Multifamily
Urban Residential (Moderate Density)	Neighborhoods that abut downtown and where there is a high incidence of multiple-family dwellings.	High Density Residential	Multifamily
Suburban Commercial	Properties that reflect a suburban characteristic with an increased amount of landscape surface area and a residential-like building design.	Commercial	Commercial
Auto-Urban Commercial	Commercial land uses along the community's main corridors, including those approaching downtown.	Commercial	Commercial
Urban Commercial	Areas around the historic downtown core that have a similar character and are also within the current Central Business (CB) zone.	Commercial	Commercial
Suburban Industrial	The Alturas Business Park, within an attractive campus-like setting with an open plaza area.	Industrial	Commercial
Auto-Urban Industrial	The more intensive industrial uses principally along the railroad tracks and U.S. 95 to the south and located within the "I", Industrial zone.	Industrial	Commercial
Public and Semi-Public	Government buildings and properties, as well as semi-public or institutional uses such as churches, schools, and hospitals.	Commercial	Commercial
University	Land owned by the University of Idaho and is a part of or directly adjacent to campus. This designation excludes the open and recreational areas that are characterized as Parks, Recreation, and Open Space.	Institutional / Governmental	Not Given Demands
Parks, Recreation, and Open Space	The City's developed and undeveloped parks and pathways, as well as public and semi-public open spaces on University grounds and designated open areas within private developments.	Agriculture / Outdoor Recreation	Commercial
Vacant	Areas within the City that are currently not developed.	Various	Not Given Demands

City Limits
Area of City Impact

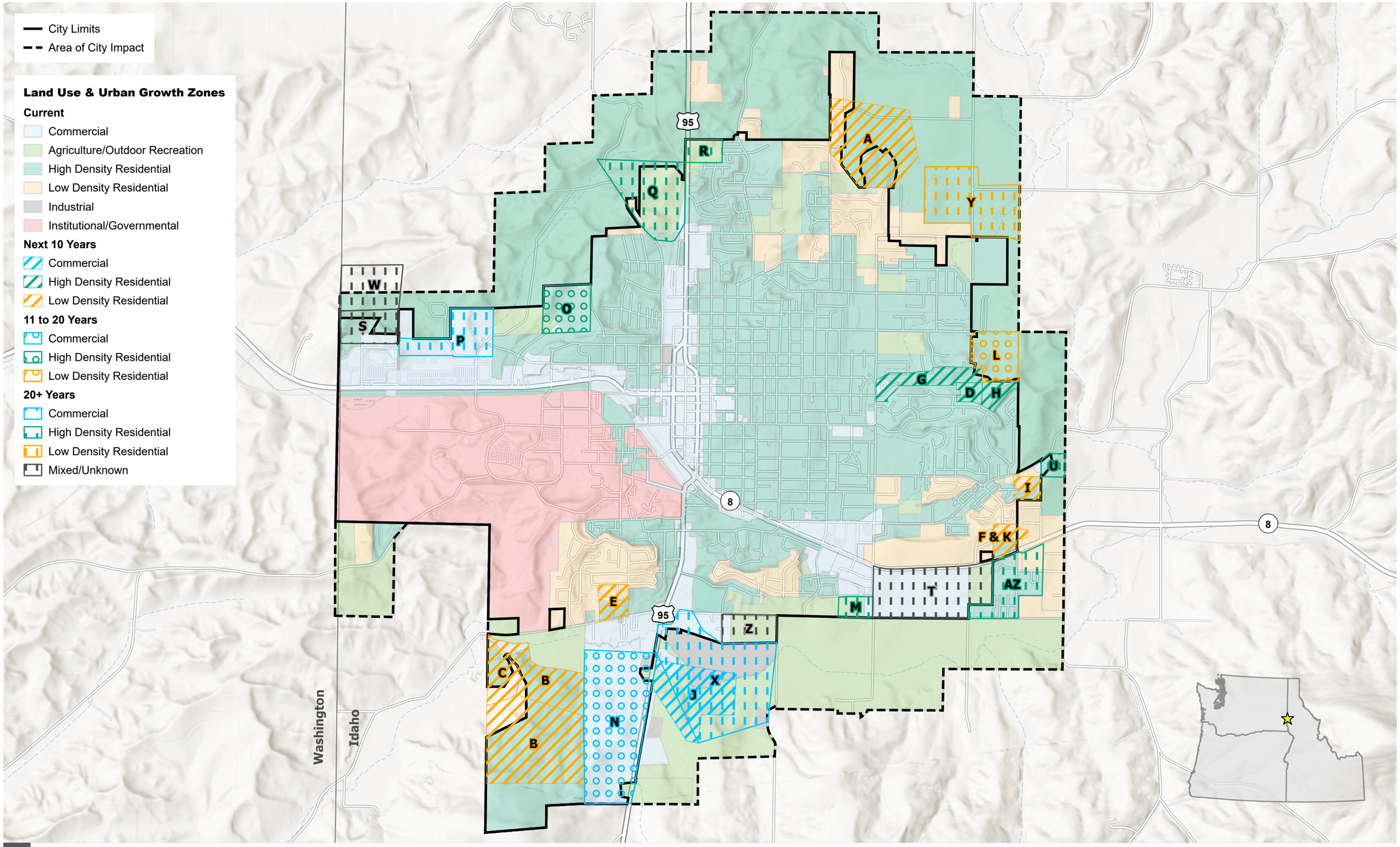
Land Use & Urban Growth Zones

Current
- Commercial
- Agriculture/Outdoor Recreation
- High Density Residential
- Low Density Residential
- Industrial
- Institutional/Governmental

Next 10 Years
- Commercial
- High Density Residential
- Low Density Residential

11 to 20 Years
- Commercial
- High Density Residential
- Low Density Residential

20+ Years
- Commercial
- High Density Residential
- Low Density Residential
- Mixed/Unknown



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LAND USE AND FUTURE GROWTH
FIGURE 3-1
City of Moscow, Idaho

\\BEL-SRV03\GISDATA\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_10378351\7.2_WIP\APRX\MOSCOW_WATER-SYSTEM_TK.APRX DATE: 7/17/2024

3.2.3. Chapter 5 – Public Utilities, Services, and Growth Capacity

Chapter 5 of the Comprehensive Plan evaluates the City's projected growth in light of its available water supply; public facilities, infrastructure and services; and available land for development and redevelopment. That effort is guided by the following general goals:

- Provide for sustainable growth while conserving natural resources and enhancing the character of the community and region.
- Provide for the orderly and efficient delivery and location of public facilities, utilities, and services to the residents and businesses within the community.
- Advocate and practice the sustainable management and development of local and regional water resources and supplies to meet the needs of both current and future residents.
- Direct growth to areas that can be most efficiently and economically served with public services and utilities while planning for future capacity needs.

The City's projected growth reflects the Latah County Comprehensive Plan, which calls for the unincorporated county to preserve its rural character, with most growth to be accommodated in and around incorporated cities. As the county's most populated city, Moscow is the logical place for most of the county's growth to occur. Moscow's ability to provide water service to new development is critical to its role as a growth center.

The Moscow Comprehensive Plan identifies two water system-related issues that could impact the City's ability to accommodate growth. First, Moscow may need to diversify its supply source due to declining aquifers levels. Second, the City's water system infrastructure is aging and requires appropriate re-investment and replacement, and will eventually need expansion. This Comprehensive Water System Plan addresses both of these issues. The City is currently exploring alternative water sources, as discussed in Chapter 6 Water Rights and Supply Options. The City is also implementing water conservation, as discussed in Chapter 5 Conservation. The adequacy of the water system infrastructure was assessed and projects were developed to address deficiencies as well as routine replacement needs, particularly in instances where the age of infrastructure has extended beyond the manufacturer's recommendations or industry standards for useful life, as discussed in Chapter 2 System Description, Chapter 7 System Analysis, and Chapter 8 Capital Improvement Program.

The Moscow Comprehensive Plan calls for the following specific implementation actions:

1. Identify and develop alternative water supplies, such as surface water impoundments or aquifer storage and recovery.
2. Preserve aquifer recharge areas within the City's jurisdiction if and when they are identified.
3. Continue to participate in Palouse Basin Aquifer Committee in the management of the regional resource.
4. Promote water-conserving development practices such as clustering on small lots with common open space that is not irrigated, the provision of smaller lot sizes and greater development densities where appropriate.

5. Continue and enhance existing water conservation programs and increase awareness of xeriscaping techniques to reduce irrigation demand.
6. Anticipate Idaho Department of Environmental Quality (DEQ) rulemaking that will address contaminants of emerging concern.

The City is working to implement these actions, some of which are directly related to this Comprehensive Water System Plan. Action #1 (alternative supplies) is addressed in Chapter 6 Water Rights and Supply Options. Action #4 (conservation) is addressed in Chapter 5 Conservation.

3.3. Intertie Agreement with University of Idaho

The City has ten emergency interties with the University of Idaho's water system. The interties are described in Section 2.2.2 and are shown in Figure 2-3. The City and the University of Idaho do not have a formal written agreement related to these interties; the agreement has historically been a verbal agreement.

3.4. Reclaimed Water Agreement with University of Idaho

The City has a reclaimed water agreement with the University of Idaho whereby the City produces reclaimed water at its Water Reclamation Facility and provides reclaimed water to the university for outdoor irrigation purposes. The agreement was signed on June 21, 1977, and has been actively exercised since then. Currently the university uses the reclaimed water to irrigate lawns, playfields, and the golf course pursuant to an DEQ Reuse Permit (Permit No. M-02804, last issuance on April 12, 2023). Additional information regarding the City's reclaimed water program is provided in Chapter 6.

4. Planning Data and Demand

This chapter presents planning data and the City of Moscow's water demand forecast. The information is presented in three main sections. The first section summarizes historical and projected demographic data for Moscow; the second section summarizes Moscow's water use characteristics including production, consumption, water balance, and water use factors; and the third section combines the demographics and the water supply characteristics to develop Moscow's demand forecast for the next 50 years.

A 50-year planning horizon of 2025 to 2075 was used for this plan. The 20-year forecast (i.e., through 2045) was used for the system analyses presented in Chapter 7, including existing source and storage capacity evaluations and the hydraulic modeling utilized in analyzing the water distribution system. The 50-year forecast was used in evaluating the sufficiency of water rights to meet projected needs and in considering various long-term water supply options, as summarized in Chapter 6.

The last year of historical data that was analyzed was 2023, since that was the last full year of data available when this analysis began. The demands for the interim year of 2024 were therefore projected.

4.1. Demographics – Historical and Projected

Several demographic units were analyzed for this water system plan. The demographic units are listed below and information is provided regarding how the demographic units relate to the demand forecast.

Single-family Dwelling Units: The number of single-family dwelling units is one of two demographic units used for the residential component of the demand forecast.

Multi-family Dwelling Units: The number of multi-family dwelling units is the other demographic unit used for the residential component of the demand forecast. Note this is the number of multi-family households (e.g., apartments) and not the number of multi-family connections (e.g., apartment buildings).

Population: The population growth rate is used as an input to the residential demographic categories.

Commercial demands are based on a proportional scaling of residential demand rather than on direct projections of commercial growth, based on the assumption that growth in commercial activity and related demands will increase in a similar fashion to residential growth. This is discussed more in the demand forecasting methodology outlined in Section 4.3.1.

Table 4-1 presents recent demographic data, as well as projections for the forecasting period. The demographics are for Moscow's retail service area (i.e., areas where the City of Moscow provides water). This is not the same as the demographics within the City's municipal boundary or urban growth area, since some of the demographics within the City are provided water by the University of Idaho water system. The data is based on information from the City of Moscow Comprehensive Plan, the City of Moscow Planning Department, and the U.S. Census.

Table 4-1 Demographics for Moscow Retail Service Area

Year	Planning Year	Population		Single-family Residences		Multi-family Residences	
		Number[1]	Annual Growth Rate[2]	Number[3]	Annual Growth Rate	Number	Annual Growth Rate
2010	n/a	21,026	n/a	4,327	n/a	4,832	n/a
2011	n/a	21,237	1.0%	4,270	-1.3%	5,073	5.0%
2012	n/a	21,628	1.8%	4,269	0.0%	5,239	3.3%
2013	n/a	21,903	1.3%	4,512	5.7%	4,968	-5.2%
2014	n/a	22,168	1.2%	4,590	1.7%	5,053	1.7%
2015	n/a	22,450	1.3%	4,670	1.7%	4,929	-2.4%
2016	n/a	22,782	1.5%	4,803	2.8%	4,803	-2.6%
2017	n/a	22,725	-0.3%	4,852	1.0%	5,050	5.1%
2018	n/a	23,111	1.7%	5,178	6.7%	4,799	-5.0%
2019	n/a	23,204	0.4%	5,130	-0.9%	4,755	-0.9%
2020	n/a	23,757	2.4%	5,124	-0.1%	4,993	5.0%
2021	n/a	23,173	-2.5%	5,542	8.2%	4,683	-6.2%
2022	n/a	23,453	1.2%	5,353	-3.4%	4,398	-6.1%
2023	n/a	23,688	1%	5,417	1.2%	4,450	1.2%
2024	n/a	23,924	1%	5,481	1.2%	4,503	1.2%
2025	n/a	24,161	1%	5,545	1.2%	4,556	1.2%
2026	1	24,398	1%	5,610	1.2%	4,608	1.1%
2027	2	24,635	1%	5,673	1.1%	4,661	1.2%
2028	3	24,872	1%	5,738	1.1%	4,713	1.1%
2029	4	25,109	1%	5,802	1.1%	4,766	1.1%
2030	5	25,346	1%	5,866	1.1%	4,818	1.1%
2031	6	25,583	1%	5,930	1.1%	4,871	1.1%
2032	7	25,819	1%	5,994	1.1%	4,924	1.1%
2033	8	26,056	1%	6,058	1.1%	4,976	1.1%
2034	9	26,293	1%	6,122	1.1%	5,029	1.1%
2035	10	26,530	1%	6,186	1.0%	5,082	1.1%
2036	11	26,767	1%	6,250	1.0%	5,134	1.0%
2037	12	27,004	1%	6,314	1.0%	5,187	1.0%
2038	13	27,241	1%	6,378	1.0%	5,240	1.0%
2039	14	27,478	1%	6,442	1.0%	5,292	1.0%
2040	15	27,714	1%	6,506	1.0%	5,345	1.0%
2041	16	27,951	1%	6,570	1.0%	5,398	1.0%
2042	17	28,188	1%	6,635	1.0%	5,450	1.0%
2043	18	28,425	1%	6,698	0.9%	5,503	1.0%
2044	19	28,662	1%	6,763	1.0%	5,555	0.9%
2045	20	28,899	1%	6,827	0.9%	5,608	1.0%
2055	30	31,268	1%	7,467	0.8%	6,134	0.8%
2065	40	33,636	1%	8,108	0.7%	6,660	0.7%
2075	50	36,005	1%	8,748	0.7%	7,187	0.7%

1. 2010-2022 population data is from US Census American Community Surveys. Projected population uses 1% linear growth rate, aligning with general planning approach used by the City Planning Department.
2. Annual growth rates for population, single-family residences, and multi-family residences is calculated from the values in this table.
3. 2010-2022 household data is from US Census American Community Surveys. Projected households are calculated using the population change relative to 2023 and the average number of people living in a household (2018-2022 average from US Census Bureau, 2.03). This was then scaled to single-family and multi-family residences using the percentage breakdown of single-family (55%) and multi-family (45%) dwelling units from 2022.

4.2. Water Use Characteristics

4.2.1. Production, Purchases, and Peaking Factor

Moscow's water source is groundwater from its six production wells, four of which were active in the past three years (2021-2023). Table 4-2 shows water production by well source over the past

10 years (2013-2023). Figure 4-1 shows the percent of supply from each well based on 2021-2023 averaged data. Well 10 had the highest production of the six wells, producing 60% of the city's supply during this three-year period.

Table 4-2 Production by Source (million gallons)

Year	Well 2	Well 3	Well 6	Well 8	Well 9	Well 10	Total
2013	140	122	132	121	336	0	**851**
2014	111	122	115	169	347	0	**864**
2015	121	114	169	144	330	0	**878**
2016	127	121	127	117	352	0	**844**
2017	119	144	15	161	384	0	**822**
2018	88	32	315	36	326	0	**797**
2019	13	3	427	1	324	0	**767**
2020	5	2	391	0	350	0	**747**
2021	0	0	312	0	61	427	**801**
2022	7	0	210	0	0	503	**720**
2023	10	0	313	0	2	464	**790**
Total	**741**	**660**	**2,525**	**749**	**2,812**	**1,394**	**8,881**
Percent (2013-2023)	**8%**	**7%**	**28%**	**8%**	**32%**	**16%**	-
Percent (2021-2023)	**1%**	**0%**	**36%**	**0%**	**3%**	**60%**	-

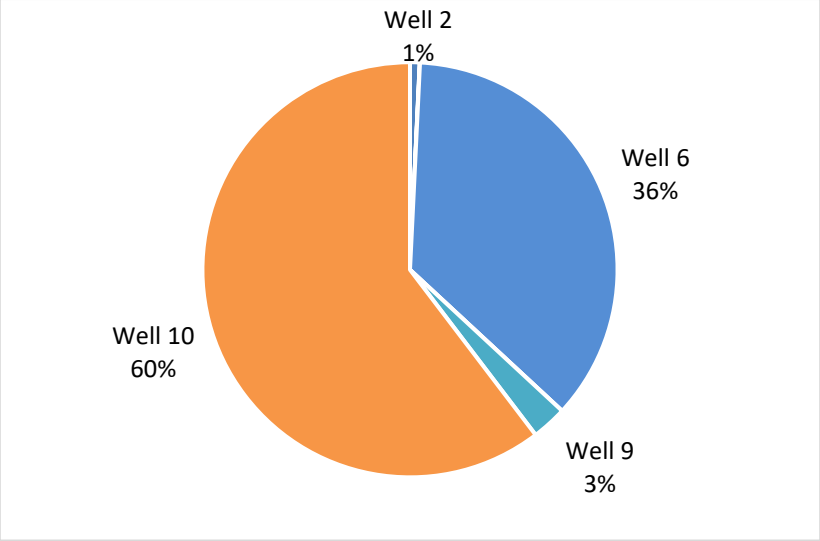


Figure 4-1. Production by Source (2021-2023)

Figure 4-2 shows a ten-year history of Moscow's water production. Water production has ranged from a low of 720 million gallons (mg) in 2022 to a high of 878 mg in 2015. Table 4-3 shows the 2021-2023 average production from each well by month. The total 2021-2023 average production was 770 mg. The 2021-2023 average production by month is shown graphically in Figure 4-3. As

with most water utilities, Moscow's production increases in the summer months due primarily to irrigation use.

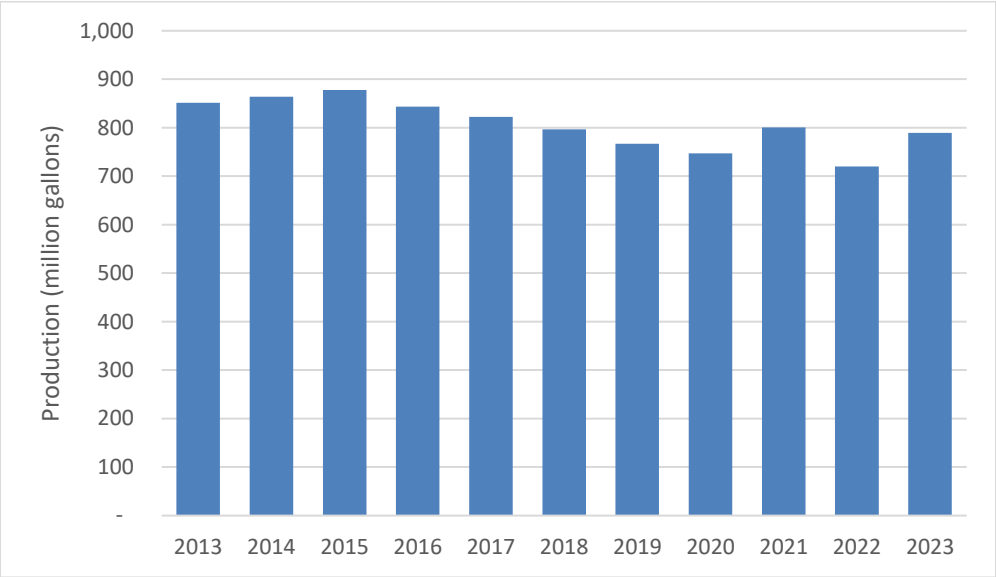


Figure 4-2. Annual Production (2013-2023)

Table 4-3 2021-2023 Average Production (million gallons)

Month	Well 2	Well 3	Well 6	Well 8	Well 9	Well 10	Total	Percent
Jan	0	0	19	0	5	20	**45**	**6%**
Feb	0	0	18	0	5	19	**41**	**5%**
Mar	0	0	20	0	5	20	**45**	**6%**
Apr	0	0	23	0	4	19	**46**	**6%**
May	0	0	34	0	1	29	**63**	**8%**
Jun	0	0	32	0	0	47	**79**	**10%**
Jul	1	0	27	0	0	85	**114**	**15%**
Aug	2	0	26	0	0	86	**115**	**15%**
Sep	2	0	14	0	0	68	**84**	**11%**
Oct	0	0	22	0	0	30	**53**	**7%**
Nov	0	0	22	0	0	21	**43**	**6%**
Dec	0	0	21	0	0	22	**43**	**6%**
Total	**6**	**0**	**278**	**0**	**21**	**465**	**770**	**100%**
Percent	**1%**	**0%**	**36%**	**0%**	**3%**	**60%**	-	-

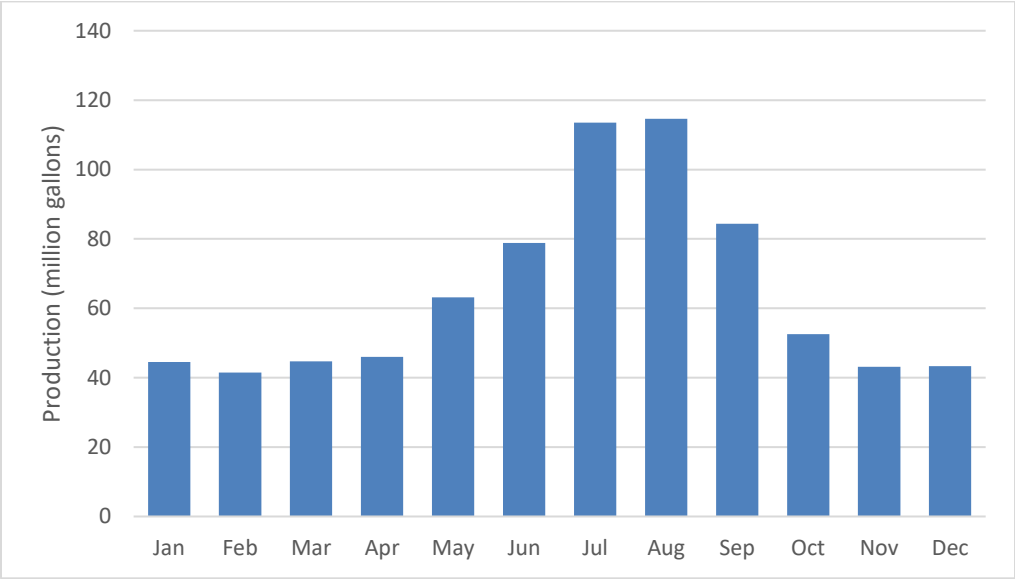


Figure 4-3. Monthly Production (2021–2023 Average)

Table 4-4 shows the average day to maximum day peaking factors for 2013 to 2023. The maximum day peaking factor has ranged from 2.0 to 2.4, and averaged 2.1 for 2021-2023.

Table 4-4 Peaking Factor – Average Day to Maximum Day Demand

Year	Average Day[1] (mgd[2])	Maximum Day		Peaking Factor
		(mgd)	Date	
2013	2.3	5.5	9/11/2013	2.4
2014	2.4	5.0	7/13/2014	2.1
2015	2.4	5.5	8/2/2015	2.3
2016	2.3	4.8	8/25/2016	2.1
2017	2.3	5.3	8/2/2017	2.3
2018	2.2	4.9	8/11/2018	2.2
2019	2.1	4.6	8/8/2019	2.2
2020	2.0	4.9	7/31/2020	2.4
2021	2.2	4.4	7/14/2021	2.0
2022	2.0	4.2	9/2/2022	2.1
2023	2.2	4.7	8/15/2024	2.2
2021-2023 Average	**2.1**	**4.4**	**n/a**	**2.1**

1. Average day and maximum day demands based on well production data provided by City staff.
2. Million gallons per day

4.2.2. Customer Categories, Connections, and Consumption

Moscow's billing system contains four customer categories: single-family, multi-family, duplex, and commercial. From 2021 to 2023, there were only three active meter accounts in the duplex customer class, so these are combined with multi-family connections for this analysis.

Table 4-5 provides the number of connections from 2021 to 2023. At the end of 2023, Moscow had 6,088 connections, the vast majority of which (90%) were residential.

Table 4-5 Number of Connections

Customer Category	Active Connections			2021-2023 Average	
	2021	2022	2023	#	%
Single-family	3,811	4,220	4,687	4,239	75%
Multi-family	757	816	870	814	15%
Commercial	543	574	620	579	10%
Total	**5,111**	**5,610**	**6,088**	**5,603**	**100%**

Table 4-6 provides the 2021-2023 average consumption by customer category and month. Figure 4-4 shows the allocation between the customer categories. The majority (77%) of Moscow's water is used by the two residential categories. Commercial demand represents 23% of water use.

Table 4-6 2021-2023 Average Water Consumption (million gallons)

Customer Category	Consumption													
	Jan	Feb	Mar[1]	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Percent
Single-family	15	15	14	13	18	25	39	50	41	22	16	15	282	46%
Multi-family	14	16	15	14	16	15	17	20	19	16	17	14	193	31%
Commercial	7	7	7	7	9	13	18	24	21	13	9	7	141	23%
Total	**36**	**37**	**36**	**35**	**43**	**53**	**74**	**94**	**81**	**50**	**42**	**36**	**616**	**100%**

1. Residential meters are not read in the winter due to snow covering the meters. Winter bills are estimated based on previous use and then adjusted as necessary in March once meters are read again. The billing in March may be negative to compensate for overestimating winter use. For this table, the Nov to Mar numbers have been averaged to present a more accurate representation of actual usage. As the system transitions to advanced metering infrastructure in the coming years, residential meters will be read year-round, eliminating the need for estimating meter reads.

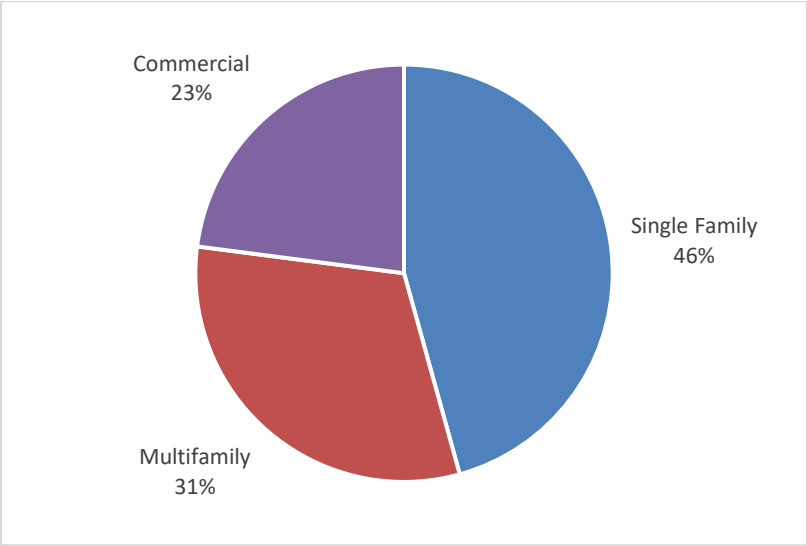


Figure 4-4. Consumption by Customer Category (2021–2023)

4.2.3. Water Balance, Non-Revenue, and Leakage

A water balance is an accounting for all water that is produced. Table 4-7 shows Moscow's 2022 water balance. The table is a slightly modified version of the format recommended for use by the American Water Works Association.

Table 4-7 Water Balance (2022)

Level 1	Level 2	Level 3	Volume (mg)	% of Production
Revenue Water	Billed Authorized Consumption	Billed Metered Consumption[1]	641	89%
		Billed Unmetered Consumption[2]	0.1	0.01%
Non-Revenue Water	Unbilled Authorized Consumption	Unbilled Metered Consumption[3]	53	7.4%
		Unbilled Unmetered Consumption[4]	5.6	0.8%
	Apparent Losses	Unauthorized Consumption	0	0.0%
		Customer Metering Inaccuracies	0	0.0%
	Real Losses	Known Leakage[5]	0.7	0.1%
		Assumed Leakage[6]	19	3%
Total			720	100.0%

1. Data source: Meter billing data and summary meter data provided by city staff
2. Data source: "Unbilled Water Separated by Type 2013-2022" spreadsheet provided by City staff. Includes 104,892 gallons for construction bulk water.
3. Data source: "Unbilled Water Separated by Type 2013-2022" spreadsheet provided by City staff. Includes 27,768 gallons for filter plant process and 53,175,772 gallons for public facilities.
4. Data source: "Unbilled Water Separated by Type 2013-2022" spreadsheet provided by City staff. Includes 5,328,609 gallons for flushing, 67,600 gallons for new main/subdivisions, and 147,000 gallons for firefighting.
5. Data source: "Unbilled Water Separated by Type 2013-2022" spreadsheet provided by City staff
6. Total water production minus all other categories. Data source: "Comp Plan 2023 Task 105 5.3 to 5.5" spreadsheet provided by City staff.

The water balance allocates water production to different categories at three different levels:

- Level 1 allocates the water to either revenue water or non-revenue water. Revenue water generates income while non-revenue water does not. Moscow's 2022 water production is divided into 89% revenue water and 11% non-revenue water.

- Level 2 splits non-revenue water into the following three sub-categories, which are useful in identifying potential additional revenue sources and identifying the magnitude of leaks or other losses that could be addressed:

  Unbilled Authorized Consumption: Includes uses such as water system flushing, firefighting, and unbilled contractor use. Moscow's 2022 unbilled authorized consumption is estimated at approximately 7.4%.

Apparent Losses: Includes unauthorized uses and customer meter inaccuracies, both of which are lost revenue opportunities. No data exists to estimate Moscow's 2022 apparent losses

Real Losses: Includes various types of system leaks. A certain level of leakage is unavoidable; however, leakage beyond that level should be repaired to avoid unduly burdening both the natural resource and the physical infrastructure. Any amount that cannot be assigned to another category is considered a real loss under the American Water Works Association's protocol. Moscow's 2022 real losses are estimated at approximately 3%.

- Level 3 further splits water into additional sub-categories to support additional estimation and water management.

Table 4-8 shows a longer history of some of the water balance elements, namely non-revenue water and distribution system leakage. The table shows data from 2020 to 2022. Non-revenue water as a percent of billed consumption is used to develop the non-revenue component of the demand forecast and averaged 16% from 2020 to 2022. Note that this is intentionally different from "non-revenue as a percent of production", which is shown in Table 4-7. Distribution system leakage averaged 6% over that same time period.

Table 4-8 Non-Revenue Water and Distribution System Leakage (million gallons)

Year	Water Produced[1]	Authorized Consumption		Non-Revenue Water		Distribution System Leakage	
		Billed Consumption[2]	Unbilled Consumption[3]	Qty[4]	% of Billed Consumption	Qty[5]	% of Production
2020	747	639	54	109	17%	55	7%
2021	801	668	62	133	20%	71	9%
2022	720	641	59	79	12%	20	3%
Average	**756**	**649**	**58**	**107**	**16%**	**49**	**6%**

1. Data source: Water production spreadsheet provided by City staff
2. Data source: Meter billing spreadsheets and billing summary sheet provided by City staff
3. Data source: "Unbilled Water Separated by Type 2013-2022" spreadsheet provided by City staff
4. Defined as water production minus billed consumption
5. Defined as water production minus authorized consumption

4.2.4. Water Use Factors and Equivalent Residential Units

Water use factors were calculated for the three aggregated customer categories. Table 4-9 shows the inputs and the results of the calculations. For the single-family category, the water use factor is 181 gallons per day (gpd) per dwelling unit. For the multi-family category, the water use factor is 140 gpd per dwelling unit.

Table 4-9 also shows the number of equivalent residential units (ERUs) in each customer category. ERUs are a method of representing water use by commercial customers as an equivalent number of residential customers. Moscow's ERU value is 181 gallons per day, which is the average amount of water used by a single-family dwelling unit. Moscow's ERU value is calculated by dividing single-family consumption by the number of single-family dwelling units. The number of ERUs for each customer category is obtained by dividing the consumption for a customer category by 181. The 2021-2023 average number of ERUs was 9,268.

Table 4-9 Water Use Factors and ERUs (2021-2023 Average)

Customer Category	Consumption (gpd)[1]	Dwelling Units or Connections	Consumption per Dwelling Unit or Connection (gpd)	Number of ERUs[6]
Single-family	764,647	4,239[2]	181[5]	4,219
Multi-family	527,024	3,773[3]	140	2,908
Commercial	387,917	579[4]	670	2,140
Total	**1,679,588**	**n/a**	**n/a**	**9,268**

1. Data source: Meter billing spreadsheets provided by City staff
2. Number of single-family accounts in meter billing data.
3. Uses ratio of single-family residences to multi-family dwelling units from US Census Bureau American Community Surveys (2018-2022 average). This value is 1.12.
4. Number of active connections
5. This number, 181 gpd, is Moscow's equivalent residential unit (ERU) value. It is calculated by dividing the single-family consumption category by the number of single-family dwelling units.
6. The number of ERUs in any customer category is calculated by dividing that customer category's consumption by the ERU value.

4.3. Demand Forecast

4.3.1. Demand Forecast Methodology

The methodology used to develop the demand forecast is shown graphically in Figure 4-5. The basic process is to combine demographic data with water use factors to develop the retail demands. Demands are also developed for non-revenue water. The retail and the non-revenue demands are summed to create the total average day demand. To generate the total maximum day demand, a peaking factor is applied to the average day demand. More details on each step are provided below.

- **Step 1 - Demographics:** As described in Section 4.1, the demographics are based on information from the City of Moscow Comprehensive Plan, the City of Moscow Planning Department, and the U.S. Census.
- **Step 2 - Water Use Factors:** Water use factors were developed per the methodology described in Section 4.2.4.
- **Step 3 - Retail Demand:**
    - **Residential:** The demographic projection increases (from Step 1) were multiplied by the water use factors (from Step 2) to generate the demand for the single-family and multi-family customer categories.
    - **Commercial:** Commercial demand increases were proportionally scaled to match the corresponding year-over-year residential demand increases. These were then added to the 2023 estimated commercial demand.
- **Step 4 - Non-Revenue Demand:** The sum of all demands was multiplied by the average 2020 to 2022 "non-revenue water as % of billed consumption" from the water balance table, which is 16%.
- **Step 5 - Total Average Day Demand (ADD):** The average day demand was calculated by adding the demands from all preceding steps.
- **Step 6 - Total Maximum Day Demand (MDD):** To generate the total maximum day demand, a peaking factor was applied to the average day demand. A peaking factor of 2.1 was used, which is the 2021-2023 average peaking factor.

