

SUSTAINABLE ENVIRONMENT COMMISSION



Steve McGeehan
Commission Chair
sec@ci.moscow.id.us

Regular Meeting
~Minutes~

Kyle Steele
Staff Liaison
208-883-7133

<https://www.ci.moscow.id.us/551/Sustainable-Environment-Commission>

Tuesday
July 18, 2023

6:00 PM

Mayors Conference Room
1st Floor City Hall
206 E. 3rd St.

The meeting was called to order at 5:59 p.m.

PRESENT: Tina Hilding-Vice; Victoria Seever; Al Poplawsky; Maureen Laflin-Council Liaison; Sam Gallaher; Asaph Cousins; Gordon Wilson

STAFF: Kelli Cooper, Sustainability Program Coordinator, Tyler Palmer, Deputy City Supervisor

ABSENT: Steve McGeehan- Chair; Sophie Gilbert, Jassen Bluto

REGULAR AGENDA

1. Approval of Sustainable Environment Commission May 16, 2023 Minutes (ACTION ITEM)

PROPOSED ACTIONS: Approve the May minutes as presented; approve minutes with amendments; or provide staff further direction.

Minutes presented for approval.

Sam moved to approve the May 2023 minutes as presented, Al second to approve minutes as presented.

Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None **Motion carried.**

2. Public Comment and Response to Previous Comments (limited to 10 minutes)

Members of the public may speak to the Commission regarding matters NOT on the agenda or currently pending before the Commission. Please state your name and city of residence for the record and limit your remarks to three (3) minutes.

David asked if either of our aquifers have been tested for PFAS chemicals?

Tyler: In 2019 State of Idaho tested aquifers, using money from the state. No PFAS found in the Grande Ronde, Wanapum aquifer supplies water to wells number 2 and 3. Well 2 had no trace, well 3 had 7 parts per trillion. The City hasn't pumped well 3 in a few years, has no plans to pump until guidance from EPA. 50 parts per trillion is the harmful amount in drinking water. There are no PFAS in our source water, but there will be some in our wastewater from laundry, dishes etc. There are 100's of varieties of PFAS. They are toxic over time in humans/animals as they build up in the body. There are four PFAS that are regulated.

1. Water on the Palouse

Tyler Palmer (Moscow Deputy City Supervisor) will discuss water issues relevant to the City of Moscow.

PROPOSED ACTIONS: take action as deemed appropriate.

The Palouse doesn't seem like the most logical place for a settlement due to the lack of enormous body of water. But settlers did find strong artesian wells. They soon noticed there was a lack of recharge. Professors from the University of Idaho realized they needed to do something and over the years, many ideas for alternative water came to pass as did the creation of the Palouse Basin Aquifer Committee.

The upper aquifer does have some recharge compared to the lower. Recharge is mostly from the north and east of Moscow Mountain. We are seeing a slower level of decline, although the population has increased. This is due to the conservation residents have been diligent about.

Recent maps show Colfax is not on the basin and Potlatch is possibly connected to the aquifer system. Tyler believes Moscow has a very aggressive conservation plan compared to the rest of Idaho.

Refer to attached presentation for a detailed look at alternatives water options.

Almost all the wastewater is used by the University in the summer. The question was raised why the City doesn't use that water, but Tyler says the cost of storing is high as well as most greens spaces in the City are on the east side of the city and we would need more infrastructure to pump that wastewater up hill, which would be a huge energy and cost increase on the City.

There is currently an adjudication in the Palouse basin. This adjudication focusses on water rights being ranked and given necessary priority. The Tribe did file water rights in the basin, which could impact surface water rights. Avista has clean energy requirement in Washington that differ from Idaho. They may require pump storage.

2. Moscow Farmers Market

The SEC is scheduled to table at the Sept 9 Farmers Market. The option to table on July 29 will be discussed.

PROPOSED ACTIONS: take action as deemed appropriate.

Group discussed dates and will hand out seeds, and educational flyers.

3. Commission Survey Questions

The City of Moscow is planning to conduct a commission survey this year. Administration would like the SEC's questions, up to 5 of them, back by the end of July.

PROPOSED ACTIONS: discuss potential survey questions and select those to submit.

The group discussed the questions they want to add to the survey this year.