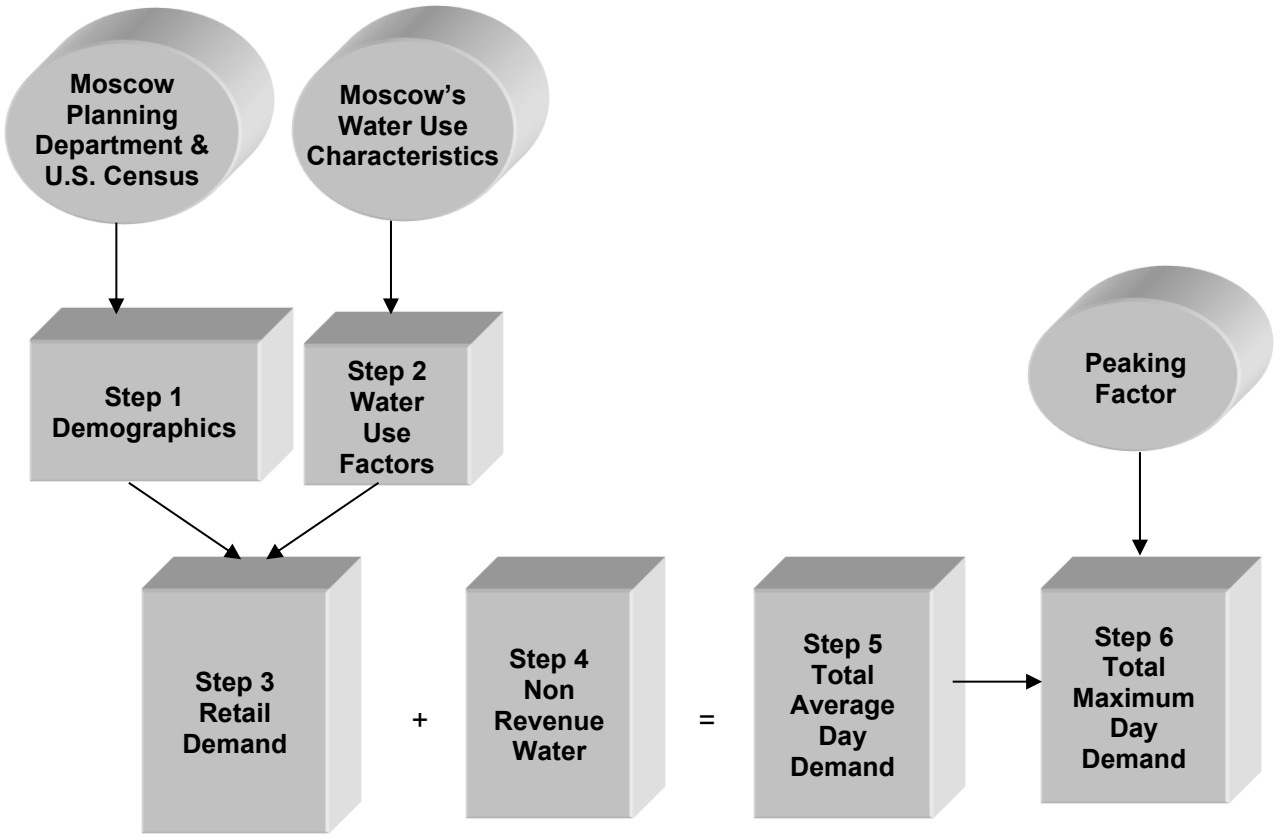


Figure 4-5. Demand Forecast Methodology

4.3.2. Demand Forecast Results

The projected demands are provided in Table 4-10. The table shows the demand forecast for the 50-year planning period and includes historical demands back to 2013. Table 4-10 shows the total average day demand increasing from 2.16 million gallons per day (mgd) in 2023, which is the last year with complete data, to 3.64 mgd in 2075, which is Year 50 of the planning period. The maximum day demand is expected to increase from 4.69 mgd in 2023 to 7.67 mgd in 2075.

Figure 4-6 graphically presents the average day and maximum day demands. Figure 4-7 shows the various components of the average day demand in order to provide information about the relative magnitude of each component.

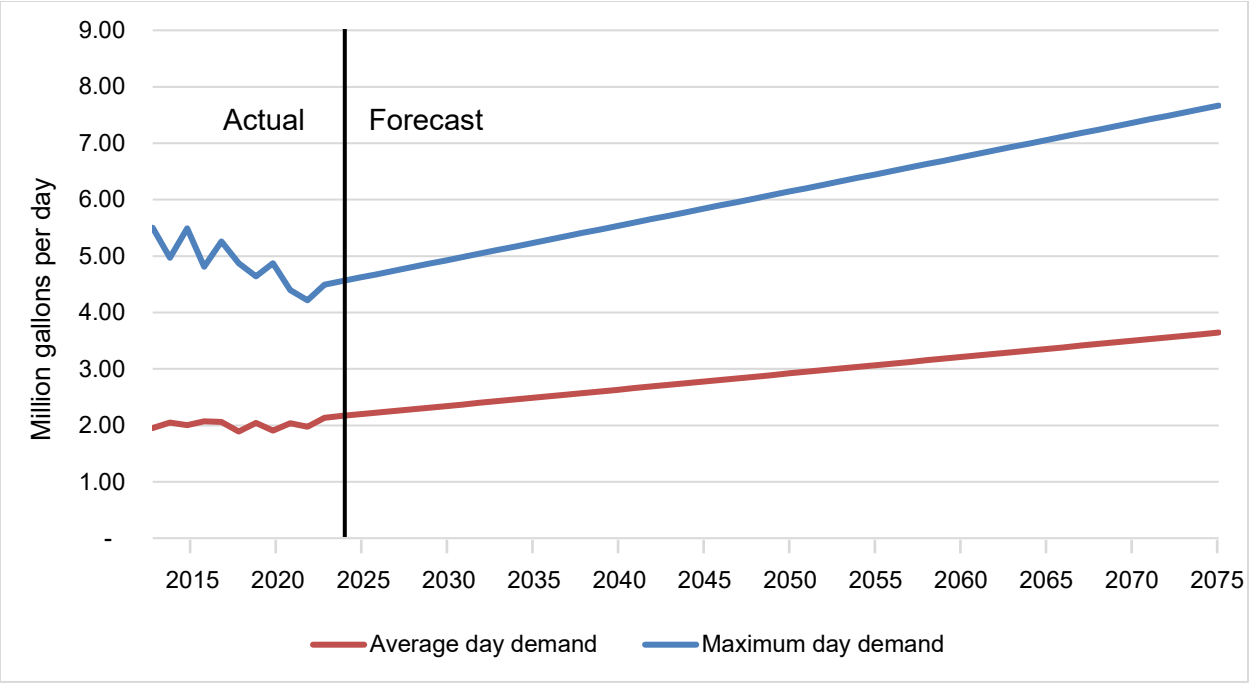


Figure 4-6. Demand Forecast Summary

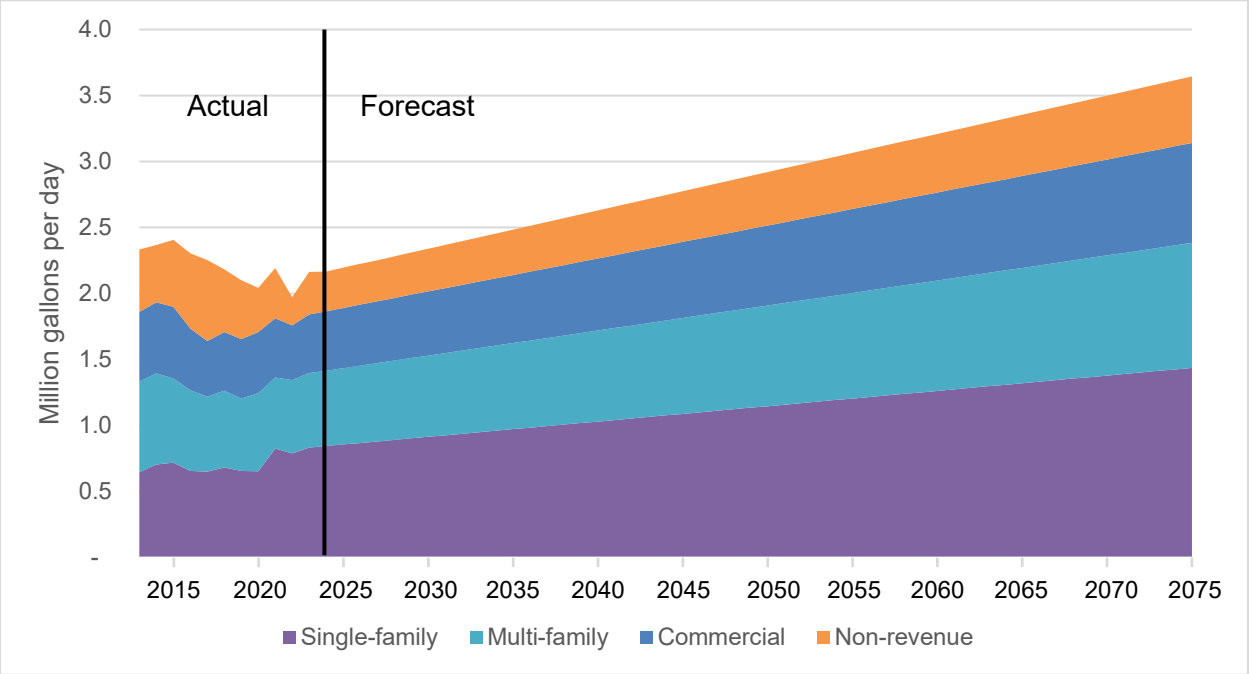


Figure 4-7. Demand Forecast by Sector (Average Day Demand)

Table 4-10 City-wide Demand Forecast

Year	Planning Year	Demographics[1]		Water Use Factors (gpd)[2]		Demand					
						Average Day Demand (ADD, mgd)[3]					Maximum Day Demand (MDD, mgd)[5]
		Single-family Dwelling Units	Multi-family Dwelling Units	Per Single-family Dwelling Unit	Per Multi-family Dwelling Unit	Single-family	Multi-family	Commercial	Non-revenue[4]	Total	
2013	n/a	-	-	-	-	0.65	0.69	0.53	0.07	1.93	5.50
2014	n/a	-	-	-	-	0.70	0.69	0.54	0.09	2.02	4.97
2015	n/a	-	-	-	-	0.72	0.64	0.54	0.08	1.98	5.49
2016	n/a	-	-	-	-	0.66	0.61	0.47	0.25	1.99	4.81
2017	n/a	-	-	-	-	0.65	0.57	0.42	0.31	1.96	5.26
2018	n/a	-	-	-	-	0.68	0.58	0.44	0.14	1.85	4.88
2019	n/a	-	-	-	-	0.66	0.55	0.45	0.29	1.95	4.64
2020	n/a	-	-	-	-	0.65	0.59	0.46	0.15	1.86	4.87
2021	n/a	-	-	-	-	0.83	0.54	0.45	0.17	1.98	4.40
2022	n/a	-	-	-	-	0.79	0.56	0.41	0.21	1.97	4.22
2023	n/a	5,417	4,450	181	140	0.83	0.56	0.44	0.32	2.16	4.69
2024	n/a	5,481	4,503	181	140	0.85	0.57	0.45	0.30	2.17	4.55
2025	n/a	5,545	4,556	181	140	0.86	0.58	0.46	0.30	2.19	4.62
2026	1	5,610	4,608	181	140	0.87	0.59	0.46	0.31	2.22	4.68
2027	2	5,673	4,661	181	140	0.88	0.59	0.47	0.31	2.25	4.74
2028	3	5,738	4,713	181	140	0.89	0.60	0.47	0.32	2.28	4.80
2029	4	5,802	4,766	181	140	0.90	0.61	0.48	0.32	2.31	4.86
2030	5	5,866	4,818	181	140	0.91	0.62	0.49	0.32	2.34	4.92
2031	6	5,930	4,871	181	140	0.93	0.62	0.49	0.33	2.37	4.98
2032	7	5,994	4,924	181	140	0.94	0.63	0.50	0.33	2.40	5.04
2033	8	6,058	4,976	181	140	0.95	0.64	0.50	0.34	2.43	5.10
2034	9	6,122	5,029	181	140	0.96	0.64	0.51	0.34	2.46	5.16
2035	10	6,186	5,082	181	140	0.97	0.65	0.52	0.34	2.48	5.23
2036	11	6,250	5,134	181	140	0.98	0.66	0.52	0.35	2.51	5.29
2037	12	6,314	5,187	181	140	1.00	0.67	0.53	0.35	2.54	5.35
2038	13	6,378	5,240	181	140	1.01	0.67	0.53	0.36	2.57	5.41
2039	14	6,442	5,292	181	140	1.02	0.68	0.54	0.36	2.60	5.47
2040	15	6,506	5,345	181	140	1.03	0.69	0.55	0.36	2.63	5.53
2041	16	6,570	5,398	181	140	1.04	0.70	0.55	0.37	2.66	5.59
2042	17	6,635	5,450	181	140	1.05	0.70	0.56	0.37	2.69	5.65
2043	18	6,698	5,503	181	140	1.07	0.71	0.56	0.38	2.72	5.71
2044	19	6,763	5,555	181	140	1.08	0.72	0.57	0.38	2.75	5.77
2045	20	6,827	5,608	181	140	1.09	0.73	0.58	0.38	2.77	5.84
2055	30	7,467	6,134	181	140	1.20	0.80	0.64	0.42	3.06	6.45
2065	40	8,108	6,660	181	140	1.32	0.87	0.70	0.46	3.35	7.06
2075	50	8,748	7,187	181	140	1.44	0.95	0.76	0.50	3.64	7.67

1. Described in Section 4.1. Demographic information is only displayed for the years which have a calculated demand.
2. Calculated from 2021-2023 meter billing data provided by City staff, defined in Table 4-9. Applied to new housing units that begin receiving service in a given year.
3. 2013-2023 data is based on historical demand data provided by the City.
4. 2013-2023 data is based on historical non-revenue demand data provided by the City. Projected non-revenue demands were found by multiplying the sum of single-family, multi-family, and commercial demands by the scaling factor defined in Table 4-8.
5. 2013-2023 data is based on historical maximum day demand data provided by the City. Projected maximum day demands were found by multiplying total average day demand by the peaking factor defined in Table 4-4.

4.3.3. Spatial Demand Allocation

Understanding where future demands are most likely to occur is important for the distribution system analysis. To support that element of the CWSP, demands were allocated spatially according to the planned and potential developments identified in Section 3.2.2 and Figure 3-1. Demands for individual developments were estimated by first assigning associated residential units and commercial acreage to each identified area. For approximately half of the developments, this information was available directly based on prior City planning data and analysis. For the other development areas, these values were approximated based off the proposed zoning for the development and the acreage. In cases where the zoning was not identified or there were multiple zoning identifications, these were assumed to be split in equal proportion. Minimum lot sizes for single-family and multi-family residential units defined in Ordinance 2015-06 were used to convert the development acreage to a number of residential units. In a few cases, there was no supplied acreage for the development. In these instances, acreage was approximated from the development GIS layer shown in Figure 3-1. The number of residential units were then converted to water demands according to the ERU value and multi-family water use factor defined in Section 4.2.4. A conversion factor from commercial acreage to water demands was not available from recent data, so the conversion factor identified in the prior plan (444 gpd/acre) was scaled proportionally to the decrease in the ERU value since the prior plan. The City's ERU value has decreased from 247 gpd to 181 gpd since the prior plan, representing a 27% decrease. Applying this to the acreage-based water use factor for commercial areas, the updated water use factor is 326 gpd/acre.

These planned and potential future developments and their associated demands are summarized in Table 4-11.

Table 4-11 Planned/Potential Land Development Projects

Figure ID[1]	Development Name / Descriptor	Timeframe[2]	Development Type[3]	Demands (gpd)		
				Single-family	Multi-family	Commercial
A	Woodbury	Next 10 years	Low density residential	14,317	0	0
B	Edington	Next 10 years	Low density residential	18,667	0	0
C	Edington Estates & Commercial Lots	Next 10 years	Low density residential	1,812	0	733
D	Rolling Hills 9th	Next 10 years	High density residential	1,812	0	0
E	Anderson 7th Addition	Next 10 years	Low density residential	3,262	0	0
F	Ridgeview 2nd	Next 10 years	Low density residential	7,612	0	0
G	Harvest Hills 2nd Addition	Next 10 years	High density residential	10,149	0	0
H	Rolling Hills 10th	Next 10 years	High density residential	4,531	0	0
I	Park Valley/Sierra Vista	Next 10 years	Low density residential	3,625	0	0
J	SOMO	Next 10 years	Commercial	0	0	24,759
K	Flomer	Next 10 years	Low density residential	1,087	0	0
L	Moser Extension	11-20 years	Low density residential	27,066	0	0
M1[4]	Blum Apartments	11-20 years	High density residential	0	55,970	0
M2	Blum Apartments	20+ years	High density residential	0	20,989	0
N	SEL	11-20 years	Commercial	0	0	53,101
O	Peterson 2nd	Next 10 years	High density residential	36,964	65,101	0
P	U of I Commercial Development Property	20+ years	Commercial	0	0	18,243
Q	Mix Rd	20+ years	High density residential	58,871	8,558	0
R	Mccoy Property	20+ years	High density residential	13,915	2,023	0
S	Warbonnet Parcel	20+ years	Mixed/unknown	4,620	8,138	1,629

Figure ID[1]	Development Name / Descriptor	Timeframe[2]	Development Type[3]	Demands (gpd)		
				Single-family	Multi-family	Commercial
T	Thompson South of Cemetery	20+ years	Mixed/unknown	10,627	18,716	3,746
U	Thompson - Robinson Park	20+ years	High density residential	2,495	4,394	0
W	Parcel Behind Warbonnet	20+ years	Mixed/unknown	18,482	32,550	6,515
X	Tatikama Parcels	20+ years	Commercial	0	0	58,639
Y	Trail North of Logos	20+ years	Low density residential	26,759	3,890	0
Z	PRD & Paradise Ridge Parcel	20+ years	Mixed/unknown	10,627	18,716	3,746
AZ	Carmichael Road Properties	20+ years	High density residential	50,825	89,513	0

1. Corresponds to labels on Figure 3-1.
2. Timeframes were selected based on project stage of planning and to align with the demand forecast from Section 4.3.2.
3. Development types were approximated based on available zoning and density information.
4. Development M is allocated to the 11-20 year and 20+ year timeframes to align with the demand forecast.

Table 4-12 summarizes these demand increases according to timing categories, and compares them with the associated City-wide demand increases summarized in Section 4.3.2. The difference between the City-wide demand forecast values and the development demands are assumed to be distributed throughout the rest of the Main Pressure Zone, reflecting in-fill growth and redevelopment. Table 4-13 defines the ADD and MDD in key years for the City-wide demand forecast, the specific development demands, and the non-spatially specific demands.

Table 4-12 Spatial Demand Growth Allocation by Time Period

Time Frame	City-wide Demand Increase (gpd)[1]				Specific Development Demands (gpd)[2]				Non-spatially Specific Demands (gpd)[3]			
	Single-family	Multi-family	Comm[4]	Total	Single-family	Multi-family	Comm	Total	Single-family	Multi-family	Comm	Total
2025-2035	116,168	73,600	60,243	250,011	103,838	65,101	25,492	194,430	12,331	8,500	34,751	55,581
2036-2045	116,168	73,600	60,243	250,011	27,066	55,970	53,101	136,137	89,102	17,630	7,142	113,874
2046-2075	348,143	220,941	180,657	749,741	197,222	207,488	92,520	497,230	150,921	13,452	88,138	252,511

1. Based on data from Table 4-10.
2. Aggregated from Table 4-11.
3. Calculated as the difference between the City-wide demand forecast and the specific development demands.
4. Commercial.

Table 4-13 Spatial Allocation of Average and Maximum Day Demands

Year	City-wide Demand Forecast (mgd)		Specific Development Demands (mgd)		Non-spatially specific demands (mgd)	
	ADD[1]	MDD[2]	ADD	MDD	ADD	MDD
2035	2.48	5.23	0.23	0.47	2.26	4.75
2045	2.77	5.84	0.38	0.81	2.39	5.03
2075	3.64	7.67	0.96	2.02	2.68	5.65

1. Average day demand, includes non-revenue water scaling defined in Table 4-8.
2. Maximum day demand, scaled using the peaking factor defined in Table 4-4.

5. Water Conservation

This section describes the City of Moscow's (City's) current water conservation program, and summarizes the future direction of the program.

5.1. Current Conservation Program

The City's interest in water conservation is driven by a desire to minimize its impact on the Grande Ronde and Wanapum aquifers and specifically to comply with the September 1992 Ground Water Management Plan set in place by the Pullman-Moscow Water Resources Committee, now called the Palouse Basin Aquifer Committee (PBAC). That plan includes a goal of limiting increases in water use to 1% compounded yearly based on a five-year moving average starting with 1986 and a cap of 125% of the 1981-1985 average (875 MG).

The City has had a coordinated conservation program since 1997. The City's efforts have been concentrated in data gathering and distribution of educational information and conservation devices to the public.

Key milestones in the City's conservation program are as follows:

- 1997 Began distribution of low flow devices.
- 1999 Began education program.
- 2004 Established conservation specialist position.
- 2004 Completed water conservation plan. (Developed by consultant.)
- 2005 Established tiered rate billing structure.
- 2016: Adopted formalized Water Conservation Plan that established fixture and lawn replacement rebate programs (Developed by City staff.)
- 2025: In the process of an update to the 2016 Water Conservation Plan.

The City's current conservation program features both system-side and demand-side elements, as shown in Table 5-1.

Table 5-1 Current Conservation Program

System-Side	Demand-Side
• Meter calibration • Water balance accounting • Leak detection • Smart meter implementation	• Free low flow showerheads • Free shower timers • Free toilet leak detection dye tablets • Free toilet tank displacements bags • Free bathroom and kitchen faucet aerators • Free pre-rinse sprayheads for restaurants • Free rain sensors for automatic irrigation systems • Free timer with auto shutoff for manual irrigation systems • Free spring-loaded hose nozzles for hand-held irrigation • Audits for outdoor irrigation • Public information and education: demonstration garden, school programs, and promotion through various outlets (e.g. the City website, newsletters, bus posters, display boards, booths at community events, messages on customer bills, the annual water quality report, flyers, awards recognition, conferences and speaker presentations.) • Restricted irrigation times • Tiered rate structure • Fixture rebates • Lawn replacement rebates • Free irrigation audits • Instant hot water device rebates • Commercial site-specific rebates • Water Conservation Plan

5.2. Future Conservation Program

The City is continually evaluating the future direction of the water conservation program. City staff are currently in the process of an update to the 2015 Water Conservation Plan (adopted in February 2016). The proposed amendments include modifications to the existing fixture and lawn replacement rebate programs, new rebates for instant water devices and commercial water conservation measures, new free water-saving devices, and formalization of minor updates to other elements. The updates are intended to build on current success and cover the next 10 years, at which time another update will be proposed.

Fixture rebate modifications include multiple aspects to ensure continued success and viability of the program. Rebate amounts are increasing to align with recent inflation to maintain the incentive. Additionally, a new tier was added to encourage increased conservation. The rebate for moving to a 1.6 gallons per flush (gpf, or “code”) toilet was removed as the goal of the program is to encourage consumers to upgrade to beyond code to maximize efficiency. The “New Construction” rebate was updated to reflect the most efficient option available and will be advertised directly to builders through the planning review process.

It is proposed that the lawn replacement, or Wisescape®, rebate will also see significant changes. In evaluating the program, it was determined that consumers were not incentivized by the $150 rebate and were only seeking it out of a benefit of converting their lawns away from irrigated lawn. Furthermore, the original rebate did not provide any incentive to new construction to not put in a lawn to begin with. The rebate will be increased significantly to better align with

the actual costs associated with replacing a lawn. The first 300 square feet will continue to be rebated at $150. However, beyond the first 300 square feet will be incentivized at $0.75 per square foot with a parking strip bonus of $0.50 per square foot, up to a maximum rebate of $2,500 per year for residential customers and $5,000 for commercial customers. Additionally, this program will be available for new construction projects.

Because of the success of the original rebate programs, it was determined that there is capacity to begin adding additional measures that were previously evaluated for the 2016 Water Conservation Plan. A $50 rebate will be created and phased in for instant hot water devices. Additionally, a site-specific commercial rebate that targets the actual water savings, rather than a specific device will also be developed and implemented.

The goal in future evaluations of the program is to work toward a regional water conservation plan in conjunction with other groundwater pumping entity members of PBAC. While each entity will have its own specific programs, the programs and methods will align to the best of their ability.

5.3. Impact of Conservation on Demand

Conservation plays a vital role in reducing the demand on the regional aquifer system and related infrastructure. The City has maintained some form of conservation program since 2003, with the latest program beginning in 2016. Based on the most recent data, the current program satisfies the PBAC target and significantly exceeds the savings that were projected in the 2016 Water Conservation Plan (see Figure 5-1).

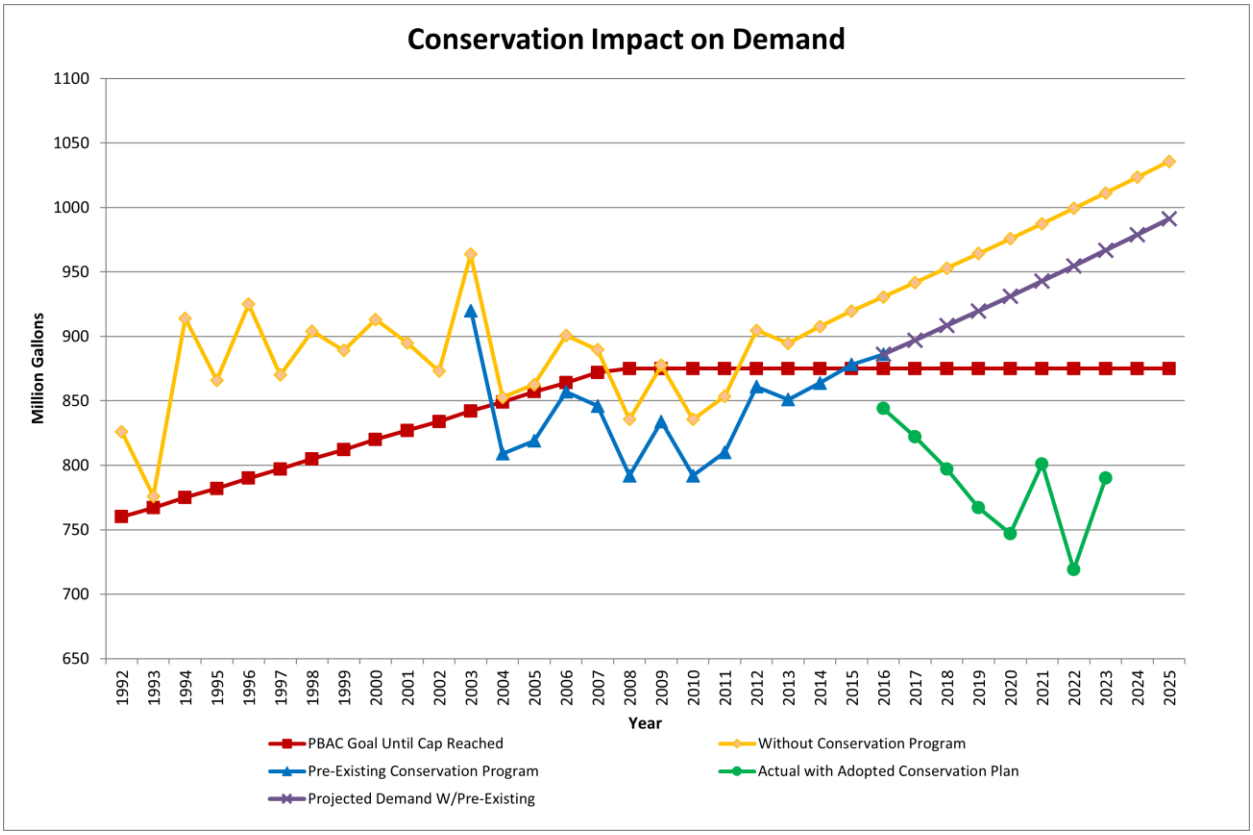


Figure 5-1. Conservation Impact on Demand

Examples of the effectiveness of the City's conservation measures are shown in Figure 5-2. The fixture and Wisescape® rebates are estimated to have saved approximately 7.5 million gallons of water.

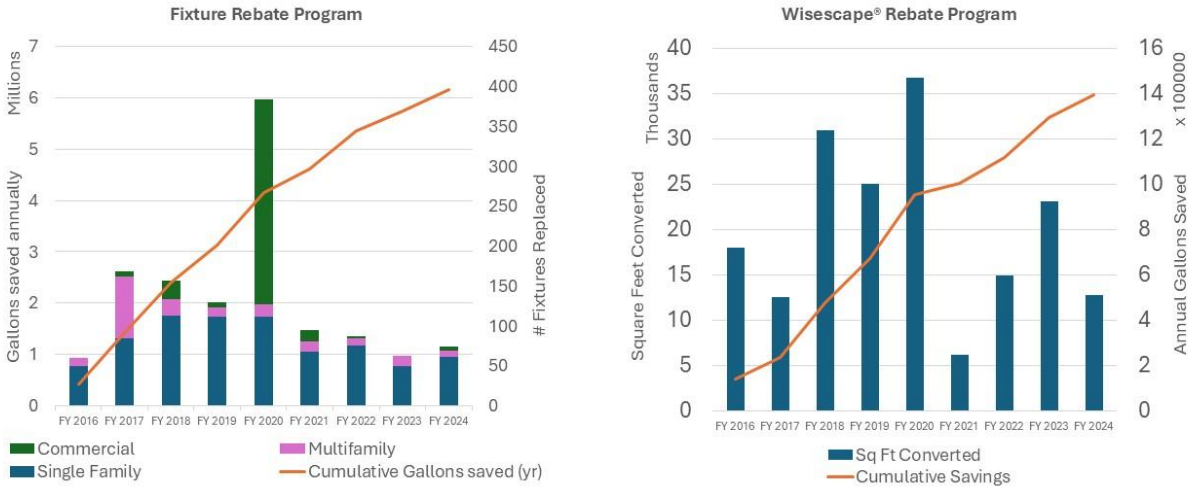


Figure 5-2. Fixture and Wisescape® Rebate Program Results

6. Water Rights and Future Supply Options

This section summarizes the City of Moscow's (City's) existing water rights and plans for long-range future water supply.

6.1. Water Rights Evaluation

6.1.1. Existing Water Rights

The City currently has groundwater rights for municipal supply and for irrigation issued by the Idaho Department of Water Resources (IDWR) for a total instantaneous quantity (Qi) of 18.91 cubic feet per second (cfs), which is equivalent to approximately 8,500 gallons per minute (gpm) and a total annual quantity (Qa) of 6,721.9 acre-feet per year (AF/yr). Table 6-1 summarizes the City's water rights. It is noted that these totals include Water Right Number 87-4023, which is for irrigation of 58 acres of cemetery ground, and does not include municipal supply as an authorized use. By subtracting the amounts associated with this water right, the totals for the City's water rights that include municipal supply as an authorized use are 17.24 cfs (7,750 gpm) and 6,547.97 AF/yr.

Table 6-1 Water Rights Summary

Water Right Number	Well Number	Priority Date	Maximum Instantaneous Withdrawal (Qi)		Maximum Annual Quantity (AF/yr) (Qa)	Purpose of Use
			cfs	gpm		
87-2023	2, 3, 6	04/03/1964	8.23	3,700	897.4	Domestic, Municipal, Irrigation
87-2025	8	03/16/1965	2.44	1,100	894.0	Municipal
87-4023*	Cemetery	06/01/1952	1.67	750	174*	Irrigation (58 acres)
87-7034	Cemetery	08/23/1955	1.45	650	1,049.8**	Municipal
87-7069	9, 10	02/26/1981	5.12	2,300	3,706.7**	Municipal
Total			18.91 cfs	8,500 gpm	6,721.9 AF/yr	
Total (Municipal Only)			17.24 cfs	7,750 gpm	6,547.9 AF/yr	
Total (Municipal Only, in mgd)			11.14 mgd		5.84 mgd	

* This is a statutory claim, and is solely for irrigation use. Annual quantity based on 58 acres irrigation at 3 AF/yr per acre.

** Annual quantity based on continuous pumping of Qi (24 hours per day, 365 days per year).

It also should be noted that three of the City's water rights do not include a limitation for the annual quantity (Qa). In order to determine a value for planning purposes, a calculation was made to arrive at an annual quantity for these rights as shown in Table 6-1. The irrigation water right calculation was based on allocating three acre-feet per acre for the 58 acres of irrigation authorized on the water right, for a total annual quantity of 174 acre-feet. This assumed annual irrigation volume is based on the annual quantity allocated under a separate water right (Number 87-7083) of 39 acre-feet for the irrigation of 13 acres. This water right is not included in Table 6-1 since this right is strictly used for irrigation of a park and is not owned or operated by the City. The calculations for the annual quantities for those municipal water rights without an

allocated annual quantity were based on pumping the authorized instantaneous quantities for 24 hours per day for 365 days per year.

In 2016 the City requested a water right transfer to "integrate" all of the municipal rights depicted in Table 6-1, which would authorize the use of each of its wells as an alternate point of diversion for each municipal right. IDWR authorized this transfer in 2019, pursuant to the provisions of Idaho Code Section 42-222. This water right integration applies to the four municipal right shown in Table 6-1, regarding a combined total withdrawal rate of 17.24 cfs.

This water right integration provides greater flexibility to the City in operation of its water system, allowing for certain wells to be used more when other wells are shut down for routine maintenance or because of an emergency failure. This is important in bolstering the reliability of a system like Moscow's wherein water from all sources can be physically conveyed to all points throughout the system.

6.1.2. Comparison of Water Rights to Demand Forecast

An analysis of the City's existing municipal water rights compared against existing and forecast water demands is summarized in Table 6-2. The Average Day Demand (ADD) and Maximum Day Demand (MDD) forecasts from Chapter 4 are used in this analysis to define annual and instantaneous water demands, respectively. According to the forecast, the City's existing water rights (both Qa and Qi) are sufficient to meet projected demands through the 50-year planning horizon.

Table 6-2 Comparison of Existing Water Rights and Projected Demands

	2023	2035	2045	2075
Annual Quantity Analysis (in mgd)				
Qa	5.84	5.84	5.84	5.84
ADD	2.16	2.48	2.77	3.64
Surplus	3.68	3.36	3.07	2.20
Instantaneous Quantity Analysis (in mgd)				
Qi	11.14	11.14	11.14	11.14
ADD	4.69	5.23	5.84	7.67
Surplus	6.45	5.91	5.30	3.47

6.2. Interties

The City has ten interties with the University of Idaho (UI). These interties are not considered as a source of supply, as they are currently only utilized under emergency conditions. Section 2.2.2 provides more information on the City's interties.

6.3. Future Supply Options

As noted in Section 7.1.2, the City's existing well supplies are capable of meeting system needs through the 50-year planning horizon, even with the largest source offline. However, the City recognizes the importance of planning beyond the time horizon envisioned in this Comprehensive Water System Plan, so as to bolster the reliability of the system into the future.

As noted in Section 2, the City relies on the Palouse Groundwater Basin for its drinking water. The aquifer system also serves surrounding communities, including Pullman, UI, and Washington State University (WSU). Since the late 1800s, when the aquifers were first developed, groundwater levels have steadily declined. To address this ongoing issue, the Palouse Basin Aquifer Committee (PBAC) was formed. PBAC is a regional partnership made up of representatives from major water users (Moscow, Pullman, UI, and WSU) as well as officials from Latah and Whitman counties and the states of Idaho and Washington. Together, they are working to secure a long-term, sustainable water future for the region.

As part of that effort, PBAC has evaluated a range of potential alternative water supplies that could aid in meeting future water supply needs of the region and support sustainable management of the Palouse Basin groundwater supply. Such additional supplies that have been considered include expanded/enhanced conservation, water reclamation, aquifer storage and recovery, surface water storage, and regional surface water supplies.

As of 2025, PBAC's current focus is upon exploratory work to consider a potential project that would bring water from the Clearwater River to the Palouse as a supplemental supply. Water rights, permitting, and construction feasibility are being evaluated in an effort that is planned to conclude in 2026.

While an alternative supply will be necessary to ultimately meet the long-term needs of the region, water conservation remains essential to sustaining our community's water needs now and into the future.

7. System Analysis

This chapter provides an evaluation of the water system's ability to meet current and projected water supply needs. Source and storage capacity analyses are presented, followed by an evaluation of the distribution system piping network and an assessment of water quality and related treatment needs. Required system improvements are also described throughout the chapter.

7.1. Source Capacity Analysis

7.1.1. Design Criteria

According to DEQ planning requirements (IDAPA 58.01.08, Subsection 501.17), under normal operating conditions, with any source out of service, the remaining source or sources shall be capable of providing either the peak hour demand of the system or maximum day demand (MDD) plus equalization storage for the demand year.

The source capacity analysis presented below examines the ability of the City's existing sources of supply to meet this requirement. The analysis is conducted by comparing the City's water demand forecast, presented in Chapter 4, with current source capacities. Because the City has distribution storage that provides equalizing storage capacity to aid in meeting peak hour needs, the source capacity analysis compares supply capacities against MDD.

7.1.2. Source Capacity Evaluation

Table 7-1 summarizes the comparison of the City's total available source capacity, based on current operating conditions during summer months, with current and future system-wide maximum day demands. The analysis shows that there is sufficient capacity to meet maximum day demands through 2075 with the largest well (Well 10) offline.

As discussed in Chapter 6, the City has explored alternative sources of supply that may factor into the City's long-term water supply portfolio, in order to meet continued growth but also to enhance reliability and lessen the reliance upon area groundwater. The City will continue exploring development of such supplies, with the timing of implementation dependent in part upon the future productivity of existing groundwater supplies and the actual pace of demand growth.

Table 7-1 Evaluation of System-wide Source Adequacy

	2023	2035	2045	2075	Max [d]
Projected ERUs and Demand [a]					
Equivalent dwelling units (ERUs)	11,803	13,727	15,330	20,138	21,140
Average day demand (gpm)	1,484	1,725	1,927	2,531	2,657
Maximum day demand (gpm)	3,257	3,629	4,053	5,324	5,580
Peak hour demand (gpm) [b]	5,062	5,875	6,552	8,582	9,005
Available well sources (gpm) [c]					
Well 2	650	650	650	650	650
Well 3	930	930	930	930	930
Well 6	900	900	900	900	900
Well 8	900	900	900	900	900
Well 9	2,200	2,200	2,200	2,200	2,200
Well 10	3,200	3,200	3,200	3,200	3,200
Total sources	8,780	8,780	8,780	8,780	8,780
Total sources, largest offline [e]	5,580	5,580	5,580	5,580	5,580
Well source surplus/(deficiency) [f]	**2,323**	**1,951**	**1,527**	**256**	**0**

[a] From demand forecast (see Section 4.3.2). ERUs calculated as Average Day Demand / ERU water use factor (181 gpd/ERU).

[b] Peak hourly demand (PHD) estimated based on: PHD = (Maximum Day Demand per ERU / 1440) × [(C) × (N) + F] + 18 (C & F values obtained from Table 3-1 in Washington State DOH June 2020 WSDM).

[c] Source pumps are operating at the maximum production rate (i.e., for 24 hours per day).

[d] Maximum ERUs to be served with current sources, based on maximum production rate (i.e., 24 hours per day). Max ERUs = Total Available Source / Maximum Day Demand per ERU (380 gpd/ERU).

[e] Assumes largest source (i.e., Well 10) is out of service.

[f] Comparison of total sources with largest source offline to maximum day demand.

7.2. Storage Capacity Analysis

7.2.1. Design Criteria

According to DEQ requirements, water system storage volume is comprised of five separate components:

- Operational Storage
- Equalization Storage
- Fire Suppression Storage
- Standby Storage
- Dead Storage

These required volume components are illustrated in Figure 7-1. All storage components are described in more detail below.

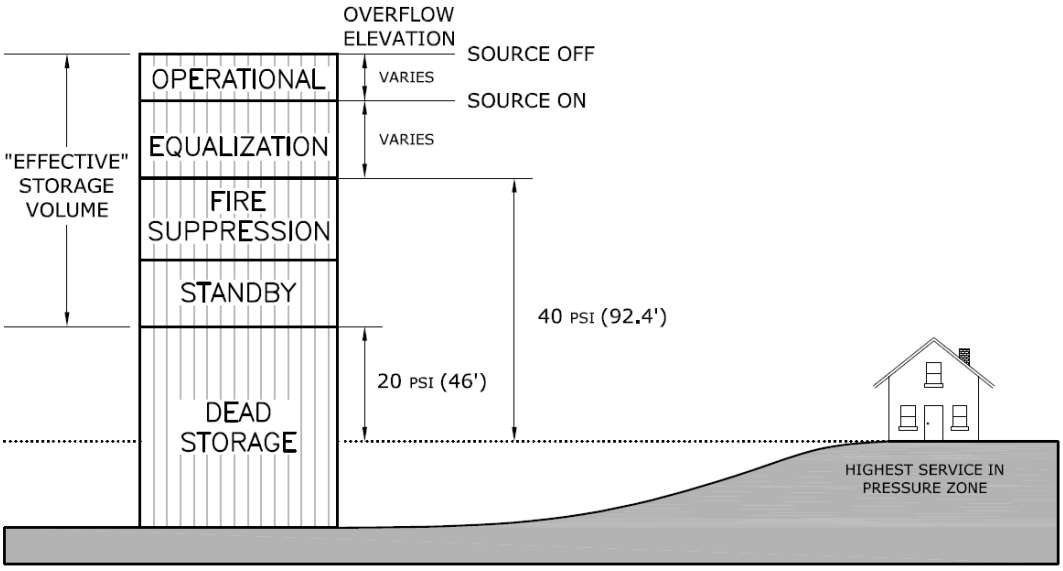


Figure 7-1. Storage Components

Operational Storage

Operational storage supplies water when, under normal conditions, the sources are off. This component is the larger of: a) the volume required to prevent excess pump cycling and ensure that the following volume components are full and ready for use when needed; or, b) the volume needed to compensate for the sensitivity of the water level sensors.

Equalization Storage

Equalization storage is the total volume needed to moderate daily fluctuations in diurnal demands during periods when the demand exceeds the capacity of the supply system. Equalization storage requirements are greatest on the day of peak demand. Operation of a properly balanced system results in replenishment of storage facilities during times of day when the demand curve is below the capacity of the supply system, and depletion of storage facilities when the demand exceeds the supply capacity. The equalization volume of a storage tank must be located at an elevation that provides a minimum pressure of 40 pounds per square inch (psi) to all customers served by the tank.

The DEQ Guidance for Determining Equalizing Water Storage for Public Water Systems was used for determining equalization storage. The guidance includes an equation for equalization storage that was used as it is a conservative approach assuming a period of 150 minutes for the peak hour demand. The equation is as follows:

[PHD - Total Available Source] x 150 minutes

To be more conservative in the calculation of equalizing storage, the total available source capacity assumed the largest source is offline.

Fire Suppression Storage

The required fire flow volume for a given pressure zone is calculated as the required fire flow multiplied by the required duration, as established by the local fire authority. More detail on such

requirements within the City is provided below in Section 7.3. The maximum fire suppression storage volume considered in this analysis is 2.61 million gallons, which is based on a fire flow requirement of 7,250 gpm for 4 hours, followed by a reduced flow rate of 3,625 gpm for another 4 hours. The fire flow volume of a storage tank must be located at an elevation that provides a minimum pressure of 20 psi to all customers served by the tank.

Standby Volume

Standby storage provides a measure of reliability or factor of safety should sources fail or when unusual conditions impose higher than anticipated demands. Water systems are required to have sufficient dedicated on-site standby power, with automatic switch-over capability, and/or storage so that water may be treated and supplied to pressurize the entire distribution system during power outages. During a power outage, the water system shall be able to meet the operating pressure requirements of 20 psi for a minimum of eight hours at average day demand plus fire flow where provided.

Dead Storage

That component of storage that is either not available for use in the system or that can provide only substandard flows and pressures.

7.2.2. Storage Capacity Evaluation

The storage capacity evaluation is based upon two primary calculations:

1. Comparison of available versus required storage located at an elevation that provides at least 40 psi to the highest customer in the zone. This evaluates the ability of existing storage facilities to provide required operational and equalization storage volumes under current and future conditions.
2. Comparison of available versus required storage located at an elevation that provides at least 20 psi to the highest customer in the zone. This evaluates the ability of existing storage facilities to provide required operational, equalization, standby, and fire suppression storage volumes under current and future conditions.

There are six “island” pressure zones in the City served by booster pump stations and that have no independent storage. The storage capacity evaluation considers the entire system together, as all storage is present within the City’s single main pressure zone. As such, fire suppression and standby storage volume requirements associated with the “island” pressure zones have been incorporated, even though these volumes are only available to those zones via the booster pump stations. The two calculations mentioned above were performed for the entire system.

Table 7-2 provides a summary of the storage capacity analysis for the water system. Under these conditions, it is estimated that there is currently a 0.20 million gallon surplus reducing to a 0.04 million gallon surplus in 2035. By the end of the 20-year planning horizon (2045) there is forecasted to be a 0.15 million gallon deficiency which increases to a 0.75 million gallon deficiency in 2075.

Table 7-2 Evaluation of Storage Capacity

	2023	2035	2045	2075	Max [j]
Projected ERUs and Demand [a]					
Equivalent dwelling units (ERUs)	11,803	13,727	15,330	20,138	14,087
Average day demand (gpm)	1,484	1,725	1,927	2,531	1,771
Maximum day demand (gpm)	3,257	3,629	4,053	5,324	3,718
Peak hour demand (gpm)	5,062	5,875	6,552	8,582	6,027
Available well sources (gpm) [b]					
Well 2	650	650	650	650	650
Well 3	930	930	930	930	930
Well 6	900	900	900	900	900
Well 8	900	900	900	900	900
Well 9	2,200	2,200	2,200	2,200	2,200
Well 10	3,200	3,200	3,200	3,200	3,200
Total sources	8,780	8,780	8,780	8,780	8,780
Total sources (largest offline)	5,580	5,580	5,580	5,580	5,580
Required storage components (gal)					
Operational storage [c]	696,244	696,244	696,244	696,244	696,244
Equalizing storage [d]	0	44,223	145,781	450,336	67,014
Standby storage [e]	712,100	828,205	924,926	1,214,979	849,910
Fire suppression storage [f]	2,610,000	2,610,000	2,610,000	2,610,000	2,610,000
Required storage (gal)					
Available at 40 psi to highest meter [g]	696,244	740,467	842,025	1,146,580	763,258
Available at 20 psi at highest meter [h]	4,018,343	4,178,672	4,376,952	4,971,559	4,223,168
Available storage at 40 psi (gal) [i]					
Northeast	166,528	166,528	166,528	166,528	166,528
Southeast [k]	1,842,835	1,842,835	1,842,835	1,842,835	1,842,835
Vista	741,482	741,482	741,482	741,482	741,482
Total available storage at 40 psi	2,750,844	2,750,844	2,750,844	2,750,844	2,750,844
Available storage at 20 psi (gal)					
Northeast	429,184	429,184	429,184	429,184	429,184
Southeast [k]	1,842,835	1,842,835	1,842,835	1,842,835	1,842,835
Vista	1,951,149	1,951,149	1,951,149	1,951,149	1,951,149
Total available storage at 20 psi	4,223,168	4,223,168	4,223,168	4,223,168	4,223,168
Storage surplus/(deficiency) at 40 psi	2,054,601	2,010,377	1,908,819	1,604,264	1,987,586
Storage surplus/(deficiency) at 20 psi	204,825	44,496	(153,783)	(748,391)	0

[a] Projected demands from Chapter 4. ERUs calculated as Average Day Demand / ERU water use factor (181 gpd/ERU).

[b] Available source assumes source pumps are on for 24 hours in a day, at the maximum production rate.

[c] Required Operational Storage is based on current operating levels (i.e., first source is called when Vista Reservoir level drops to 10').

[d] Required Equalizing Storage is equal to [((PHD) - Total Available Source) × 150 minutes].
PHD: (Maximum Day Demand per ERU / 1440) × [(C) × (N) + F] + 18
(C & F values obtained from Table 3-1 in Washington State DOH June 2020 WSDM)

[e] Required Standby Storage is 8 hours of Average Day Demand (per IDAPA 58.01.08, See 501.07).

[f] Required Fire Flow Storage = 7,250 gpm × 4 hours + 3,625 gpm × 4 hours

[g] Total required storage greater than 40 psi is equal to the total of operational and equalizing storage.

[h] Total required storage greater than 20 psi is equal to the total of operational, equalizing, standby, and fire flow storage.

[i] The storage volume available in existing reservoirs at 40 and 20 psi is calculated based on the elevation of the highest customer (~2680 ft). A few services (<20) on Pintail Lane, near the NW Reservoir, and near the Vista

Reservoir are located at elevations between 2680 and 2695 ft. These locations are therefore not provided 40 psi when the reservoirs are drawn down to a level assuming Operational and Equalizing Storage is depleted. Pressures observed in the hydraulic model at these locations under these conditions range from 35-40 psi in future demand scenarios. In addition, the area is fully developed, so it is assumed no new building permits will be issued in these specific localized lower pressure areas.

[j] Maximum ERUs served by Available Storage.

[k] With an overflow elevation of 2,656 ft, none of the storage volume in the SE Reservoir is available to the highest customer elevation via gravity. However, the entire storage volume is available via the SE Booster Pump Station which has emergency power.

7.3. Distribution System Analysis

7.3.1. Analysis Methodology

The City's water distribution system was analyzed and deficiencies were identified for the following two conditions: peak hour demands, and maximum day demands plus fire flow. All distribution system modeling was performed using Infowater Pro.

7.3.2. System Components

The Infowater software allows all pipes and junction nodes in the City's distribution system to be entered into one complete model, which consists of approximately 2,600 pipes and 2,000 junction nodes, along with pressure relief valve stations, reservoirs, and pump stations.

Prior to development of this Comprehensive Water System Plan, the City has actively maintained and frequently updated the hydraulic model on an ongoing basis. This has included performing hydrant testing to further calibrate and validate the hydraulic model.

As part of this plan update, piping infrastructure was updated to match the latest GIS mapping of the system, a new water demand allocation was done for existing and forecasted demands, updated fire flow goals were entered for model junctions, and the City's current operating rules for wells and pump stations for summer and winter modes of operating were entered into the model.

7.3.3. Water Demand Allocation

Chapter 4 presents information on the City's water demands for the existing system and provides an estimate of projected water demands for the ten-year (2035) and twenty-year (2045) planning horizons. For the hydraulic model, the demand forecast numbers were used to determine the total demand for customers within the City's service area.

Demand allocation (i.e., spatial distribution of demand within the system) was performed by merging water billing data with water meter GIS mapping. Non-revenue demands were then equally distributed throughout the distribution system.

A peaking factor was developed in the demand forecast from historical billing records and was applied to derive the maximum day demand (MDD). As enough data were not available to determine the peak hour demand (PHD), a formula developed by the Washington State Department of Health was used to determine peak hour demand. The formula is as follows:

Peak Hour Demand = (Maximum Day Demand per ERU / 1440) × [(C) × (ERU) + F] + 18

(C & F values obtained from Table 5-1 in Washington State DOH June 2020 WSDM)

7.3.4. Modeling Scenarios

The City has a distribution system with approximately 93 miles of transmission and distribution pipe. Aging infrastructure, inadequately sized pipes and increasing demands all contribute to areas of low pressure during peak hour demands and substandard fire flows at locations or areas where the existing system cannot provide adequate service during existing and future maximum day demand conditions. The model was used to identify improvements that would increase the distribution system capacity to meet the required level of service for static pressures and fire flows.

In accordance with IDAPA 58.01.08, a minimum pressure of 40 psi must be maintained at all customer connections while the system is to provide PHD conditions with equalizing storage depleted in the reservoirs. A minimum of 20 psi must be maintained for fire flows under MDD conditions with equalizing and fire flow storage depleted. If these criteria could not be met, improvements were identified and through an iterative trial-and-error process, implemented until pressure criteria could be satisfied with a minimum of total pipe and facility additions.

A number of steady state hydraulic analyses were completed for the water system for existing (2023), ten-year (2035), and twenty-year (2045), and fifty-year (2075) demand conditions. These considered PHD and fire flow demand (MDD plus fire flow) conditions.

7.3.5. Peak Hour Analysis Results

In PHD analyses, initial tank levels for all reservoirs and tanks were set at a level such that the equalizing and operating portions of storage were depleted. Assuming the existing distribution system, system pressures were calculated given 2023, 2035, 2045, and 2075 allocated demands to determine if existing pressure deficiencies and whether new pressure deficiencies develop over time due to increased demand. The pressure results for these years are shown in Figure 7-2, Figure 7-3, Figure 7-4, and Figure 7-5, respectively.

For the City of Moscow, under peak hour conditions, the results indicate a few small pockets of low pressure, and a large area of high pressure in the western portion of the system. There are five low pressure areas, three of which are a result of the elevations of highest connection locations, while the other two are in areas around the SE and Vista Reservoirs. For the low pressure areas with services, there are approximately 30 services affected.

Table 7-3 provides detail on the areas of low pressure. Particular areas are assigned a label. For locations “A” and “B,” there are no affected services, but services are present at locations “C” and “D”. Location “E” is within the distribution system but there are currently no services at the low pressure location. Currently, there are no planned improvements to address these deficiencies, as these conditions have existed for some time and there are no plans for new development in these specific areas.

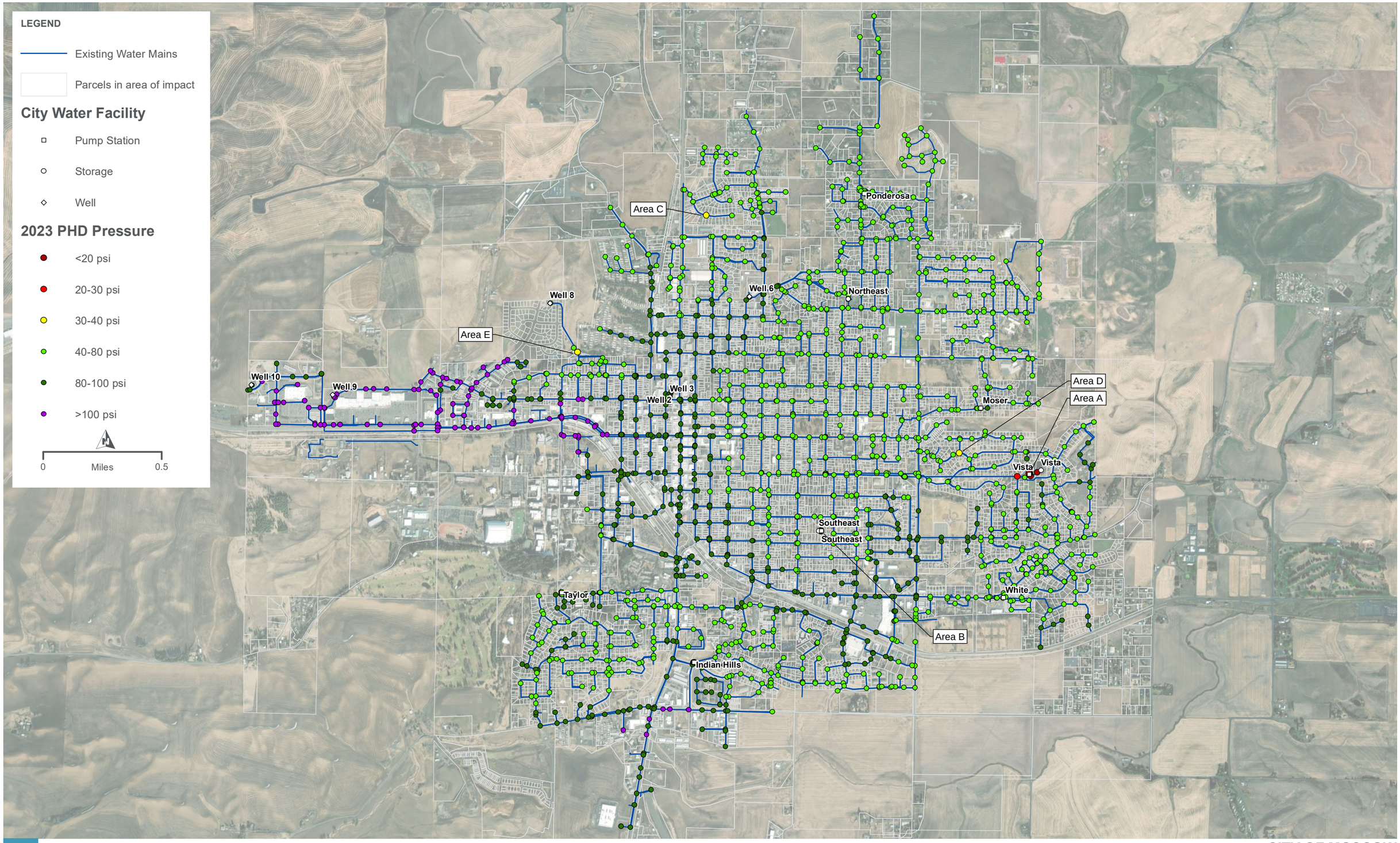
The area of high pressure in the western portion of the City affects a large area of the system, with some locations experiencing pressures over 110 psi. The high pressure in this area is caused primarily by the low elevation of this portion of the system. The area has also previously seen spikes in pressure exacerbated when Wells 9 and 10 pumped against a closed altitude valve in the NE Reservoir (i.e., when the reservoir is full and Vista Reservoir is still filling). However, the City is in the process of increasing west-east distribution system capacity to address this high

pressure issue by providing a larger and more direct route for water to be transmitted from the westerly wells to the Vista Reservoir helping to mitigate the pressure spikes.

Table 7-3 Peak Hour Demand Analysis Results - Areas of Low Pressure (Near or Less Than 40 psi)

Area ID	Description	Notes
A	Area near Vista Reservoir consisting of transmission piping. Pressures less than 20 psi but greater than 10 psi.	No services currently in this location. No additional planned services. No improvements necessary.
B	Area near SE Reservoir consisting of transmission piping. Pressures less than 20 psi but greater than 10 psi.	No services currently in this location. No additional planned services. No improvements necessary.
C	High elevation area in Main Zone along Pintail Lane. Pressure of approximately 38 psi during 2023 demands decreasing to approximately 35 psi for 2075 demands.	Fourteen services are affected at this location. No improvements planned.
D	High elevation area in Main Zone along Summit St and Rolling Hills Dr. Pressure of approximately 39 psi during forecast period.	Sixteen services are affected at this location. No improvements planned.
E	High elevation area on Sunset drive. Pressure of approximately 39 psi during 2023 demands decreasing to approximately 38 psi for 2075 demands.	No services currently in this location. No additional planned services. No improvements necessary.

At the eastern portion of Castleford Street, approximately 300 feet south of the future intersection of Castleford Street and Kismet, there is a high point in existing grading with an elevation of approximately 2,700 feet that would have a pressure during peak hour demand of approximately 33 psi if grading is not changed. Additionally, this high point limits available fire flow to many locations in this portion of the system by reaching the 20 psi threshold prior to fire flow goals being achieved. However, the nearby developed area is at an elevation approximately 20 feet lower. The analysis assumes that when the subject portion of the development is completed, the localized high point will be regraded to an elevation of approximately 2,680 feet. This results in a pressure during peak hour demand of approximately 41 psi.



HDR

CITY OF MOSCOW

2023 PEAK HOUR DEMAND PRESSURE

FIGURE 7-2

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783511\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-2 2023 PHD.MXD - USER: DKUHNS - DATE: 10/15/2025

COMPREHENSIVE WATER SYSTEM PLAN UPDATE

LEGEND

Existing water mains

Parcels in area of impact

City Water Facility

Pump Station

Storage

Well

2035 PHD Pressure

<20 psi

20-30 psi

30-40 psi

40-80 psi

80-100 psi

>100 psi

0 Miles 0.5

Area C

Ponderosa

Well 8

Well 6

Northeast

Area E

Well 10

Well 9

Well 3

Well 2

Moser

Area D

Area A

Vista

Vista

Southeast

Southeast

White

Taylor

Area B

Indian Hills

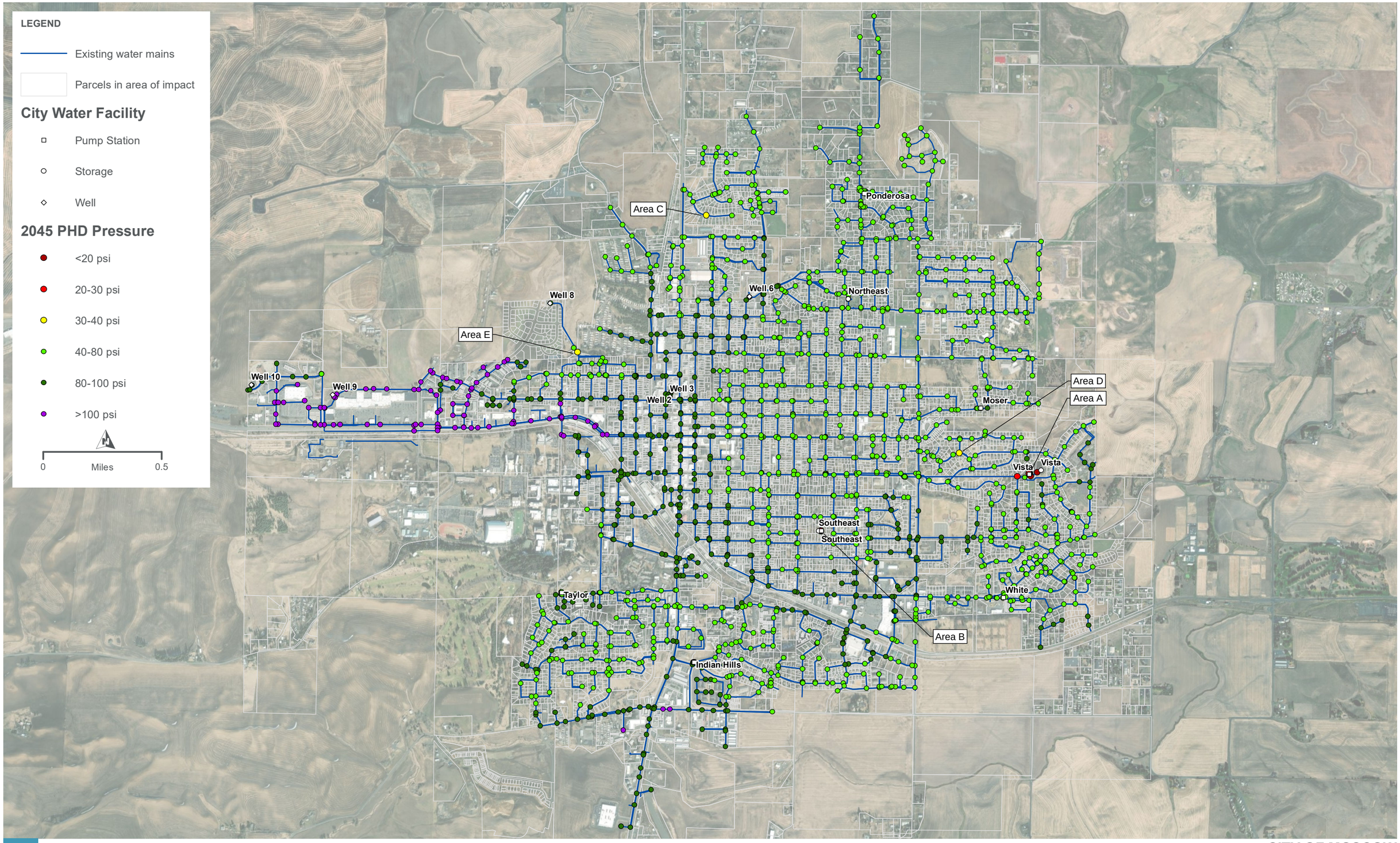
CITY OF MOSCOW

2035 PEAK HOUR DEMAND PRESSURE

FIGURE 7-3

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783511\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-3 2035 PHD.MXD - USER: DKUHNS - DATE: 10/15/2025

COMPREHENSIVE WATER SYSTEM PLAN UPDATE



HDR

CITY OF MOSCOW

2045 PEAK HOUR DEMAND PRESSURE

FIGURE 7-4

LEGEND

Existing water mains

Parcels in area of impact

City Water Facility

Pump Station

Storage

Well

2075 PHD Pressure

<20 psi

20-30 psi

30-40 psi

40-80 psi

80-100 psi

>100 psi

0 Miles 0.5

Area C

Ponderosa

Well 8

Well 6

Northeast

Area E

Well 10

Well 9

Well 3

Well 2

Moser

Area D

Area A

Vista

Vista

Southeast

Southeast

White

Taylor

Area B

Indian Hills

CITY OF MOSCOW

2075 PEAK HOUR DEMAND PRESSURE

FIGURE 7-5

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783511\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-5 2075 PHD.MXD - USER: DKUHNS - DATE: 10/15/2025

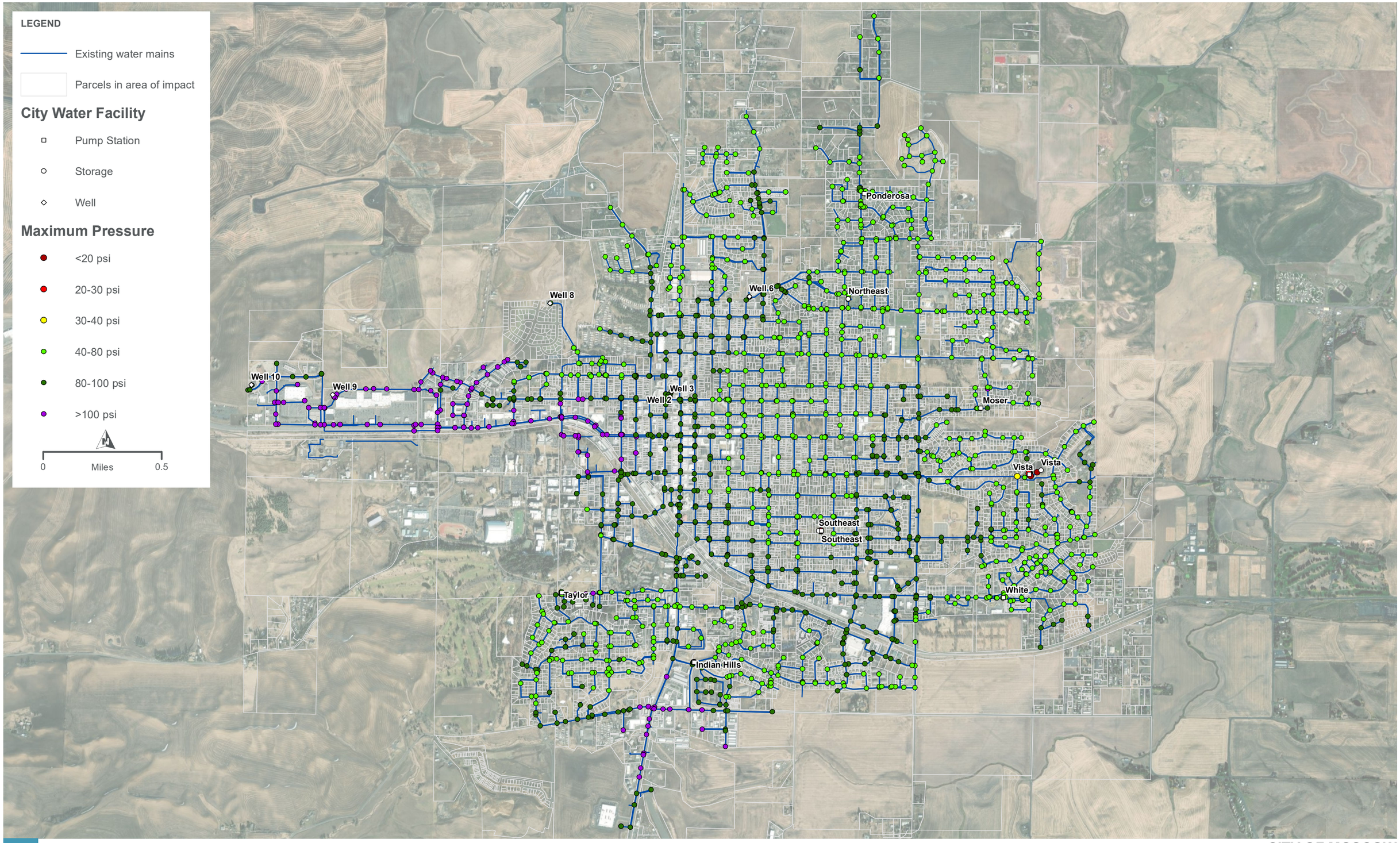
COMPREHENSIVE WATER SYSTEM PLAN UPDATE

7.3.6. Maximum Pressure Analysis

An analysis was completed to determine the maximum pressures that may be observed throughout the distribution system. This was determined by identifying the highest pressure observed at each model junction under multiple demand and operational conditions: 1) with static demands and storage at the highest fill elevations; 2) low and high demand extended period simulation (EPS) scenarios; and, 3) the steady-state PHD scenario. The maximum pressures are shown on Figure 7-6.

Changes to IDAPA 58.01.08 552 in July 2024 required newly constructed water systems and portions of existing systems that are materially modified after July 1, 2024 to keep static pressures within the distribution system below 80 psi through the use of pressure reducing valves (PRVs) installed on the distribution mains and not through the use of pressure reducing devices on individual service connections, except as approved by DEQ on a case-by-case basis where it can be demonstrated that higher pressures in portions of the distribution system are required for efficient system operation. However, a memorandum from DEQ on July 28, 2025 waived this requirement with a final rule proposal expected in 2026. This places responsibility on the utility to determine the appropriate maximum static pressure for the distribution system.

As shown on Figure 7-6, much of the system exceeds the 80-psi limit and cannot be reduced without operating the system's storage facilities at a much lower elevation (and thereby causing storage deficiencies) and significantly changing where pressure zone boundaries are defined. As the system expands beyond from the current high pressure (greater than 80-psi) areas, the use of PRVs would be needed to keep pressures under an 80-psi threshold. Additional discussion of future areas that could have pressures reduced through the use of PRVs is provided in Section 7.3.9. However, at this time, the City does not plan to design around the 80-psi threshold and does not plan to utilize PRV stations for new or future services provided off the Main Pressure Zone.