REPORTS

1. City Sustainability Report- Kelli Cooper

Kelli has been busy with irrigation audits. She showed the group an example of the report she puts together after she preforms the audit. These are only audits and she does not fix any problems, they are only available to City of Moscow residents.

2. Moscow High School Subcommittee Report – Ian Schlater

No report.

3. Climate Action Working Group (CAWG) – Tina Hilding

They will have a newspaper column this fall with practical tips on getting started with climate friendly ideas. The group will had a City official come and talk to the group about local ordinances and codes and what can possibly be changed.

ANNOUNCEMENTS

UPCOMING EVENTS / MEETINGS

1. Next SEC meeting 8/15/2023

ADJOURN

The meeting adjourned at 7:45 PM

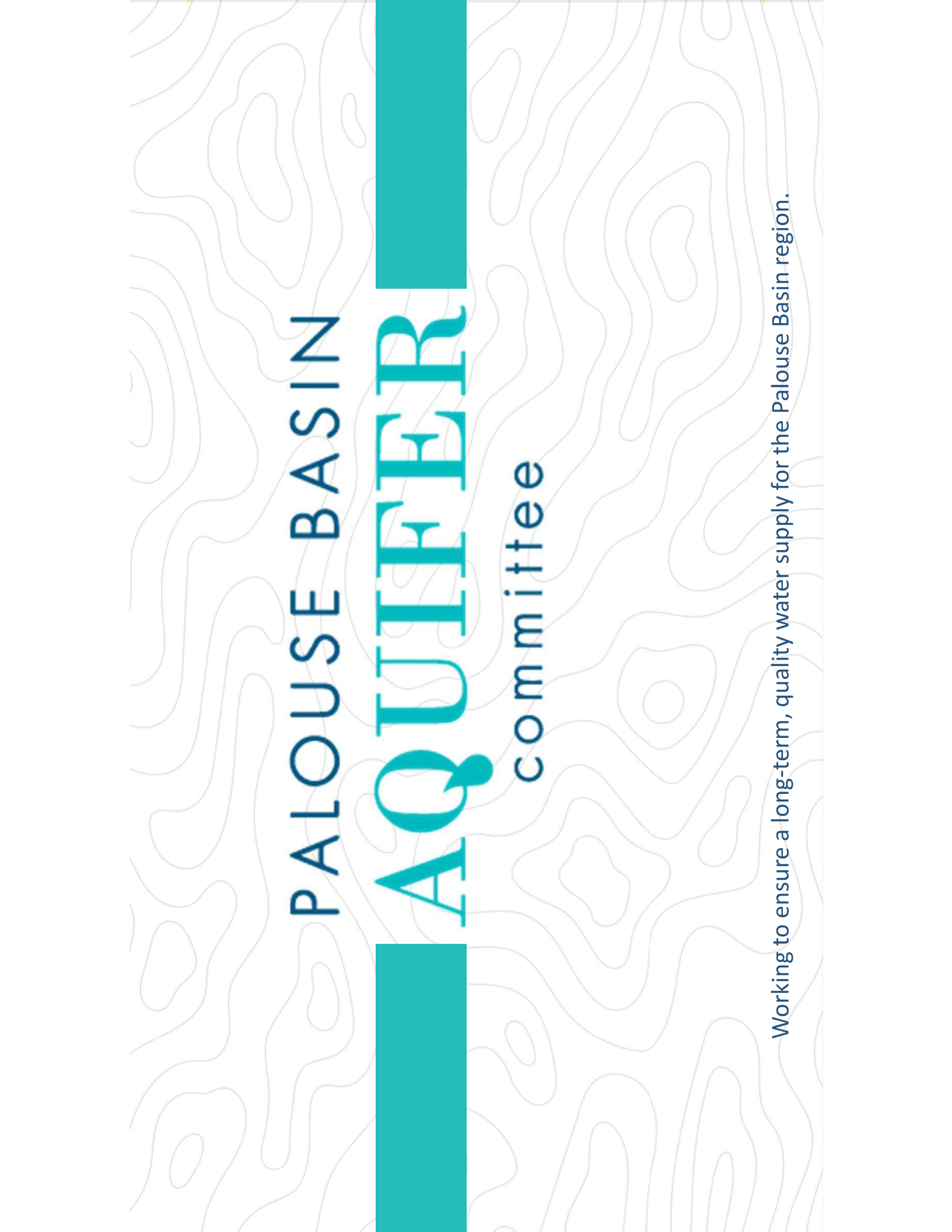


Steve McGeehan, Chair (*or stamped by Deputy City Clerk*)