CITY OF MOSCOW

MAXIMUM PRESSURE

FIGURE 7-6

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783511\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-6 MAXIMUM PRESSURE.MXD - USER: DKUHNS - DATE: 10/15/2025

COMPREHENSIVE WATER SYSTEM PLAN UPDATE

7.3.7. Fire Flow Analysis Results

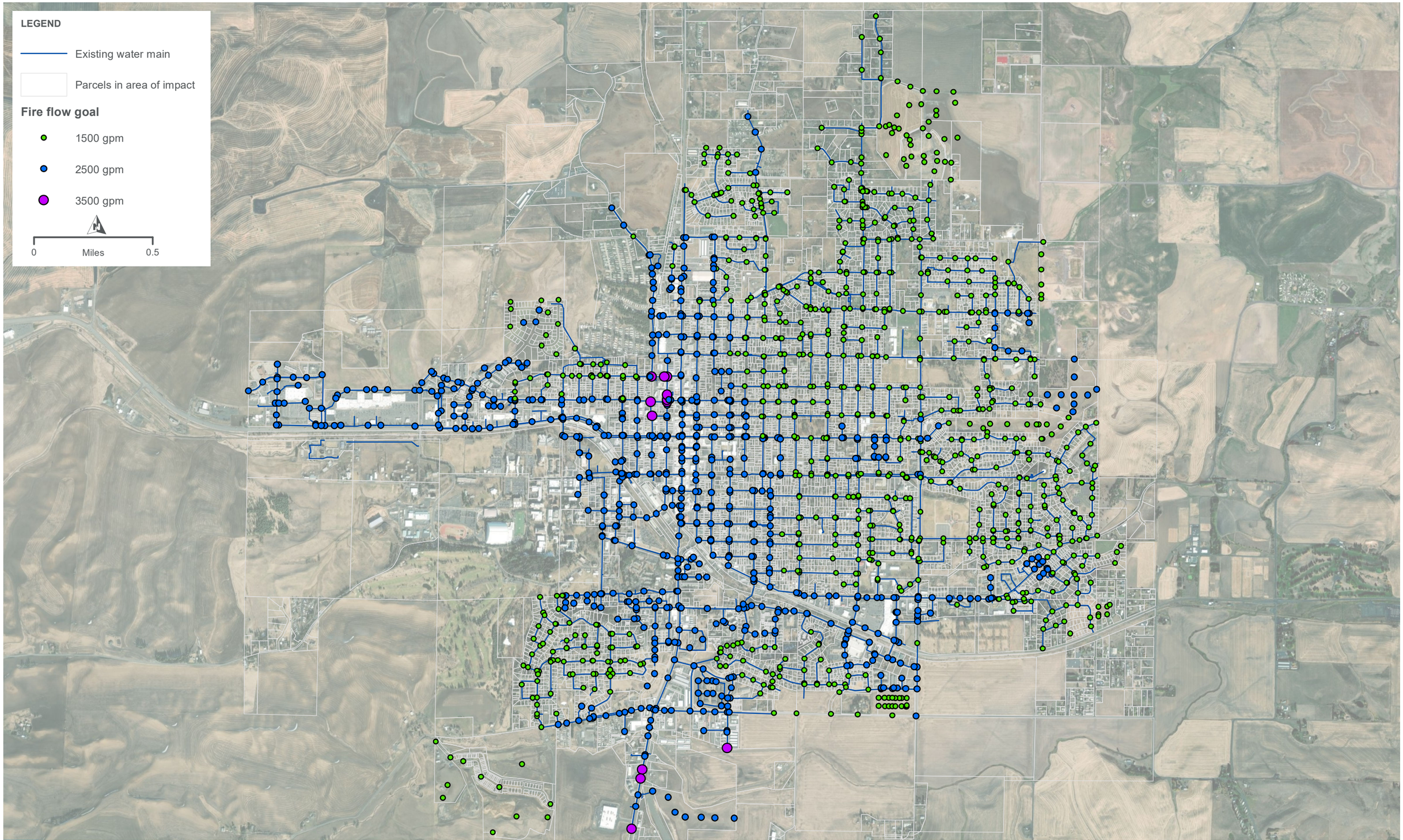
Fire flow analyses were conducted for the entire City of Moscow water system. The City has established fire flow goals based on land use that are summarized in Appendix 7-1. The City's fire flow goals are divided into more conservative, building-specific fire flow requirements; and then more general fire flow requirements for the purposes of hydraulic modeling and water system planning. The more conservative higher fire flows are used for the storage capacity analysis (Section 7.2) while the hydraulic modeling fire flow goals are used for the modeling fire flow analysis. The fire flow goals for hydraulic modeling were assigned based on zoning according to the following categories, as established by the Fire Department: 1,500 gpm for low and medium density residential; 2,500 gpm for high density residential and commercial; and, 3,500 gpm for industrial. The fire flow goals used throughout the system are shown on Figure 7-7.

The available fire flow is the flow that can be delivered during MDD with fire suppression storage depleted while keeping all points in the distribution system above a 20 psi minimum pressure threshold. Deficiencies are identified when the available fire flow is below the fire flow goal. The available fire flow and percentage of fire flow goal for current, 10-year, and 20-year demands with existing pipe infrastructure are shown on Figure 7-8 through Figure 7-13.

Improvement projects are then identified to address identified deficiencies. When improvements are implemented, they are also sized such that the fire flow goal can be met without pipes exceeding a 10 ft/s maximum velocity.

Some locations with a fire flow deficiency did not have an improvement project identified if at least one of these conditions was met: 1) there are nearby model junctions with hydrants that meet the fire flow goal; 2) the location is an existing small diameter pipe with no hydrants connected to it; 3) the location is not currently used for fire flows; and/or 4) the location is a limited/isolated area of deficiency.

The results for the 10-year demand with the 10-year CIP are shown on Figure 7-14 and Figure 7-15. The results for the 20-year demand with the 20-year CIP are shown on Figure 7-16 and Figure 7-17.



CITY OF MOSCOW

FIRE FLOW GOALS

FIGURE 7-7

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783511\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-7 FIRE FLOW GOALS.MXD - USER: DKUHNS - DATE: 10/15/2025

COMPREHENSIVE WATER SYSTEM PLAN UPDATE

LEGEND

Existing water mains

Parcels in area of impact

City Water Facility

Pump Station

Storage

Well

Available Fire Flow

<500 gpm

500-1000 gpm

1000-1500 gpm

1500-2500 gpm

2500-3500 gpm

>3500 gpm

N

0 Miles 0.5

Well 10

Well 9

Well 8

Well 3

Well 2

Well 6

Northeast

Ponderosa

Moser

Vista

Vista

Southeast

Southeast

Taylor

Indian Hills

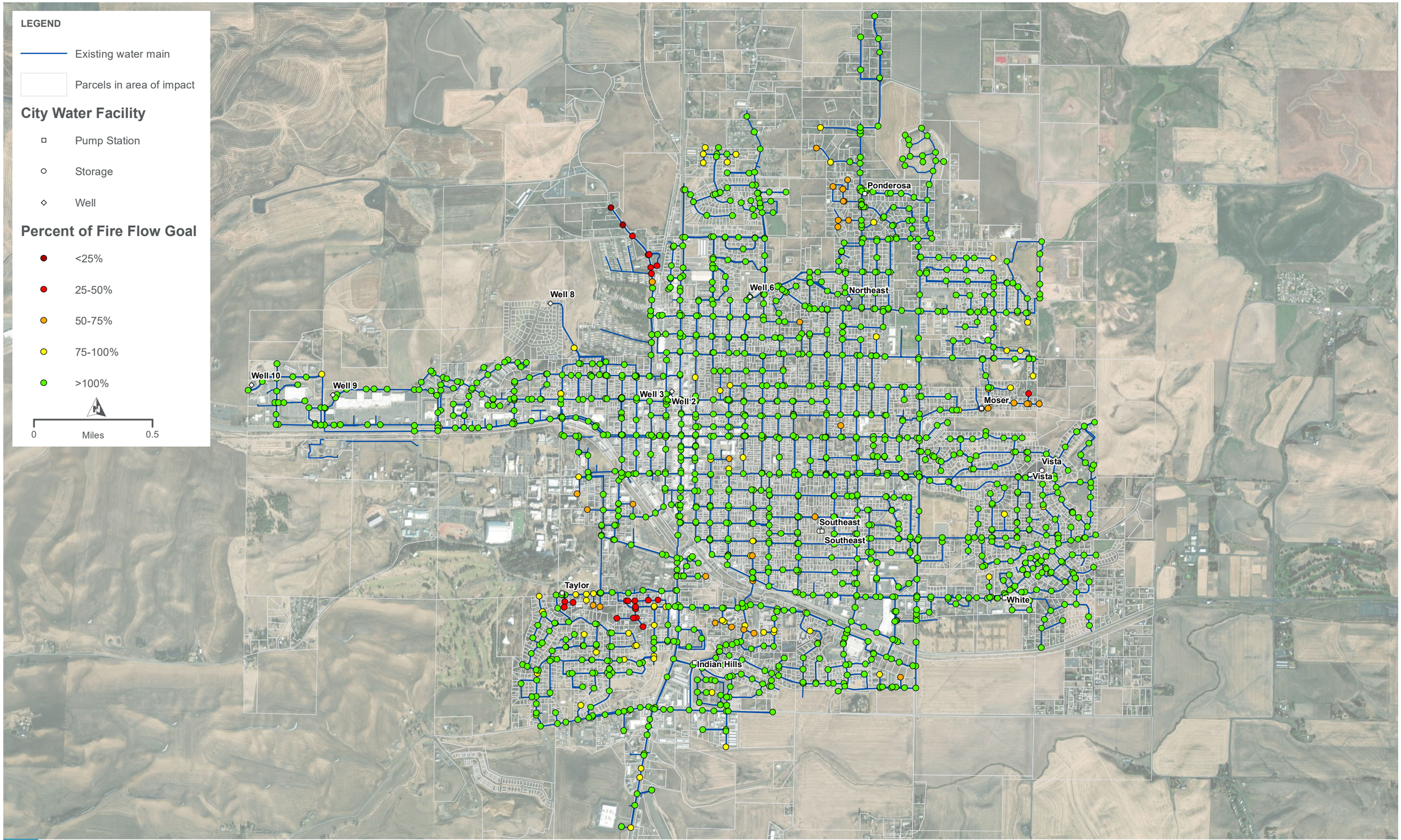
White

CITY OF MOSCOW

2023 AVAILABLE FIRE FLOW - EXISTING SYSTEM

FIGURE 7-8

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783517\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-8 2023 AVAILABLE FF - EXISTING SYSTEM.MXD - USER: DKUHNS - DATE: 10/15/2025



CITY OF MOSCOW

2023 PERCENTAGE OF FIRE FLOW GOAL - EXISTING SYSTEM

FIGURE 7-9

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_1037835\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-9 2023 PERCENTAGE OF FIRE FLOW GOAL - EXISTING SYSTEM.MXD - USER: DKUHNS - DATE: 10/15/2025

COMPREHENSIVE WATER SYSTEM PLAN UPDATE

LEGEND

Existing water mains

Parcels in area of impact

City Water Facility

Pump Station

Storage

Well

Available Fire Flow

<500 gpm

500-1000 gpm

1000-1500 gpm

1500-2500 gpm

2500-3500 gpm

>3500 gpm

N

0 Miles 0.5

Well 10

Well 9

Well 8

Well 3

Well 2

Well 6

Ponderosa

Northeast

Moser

Vista

Vista

Southeast

Southeast

Taylor

White

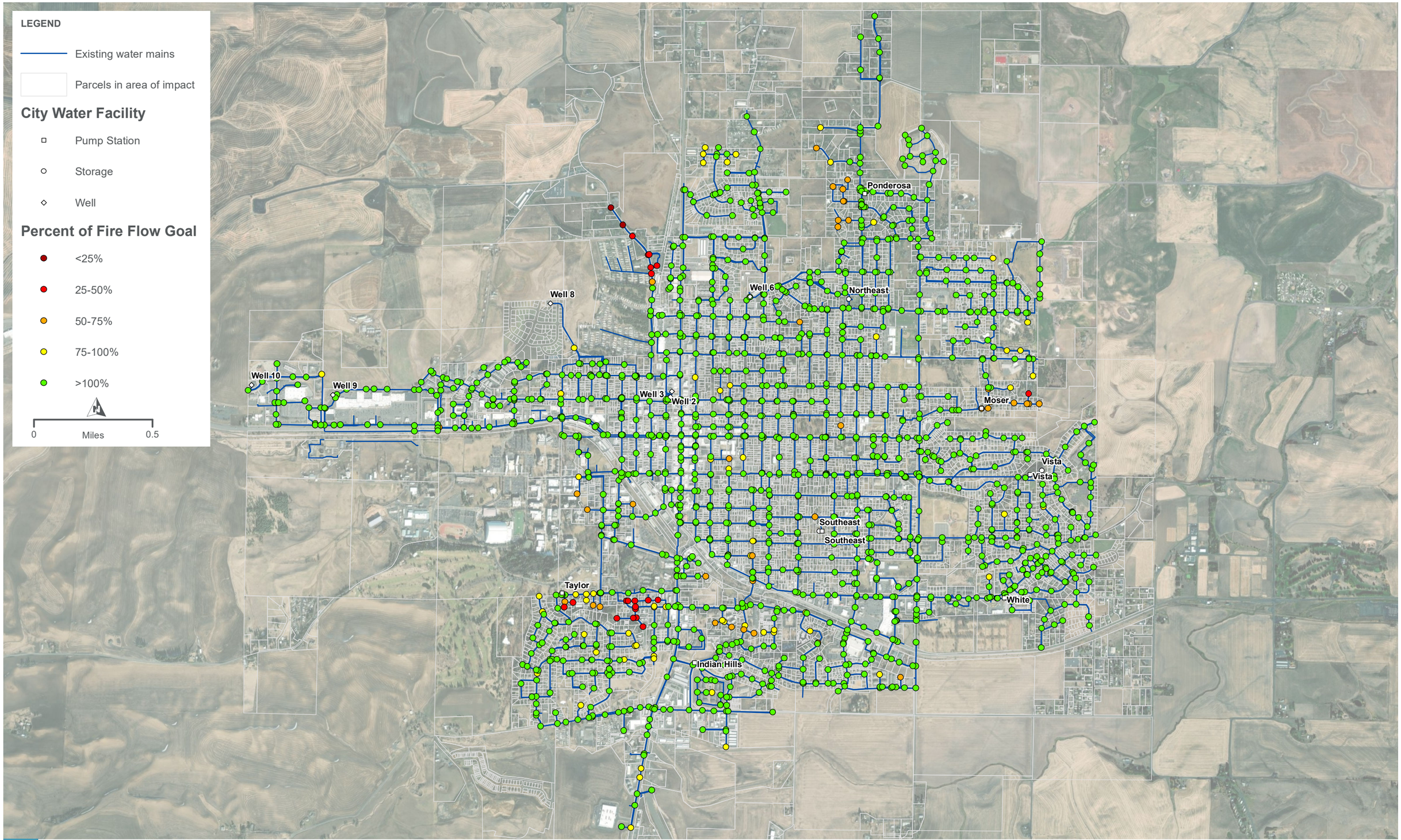
Indian Hills

HDR

CITY OF MOSCOW

2035 AVAILABLE FIRE FLOW - EXISTING SYSTEM

FIGURE 7-10



CITY OF MOSCOW

2035 PERCENTAGE OF FIRE FLOW GOAL - EXISTING SYSTEM

FIGURE 7-11

LEGEND

Existing water mains

Parcels in area of impact

City Water Facility

Pump Station

Storage

Well

Available Fire Flow

<500 gpm

500-1000 gpm

1000-1500 gpm

1500-2500 gpm

2500-3500 gpm

>3500 gpm

N

0 Miles 0.5

Well 10

Well 9

Well 8

Well 3

Well 2

Well 6

Northeast

Ponderosa

Moser

Vista

Vista

Southeast

Southeast

Taylor

Indian Hills

White

CITY OF MOSCOW

2045 AVAILABLE FIRE FLOW - EXISTING SYSTEM

FIGURE 7-12

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783517\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-12 2045 AVAILABLE FF - EXISTING SYSTEM.MXD - USER: DKUHNS - DATE: 10/15/2025

LEGEND

Existing water mains

Parcels in area of impact

City Water Facility

Pump Station

Storage

Well

Percent of Fire Flow Goal

<25%

25-50%

50-75%

75-100%

>100%

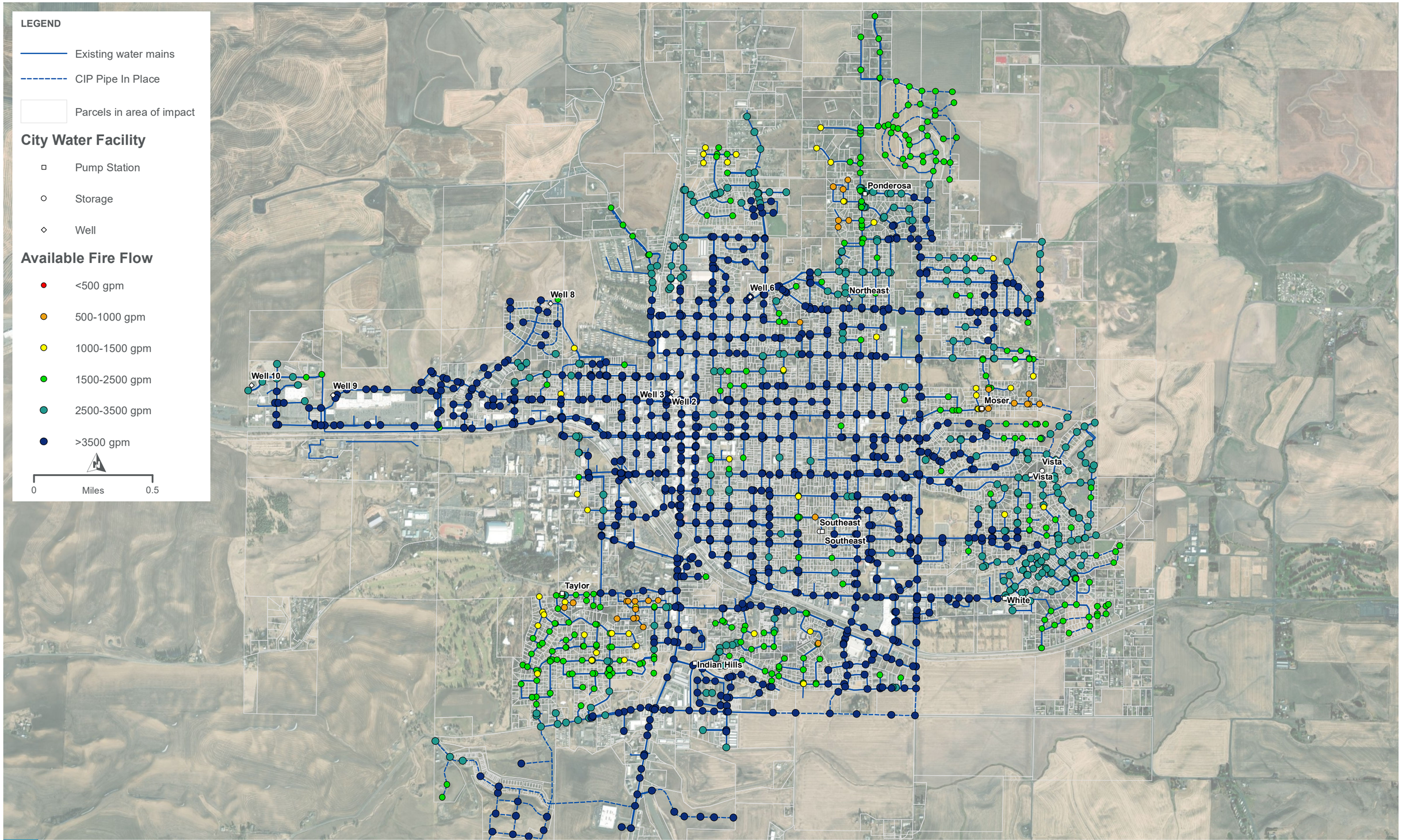
0 Miles 0.5

Well 10
Well 9
Well 8
Well 3
Well 2
Well 6
Northeast
Ponderosa
Moser
Vista
Vista
Vista
Southeast
Southeast
Taylor
Indian Hills
White

CITY OF MOSCOW

2045 PERCENTAGE OF FIRE FLOW GOAL - EXISTING SYSTEM

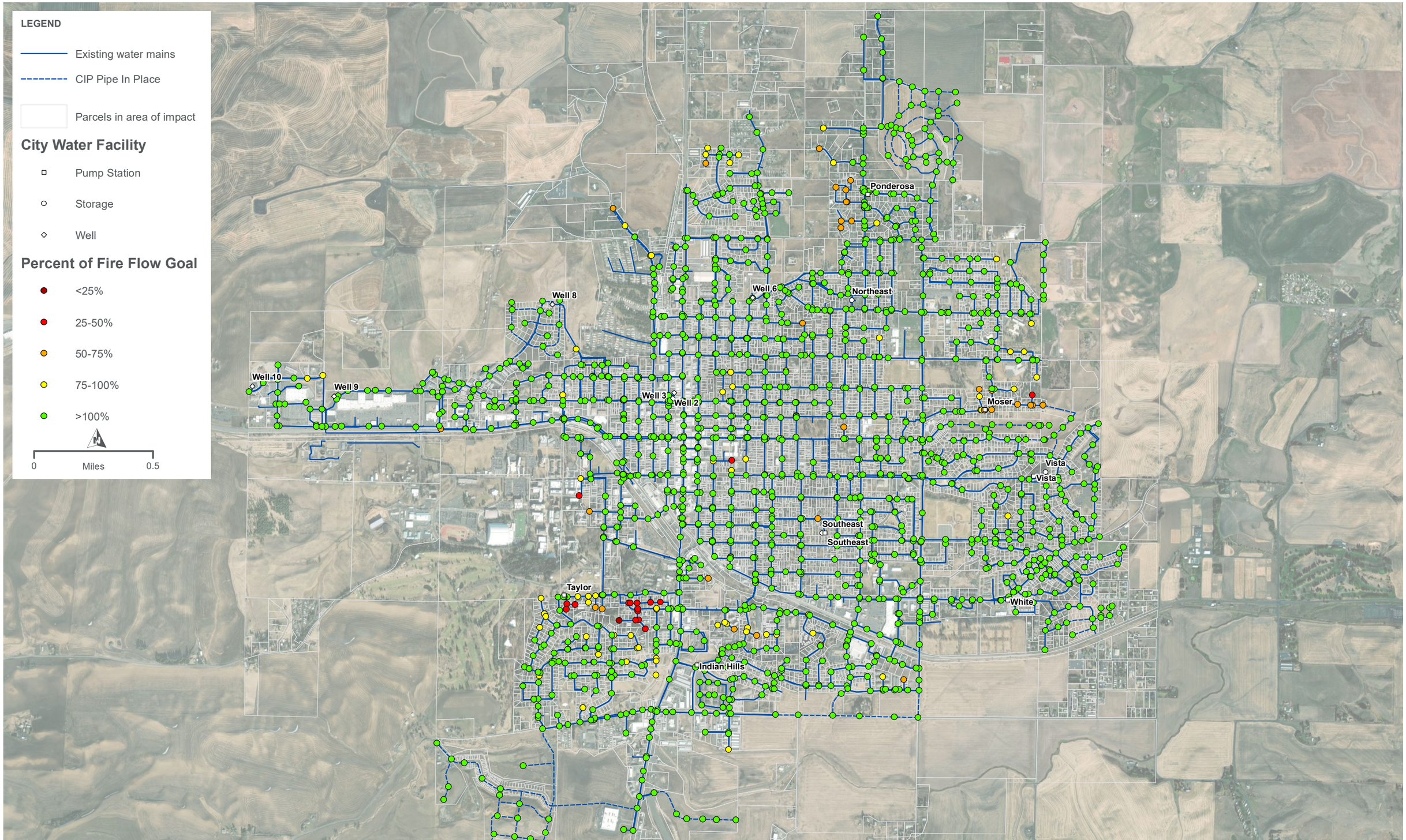
FIGURE 7-13



CITY OF MOSCOW

2035 AVAILABLE FIRE FLOW - WITH 10-YEAR CIP

FIGURE 7-14



CITY OF MOSCOW

2035 PERCENTAGE OF FIRE FLOW GOAL - WITH 10-YEAR CIP

FIGURE 7-15

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783517\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-15 2035 PERCENTAGE OF FIRE FLOW GOAL - 10-YR CIP.MXD - USER: DKUHNS - DATE: 10/15/2025

COMPREHENSIVE WATER SYSTEM PLAN UPDATE

LEGEND

Existing water mains

CIP Pipe In Place

Parcels in area of impact

City Water Facility

Pump Station

Storage

Well

Available Fire Flow

<500 gpm

500-1000 gpm

1000-1500 gpm

1500-2500 gpm

2500-3500 gpm

>3500 gpm

0 Miles 0.5

Well 10
Well 9
Well 8
Well 3
Well 2
Well 6
Northeast
Ponderosa
Moser
Vista
Vista
Southeast
Southeast
Taylor
Indian Hills
White

HDR

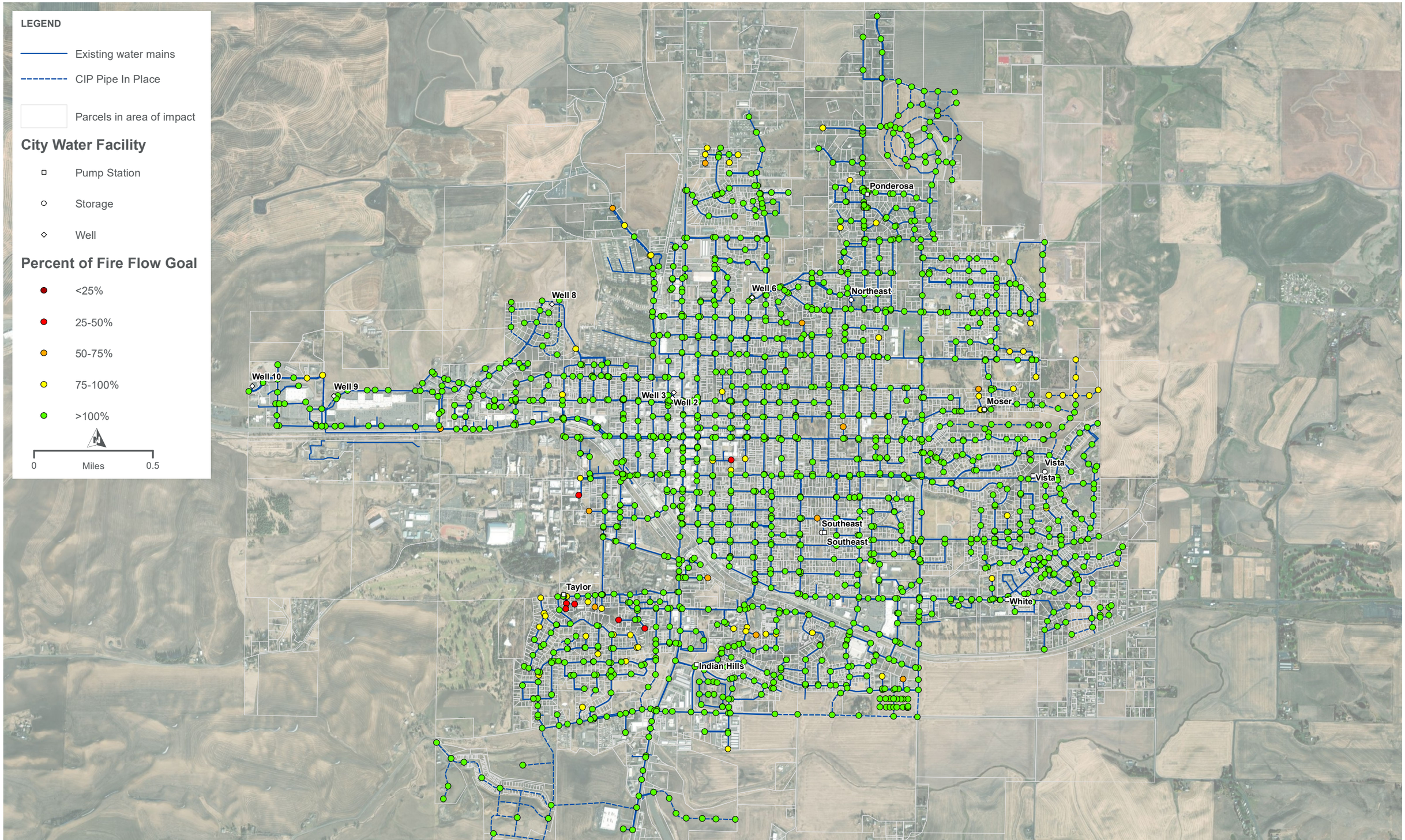
CITY OF MOSCOW

2045 AVAILABLE FIRE FLOW - WITH 20-YEAR CIP

FIGURE 7-16

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783517\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-16 2045 AVAILABLE FF - 20-YR CIP.MXD - USER: DKUHNS - DATE: 10/15/2025

COMPREHENSIVE WATER SYSTEM PLAN UPDATE



CITY OF MOSCOW

2045 PERCENTAGE OF FIRE FLOW GOAL - WITH 20-YEAR CIP

FIGURE 7-17

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783517\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-17 2045 PERCENTAGE OF FIRE FLOW GOAL - 20-YR CIP.MXD - USER: DKUHNS - DATE: 10/15/2025

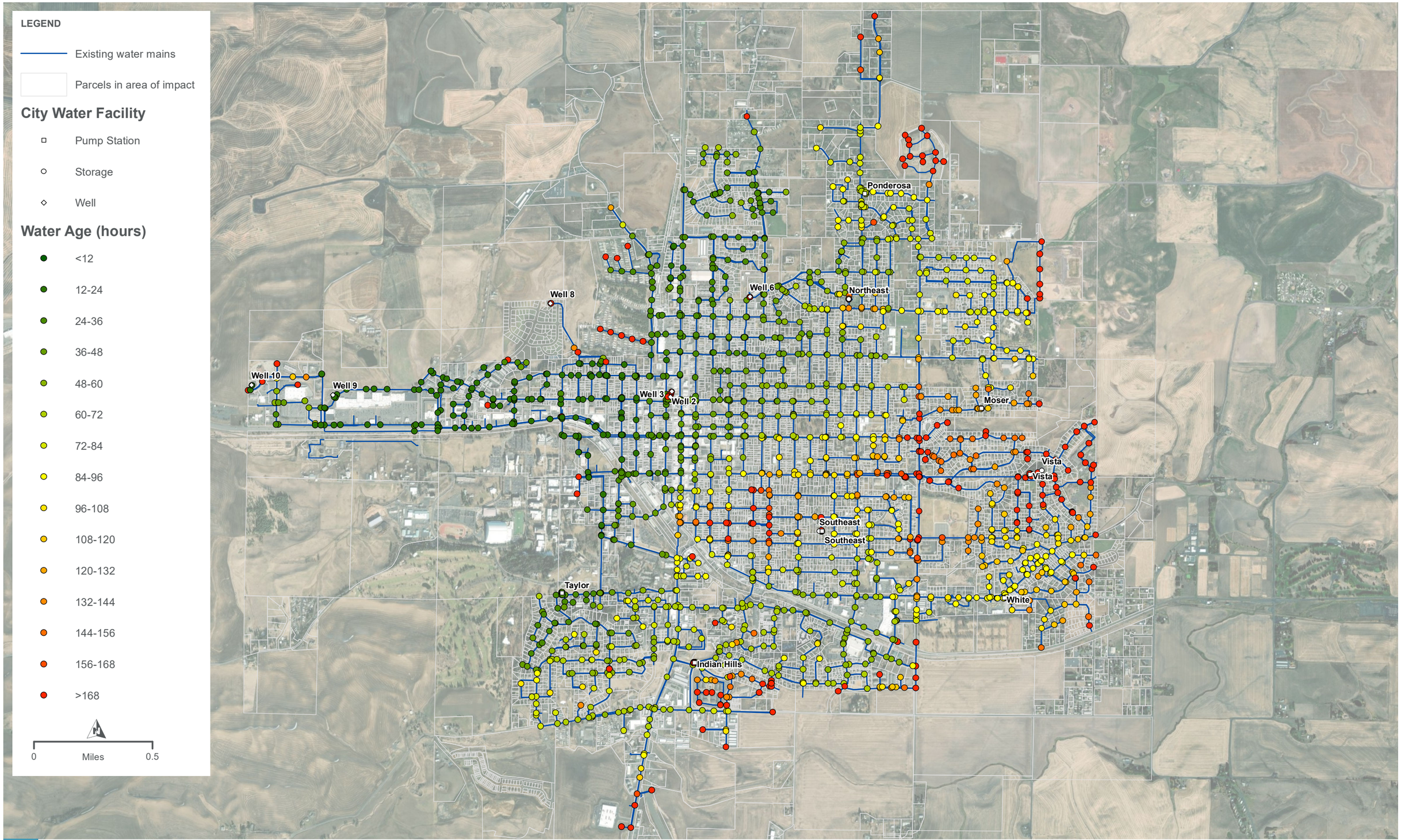
COMPREHENSIVE WATER SYSTEM PLAN UPDATE

7.3.8. Extended Period Simulation Water Age Analysis

In contrast to steady state simulation, extended period simulation (EPS) in the hydraulic model evaluates the function and operation of the system over time. EPS was used to evaluate water age throughout the water system to determine general water age conditions across the system. This was done for both low winter (worst-case water age) and peak summer (best-case water age) conditions using 2023 demand. Storage facilities in the system were assumed to have a last-in first-out (LIFO) type mixing. LIFO is a plug flow type model where water parcels stack up one on top of another (i.e., where water enters and leaves the tank with the most recent water entering the tank also being the first water to leave the tank).

The maximum and average water ages during the winter are shown in Figure 7-18 and Figure 7-19, respectively. Figure 7-18 shows that aside from the western portion of the system receiving fresh water from groundwater Wells 9 and 10, much of the system can see maximum water ages exceeding 72 hours (3 days), and many locations with maximum water age exceeding 7 days. Figure 7-19 shows that when looking at average water age during the winter, most of the system remains under 48 hours (2 days) while the most eastern and southern portions of the system, particularly the Vista Pressure Zone, continue to see higher water ages with the highest average water age near 7 days.

During the summer water age improves significantly due to higher demands. The maximum water ages seen in the summer, shown on Figure 7-18, are generally less than 24 hours with the exception of the Vista Pressure Zone that is near 5 days. When looking at average water age during the summer, shown on Figure 7-21, the Vista Pressure Zone is around 3 days. The exceptions to this are dead-end areas with low demand which have high water age for all scenarios.

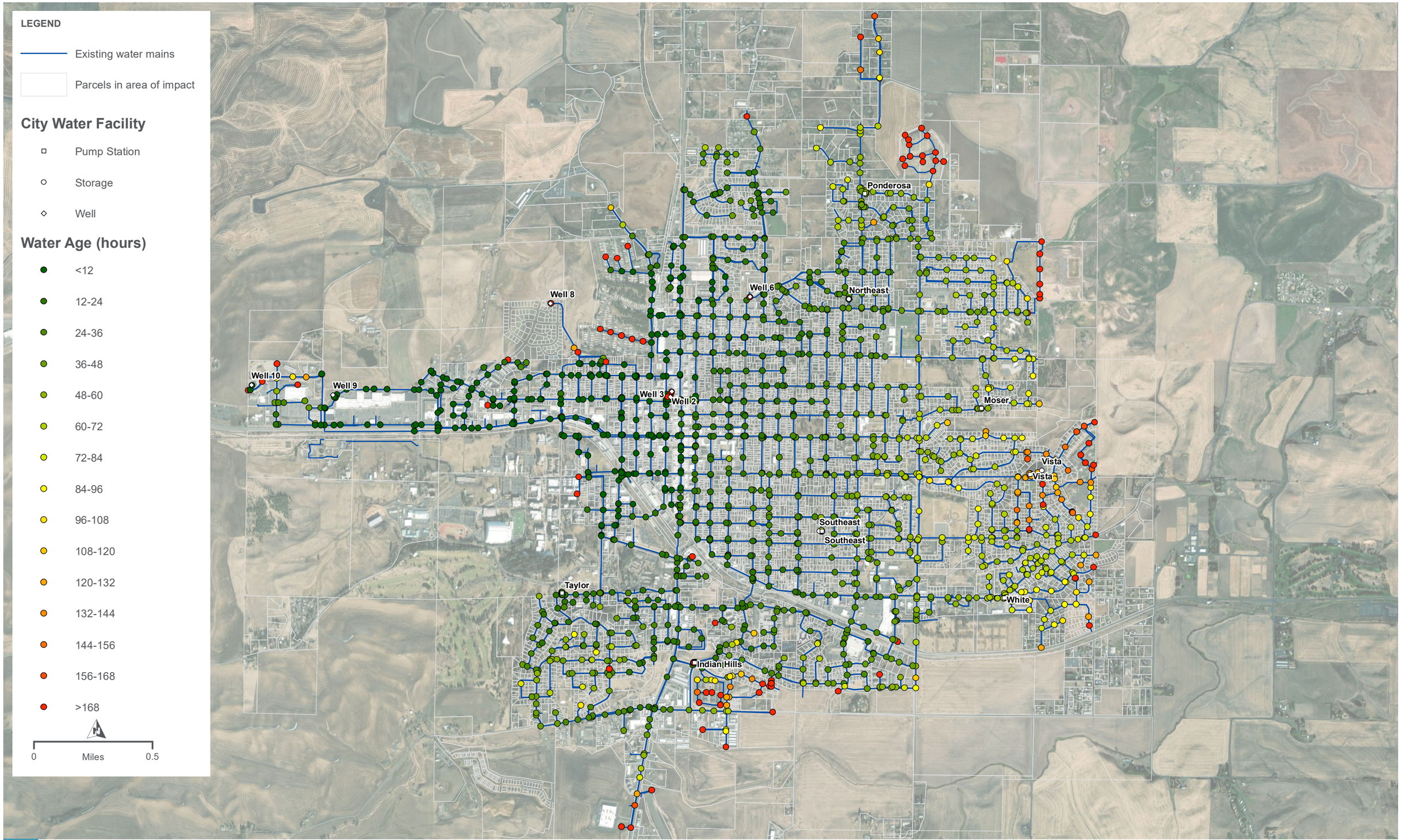


CITY OF MOSCOW

2023 WINTER MAX WATER AGE

FIGURE 7-18

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783511\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-18 WINTER MAX WATER AGE.MXD - USER: DKUHNS - DATE: 10/15/2025



HDR

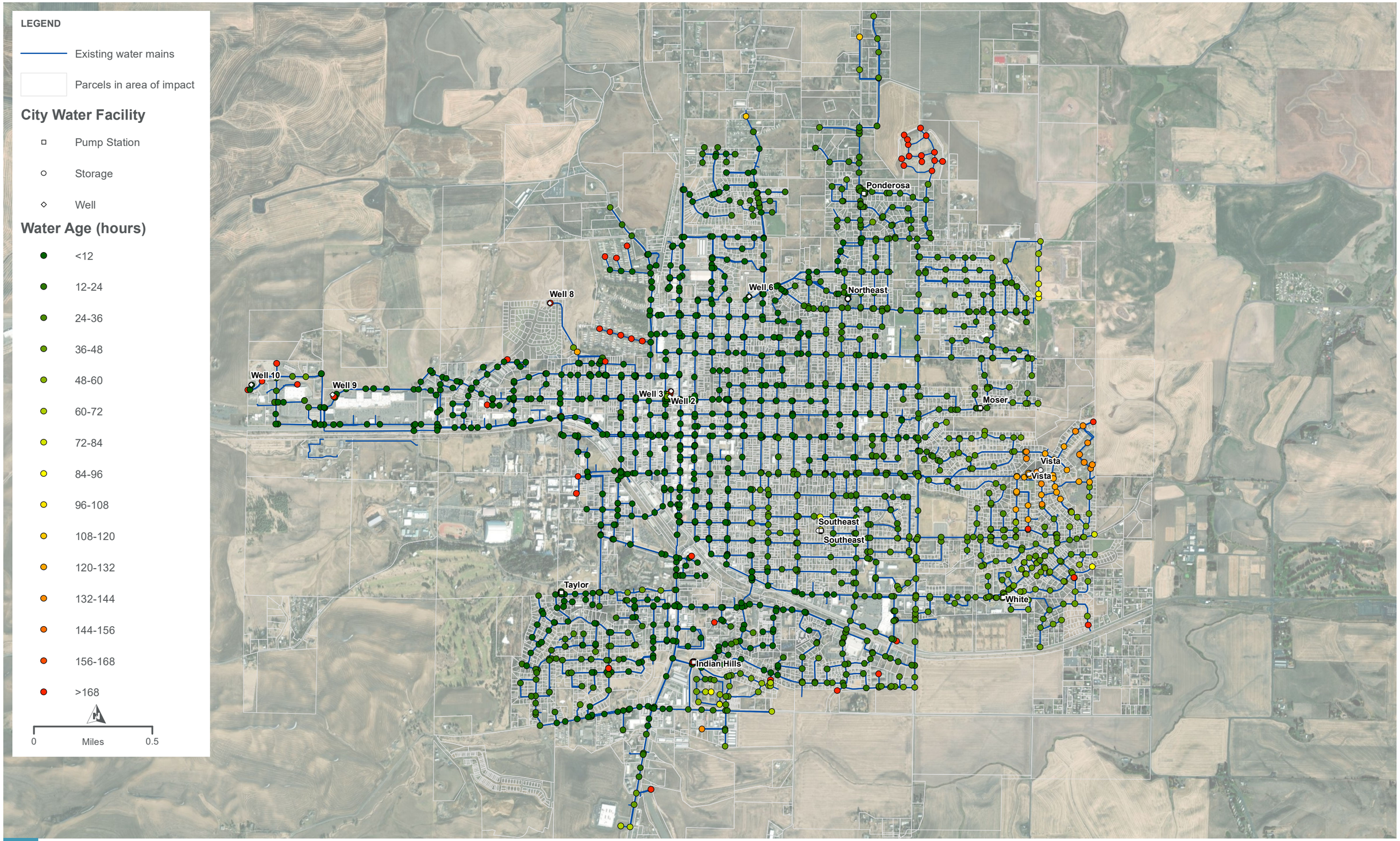
CITY OF MOSCOW

2023 WINTER AVERAGE WATER AGE

FIGURE 7-19

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_1037835\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-19 WINTER AVERAGE WATER AGE.MXD - USER: DKUHNS - DATE: 10/15/2025

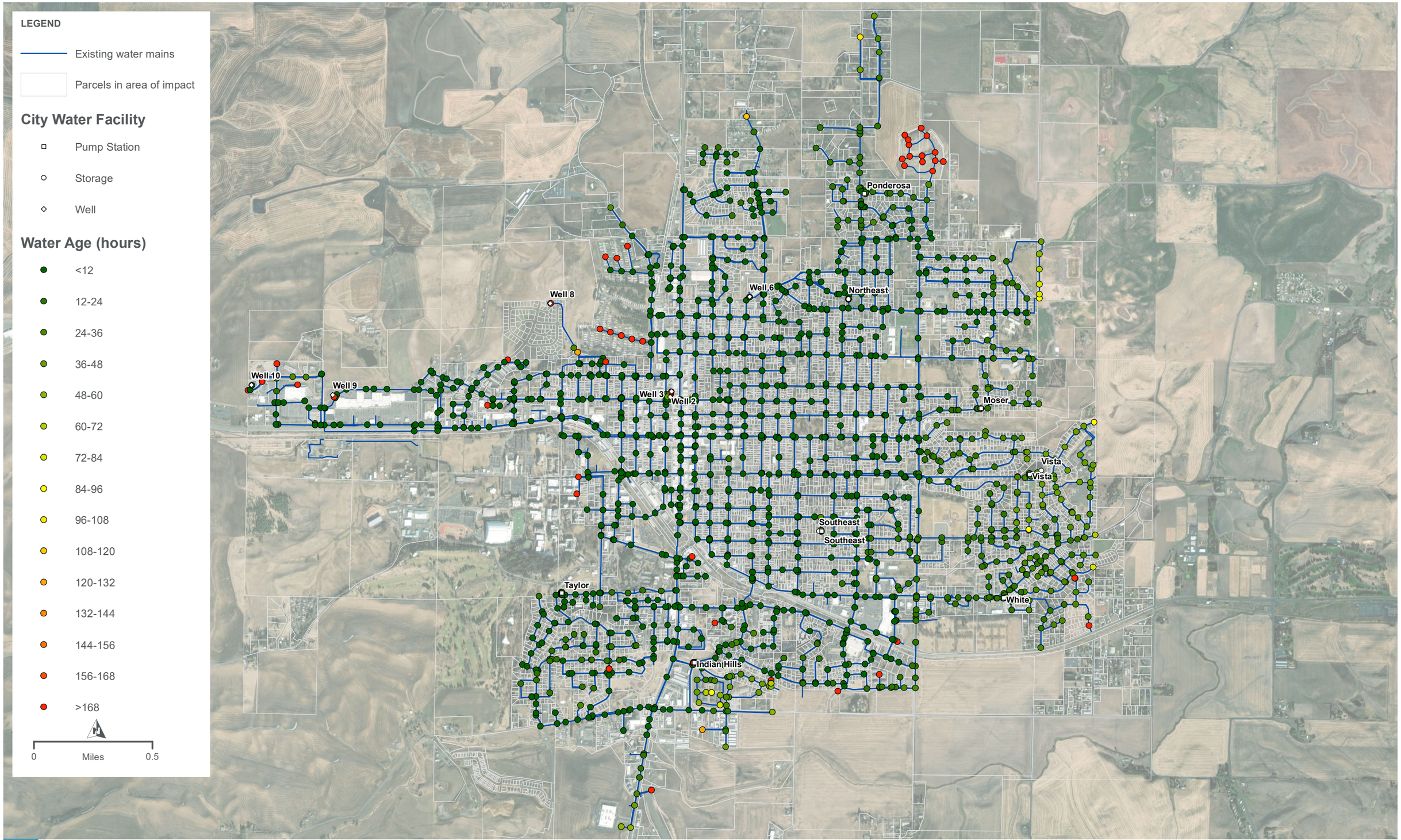
COMPREHENSIVE WATER SYSTEM PLAN UPDATE



CITY OF MOSCOW

2023 SUMMER MAX WATER AGE

FIGURE 7-20



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CITY OF MOSCOW

2023 SUMMER AVERAGE WATER AGE

FIGURE 7-21

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_1037835\7.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-21 SUMMER AVERAGE WATER AGE.MXD - USER: DKUHNS - DATE: 10/15/2025

COMPREHENSIVE WATER SYSTEM PLAN UPDATE

7.3.9. Future Pressure Zones

The water system currently consists of the Main Pressure Zone, where supply sources and storage are located, and six smaller boosted pressure zones that are closed systems (no storage). As the system expands into higher elevation areas near the Main Pressure Zone, additional boosted areas become necessary. Additionally, some areas of expansion are at lower elevations where pressures would exceed 80 psi and would require pressures to be reduced if an 80 psi maximum pressure threshold were to be implemented for these new areas.

Figure 7-22 shows parcels that are in the area of impact, parcels that are currently boosted, and pressures given existing topography and a hydraulic grade line (HGL) elevation of 2,777 feet which corresponds to a tank level of 30 feet in the Vista Reservoir (representing operational and equalizing storage depleted). Areas with pressures below 40 psi would require boosting if being developed while future areas with pressures exceeding 80 psi would require pressures to be reduced.

Figure 7-22 provides an overview of potential PRV and pump station locations to create additional pressure zones. New pump stations to create boosted pressure zones include:

- Warbonnet Drive Pump Station – A small boosted zone on Warbonnet Drive may be necessary depending on future development site grading to serve a single parcel. If site grading reduces the parcel elevation, it is possible the pump station may not be necessary.

- Hwy-95 Pump Station – This pump station would serve an area at the north end of the system. The pump station would also create an opportunity to shift Pintail Lane, a high point in the Main Zone that currently has pressures below 40 psi, to be part of the boosted zone.

- Eddington Pump Station – This pump station would serve the higher elevation areas of the Eddington development located at the south end of the system.

These pressure zones will be required if growth occurs in these areas to achieve minimum required pressures.

New pressure zones created via PRV stations include:

- Farm Road pressure zone – This pressure zone located toward the west end of the system is located along W “A” Street, Farm Road, and Baker Street, and would be fed from multiple PRV station points depending on where development occurs first. A capital improvement project for Well 8 includes relocating the well’s discharge transmission pipe to go towards Baker Street instead of Sunset Drive. If this were to occur, the transmission pipe would run parallel to distribution pipes in Baker Street for the reduced pressure zone and would tie into the system on the Main Pressure Zone side of the PRV station on Baker Street.

- Palouse River Drive pressure zone – This pressure zone consists of a large area at the south end of the system south of Palouse River Drive and east of Hwy-95 and would be fed from multiple PRV station points depending on where development occurs first.

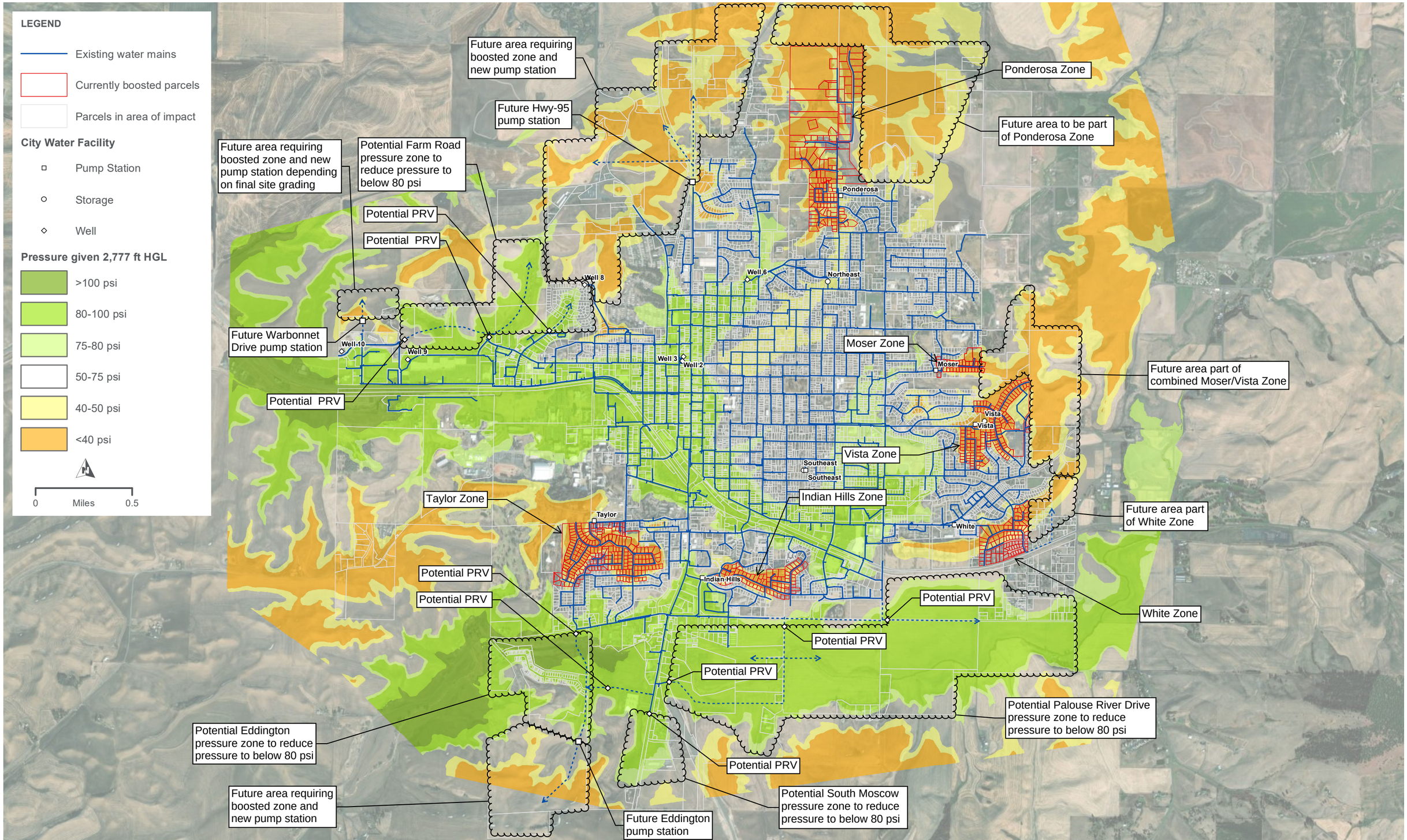
- Eddington pressure zone – This pressure zone would serve the lower elevation portions of the Eddington Development (higher portions of the development would be boosted via

the future Eddington Pump Station). The zone would be supplied via PRVs connected to Palouse River Drive and Hwy-95.

- South Moscow pressure zone – This pressure zone located at the south end of the system on Hwy-95 would serve any future development extending south on the existing watermain terminating on Hwy-95.

These improvements are currently optional and only necessary if an 80 psi maximum pressure threshold were to be implemented. At this time, it is not planned to incorporate projects for reducing pressure.

Improvements related to pressure zones are further discussed in Chapter 8 – Capital Improvement Program.



CITY OF MOSCOW
PRESSURE ZONE NEEDS
FIGURE 7-22
COMPREHENSIVE WATER SYSTEM PLAN UPDATE

PATH: G:\PROJECTS\IDAHO\CITY_MOSCOW_201226\WTR_SWR_COMP_PLNS_103783517.2_WIP\LAYOUTS\SYSTEM ANALYSIS CHAPTER\FIGURE 7-22 PRESSURE ZONE NEEDS.MXD - USER: DKUHNS - DATE: 10/15/2025

7.4. Water Quality and Treatment Evaluation

All of the City's wells are chlorinated, and Wells 2 and 3 are treated through a greensand filtration system. This treatment provides high quality water that meets regulatory requirements. The City is dedicated to continually evaluating and improving its water treatment approaches and facilities in order to address legacy issues, proactively plan for future regulatory requirements, and address customer concerns. The current primary water quality challenges and concerns are described below, along with plans for addressing each. Specific capital improvement projects related to water treatment are described in detail in Chapter 8.

7.4.1. Chlorine Disinfection Evaluation

The City has received complaints regarding chlorine-related taste/odor issues. City staff indicate that such complaints tend to increase as chlorine dosing increases. The chlorine taste that customers complain about may very well be from free chlorine. However, it is more likely that the chlorine taste is from dichloramine or trichloramine.

Wells 3, 6, 8, and 9 have a significant concentration of ammonia in their water. When ammonia-bearing water is chlorinated, the ammonia is first converted to monochloramine (i.e., chloramination). Chlorine addition beyond monochloramination results first in the formation of dichloramine, then in the formation of trichloramine, and then finally in the decomposition of both dichloramine and trichloramine. This decomposition of the ammonia is referred to as breakpoint chlorination. A stable free chlorine residual is not possible until the breakpoint reaction is complete. Additionally, the chlorine in chlorinated water that comes in contact with ammonia-bearing water (including chloraminated water) will be used up in the breakpoint reaction resulting in a lower free chlorine residual or no free chlorine at all.

Dichloramine and trichloramine as well as the intermediate decomposition products impart a particularly chlorinous taste to the water. If the chlorine dosed to Wells 3, 6, 8, and 9 is greater than required for chloramination but insufficient for breakpoint chlorination, then it is very likely that customers will complain about a chlorine taste.

The City plans to address this issue by conducting a chlorine disinfection evaluation, involving a breakpoint chlorination analysis and water age/tracing assessment. The intended result of this effort is identification of recommended chlorination adjustments. Specific elements of this study include:

- Development of a breakpoint chlorination test plan, likely to involve testing at six well locations and six additional sites throughout the distribution system (e.g., booster pump station locations in areas of high taste/odor complaints).
- Sampling of the sites, and conductance of two-day breakpoint chlorination testing and 14-day demand and decay testing.
- Evaluation of breakpoint chlorination results in combination with water age and source tracing hydraulic modeling to determine chlorine demand at various locations throughout the distribution system and under various source operational scenarios.
- Identification of recommended operational changes.

7.4.2. Wells 2 and 3 Filter Plant Evaluation

The water from Wells 2 and 3 is currently being treated using a greensand filtration process at the City's filter plant to reduce iron and manganese concentrations. This facility is described in more detail in Section 2.4.1.

Concerns regarding this facility pertain to settlement of the building and operational inefficiencies associated with the backwash system. Currently, backwash water and filter-to-waste water from the greensand filters flows into a basin under the floor. This waste water is then pumped out to the municipal sewer system. The wasting of this water results in a cost for sewering the water as well as a loss of water that could be used in the distribution system. A significant portion of this water could be recycled into the process by allowing the solids in the waste water to settle and decanting the cleaner water off the top. The decanted water would be injected into the raw water prior to oxidation. Periodically, the bottom layer of high solids water could be sewered. In addition, the current backwash process is completely manual, requiring dedicated staff time to implement.

The City plans to address improvements to this facility through the filter plant rehabilitation project (i.e., Project S-1 described in Chapter 8). The project will include an assessment of the backwash system and identification of recommended modifications, as well as a structural assessment of the building.

7.4.3. Well 10 Filtration

As discussed in Section 2.2.1.6, Well 10 has higher levels of iron than other wells in that part of the City. The City has developed plans to add a sand filtration system at this well site to reduce iron concentrations, and have it designed to also accommodate flow from Well 9. This is included in Chapter 8 and Project S-3.

8. Capital Improvement Program

This chapter describes the methodology used in developing the City of Moscow's water system Capital Improvement Program (CIP) and presents the costs and schedules for projects planned for implementation in 2026-2045, as well as longer-term projects extending past 2045.

8.1. Development of CIP

The CIP was prepared by first identifying projects that address water system needs or deficiencies, as documented in earlier chapters of the CWSP and as previously identified by the City in planning and budgeting activities since the prior CWSP. In addition, recurring or annual capital projects related to system maintenance (e.g., watermain replacement programs) have also been included in the list of improvements.

A 20-year implementation schedule of the projects was then developed. Generally, projects of higher priority (i.e., those that address current system needs) were scheduled for implementation within the 10-year planning horizon (2026-2035). Projects that serve anticipated future needs associated with system growth, or are less critical to system operation, were scheduled for implementation between 2036 and 2045. Detailed scheduling of the higher priority projects was based primarily upon the City's existing forecast of project implementation timelines. Longer-term projects dependent on completion of earlier projects or potential developments are noted for implementation past 2045.

Planning-level cost estimates have been developed for each capital project included in the 2026-2035 CIP. Generally, each project cost includes the following components:

- **Base construction cost.** Includes all labor and material costs needed to construct a project. For pipeline and valving projects, construction costs were estimated based on unit construction costs derived from bid tabulations for recent City projects and similar water distribution projects for other utilities in the area (e.g., City of Pullman). As such, these estimates incorporate all construction-related costs, including items such as mobilization and pavement restoration.
- **Construction contingency.** Takes into account the uncertainties associated with estimating project costs at this planning level. Typically calculated as 30 percent of the total of base construction plus sales tax.
- **Design engineering.** Includes City and consultant design costs and other related cost items, such as permitting and construction administration.

These elements are summed to determine the total project-level cost estimate for a project, as expressed in 2025 dollars. Where applicable, design costs are scheduled one year in advance of construction costs, to reflect the phasing typically used for larger projects.

Some projects identified in this CIP will be developer-contributed. Even though the City will not budget for implementation of these projects and their timing is not well known, cost estimates have been prepared for these so as to provide a sense of project size/scale.

8.2. Planned Projects

Table 8-1 presents the City's schedule of CIP projects planned for implementation between 2026 and 2045, as well as projects planned for implementation after 2045. Figure 8-1 provides the locations for the major planned improvements. Descriptions of each project follow.

In total, the City's 10-year CIP (for years 2026-2035) includes approximately $31.4 million in improvements, excluding developer projects. The long-term CIP (beyond 2035) includes approximately $35.2 million in additional improvements, excluding developer projects.

Table 8-1 Capital Improvement Program

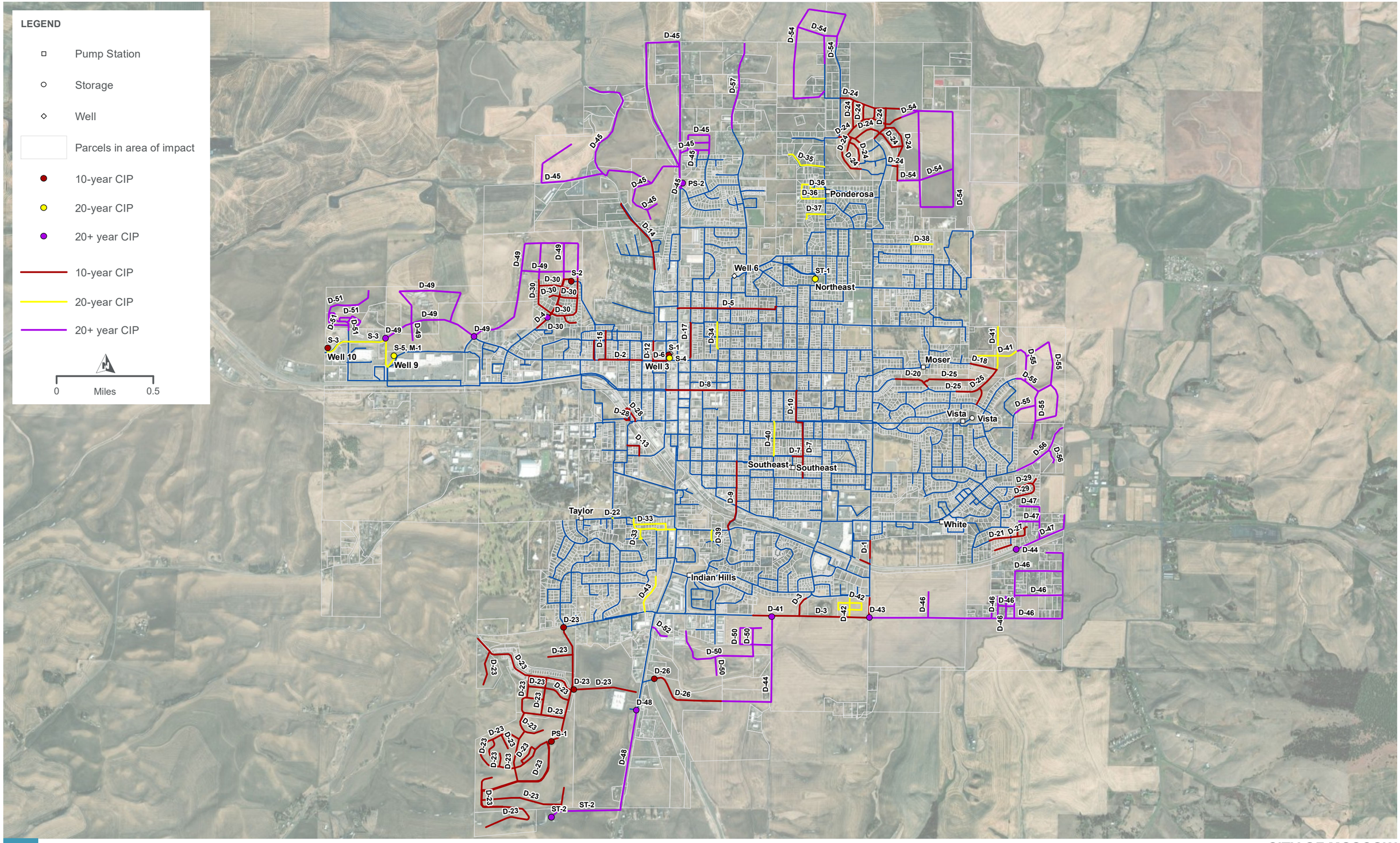
Project ID	Project Title	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Subtotal 10-Year[1]	2036-2045	Beyond 2045	Total
Water Supply and Treatment (Well Capital) Projects		**$327,000**	**$1,185,000**	**$1,240,000**						**$1,385,000**	**$14,343,000**	**$18,480,000**	**$1,450,000**		**$19,930,000**
S-1	Well 2 & 3 Filter Plant Rehabilitation	$327,000	$1,061,000									**$1,388,000**			**$1,388,000**
S-2	Well 8 Redevelopment		$124,000	$1,240,000								**$1,364,000**			**$1,364,000**
S-3	Well 10 Filtration Improvements									$1,385,000	$14,343,000	**$15,728,000**			**$15,728,000**
S-4	Well 3 Investigation & Rehabilitation												**$250,000**		**$250,000**
S-5	Well 9 Improvements												**$1,200,000**		**$1,200,000**
Water Storage Projects													**$7,585,000**	**$8,010,000**	**$15,595,000**
ST-1	NE Reservoir Project												**$7,585,000**		**$7,585,000**
ST-2	South Reservoir Project													**$8,010,000**	**$8,010,000**
Booster Pump Station Projects												**$2,700,000**		**$2,400,000**	**$5,100,000**
PS-1	Edington Pump Station (Developer Project)											**$2,700,000**			**$2,700,000**
PS-2	North Pump Station (Developer Project)													**$2,400,000**	**$2,400,000**
Water Distribution System Projects		**$1,053,000**	**$1,836,000**	**$881,000**	**$1,634,000**	**$1,380,000**	**$540,000**	**$1,758,000**	**$520,000**	**$1,295,000**	**$196,000**	**$42,538,000**	**$6,834,000**	**$32,081,000**	**$81,453,000**
D-1	Mountain View - Troy Highway Connection	$242,000										**$242,000**			**$242,000**
D-2	A Street Transmission - Phase 3	$761,000										**$761,000**			**$761,000**
D-3	Palouse River Drive - Blaine - Mountain View Extension		$514,000									**$514,000**			**$457,000**
D-4	Northwest Tank Bypass		$64,000									**$64,000**			**$64,000**
D-5	E Street Water Distribution Project		$1,208,000									**$1,208,000**			**$1,208,000**
D-6	A Street Transmission - Phase 4			$256,000								**$256,000**			**$256,000**
D-7	South Hayes Water Main Replacement			$575,000								**$575,000**			**$575,000**
D-8	Downtown Transmission Phase III				$592,000							**$592,000**			**$592,000**
D-9	South Moscow Distribution Improvement Project				$992,000							**$992,000**			**$992,000**
D-10	Downtown Transmission Phase IIV					$1,330,000						**$1,330,000**			**$1,330,000**
D-12	North Almon Street Water Main Project						$298,000					**$298,000**			**$298,000**
D-13	Narrow Street Water Main Project						$192,000					**$192,000**			**$192,000**
D-14	North Almon Street Water Main-Phase 2							$1,708,000				**$1,708,000**			**$1,708,000**
D-15	Cherry Street Water Distribution Project								$470,000			**$470,000**			**$470,000**

Project ID	Project Title	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Subtotal 10-Year[1]	2036-2045	Beyond 2045	Total
D-16	Home Street Water Line Improvement									$312,000		**$312,000**			**$312,000**
D-17	Washington Street Water Main Replacement									$933,000		**$933,000**			**$933,000**
D-18	Moser and Vista Pressure Zone Intertie										$146,000	**$146,000**			**$146,000**
D-19	Miscellaneous Water Main Improvements	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000	**$500,000**	**$500,000**		**$1,000,000**
D-20	Harvest Hills Extension (Developer Project)											**$380,000**			**$380,000**
D-21	Ridgeview Extension (Developer Project)											**$432,000**			**$432,000**
D-22	Taylor Zone Check Valve												**$210,000**		**$210,000**
D-23	Edington Development (Developer Project)											**$18,420,000**			**$18,420,000**
D-24	Woodbury Development (Developer Project)											**$5,850,000**			**$5,850,000**
D-25	Rolling Hills 9th and 10th Addition (Developer Project)											**$1,160,000**			**$1,160,000**
D-26	SOMO Development (Developer Project)											**$1,295,000**			**$1,295,000**
D-27	Wildrose Court (Developer Project)											**$420,000**			**$420,000**
D-28	University Gateway Project (Developer Project)											**$420,000**			**$420,000**
D-29	Castleford Street Extension (Developer Project)											**$548,000**			**$548,000**
D-30	Baker Street Development (Developer Project)											**$2,520,000**		**$210,000**	**$2,730,000**
D-32	Lauder Avenue Fire Flow Improvements Phase 1												**$76,000**		**$76,000**
D-33	Lauder Avenue Fire Flow Improvements Phase 2												**$1,052,000**		**$1,052,000**
D-34	N Adams Street Fire Flow Improvements												**$300,000**		**$300,000**
D-35	Christopher Lane and Hirschi Road Fire Flow Improvements												**$456,000**		**$456,000**
D-36	Highland Drive Fire Flow Improvements												**$800,000**		**$800,000**
D-37	Virginia Avenue Fire Flow Improvements												**$264,000**		**$264,000**
D-38	Daves Avenue Fire Flow Improvements												**$240,000**		**$240,000**
D-39	Hawthorne Drive Fire Flow Improvements												**$256,000**		**$256,000**
D-40	Lynn Street Fire Flow Improvements												**$376,000**		**$376,000**
D-41	Pine View Addition (Developer Project)												**$920,000**	**$210,000**	**$1,130,000**
D-42	Blum Apartments (Developer Project)												**$952,000**		**$952,000**
D-43	S Lenter Street Extension (Developer Project)												**$432,000**	**$210,000**	**$642,000**
D-44	Paradise Ridge Road Extension													**$2,080,000**	**$2,080,000**

Project ID	Project Title	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Subtotal 10-Year[1]	2036-2045	Beyond 2045	Total
D-45	North Zone													**$11,500,000**	**$11,500,000**
D-50	SE Industrial Park (Developer Project)													**$2,850,000**	**$2,850,000**
D-51	Warbonnet Extension (Developer Project)													**$2,070,000**	**$2,070,000**
D-52	Fountains Industrial Park (Developer Project)													**$193,000**	**$193,000**
D-54	Ponderosa Zone Expansion (Developer Project)													**$7,650,000**	**$7,650,000**
D-55	Vista Zone Expansion (Developer Project)													**$3,016,000**	**$3,016,000**
D-56	D-56 Robinson Park Road Extension (Developer Project)													**$892,000**	**$892,000**
D-57	Polk Street Extension (Developer Project)													**$1,200,000**	**$1,200,000**
Water Maintenance and Operations						**$1,826,000**						**$1,826,000**			**$1,826,000**
M-1	Well 9 Power Conversion - Stand-by Power Generator					$1,826,000						**$1,826,000**			**$1,826,000**
TOTAL (including developer projects)		**$1,380,000**	**$3,021,000**	**$2,121,000**	**$1,634,000**	**$3,206,000**	**$540,000**	**$1,758,000**	**$520,000**	**$2,680,000**	**$14,539,000**	**$65,544,000**	**$15,869,000**	**$42,491,000**	**$123,904,000**
TOTAL (excluding developer projects)		**$1,380,000**	**$3,021,000**	**$2,121,000**	**$1,634,000**	**$3,206,000**	**$540,000**	**$1,758,000**	**$520,000**	**$2,680,000**	**$14,539,000**	**$31,399,000**	**$13,565,000**	**$21,590,000**	**$66,554,000**

Notes:

1. Year-by-year costs are not shown for developer projects



CITY OF MOSCOW

CAPITAL IMPROVEMENT PROGRAM PROJECTS

FIGURE 8-1

8.2.1. Water Supply and Treatment

The following are water source-related or treatment-related capital projects that address deficiencies or needs described in Chapters 2 and 7.

- **S-1 Well 2 & 3 Filter Plant Rehabilitation**

  Project includes the rehabilitation of the sand filter system located within the Well 2 & 3 pump house. Project will include assessment of backwash water reclamation improvements to reduce water waste during backwash operations. The purpose is to maintain/improve water quality, allow continued use of recharging shallow aquifer source, and reduce backwash water waste. The project budget includes a structural assessment of the filter plant building, to assess potential settlement concerns.

- **S-2 Well 8 Redevelopment**

  Rehabilitation of existing well that has experienced reduced production and sedimentation. Project involves lowering the pump deeper in the well, transitioning from chlorine gas to a sodium hypochlorite metering system (utilizing bulk sodium hypochlorite generated by an existing MIOX unit at another facility, brought to a storage tank at Well 8), building improvements (convert to all-CMU construction; installation of a new roof and skylight), repairing/replacing portion of the transmission piping between the well and the Northwest Tank, extending fiber communications, and adding security fencing.

- **S-3 Well 10 Filtration Improvements**

  Construct an iron and manganese reduction filtration facility at Well 10 to accommodate flows from Wells 9 and 10. Project includes pipeline costs associated with installing approximately 3,000 feet of 12" watermain to convey water from Well 9 to the Well 10 site for treatment.

- **S-4 Well 3 Investigation & Rehabilitation**

  Project involves pulling the pump to perform a complete investigation, assessing well condition, identifying nature of obstruction(s), and recommending rehabilitation measures.

- **S-5 Well 9 Improvements**

  Project involves replacing the existing submersible pump with a line-shaft turbine pump similar to the City's other wells. The project would also transition the site away from chlorine gas to using a MIOX onsite chlorine generation system. Improvements to the building would include changing to an all CMU construction around the well with a new roof and skylight. Power upgrades to the site are included separately as part of project M-1.

8.2.2. Water Storage

The following storage-related capital projects address deficiencies or needs described in Chapters 2 and 7.

- **ST-1 NE Reservoir Project**

  Replacement of the NE Reservoir, which will reach the end of its functional life beyond the 10-year near-term timeframe, with a new 2 MG water storage facility.

- **ST-2 South Reservoir Project**

  The southern part of the water system on US HWY-95 has an available fire flow of approximately 2,500 to 3,500 gpm. Once piping improvement projects that create additional capacity to the area are completed (D-1, D-3, D-26, and D-44), the available fire flow increases to approximately 4,000 gpm. If higher fire flows are necessary to support industrial growth in the south Moscow area, storage may be added in the vicinity to achieve higher available fire flows. The reservoir would be sited at a higher elevation location and connect into the Main Pressure Zone on US HWY-95.

8.2.3. Booster Pump Stations

The following booster pump station capital projects address deficiencies or needs described in Chapters 2 and 7.

- **PS-1 Edington Pump Station (Developer Project)**

  A development-related booster pump station to serve higher elevation service connections within the Edington Development (see project D-23).

- **PS-2 North Pump Station (Developer Project)**

  A development-related booster pump station to serve a new pressure zone created on the north side of the water system (project D-45).

8.2.4. Water Distribution System

The following transmission- and distribution-related capital projects address deficiencies or needs described in Chapters 2 and 7. See Chapter 7 for detailed discussion of referenced deficiencies that are addressed by specific projects.

10-year CIP Water Distribution Projects

- **D-1 Mountain View - Troy Highway Connection**

  Installation of approximately 480 feet of 12" waterline to connect dead-end watermains in Mountain View from the Cemetery Well south to Fire Hydrant J22-09 and extend the watermain in Troy Highway to the east and connect to the watermain in the intersection of Mountain View and Troy Highway with approximately 300 feet of 12" pipe. Interconnection of dead-end watermains to improve fire flow and water quality.

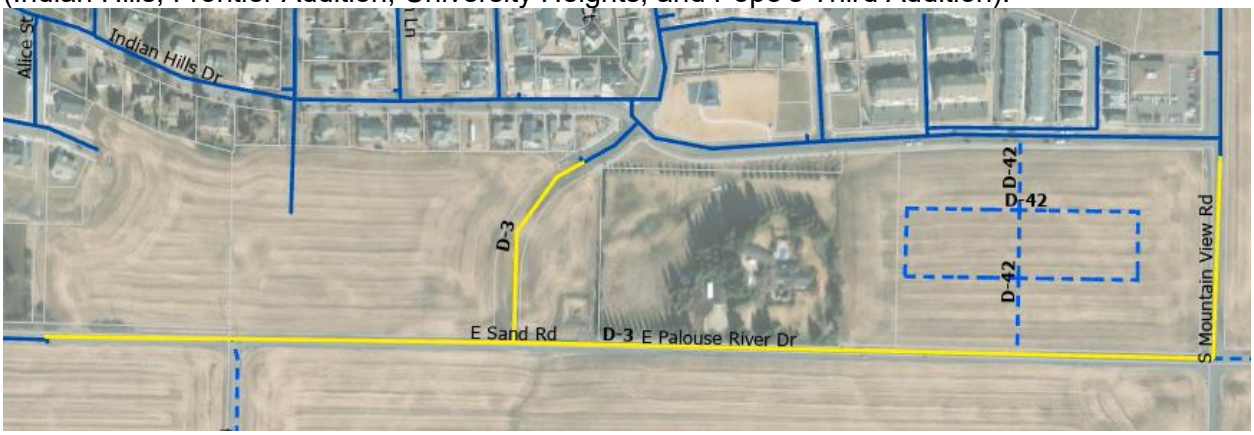
- **D-2 A Street Transmission - Phase 3**

  Replacement of existing 8" watermain within A Street from Home to Asbury Street with approximately 1,200 feet of new 16" watermain. Replacement of current undersized watermain to improve east-west water transmission from Wells 9 and 10 to the Southeast and Vista Reservoirs.

- **D-3 Palouse River Drive - Blaine - Mountain View Extension**

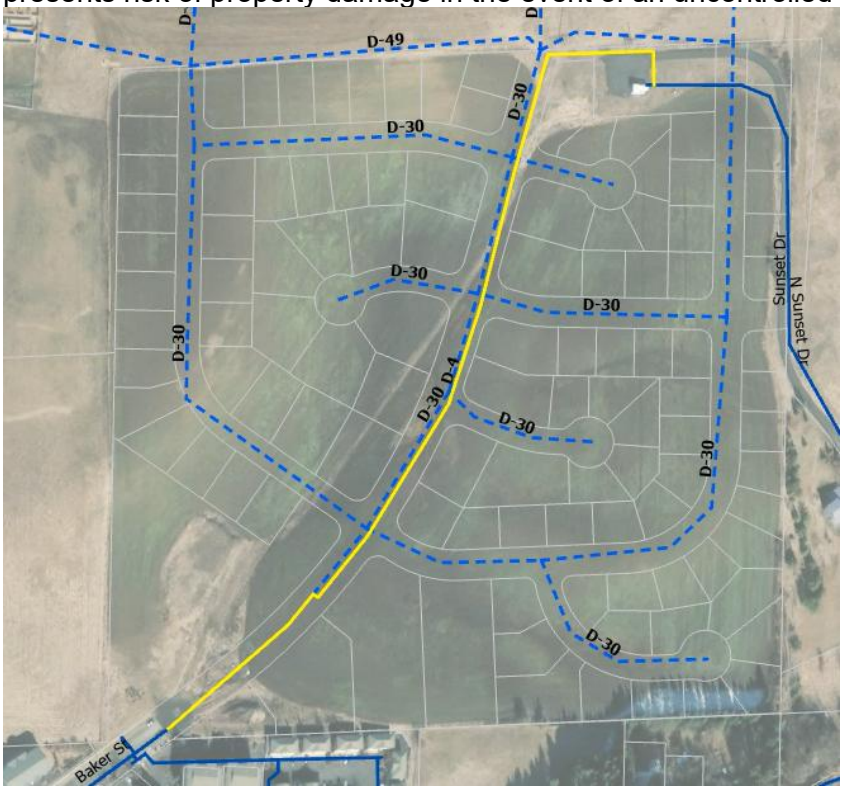
  Extension of watermain in Palouse River Drive to Mountain View with approximately 3,720 feet of 16" watermain and connecting Blaine Street into the extension with approximately 570 feet of 12" watermain. This project would include fire hydrants and possible future

connections. Installation of redundant backup water supply to south portions of Moscow (Indian Hills, Frontier Addition, University Heights, and Pope's Third Addition).



- **D-4 Northwest Tank Bypass**

  Re-routing of watermain from Well 8, eliminating the Northwest Tank from the distribution system by using approximately 1,850 feet of 12" watermain from Well 8 to Baker Street. Project addresses replacement of watermain reaching end of serviceable life and which presents risk of property damage in the event of an uncontrolled failure.



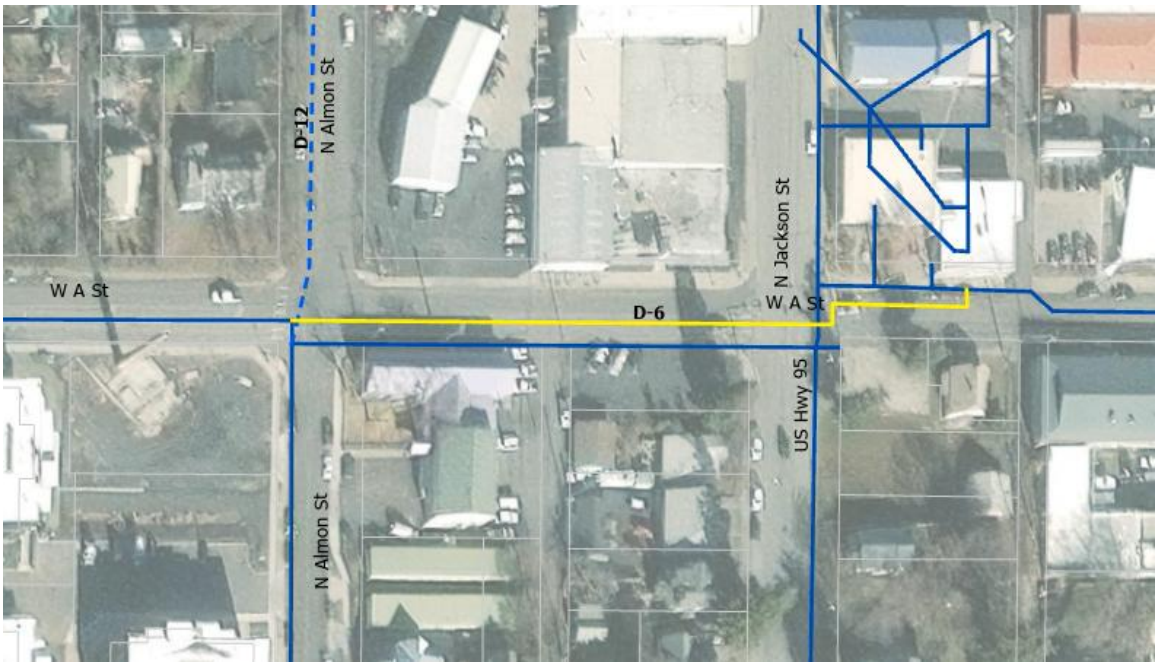
- **D-5 E Street Water Distribution Project**

  Installation of approximately 2,780 feet of 10" watermain between Main Street and Moore Street to replace a series of cast iron pipe and undersized pipe along the alignment.

Project addresses replacement of watermain reaching end of serviceable life and which presents risk of property damage in the event of an uncontrolled failure.

- **D-6 A Street Transmission - Phase 4**

  Replacement of existing 8" watermain within A Street from Almon Street to Jackson Street with new 16" watermain, then continuing east of Jackson Street with 16" until connecting to the existing 16" watermain in A Street near the water treatment plant—a total of approximately 500 feet of 16" pipe. Project addresses replacement of current undersized watermain to improve east-west water transmission from Wells 9 and 10 to the Southeast and Vista Reservoirs.

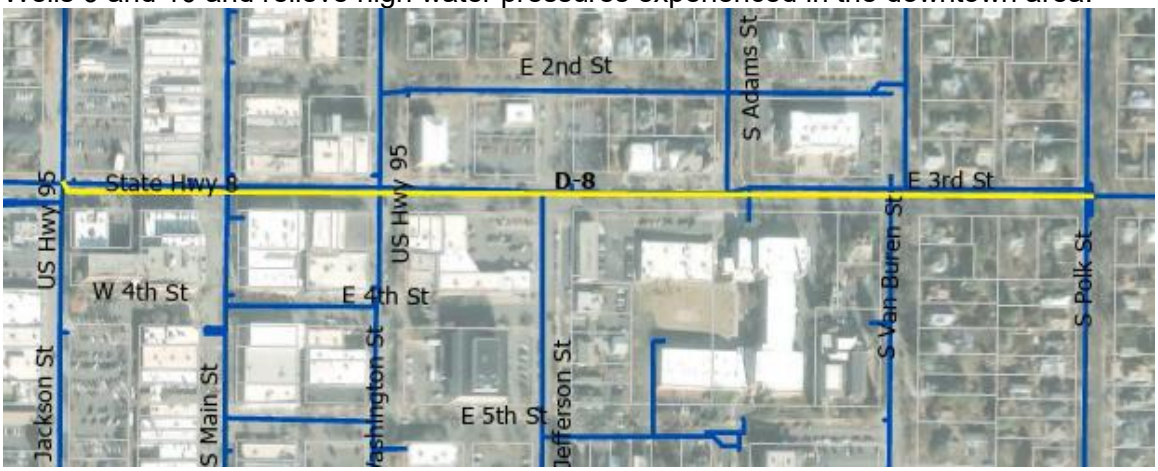


- **D-7 South Hayes Watermain Replacement**

  Installation of approximately 1,700 feet of new 8" waterline in Hayes Street from 6th Street to Mabell Street and approximately 300 feet of 16" pipe on 8th Street from the SE Reservoir discharge tee to Hayes Street. Project addresses replacement of existing undersized watermain that also currently penetrates a sanitary sewer manhole.

- **D-8 Downtown Transmission Phase III**

  Installation of approximately 2,160 feet of 24" watermain on Third Street from Polk Street to Jackson Street to enhance east-west water conveyance to the Vista Reservoir from Wells 9 and 10 and relieve high water pressures experienced in the downtown area.



- **D-9 South Moscow Distribution Improvement Project**

  Installation of approximately 2,000 feet of new 16" watermain connecting to the 16" watermain at Lewis Street and extending south to Styner/Indian Hills including new valves and connections to Spotswood, Veach, Hunter, and Troy Hwy. Project creates a redundant backup water supply to south portions of Moscow (Indian Hills, Frontier Addition, University Heights, and Popes Third Addition) to ensure redundant transmission facilities to reduce the risk of extended service interruption in the case of watermain failure.

- **D-10 Downtown Transmission Phase IV**

  Installation of approximately 850 feet of 24" watermain on Hayes Street from Third Street to Sixth Street to enhance east-west water conveyance to the Vista and Southeast Reservoirs from Wells 9 and 10.

- **D-11 (Not Used)**

- **D-12 North Almon Street Watermain Project - Phase 1**

  Installation of approximately 550 feet of new 18" watermain within Almon Street from A Street to C Street. Installation of new 18" watermain to improve fire flow and water quality and eliminate excessively long private service lines.

- **D-13 Narrow Street Watermain Project**

  Replacement of existing 4" watermain in Narrow Street and Railroad Street with 600 feet of 8" watermain. Project replaces undersized watermain to accommodate necessary fire flow conveyance.

- **D-14 North Almon Street Watermain – Phase 2**

  Replacement of approximately 2,100 feet of deteriorating 6" watermain on Almon Street with 10" pipe. Project addresses replacement of watermain reaching end of serviceable life and increases available fire flow.

- **D-15 Cherry Street Water Distribution Project**

  This project abandons approximately 240 feet of 8" cast iron pipe that goes from Residence Street to C Street through residential parcels by adding a new 8" watermain on Cherry Street from Residence Street to C Street. The project also replaces existing 4" cast iron pipe on Cherry Street from C Street to A Street. The project installs approximately 780 feet of 8" main in total.

- **D-16 Home Street Water Line Improvement**

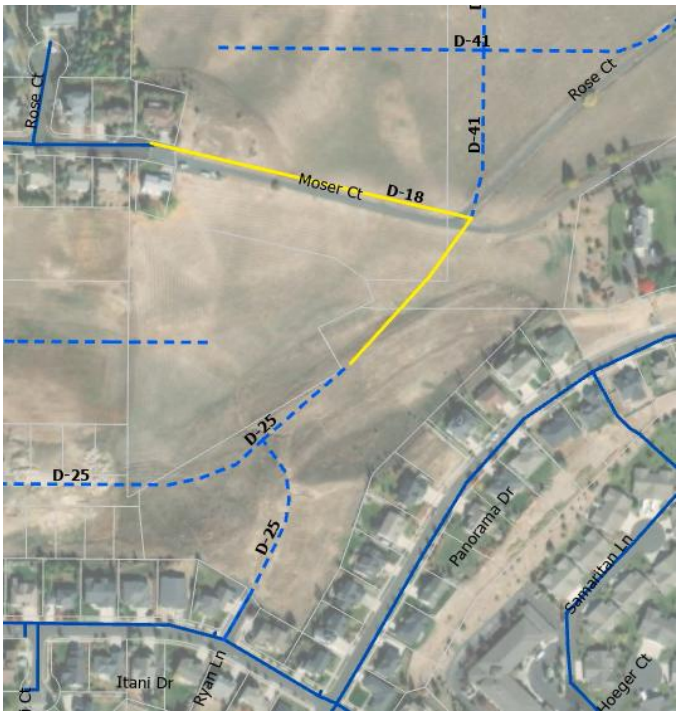
  Project installs approximately 550 feet of 8" waterline on Home Street from C Street to A Street to replace the existing 4" cast iron pipe including the installation of one fire hydrant and tee near C Street and 8" by 8" tee with a three-way valve cluster in the intersection of C Street. The project replaces an aging, undersized line to increase conveyance and provide for better fire service.

- **D-17 Washington Street Watermain Replacement**

  Replacement of approximately 1,000 feet of deteriorating 6" watermain in Washington Street between A and D Streets with new 8" watermain. The project addresses replacement of watermain reaching end of serviceable life and reduces potential for property damage with failure.

- **D-18 Moser and Vista Pressure Zone Intertie**

  Installation of approximately 1,170 feet of 8" watermain from Moser Court to Ryan Lane to interconnect the Moser and Vista pressure zones and allow the decommissioning of the Moser water booster station that is reaching the end of its service life. The project is dependent on project D-25 being installed to complete the loop between the Moser and Vista zones.



- **D-19 Miscellaneous Watermain Improvements**

  Various watermain replacements that occur with roadway construction projects or are otherwise identified.

- **D-20 Harvest Hills Extension (Developer Project)**

  A developer-related project that would install approximately 950 feet of 8" watermain on E 3rd Street and close a gap in the water system. At the east end of the project, the two parallel watermains near the intersection of Crestview Drive and E 3rd Street (an artifact of previous plans for connecting the Moser and Vista zones) will be connected.

- **D-21 Ridgeview Extension (Developer Project)**

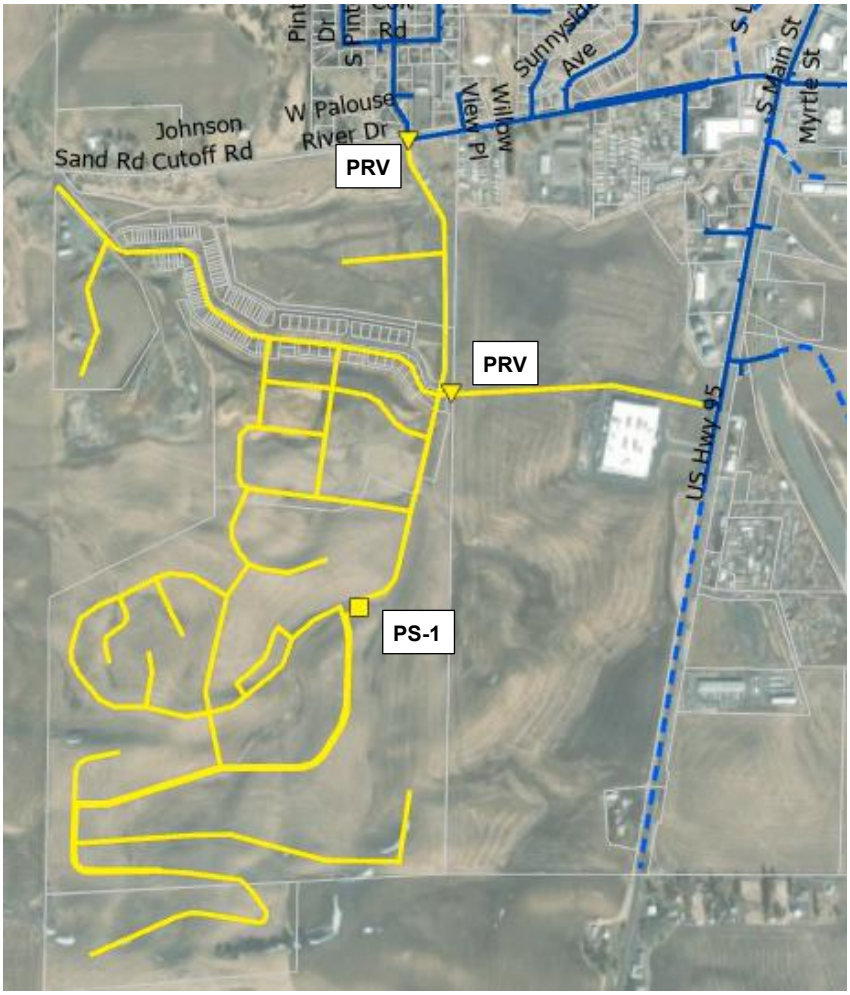
  A developer-related project that would install approximately 1,080 feet of 8" watermain and complete a loop on Wildrose Drive.

- **D-22 (See 20-year CIP)**

- **D-23 Edington Development (Developer Project)**

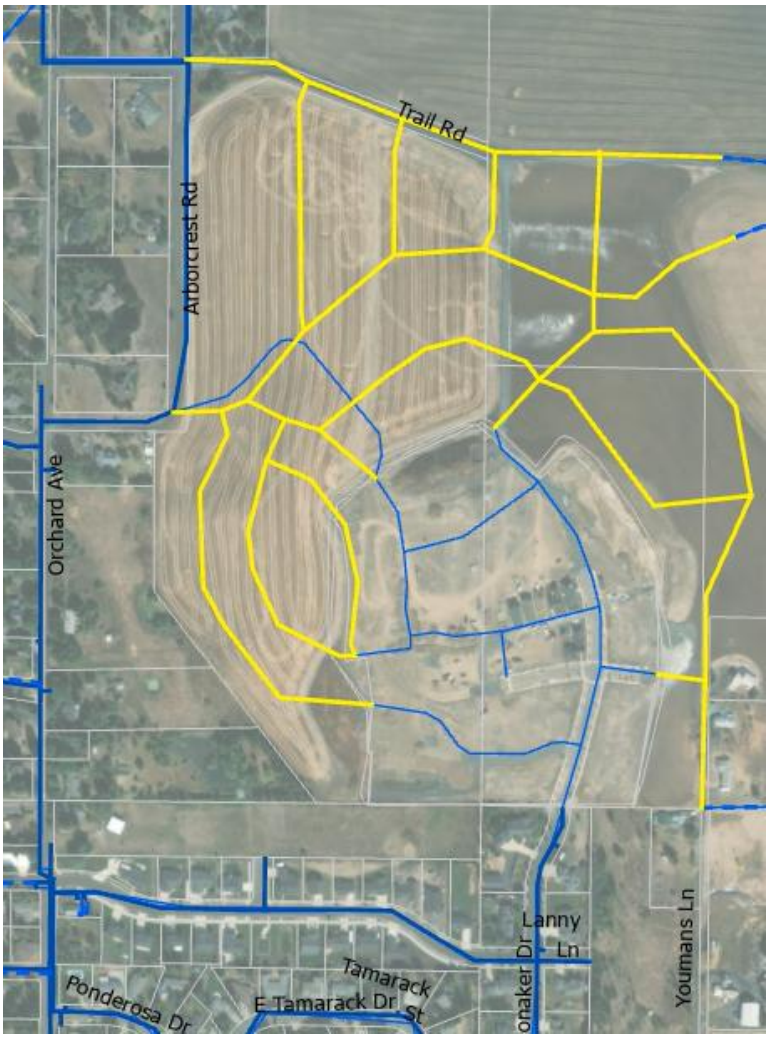
  A developer-related project to build a larger development toward the south end of the water system. Due to changes in elevation across the development, multiple pressure zones will be needed to keep acceptable pressures for all services. It is anticipated that the development will be fed from 12" watermain connections from Palouse River Drive and US Hwy-95 (Main Street) with each of those connections having a PRV station to

reduce pressure from the Main Pressure Zone to be below the maximum allowable pressure of 80 psi. A pump station (project PS-1) will be located midway in the development to boost water to the highest elevation of the development, at which point additional PRV stations then allow water to be delivered to two additional pressure zones below the boosted zone. It is anticipated that at least four pressure zones will be needed for the development.



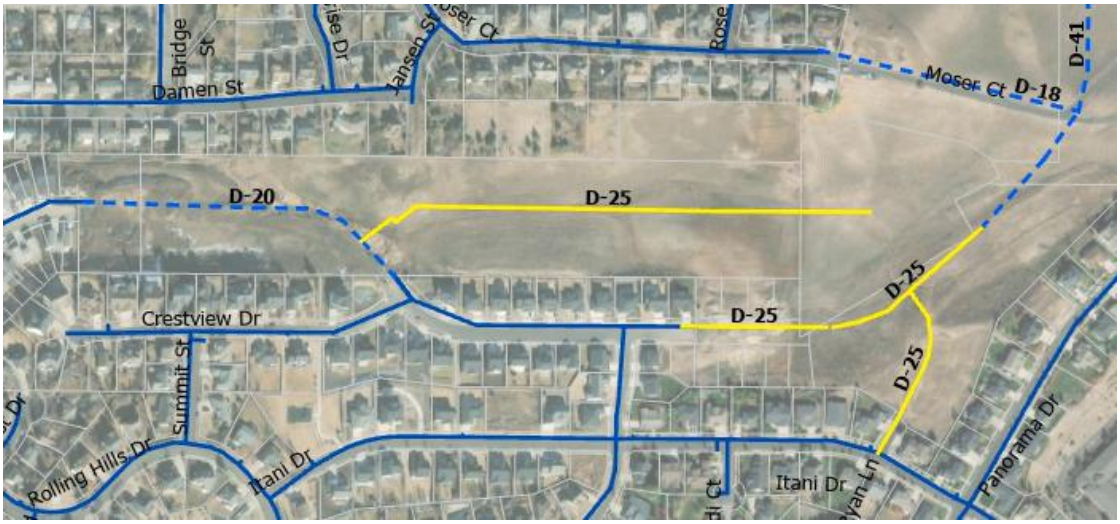
- **D-24 Woodbury Development (Developer Project)**

  A developer-related project to complete additional phases of the Woodbury Development which will be supplied primarily from the Ponderosa Pressure Zone.



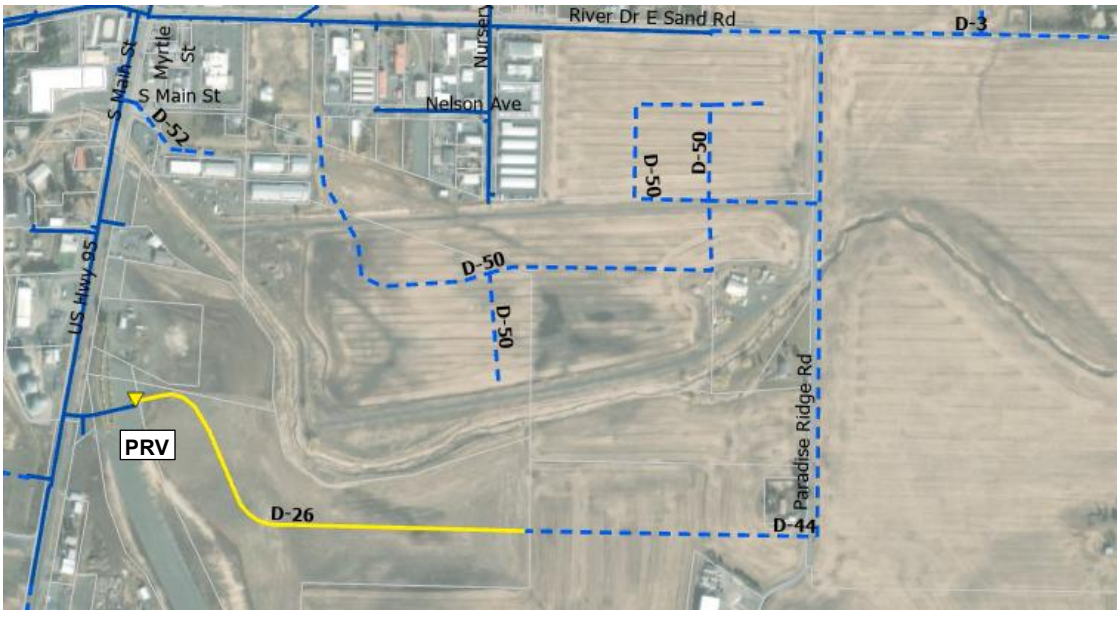
- **D-25 Rolling Hills 9th and 10th Addition (Developer Project)**

  A developer-related project to complete new additions to an existing development. The project has locations that are within both the Main Pressure Zone and the boosted Vista Pressure Zone. The portion of the project within Ryan Lane will ultimately be used as part of the pipe loop to connect the Vista Pressure Zone to the Moser Pressure Zone (project D-18).



- **D-26 SOMO Development (Developer Project)**

  A developer-related project that would install approximately 2,170 feet of 12" watermain. The western end of the project will include a PRV station to reduce pressure to be below the maximum allowable 80 psi. Eventually, plans include looping the piping to Palouse River Drive (via project D-44). The PRV station should be designed to accommodate the later installation of a pipe spool with check valve allowing flows from Palouse River Drive to US Hwy-95 in the event of a high demand fire scenario once project D-44 is completed.



- **D-27 Wildrose Court (Developer Project)**

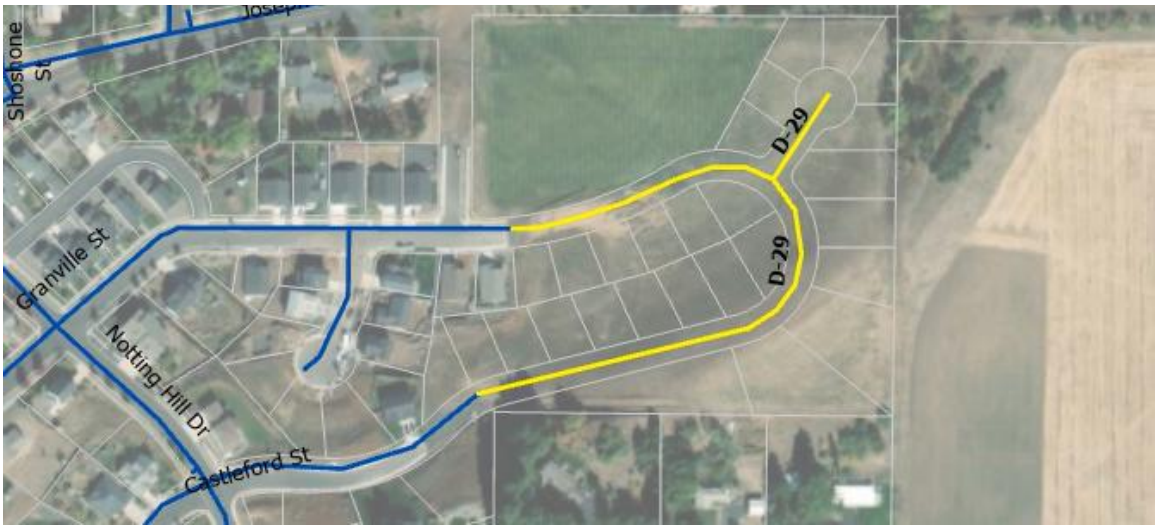
  A developer-related project of Wildrose Drive that would install approximately 1,050 feet of 8" watermain to serve the development.

- **D-28 University Gateway Project (Developer Project)**

  A developer-related project that would reconfigure the water system near the intersection of Deakin Street and 6th Street. The project would install approximately 1,050 feet of new 8" watermain.

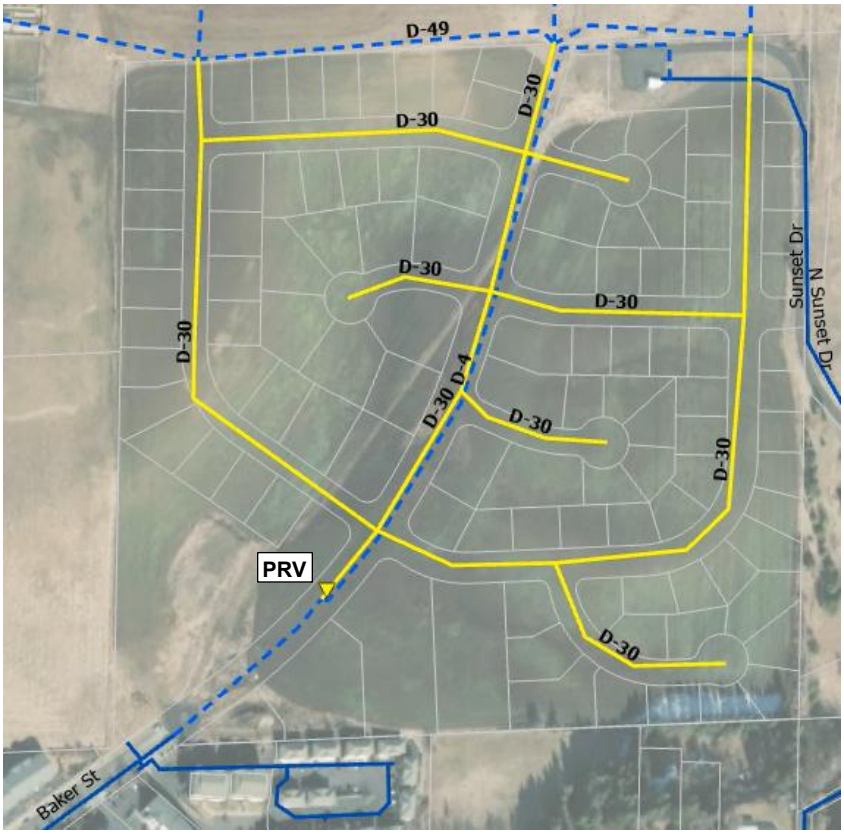
- **D-29 Castleford Street Extension (Developer Project)**

  A developer-related project off Castleford Street installing approximately 1,370 feet of 8" watermain. A higher elevation area is located to the southeast side of the development. Depending on site grading, it is possible for some service connections to require boosting if the higher elevation lots are not graded to a lower elevation.



- **D-30 Baker Street Development (Developer Project)**

  A developer-related project off Baker Street and near Well 8 that would install approximately 6,300 feet of 8" watermain. A PRV station would be located at the project's connection to the Main Pressure Zone (connection to project D-4 piping) to reduce pressure to be below the maximum allowable 80 psi.



- **D-31 (Not Used)**

20-year CIP Water Distribution Projects

- **D-22 Taylor Zone Check Valve**

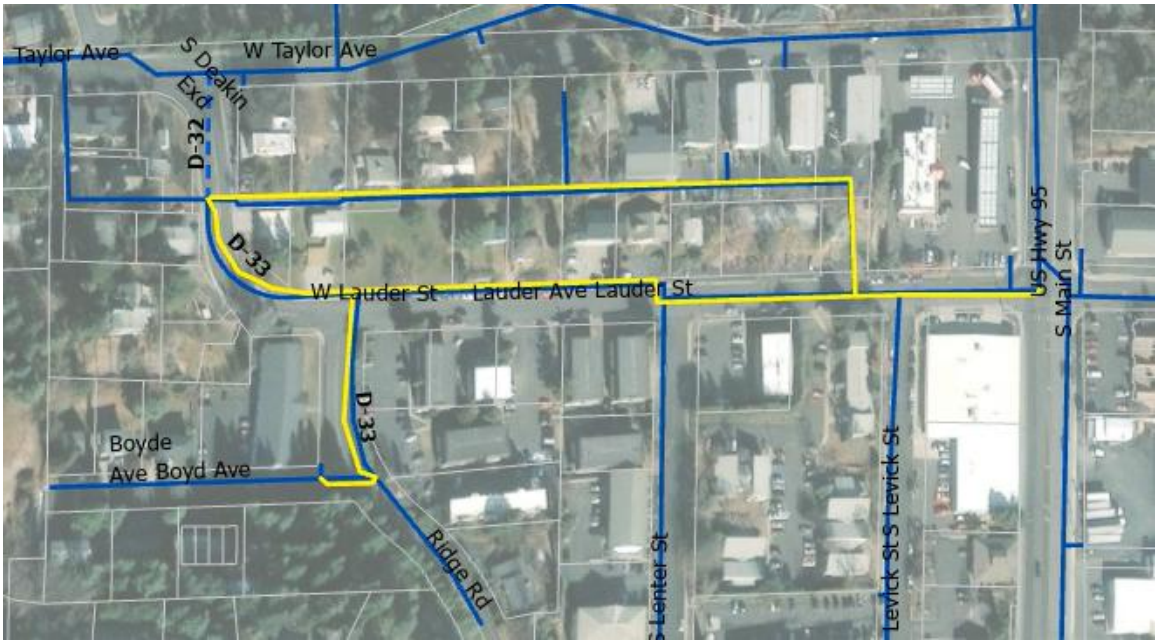
  The project installs a 6" check valve and vault in piping at the intersection of Blake Avenue and Taylor Avenue where a normally closed zone valve is located, to allow for water to be fed from the Main Pressure Zone into the Taylor Pressure Zone in the event of a high demand (i.e., fire) scenario in the nearby area of the Taylor Pressure Zone, increasing the available fire flow for the area which has multifamily residential developments.

- **D-32 Lauder Avenue Fire Flow Improvements Phase 1**

  This project would install approximately 190 feet of 8" pipe on Lauder Avenue to loop piping to the 12" pipe on Taylor Avenue to improve available fire flow to the area.

- **D-33 Lauder Avenue Fire Flow Improvements Phase 2**

This project would build off of project D-32 and replace existing 4" and 6" cast iron mains in the area with new 8" watermain to improve available fire flow. Approximately 2,630 feet of 8" pipe would be installed.



- **D-34 N Adams Street Fire Flow Improvements**

  Project installs approximately 750 feet of 8" watermain on N Adams Street from D Street to B Street while also connecting to the existing 6" at C Street. The additional looping improves the available fire flow for the area.

- **D-35 Christopher Lane and Hirschi Road Fire Flow Improvements**

  This project replaces the existing 6" piping on Hirschi Road and Christopher Lane with approximately 1,140 feet of 8" pipe to increase available fire flow.

- **D-36 Highland Drive Fire Flow Improvements**

  This project replaces the existing 6" cast iron mains in the area of Highland Drive with approximately 2,000 feet of 8" watermain to increase available fire flow.

- **D-37 Virginia Avenue Fire Flow Improvements**

  This project replaces existing 6" cast iron pipes on Virginia Avenue from Orchard Avenue to the western most hydrant with approximately 660 feet of new 8" watermain to increase available fire flow.

- **D-38 Daves Avenue Fire Flow Improvements**

  This project replaces existing 6" pipe on Daves Avenue from Meadow Street to the eastern-most hydrant with approximately 600 feet of new 8" watermain to increase available fire flow.

- **D-39 Hawthorne Drive Fire Flow Improvements**

  This project replaces existing 6" cast iron pipes on Hawthorne Drive with approximately 640 feet of new 8" watermain to increase available fire flow.

- **D-40 Lynn Street Fire Flow Improvements**

  This project replaces existing 4" pipe on Lynn Street from 6th Street to 8th Street with approximately 940 feet of 8" watermain, including a connection to the existing 4" pipe on 7th Street, to increase available fire flow.

- **D-41 Pine View Addition (Developer Project)**

A developer-related project that would be part of the combined Vista / Moser Pressure Zone and would install approximately 2,300 feet of 8" watermain. The project would require project D-25 to be completed in order to connect to the system.

- **D-42 Blum Apartments (Developer Project)**

  A developer-related project located near the intersection of Mountain View Road and Palouse River Drive. The project would install approximately 1,630 feet of 8" watermain and 600 feet of 12" watermain.

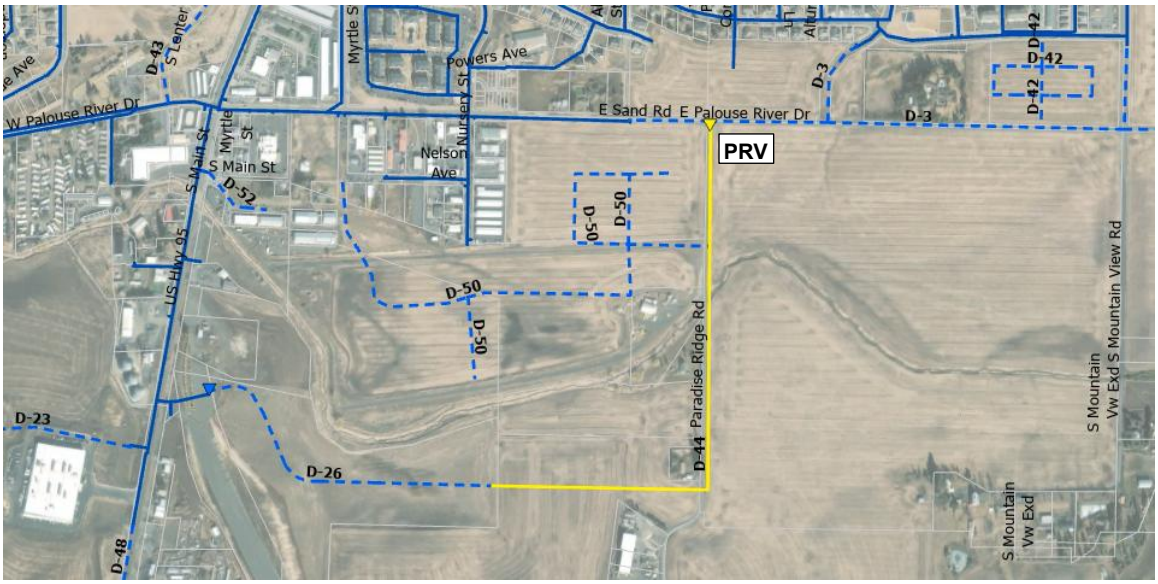
- **D-43 S Lenter Street Extension (Developer Project)**

  A developer-related project that would install approximately 1,080 feet of 8" watermain on Lenter Street to close a gap in the system by connecting to the existing 12" pipe in Palouse River Drive. The project would also benefit the surrounding water system by increasing system redundancy and available fire flow.

20+ Year CIP Water Distribution Projects

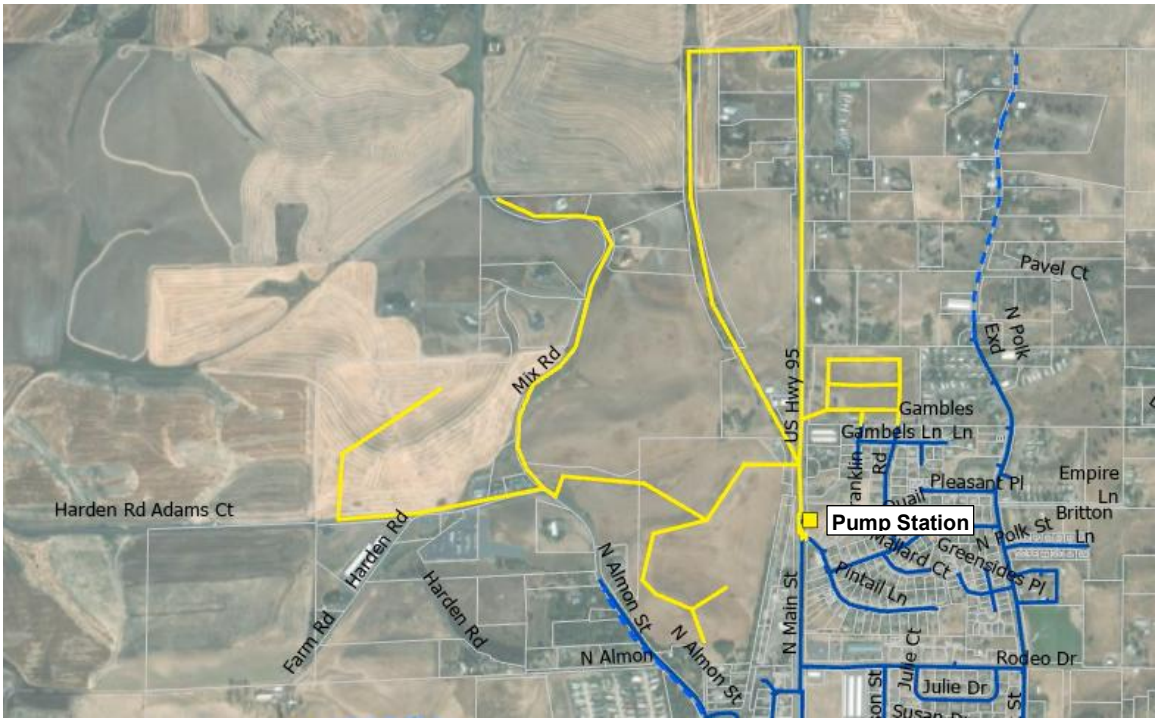
- **D-44 Paradise Ridge Road Extension**

  This project would install approximately 3,740 feet of 12" waterline on Paradise Ridge Road to create an additional pipe loop from Palouse River Drive to US HWY-95 and connecting to projects D-3 and D-26. The completion of this loop allows higher fire flows to be delivered to the south Moscow area by creating a more direct conveyance route from the Vista Reservoir. A PRV station would also be installed at the connection to Palouse River Drive to keep system pressures below the maximum allowable 80 psi. The PRV station would include a pipe spool with check valve allowing flows to go towards Palouse River Drive from US Hwy-95 in the event of a high demand fire scenario on Palouse River Drive.



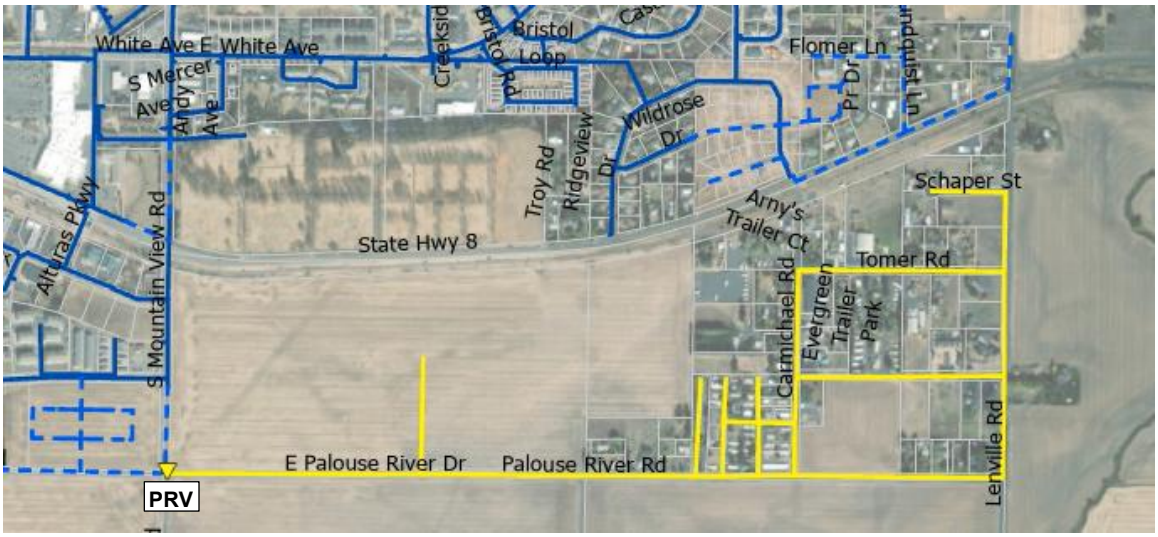
- **D-45 North Zone**

  With expansion of the water system to the north along US HWY-95 and Mix Road, a new pressure zone is needed to maintain adequate system pressure for the higher elevation area. The pressure zone would be served through the completion of the North Pump Station (project PS-2). System piping around the new pump station would also be reconfigured to change Pintail Lane to be a part of the boosted pressure zone.



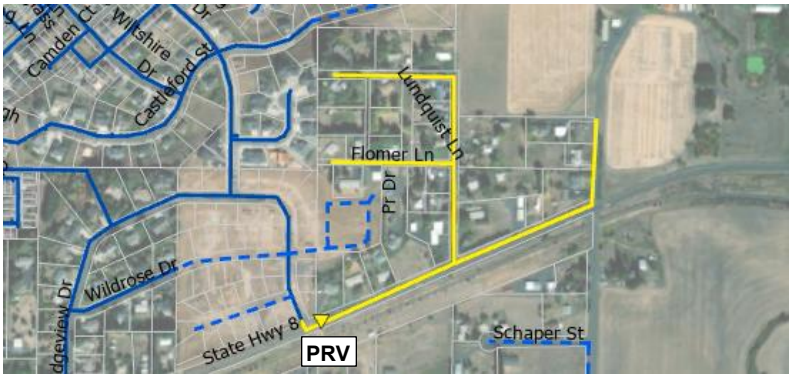
- **D-46 Southeast Zone and PRV Station (Potential/Optional)**

  This project creates a new pressure zone towards the southeast of the water system to incorporate an area that is currently within the Southeast Water/Sewer District (the district currently only provides sewer service) if it is necessary to keep pressures below a maximum pressure of 80-psi by placing a PRV station at the connection point to Mountain View Road. As keeping system pressures below 80 psi is currently not required, this project is not currently included in the CIP shown in Table 8-1.



- **D-47 Lundquist Zone and PRV Station (Potential/Optional)**

  This project creates a new pressure zone towards the southeast of the water system to incorporate an area that is currently within the Southeast Water/Sewer District (the district currently only provides sewer service) if it is necessary to keep system pressures below 80-psi. The zone would be supplied through a connection to the White Avenue Pressure Zone. A PRV station would be placed near the project's connection point. The White Avenue Pump Station would also be modified to have increased capacity to accommodate the additional demand of the area. As keeping system pressures below 80 psi is currently not required, this project is not currently included in the CIP shown in Table 8-1.

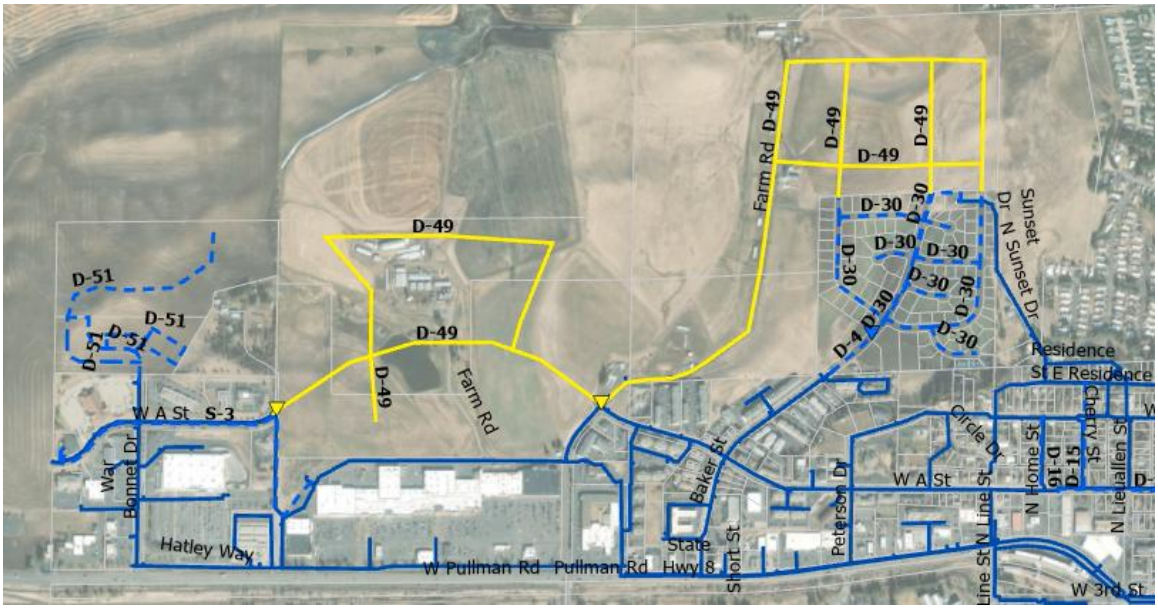


- **D-48 South Moscow Zone and PRV Station (Potential/Optional)**

  This project would allow the system to expand further to the south along US HWY-95 while keeping pressures below 80-psi by installing additional watermain and a PRV station at the point of extension when expanding to the south. As keeping system pressures below 80 psi is currently not required, this project is not currently included in the CIP shown in Table 8-1.

- **D-49 A Street Zone and PRV Stations (Potential/Optional)**

  This project would allow the system to further expand in the area of A Street and Farm Road while keeping pressures below 80-psi. PRV stations would be placed at locations where the project connects to the existing system. As keeping system pressures below 80 psi is currently not required, this project is not currently included in the CIP shown in Table 8-1.

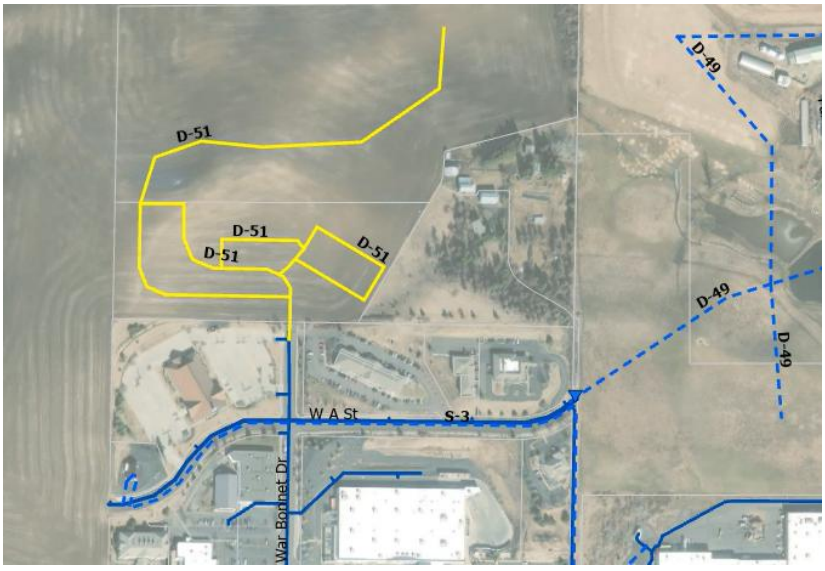


- **D-50 SE Industrial Park (Developer Project)**

  A developer-related project that would expand the system into an area south of Palouse River Drive. The area could tendentially be served from Paradise Ridge Road if project D-44 is in place.

- **D-51 Warbonnet Extension (Developer Project)**

  A developer-related project to expand the water system north on Warbonnet Drive.



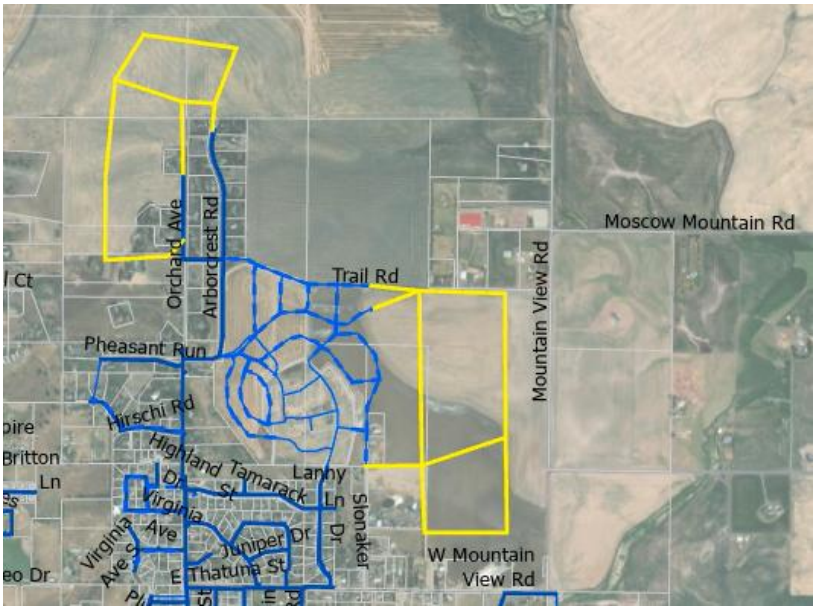
- **D-52 Fountains Industrial Park (Developer Project)**

  A developer-related project to install approximately 550 feet of new waterline to serve an area off of US HWY-95 south of Palouse River Drive. A PRV would be installed on the connection off of US HWY-95 to keep pressures below the maximum allowable 80-psi.

- **D-53 Not Used**

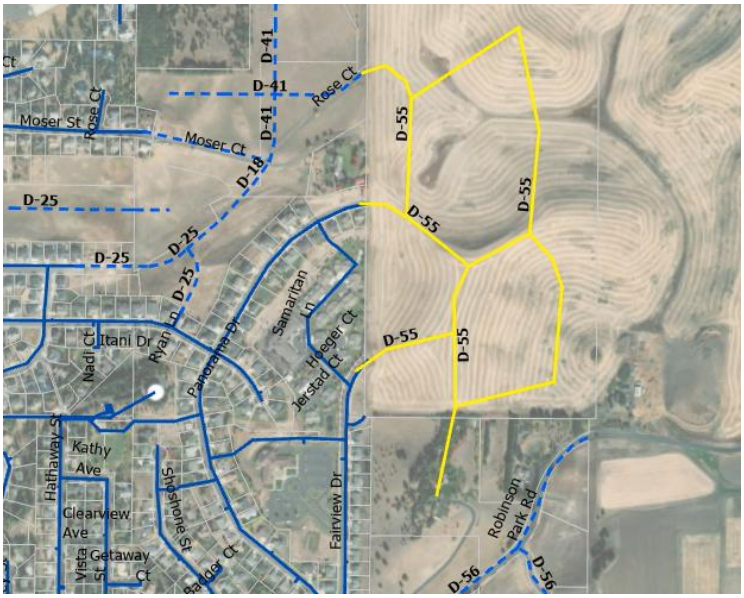
- **D-54 Ponderosa Zone Expansion (Developer Project)**

  A developer-related project to further expand the system off of the existing Ponderosa Pressure Zone. The Ponderosa Pump Station may also be modified to accommodate the additional demand.



- **D-55 Vista Zone Expansion (Developer Project)**

  A developer-related project to further expand the Vista Pressure Zone to the east. The project would tie into the existing system on Panorama Drive and Fairview Drive as well as project D-41.



- **D-56 Robinson Park Road Extension (Developer Project)**

  A developer-related project that would add approximately 2,230 feet of 8" waterline to extend water service east on Robinson Park Road.

- **D-57 Polk Street Extension (Developer Project)**

  A developer-related project that would install approximately 2,400 feet of 12" watermain on Polk Street to expand the system further to the north off of the Main Pressure Zone.

8.2.5. Water Maintenance and Operations

The following are maintenance and operations-related capital projects that address deficiencies or needs.

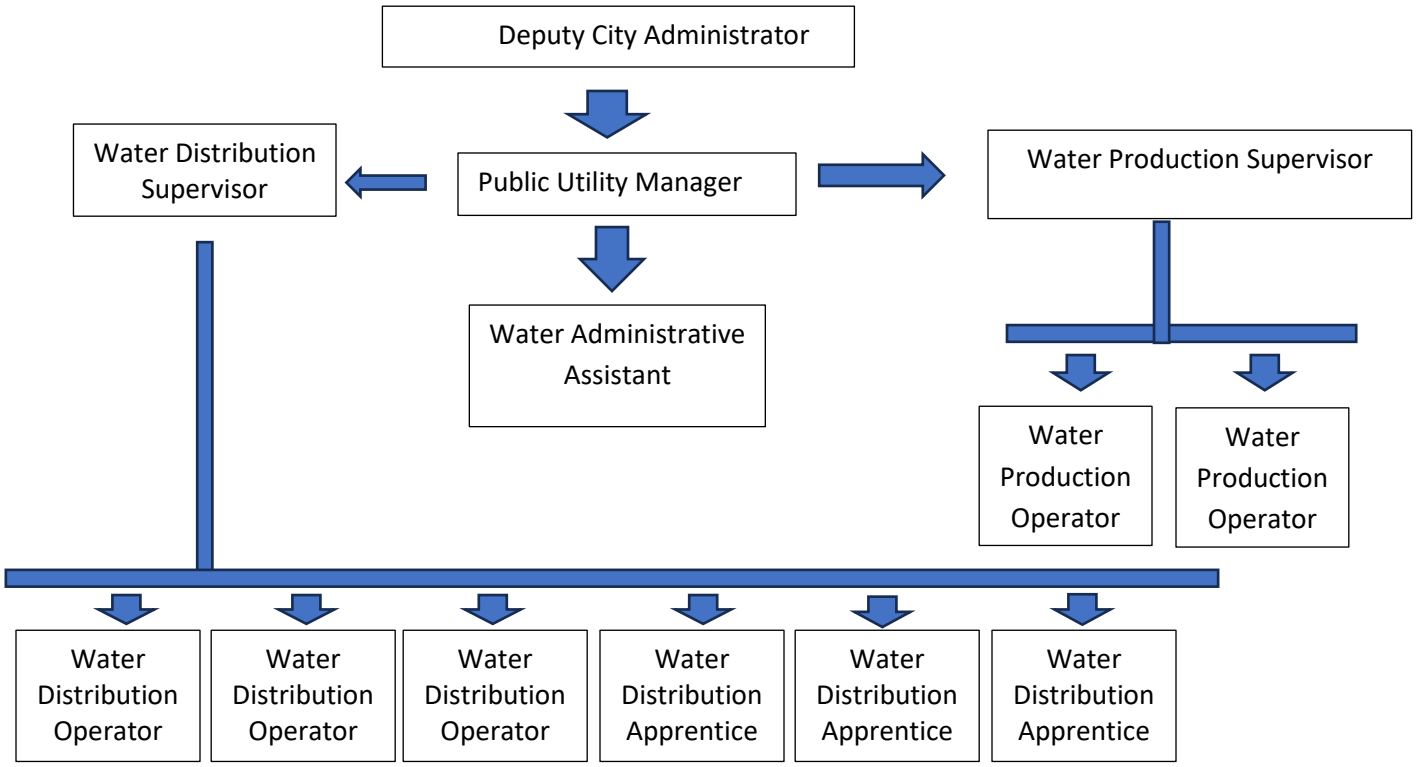
- **M-1 Well 9 Power Conversion - Stand-by Power Generator**

  Conversion of the well motor and MCC equipment from 2300 volt to 480 volt. Includes a VFD to the site for power savings as well as to improve fire flow capacity. Purchases and installs a diesel standby generator for redundant power. Provides system redundancy and energy efficiency.

Appendices

Appendix 2-1 Organizational Chart

City of Moscow Water Department



Appendix 3-1 Policies

Chapter 4

WATER REGULATIONS

Sec. 4-1: Premises to Connect to Water Line
Sec. 4-2: Water Distributed Through Meters
Sec. 4-3: Meter Classifications and Installation Charge
Sec. 4-4: Charges Against Property Owner
Sec. 4-5: Damage to Meters, Liability
Sec. 4-6: Requirements After Repairs for Turning on Water
Sec. 4-7: Maintenance, Repair, Relocation, Abandonment, Upsizing and Downsizing of Meters
Sec. 4-8: Unlawful to Waste Water and Suspension of Water Service
Sec. 4-9: Inspection and Right of Entry
Sec. 4-10: Water Rates
Sec. 4-11: Water Service Outside City Limits
Sec. 4-12: Water Billing Regulations
Sec. 4-13: Meter Reread on Disputed Charges
Sec. 4-14: Refunds
Sec. 4-15: Deposits
Sec. 4-16: Return of Deposits
Sec. 4-17: Regulation
Sec. 4-18: Water System Property of City
Sec. 4-19: Service Connections
Sec. 4-20: Temporary Connections
Sec. 4-21: Water Line Extension
Sec. 4-22: Water Line Extension Plans and Approval
Sec. 4-23: Water Line Extension Specifications
Sec. 4-24: Connection Revocation
Sec. 4-25: Rules and Regulations

Sec. 4-1. Premises to Connect to Water Line.

The City is hereby empowered, and it is hereby made its duty in all cases where there is a public water line in any street, or easement in the City to compel every owner of land, buildings or premises used for human occupancy, employment, recreation, or used for other purposes requiring potable water and abutting on such street or easement or within three hundred feet (300') of the same, to construct or cause to be constructed a sufficient water service line which shall connect said land, building or premises to said water line within ninety (90) days after date of official notice, unless in the opinion of the City such connection is not desirable.

Every owner of premises shall connect said land, building or premises to such nearest accessible water line within ninety (90) days after date of official notice.

Sec. 4-2. Water Distributed Through Meters.

A. All water acquired from the City of Moscow Public Drinking Water System must be metered except:
   1. Water use required for system maintenance.
   2. Water use for firefighting purposes.
B. Each residence and business establishment to which water is supplied by the City, whether inside or outside of the City, must have a separate meter connection directly to the main, excepting however, those portions of buildings used principally for offices or apartments where the property owner furnishes the water supplied to the tenants, or as described below.
C. All meters shall be located outside the premises and within a City of Moscow right-of-way or easement. Internal meters will only be allowed where an external meter is not possible. Meters shall be installed in accordance with current City of Moscow Standard Construction Drawings.
D. The City of Moscow will provide sufficient water to maintain system pressure, consistent with IDAPA 58.01.08, measured at the service connection or along the property line adjacent to the consumer's premises.
E. Installation of a new service line and

meter from an existing fire line is not permissible.

F. For any existing service line and meter off a fire line, the City is only responsible for the maintenance and repair of the meter. When significant improvement occurs that require the moving, removing or extending of the sprinkler system, compliance with all applicable codes will be required.

G. The City of Moscow will not read or maintain private water meters.

H. In the event that any property owner shall refuse to allow such meter to be installed or refuse to pay for the same, or refuse to pay for the metered water used, it shall be the duty of the City to forthwith discontinue the water from the premises of such property owner or the property.

(Ord. 2020-06, 05/04/2020)

Sec. 4-3. Meter Classifications and Installation Charge.

A. Single-Family Residential (Detached single family and attached single family units where each unit is located upon a separate lot to allow for individual sale).

1. Each individual property must have its own meter. Metered water lines may not be extended to serve another property.

2. The water meter shall be installed in compliance with the current City of Moscow Standard Construction Drawings.

3. Any property where multiple structures are served by a single water service will be required to come into compliance with current policy in the event that the property is divided. When a property is divided, the City of Moscow will allow the service lateral to be utilized for additional meters provided that pressure (60 psi minimum static pressure at point of lateral split) and flow requirements can be met, and the split meets all other requirements of the City of Moscow Standard Construction Drawings. In addition, the new meter must be able to be set within five (5) feet of the existing meter.

B. Multi-Family Residential (Apartments, Duplexes, and Condominiums).

1. Each building must have at least one (1) individual meter that does not take water from another metered line. Central metering of more than one building in an apartment complex under single ownership will be permitted as long as there is a dedicated service line to each building with a shutoff valve on each line.

C. Commercial and Mixed-Use Buildings.

1. Each building must have at least one (1) individual meter that does not take water from another metered line. Central metering of more than one building in a commercial complex under single ownership will be permitted as long as there is a dedicated service line to each building with a shutoff valve on each line.

a. When central metering is selected by the property owner, the highest applicable commercial use rate will be applied toward the sewer bill calculation. If a property owner desires distinct rates for different building uses, units must be metered separately.

D. Public Use Buildings (e.g. government buildings, churches, schools, non-profits).

1. Each building must have at least one (1) individual meter that does not take water from another metered line. Central metering of more than one building in a public use complex under single ownership will be permitted as long as there is a dedicated service line to each building with a shutoff valve on each line.

a. When central metering is selected by the property owner, the highest applicable rate will be applied toward the sewer bill calculation. If a property owner desires distinct rates for different building uses, units must be metered separately.

E. Mobile/Manufactured Home Parks.

1. Mobile/Manufactured Home Parks whose water distribution system is not

owned by the City of Moscow shall be centrally metered at the location where the private water distribution system attaches to the City of Moscow Public Drinking Water System.

F. Irrigation Meters.
   1. Each individual property must have its own meter. Metered irrigation lines may not be extended to serve another property.
   2. Irrigation meters shall follow installation requirements as laid out in the City of Moscow Standard Construction Drawings.
   3. Applicable water general facilities charges and base rates will apply to irrigation meters.

G. Deduct Meters.
   1. Deduct meters are not permissible.

H. Before a meter is installed, the property owner shall pay to the City the cost of said meter together with the cost of installation thereof as determined by the City.

(Ord. 2020-06, 05/04/2020)

Sec. 4-4. Charges Against Property Owner.

When a meter has been installed, water will not thereafter be supplied to the premises of such property or property owner, except upon metered water rates. All water charges shall be the ultimate responsibility of the property owner; provided, however, that a non-property owner or tenant may pay said water charges.

In the event a tenant or other non-property owner is to pay water charges on behalf of the property owner, the name and address of the tenant or non-property owner shall be submitted to the City.

Sec. 4-5. Damage to Meters, Liability.

When any water meter or meter box has been damaged by reason of the negligence of the user of City water or a third party, or by reason of the defective condition of the plumbing on the premises of the water user, or by reason of the backing up of hot water from premises of the water user, then such water user shall pay for the replacement or repair of said meter in an amount to be determined by the City.

Sec. 4-6. Requirements After Repairs for Turning on Water.

Whenever the City is called upon to repair or replace a meter which has been damaged as set forth in Code Section 5-4-5, it may, at its discretion, refuse to repair or replace said meter, and disconnect the water service line to said premises, and refuse to connect same until a check valve is installed between the water meter and the premises on which water is used, in order to prevent the water from backing up from said premises, and it may also require that a safety valve or "pop off" be placed in service to relieve pressure on the hot water tank or other plumbing fixtures located upon said premises. Whenever the City finds an electrical hazard, especially those caused by faulty electrical equipment where a water pipe ground exists, work will stop and the electrical inspector notified. Work will resume after the problem is corrected or all power on the property is turned off. Within thirty (30) days the cause of the problem must be determined and permanently corrected.

Sec. 4-7. Maintenance, Repair, Relocation, Abandonment, Upsizing and Downsizing of Meters.

A. Maintenance/Repair. The City will repair or replace all defective meters without cost to the property owner, except in those instances where the meter has been damaged by reason of the negligence of the water user, or intentional destruction or damage by the water user, or by reason of the defective condition of the plumbing on the premises of the water user, or by reason of the backing up of hot water from the premises of the water user.

B. Relocation. An owner may request relocation of a meter.
   1. Relocation requests will be

reviewed for feasibility by City staff.

2. A relocation greater than five (5) feet will require abandonment of the existing service line and the installation of a new service line.

3. All applicable installation and abandonment fees will apply.

C. Abandonment. An owner may request the abandonment of an existing water service.

1. Abandonment results in the removal of the meter and setter, and disconnection of the existing service line from the water main.

2. Abandonment requests will be subject to all applicable fees.

3. Reinstatement of an abandoned water service will require the property owner to establish a new connection (service line), with all applicable general facilities charges and connection fees.

D. Upsizing. An owner may request to upsize a water service.

1. Upsizing requests will be subject to applicable fees which may include; general facilities charges (commensurate with the increase in meter size), street cut, abandonment, and installation fees.

2. The owner will receive credit for the existing meter installation in the amount corresponding to their existing meter size in the City of Moscow Fee Schedule for installation of service meters (existing service line to property).

E. Downsizing. An owner may request to downsize a meter.

1. Downsizing customers will receive credit for existing meter installation in the amount corresponding to their existing meter size in the City of Moscow Fee Schedule for installation of service meters (no existing service line to property) up to, but not exceeding, the total amount of costs associated with the downsizing.

2. Once the meter is downsized, the established size for the service becomes the smaller size. Any future upsizing of the service will be subject to the regulations outlined in this code and by City policy.

(Ord. 2020-06, 05/04/2020)

Sec. 4-8. Unlawful to Waste Water and Suspension of Water Service.

A. It shall be unlawful for any person to waste water or allow it to be wasted by imperfect or leaking stops, valves, pipes, closets, faucets or other fixtures, or to use water closets without self-closing valves, or to use water in violation of the Chapter regulating said use of water.

B. If such waste of water continues after receiving notice from the City to make repairs and to desist from the waste of water, the City shall shut off the water supply from such premises until the necessary repairs have been made.

C. An owner may request a temporary suspension of their water service. Suspension requests will be subject to all applicable fees. Monthly water base rates will continue to apply.

(Ord. 2020-06, 05/04/2020)

Sec. 4-9. Inspection and Right of Entry.

The City and the duly authorized agents of the City bearing proper credentials and identification shall be permitted at proper and reasonable hours of the day to enter all properties, premises or buildings to which water is furnished from the City water system for testing or inspection or repair of any part of the public water system and sewer collection system. Also, the City and the duly authorized agents of the City bearing proper credentials and identification shall be permitted to enter all private properties through which the City holds a duly negotiated easement for the purpose of, but not limited to, inspection, observation, repair and maintenance of any portion of the City water system and sewer collection system lying within said easement.

(Ord. 99-25, 7/19/99)

Sec. 4-10. Water Rates.

The Council shall establish water rates which shall be effective from and after

approval by resolution adopted by the Council. Said water rates shall include rates for:

A. Installation costs of meters.
B. Minimum service charge for maintenance of water system.
C. Water rate charge for water furnished within boundaries of the City.
D. Water rate charge for water furnished outside boundaries of the City.
E. Water rate charge for Moscow Cemetery Maintenance District.
F. Water rate charge for the University of Idaho water system.
G. Connection fee.
H. Late water charges.

All water charges shall be the responsibility of the owner of the property which receives the water. The City is authorized to receive payment from either the property owner or tenant or agent of the property owner on his behalf.

Sec. 4-11. Water Service Outside City Limits.

In the event of need and/or at the discretion of the Council, any service outside the City limits may be terminated at any time by order of the Council. The fixing of water rates for water service outside the City is not to be read as imposing a duty upon the City to make such water service.

Sec. 4-12. Water Billing Regulations.

The City shall establish by rule and regulation a system of billing, collection and enforcement of all water charges. Said system shall be effective after approval by the Council and shall include:

A. Reading meters and establishing water charges.
B. Notice of any delinquency to be made to both property owner, agent and tenant if applicable prior to shut off of water for nonpayment of water charges.
C. Provisions limiting the liability of nonresident property owners for delinquent tenant water charges to a maximum of three (3) times the previous year's monthly average billing.
D. Discontinuance of water service for nonpayment of water charges after notice of delinquency.
E. Penalty for payment after due date.
F. Connection fee for reconnecting water service.
G. Discontinuance of water for failure to pay all services provided by the City after notice of delinquency.

Sec. 4-13. Meter Reread on Disputed Charges.

Where any questions arise as to the validity of any amount due for water consumed during one month, the City is hereby authorized to have the water meter, through which the water flows, over which controversy arises, tested, read and investigated, and, if such meter is found to have been over-read or an overcharge made to the customer, such customer shall be given credit for the amount of the overcharge on future charges against the customer for water consumed.

Sec. 4-14. Refunds.

No officer shall rebate or refund any money for overcharges on water consumed until a full investigation by the City has been made, and report having been filed with the Mayor and Council, and an order made by the Council ordering such rebate.

Sec. 4-15. Deposits.

All applications to have water turned on shall be made to the City. The City may require a deposit fee established from time to time by Resolution of the Council. Water may be discontinued for failure to make said deposit.
(Ord. 2009-19, 08/17/2009)

Sec. 4-16. Return of Deposits.

Deposits shall be returned by the City at the end of tenancy, upon showing to the City that all arrearages for water rents and fines, if any, have been paid to the City. Deposits shall not otherwise be returned and no interest shall be paid upon return of the deposit.

Sec. 4-17. Regulation.

The City is authorized to deny use of water to any and/or to restrict use of water by any water user when said denial or restriction is necessary for the public welfare.

Sec. 4-18. Water System Property of City.

All mains, service lines up to and including the meter, pipes, hydrants and fixtures now laid, constructed or installed, or hereafter to be laid, constructed or installed in, under, across or through the streets, avenues, alleys and other thoroughfares of the City or easement rights of way granted to the City or adjacent territory, for supplying water to the City and the inhabitants thereof are hereby declared to be the property of the City, under the control thereof and subject to the provisions of this Chapter. No person or persons will be allowed to claim the right to exclusive use of any such water line.

Sec. 4-19. Service Connections.

No property service connections to a City water line shall be made without a permit being issued by the City and the installation of a proper water meter by the City. All such connections shall be made under the supervision of the City and no connections shall be covered until the work has been inspected by the City. No property shall be granted a service connection unless there is an existing water main which abuts and is contiguous to said property, and which will provide the shortest service connection feasible to the premises on said property.

Further, the City may require installation of adequate water lines for fire prior to granting connection to a City water line.

Sec. 4-20. Temporary Connections.

Temporary connections to the City water line may be authorized. Said temporary connection shall not be made to the water lines unless a permit is granted by the City.

The City is authorized to regulate the use of temporary connections to the City water line by restricting the amount of water to be taken, time of taking, place of taking and type of connection to be used. The City shall charge a reasonable fee for use of water by temporary connection to the water line.

Sec. 4-21. Water Line Extension.

The total expense of extending any existing water mains, laterals or lines through the streets, avenues, alleys and other thoroughfares of the City or easement rights of way granted to the City or adjacent territory for supplying water to property within the area to be served by such extension shall be borne by the property owners desiring service at the time of installation. In no instance will property owners be required to pay the costs or part thereof of a preceding extension.

Sec. 4-22. Water Line Extension Plans and Approval.

Plans for the extension of any water mains, laterals or lines through the streets, avenues, alleys and other thoroughfares of the City or easement rights of way granted to the City or adjacent territory shall be submitted to the City for approval. In no instance shall construction on such water line extensions begin prior to the approval of the City. All plans submitted for approval shall be clearly and neatly drawn to a scale of not more than one hundred feet (100') to one inch (1") showing the placement of all valves, meters, hydrants, other accessories and connections, their size and type. All lots or parcels of land affected by the water line extension will be shown on each plan together with the names of the property owners.

Sec. 4-23. Water Line Extension Specifications.

Extensions to any water mains, laterals or lines through the streets, avenues, alleys and other thoroughfares of the City or easement rights of way granted to the City, or adjacent territory must meet the minimum

specifications and standards as established by the City.

Sec. 4-24. Connection Revocation.

The City shall revoke any permanent or temporary connection to a service or a water line or extension thereof which is made contrary to plans and specifications submitted to, and approved by, the City or which is thereafter altered contrary to plans and specifications previously submitted to, and approved by the City.

Sec. 4-25. Rules and Regulations.

The City is authorized to recommend rules and regulations to enforce the provisions of this Chapter. Said rules and regulations shall be effective after approval by the Council.

Chapter 5

RESTRICTIVE USE OF WATER

Sec. 5-1: Emergency Declared
Sec. 5-2: Extent of Water Usage
Sec. 5-3: Allowed Uses
Sec. 5-4: Notice

Sec. 5-1. Emergency Declared.

Due to reduced gallonage on hand in the water system of the City, an emergency exists and is hereby declared, and all property owners, tenants or other persons in charge of premises where water is consumed by sprinkling of lawns, gardens and exterior premises from the water system of the City may be prohibited from such water consumption or may be restricted in the use of such water consumption except during the hours to be defined by Resolution of the Council and published by Proclamation of the Mayor.

Sec. 5-2. Extent of Water Usage.

The Mayor and Council are hereby authorized to declare an emergency and may by proclamation totally prohibit the use of City water for the sprinkling of lawns, gardens, and exterior premises, and any other use of City water designated by resolution of Council; or the Mayor and Council are hereby authorized, if a partial use of City water for the sprinkling of lawns, gardens, and exterior premises shall be permitted during such emergency, to declare such an emergency and publish such hours of sprinkling pursuant to Resolution of the Council.

Sec. 5-3. Allowed Uses.

The Mayor and Council are hereby authorized to change, alter, increase or decrease by Resolution of the Council the hours of sprinkling permitted according to the exigencies of the emergency, with any change in hours to be published as set forth hereinabove .

Sec. 5-4. Notice.

The Mayor shall have the authority to announce the emergency and publish the prohibition of the use of City water for the sprinkling of lawns, gardens, and exterior premises, and any other use of City water designated by Resolution of Council; or the Mayor shall have the authority, if a partial use of City water for the sprinkling of lawns, gardens, and exterior premises shall be permitted during such emergency, to publish the permissive hours of sprinkling by Proclamation, and shall have authority to announce termination of the emergency, and all of the foregoing shall be published in each instance three (3) times in three (3) consecutive issues of the City’s official newspaper.

Chapter 17

WATER CONSERVATION

Sec. 17-1: Purpose
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Sec. 17-1. Purpose.

The purpose of this Chapter is to highlight the importance of water conservation and to promote the responsible use of water within the City through reasonable regulation.
(Ord. 2004-27; 05/17/2004)

Sec. 17-2. General Water Usage Regulations.

No person who uses water from the City water supply system shall make, cause, use or permit the use of such water in a manner contrary to the provisions of this Chapter whether or not such person is an account holder or customer of such City water supply system.
(Ord. 2004-27; 05/17/2004)

Sec. 17-3. Definitions.

For purposes of this Chapter, the following term(s) shall have the meaning given herein:

A. *Automatic shut-off mechanism.* A device or attachment which immediately and automatically shuts off the flow of water from a hose when the hose is not being physically held or operated by a person, such as a pistol or trigger spray hose nozzle or other automatic positive shut-off nozzle. A device or attachment which shuts off water flow by measuring or metering water (such as a mechanized water timer) or a device or attachment which shuts off water flow after a certain measurement of time (such as an electronic water timer), is not an automatic shut-off mechanism for purposes of this Chapter.

B. *Impervious Surface.* A durable surface made of or similar to gravel, asphalt, concrete, cement, brick, or combination thereof, which is laid down on or applied to an area including, but not limited to, a sidewalk, parking lot, etc., for the purpose of creating a permanent or semi-permanent surface which could sustain vehicular, foot, or bicycle traffic or other means of transportation, and where vegetation is unlikely to grow.

C. *Irrigation System.* Any device(s) or system(s) utilizing a hose, pipe, and/or other conduit which connects to any source of ground and/or surface water and through which water is conveyed and/or drawn in order to apply such water to land, crops, plants, and/or other vegetation including, but not limited to, sprinklers, in-ground irrigation, or a similar system. "Irrigation system" shall not include an automatic shut-off mechanism, as defined in this Chapter.

D. *Outdoor Irrigation.* The act or process of watering or wetting landscaping, grass, trees, plants, and/or other vegetation by causing water from the City's water supply to flow upon, over, through or into property with sprinklers, sprinkler hoses, soaker hose(s) (water weeping types), drip irrigation systems, in-ground irrigation systems, or by other similar means. Irrigation with hand-held hose(s) of one inch (1") or less inside diameter equipped with an automatic shut-off mechanism or irrigation using a container of five (5) gallons or less shall not be considered outdoor irrigation for purposes of this Chapter.

E. *Outdoor Irrigation Season.* The period within each calendar year declared by

the City during which Outdoor Irrigation is allowed within City limits. As weather conditions permit, the Outdoor Irrigation Season shall begin seventy two (72) hours after the City declares the start of such Outdoor Irrigation Season. The City shall declare and advertise the ending date of the Outdoor Irrigation Season at least two (2) weeks prior to such ending date.
(Ord. 2004-27, 05/17/2004; 2007-13, 11/19/2007; 2016-05, 04/18/2016; 2021-09, 07/19/2021)

Sec. 17-4. Outdoor Irrigation of Impervious Surfaces Prohibited.

No person shall cause or permit an irrigation system under the ownership, supervision, and/or control of such person to apply water directly or indirectly to an impervious surface, unless otherwise allowed by this Chapter.
(Ord. 2007-13, 11/19/2007)

Sec. 17-5: Outdoor Irrigation Season and Hours.

Outdoor Irrigation shall be allowed only between the hours of 6:00 p.m. and 10:00 a.m. local time, during the Outdoor Irrigation Season unless modified by variance pursuant to this Chapter. Outdoor Irrigation shall be prohibited at all times not within the declared Outdoor Irrigation Season, unless permitted by Variance issued by the City in cases of newly established lawns or landscaping. Outdoor Irrigation by means of soaker hose(s), (water weeping types) or drip-irrigation systems may occur at any time during the Outdoor Irrigation Season specified herein.
(Ord. 2004-27; 05/17/2004; 2007-13, 11/19/2007; 2016-05, 04/18/2016; 2021-09, 07/19/2021)

Sec. 17-6. Exemptions from Water Conservation Regulations.

The following uses of water shall not be regulated by this Chapter:

A. Water required to be used for the control of dust or compaction of soil by this Code or by State and/or Federal statute or regulation;
B. Water used to prevent or abate public health, safety or accident hazards including, but not limited to, fire suppression, fire prevention, and sanitation when a reasonable alternative method is not available;
C. Water used for inspection, maintenance, installation or repair of automatic landscape sprinkling systems or of the City's water supply system (including fire hydrants and training facilities);
D. Water used by City or its agents or franchisees for street sweeping, construction, and maintenance; sewer maintenance; or other established utility and/or public works practices;
E. Water used for purposes other than outdoor irrigation in the normal and customary course of a business operation and water used by a commercial nursery for watering of nursery stock;
F. Where water used for outdoor irrigation is gray water (household waste water other than from water closets or kitchen sinks), treated waste water or effluent, reused water, or water from a source other than the City water system, such as collected rainwater.

(Ord. 2004-27; 05/17/2004; 2007-13, 11/19/2007)

Sec. 17-7. Variance from Water Conservation Regulations.

The City may grant permission to an applicant for variance from the provisions of this Chapter where it is established that there is a hardship or special circumstance which requires such a variance (e.g., establishment of newly seeded or sodded turf grass and/or landscaping; application of chemicals which requires immediate irrigation to preserve lawn or landscaping; physical necessity; etc.). When granting a variance, the City shall establish such conditions and limitations as are necessary to further the purposes of this Chapter.
(Ord. 2004-27; 05/17/2004; 2007-13, 11/19/2007; 2021-09, 07/19/2021)

Sec. 17-8. Penalties

A. Any person violating any of the provisions of this Chapter shall be guilty of a misdemeanor and, upon conviction thereof in a court of competent jurisdiction, shall be punished pursuant to this Code and the Idaho Code.

B. The imposition of a penalty for any violation of this Chapter shall not excuse the violation or permit it to continue.

C. Each day or part thereof in which an activity occurs which is prohibited by this Chapter, shall constitute a separate offense.

D. For purposes of this Chapter, no violation shall be prosecuted unless the City has made at least one (1) attempt to contact and to request relief from the person responsible for the violation.

(Ord. 2004-27; 05/17/2004; 2007-13, 11/19/2007; 2021-09, 07/19/2021)

Chapter 9

CROSS-CONNECTIONS; WATER SUPPLY

Sec. 9-1: Purpose and Scope
Sec. 9-2: Definitions
Sec. 9-3: Cross-Connections
Sec. 9-4: Use of Backflow Prevention Assembly
Sec. 9-5: Cross-Connection Inspection
Sec. 9-6: Installation Permits and Installation
Sec. 9-7: Additional Remedies
Sec. 9-8: Violations; Penalties

Sec. 9-1. Purpose and Scope.

The purpose of this Chapter is to protect the public health of water consumers by the control of actual and/or potential cross-connections.

An additional purpose of this Chapter is to acknowledge the City's authority granted by Article XII, Section 2 of the Idaho Constitution and by Title 50, Chapter 3 of the Idaho Code, to promote and maintain the peace, good government and welfare of the City in a manner not inconsistent with the laws of the State of Idaho.
(Ord. 2004-05; 01/05/04)

Sec. 9-2. Definitions.

A. *Backflow*. The flow, other than the intended direction of flow of any foreign liquids, gases, or substances into the distribution of a public water supply.

B. *Backflow Assembly Tester (BAT) - Licensed.* A person who tests backflow assemblies and possesses a valid Backflow Assembly License issued by the State of Idaho Bureau of Occupational Licenses.

C. *Backflow Prevention Assembly – Approved.* A backflow preventer which is designed to be in-line tested and repaired. An "assembly" shall consist of the backflow prevention unit, two (2) resilient seated shutoff valves and test cocks. Approval of backflow assemblies by the City shall be on the basis of a favorable laboratory and field evaluation by an approved testing laboratory and the State of Idaho Rules for Public Drinking Water Systems, IDAPA 58.01.08.

D. *Backflow Prevention Device*. A backflow preventer that is not designed for in-line testing and repair.

E. *Contaminant.* Any physical, chemical, biological, or radiological substance or matter in water.

F. *Cross Connection.* Any actual or potential connection or piping arrangement between a public or a consumer's potable water system and any other source or system through which it is possible to introduce into any part of the potable water system used water, water from any source other than an approved public water system, industrial fluid, gas or substance other than the intended potable water with which the system is supplied. Cross connections include bypass arrangements, jumper connections, removable sections, swivel or change-over devices and other temporary or permanent devices which, or because of which, "backflow" can or may occur.

G. *Public Water Supply*. Any system or water supply intended or used for human consumption or other domestic uses, including source, treatment storage, transmission and distribution facilities, where water is furnished to any collection or number of individuals, or is made available to the public for human consumption or domestic use.
(Ord. 2014-03, 03/03/2014)

Sec. 9-3. Cross-Connections.

A. The City shall have the authority to establish requirements more stringent than the Idaho Department of Environmental Quality (IDEQ) Rules, Idaho Administrative Procedure Act (IDAPA) Section 58.01.08, "Idaho Rules for Public Drinking Water Systems", if it is deemed that conditions so mandate. The control or

elimination of cross-connections shall be in accordance with this Chapter together with the latest editions of the Pacific Northwest Section of the American Water Works Association "Cross Connection Control Manual Accepted Procedure and Practice" and the Foundation for Cross-Connection Control and Hydraulic Research "Manual of Cross-Connection Control". The City Administrator or designee shall adopt rules and regulations as necessary to carry out the provisions of this Chapter.

B. No water service connection to any premises shall be installed or continued in use unless the water supply is protected by a backflow prevention assembly or a backflow prevention device as may be required by this Chapter. The installation or maintenance of a cross-connection which may endanger the water quality of the potable water supply of the City shall be unlawful and is prohibited. Any cross-connection now existing or hereafter installed which endangers such water quality is hereby declared to be a public nuisance and the same shall be abated.

(Ord. 2004-05; 01/05/04; 2014-03, 03/03/2014; 2021-09, 07/19/2021; 2024-17, 09/03/2024)

Sec. 9-4. Use of a Backflow Prevention Assembly.

A. A backflow prevention assembly shall be installed on any premises where, in the judgment of the City, the nature and extent of the activities undertaken, or the materials stored on the premises, would present an immediate and dangerous hazard to health and/or be deleterious to the quality of the water should a cross-connection occur. The installation of the backflow prevention assembly shall occur even though a cross-connection may not exist at the time the backflow prevention assembly is installed. The City shall determine the need for a backflow prevention assembly after considering conditions that include, but are not limited to, the following:

1. Premises having an auxiliary water supply.
2. Premises having internal cross-connections that are not correctable, or intricate plumbing arrangements which make it impracticable to ascertain whether or not cross-connections exist.
3. Premises where entry is restricted so that inspections for cross-connections cannot be made with sufficient frequency or at sufficiently short notice to assure that cross-connections do not exist.
4. Premises having a repeated history of cross-connections being established or re-established.
5. Premises on which any substance is handled under pressure so as to permit entry into the public water supply, or where a cross-connection could reasonably be expected to occur. This shall include the handling of process waters and cooling waters.
6. Premises where materials of a toxic or hazardous nature are handled in such a way that if back siphonage should occur, a serious health hazard might result.
7. The following types of facilities will fall into one (1) of the above categories where a backflow prevention assembly is required to protect the public water supply. A backflow prevention assembly shall be installed at such facilities unless the City determines that no hazard exists:
   a. Hospitals, mortuaries, clinics, dental clinics, veterinarian clinics, and the like.
   b. Laboratories.
   c. Metal plating industries.
   d. Piers and docks.
   e. Sewage treatment plants.
   f. Food or beverage processing plants.
   g. Restaurants.
   h. Chemical or other industrial plants.

i. Petroleum processing or storage plants.

j. Radioactive material processing plants or nuclear reactors.

k. Where a single water service is used to supply three (3) or more businesses.

l. Where the meter serving the property is one and one-half inches (1 1/2") or larger.

m. Any building on a hill or any building having any plumbing fixture that is thirty feet (30') or higher above the water meter face.

n. Agricultural chemical storage, formulation and distribution facilities.

o. Tank truck fill stations.

p. Car washes.

q. Fire sprinkler systems.

r. Underground irrigation systems.

s. Any other agricultural, commercial, and industrial facility that has the potential to introduce contaminants into the public water system.

8. Other premises, as specified by the City, where backflow prevention assemblies are required to protect the public water supply.

B. The type of protective assembly required shall depend on the degree of hazard which exists:

1. An Air-Gap separation or a Reduced Pressure Backflow Assembly shall be installed where the public water supply may be contaminated with sewage, industrial waste of a toxic nature, or other contaminant which could cause a health or system hazard.

2. In the case of a substance which may be objectionable but not hazardous to health, a Double Check Valve Assembly, Pressure Vacuum Breaker Air-Gap separation, or a Reduced Pressure Backflow Assembly shall be installed.

3. All fire sprinkler systems shall have as a minimum level of protection, an approved Double Check Valve Assembly. If it is determined that a potential health hazard exists, an approved Reduced Pressure Backflow Assembly shall be required by the City.

4. All premises with an auxiliary water supply shall have, as a minimum level of protection, an approved Reduced Pressure Backflow Assembly.

C. A backflow prevention assembly required by this Chapter shall be installed at the meter, at the property line of the premises when meters are not used, or at a location designated by the City. The assembly shall be located so as to be readily accessible for maintenance and testing.

D. A backflow prevention assembly required by this Chapter shall be installed under the supervision of, and with the approval of, the Designated City Official.

E. Any protective assembly required by this Chapter shall be a model approved by the City. A Double Check Valve Assembly, Pressure Vacuum Breaker, or a Reduced Pressure Backflow Assembly will be approved if it has successfully passed performance tests of the University of Southern California Engineering Center or other testing laboratories satisfactory to the City. Every assembly required in this Chapter shall be furnished and installed by, and at the expense of, the customer.

F. A backflow prevention assembly required by this Chapter shall pass an initial test performed by a licensed BAT at the expense of the customer, and shall have a tag attached to the assembly by the BAT who performed said test and shall indicate the date of said test, prior to inspection and delivery of water service.

G. A backflow prevention assembly installed pursuant to this Chapter, shall be inspected, tested, and tagged annually, or more often if necessary. Inspections, tests and maintenance shall be at the customer's expense. Inspections, tests, repairs and records thereof shall be accomplished under the

Designated City Official's supervision by a licensed BAT.

H. All installed assemblies protecting underground irrigation systems shall be tested within ten (10) business days of annual recharge (start-up), and no later than the 30th day of June, each year.

I. All other installed assemblies shall be tested no later than the 30th day of September, each year.

J. The City shall have the authority to set and modify due dates by which backflow assembly test(s) required by this Chapter must be completed.

K. Whenever an assembly fails testing, it shall be repaired, replaced, or isolated at the customer's expense in accordance with IDAPA Section 58.01.08.

L. Whenever an assembly fails testing, the BAT performing the test shall notify both the City and the owner and user of the assembly within one (1) business day.

M. Failure of the customer to cooperate in the installation, maintenance, testing or inspection of a backflow prevention assembly required by this Chapter shall be grounds for the termination of water service to the premises, or, in the alternative, the installation of an air-gap separation at the customer's expense.

(Ord. 2004-05, 01/05/04; 2014-03, 03/03/2014; 2015-02, 02/17/2015; 2021-09, 07/19/2021)

Sec. 9-5. Cross-Connection Inspection.

A. No water shall be delivered to any structure hereafter built within the City or within areas served by City water until the same shall have been inspected by the City for possible cross-connections and has been approved as being free of same.

B. Any construction for industrial or other purposes which is classified as a hazardous facility pursuant to this Chapter, where it is reasonable to anticipate intermittent cross-connections, or as determined by the City, shall be protected by the installation of one or more backflow prevention assemblies at the point of service from the public water supply or any other location designated by the City.

C. Inspections shall be made periodically of all buildings, structures, or improvements of any nature now receiving water through the City's system, for the purpose of ascertaining whether cross-connections exist. Such inspections shall be made by the Designated City Official.

(Ord. 2021-09, 07/19/2021)

Sec. 9-6. Installation Permits and Installation.

If a backflow prevention device, or a backflow prevention assembly is found to be necessary, the owner of the property served must apply to the City for a permit as specified in Title 5, Chapter 4, of this Code. The device or assembly shall be installed per the latest edition of the Uniform Plumbing Code or per the rules adopted by the City.

(Ord. 2014-03, 03/03/2014; 2021-09, 07/19/2021)

Sec. 9-7. Additional Remedies.

In the event an improper cross-connection is not corrected within the time limit set by the City, or, in the event the City is refused access to any property for the purpose of determining whether or not cross-connections exist, delivery of water to the property shall cease until the deficiency is corrected to the City's satisfaction. In addition, the City may effect the necessary repairs or modifications at the expense of the property owner and refuse delivery of water to the property until the cost thereof shall have been paid.

(Ord. 2021-09, 07/19/2021)

Sec. 9-8. Violations; Penalties.

Any person who violates, disobeys, omits, neglects, refuses to comply with, or resists the enforcement of any of the provisions of this Chapter or the rules and regulations as adopted by the City, shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be punished

pursuant to this Code and the Idaho Code unless otherwise specifically provided for in this Chapter.
(Ord. 2021-09, 07/19/2021)

Appendix 7-1 Fire Flow Requirements

MINIMUM FIRE FLOW REQUIREMENT SCENARIOS
For Comprehensive Water System Plan

The minimum fire-flow requirements for structures in the City of Moscow are based upon the 2018 International Fire Code, Appendix B.

Land Use Zone	Minimum Fire Flow & Duration	Minimum Fire Flow For Worst Case Scenario	Justification/Narrative
Low Density Single Family Residential (R-1) Moderate Density Single Family Residential (R-2) Medium Density Residential (R-3)	1,500 gpm For 2 hrs	1,500 gpm per structure for 2 hours 10 Residential Structures	For Residential Structures over 3,600 square feet see IFC Table B-105.1 for minimum fire flow requirements. Projected worse-case scenario in a residential neighborhood is based upon the 2008 Boise, Idaho Oregon Trail wildland/urban interface fire where 10 homes were destroyed. Adequacy of Minimum Fire Flow Requirement to be assessed for properties within the Wildland/Urban Interface Zone.
Multi-Family Residential (R-4)	4,250 gpm For 2 hrs	4,250 gpm per structure for 2 hours 3 Structures	Per 2018 IFC, Appendix B the minimum fire flow requirement for a 24,000 square foot apartment structure is 4,250 gpm Projected worse-case scenario is 3 structures in a multi-family residential neighborhood. Adequacy of Minimum Fire Flow Requirement to be assessed for properties within the Wildland/Urban Interface Zone.
Suburban Residential (SR)	1,500 gpm For 2 hrs	1,500 gpm per structure for 2 hours 5 Residential Structures	For Residential Structures over 3,600 square feet see IFC Table B-105.1 for minimum fire flow requirements. Projected worse-case scenario in a residential neighborhood is based upon the 2008 Boise, Idaho Oregon Trail wildland/urban interface fire where 10 homes were destroyed. Adequacy of Minimum Fire Flow Requirement to be assessed for properties within the Wildland/Urban Interface Zone.

Land Use Zone	Minimum Fire Flow & Duration	Minimum Fire Flow For Worst Case Scenario	Justification/Narrative
Farm, Ranch, and Outdoor Recreation (FR) Agriculture Forestry (AF)	1,500 gpm For 2 hrs	1,500 gpm per structure for 2 hours 5 Residential Structures	For Residential Structures over 3,600 square feet see IFC Table B-105.1 for minimum fire flow requirements. Projected worse-case scenario in a residential neighborhood is based upon the 2008 Boise, Idaho Oregon Trail wildland/urban interface fire where 10 homes were destroyed. Adequacy of Minimum Fire Flow Requirement to be assessed for properties within the Wildland/Urban Interface Zone.
General Business (GB)	7,250 gpm For 4 hrs	7,250 gpm For 4 hrs Then 3,625 gpm For 4 hours	Projected worse-case scenario is a Class V 70,000 square foot multi-use building. Per 2018 IFC, Appendix B the minimum fire flow requirement is 7,250 gpm. Assumed duration of active fire suppression activities is four hours with an additional four hours at reduced (50%) fire flow demand for containment and cleanup.
Central Business (CB)	7,250 gpm For 4 hrs	7,250 gpm For 4 hrs Then 3,625 gpm For 4 hours	Projected worse-case scenario is a 70,000 square foot one half city block combination apartment/restaurant-bar/retail sales building. Per 2018 IFC, Appendix B the minimum fire flow requirement is 7,250 gpm. Assumed duration of active fire suppression activities is four hours with an additional four hours at reduced (50%) fire flow demand for containment and cleanup.

NOTE: In areas in which fire flows cannot meet 7,250 gpm for 4 hours, then 3,625 gpm for 4 hours, both Appendices B and C will be used to determine the type of fire suppression systems, building specifications, minimum number of fire hydrants, and fire hydrant spacing. (Reference Tables B105.1(2), B105.1(1), B105.2 & C102.1)

Land Use Zone	Minimum Fire Flow & Duration	Minimum Fire Flow For Worst Case Scenario	Justification/Narrative
Motor Business (MB)	7,250 gpm For 4 hrs	7,250 gpm For 4 hrs Then 3,625 gpm For 4 hours	Projected worse-case scenario is a Class V 70,000 square foot multi-use building. Per 2018 IFC, Appendix B the minimum fire flow requirement is 7,250 gpm. Assumed duration of active fire suppression activities is four hours with an additional four hours at reduced (50%) fire flow demand for containment and cleanup.
Neighborhood Business (NB) Research Technology & Office (RTO)	2,750 gpm For 2 hrs	2,750 gpm For 2 hrs	Projected worse-case scenario is a 10,000 square foot building. Per 2018 IFC, Appendix B the minimum fire flow requirement is 2,750 gpm. Assumed duration of active fire suppression activities is two hours with no fire flow demand for containment and cleanup.
Industrial (I)	7,250 gpm For 4 hrs	7,250 gpm For 4 hrs Then 3,625 gpm For 4 hours	Projected worse-case scenario is a Class V 70,000 square foot industrial use building. Per 2018 IFC, Appendix B the minimum fire flow requirement is 7,250 gpm. Assumed duration of active fire suppression activities is four hours with an additional four hours at reduced (50%) fire flow demand for containment and cleanup.
Residential Offices (RO)	1,500 gpm For 2 hrs	1,500 gpm For 2 hrs	For Residential Structures over 3,600 square feet see IFC Table B-105.1 for minimum fire flow requirements. Projected worse-case scenario in a residential neighborhood is based upon the 2008 Boise, Idaho Oregon Trail wildland/urban interface fire where 10 homes were destroyed. Adequacy of Minimum Fire Flow Requirement to be assessed for properties within the Wildland/Urban Interface Zone.

Note: The City of Moscow Fire Department reserves the right to increase the minimum fire flow requirement if building construction issues or access factors present an unusual fire or life safety challenge.

For the purpose of water system improvements and development hydraulic modeling the following flows can be used:

Residential (low, medium density)	1,500 gpm X 2 hours
Residential (high density)	2,500 gpm X 2 hours
Commercial	2,500 gpm X 3 hours
Industrial	3,500 gpm X 3 hours