Sustainable Environment Commission

Palouse Basin Alternate Water Supply Project

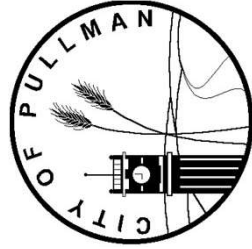
July, 2023

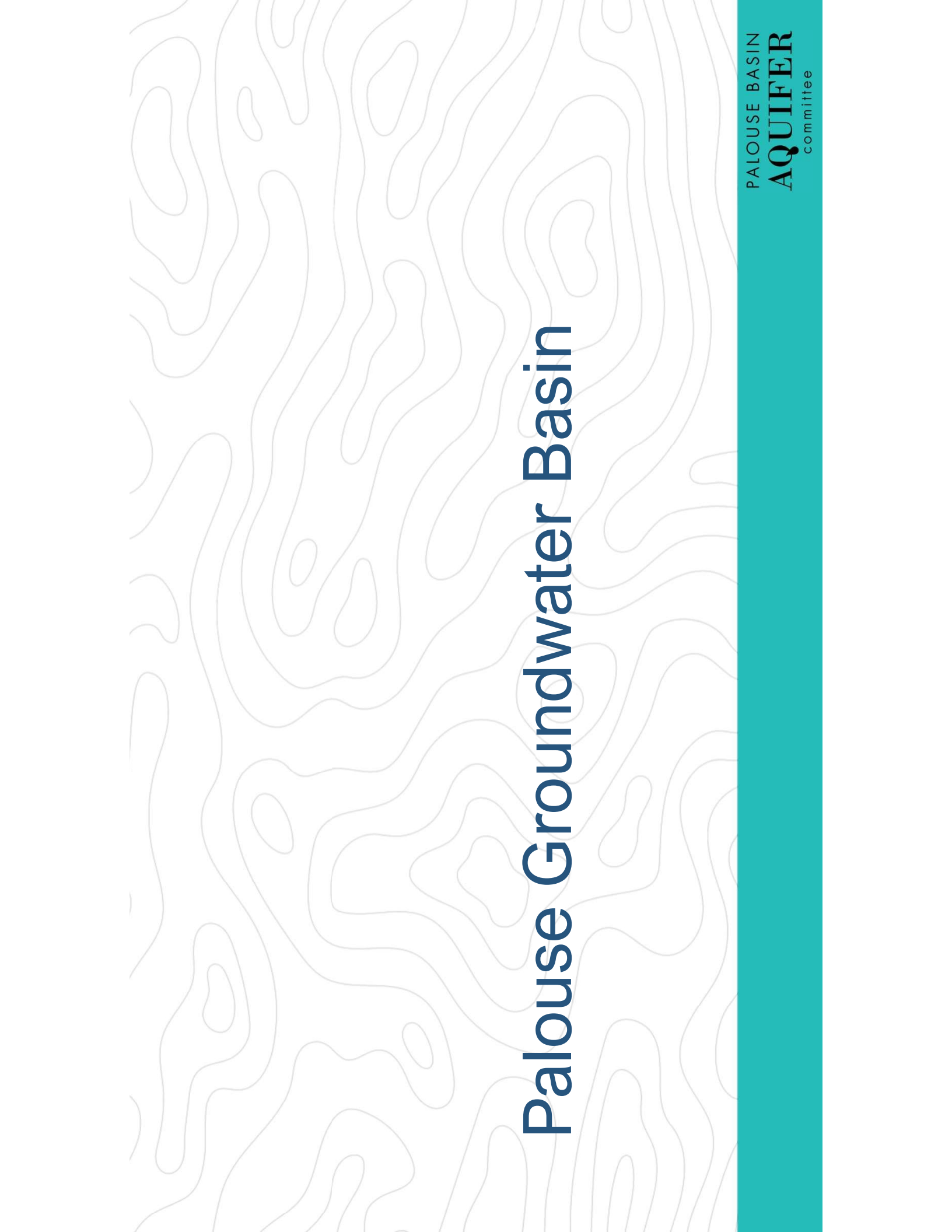
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PALOUSE BASIN AQUIFER committee

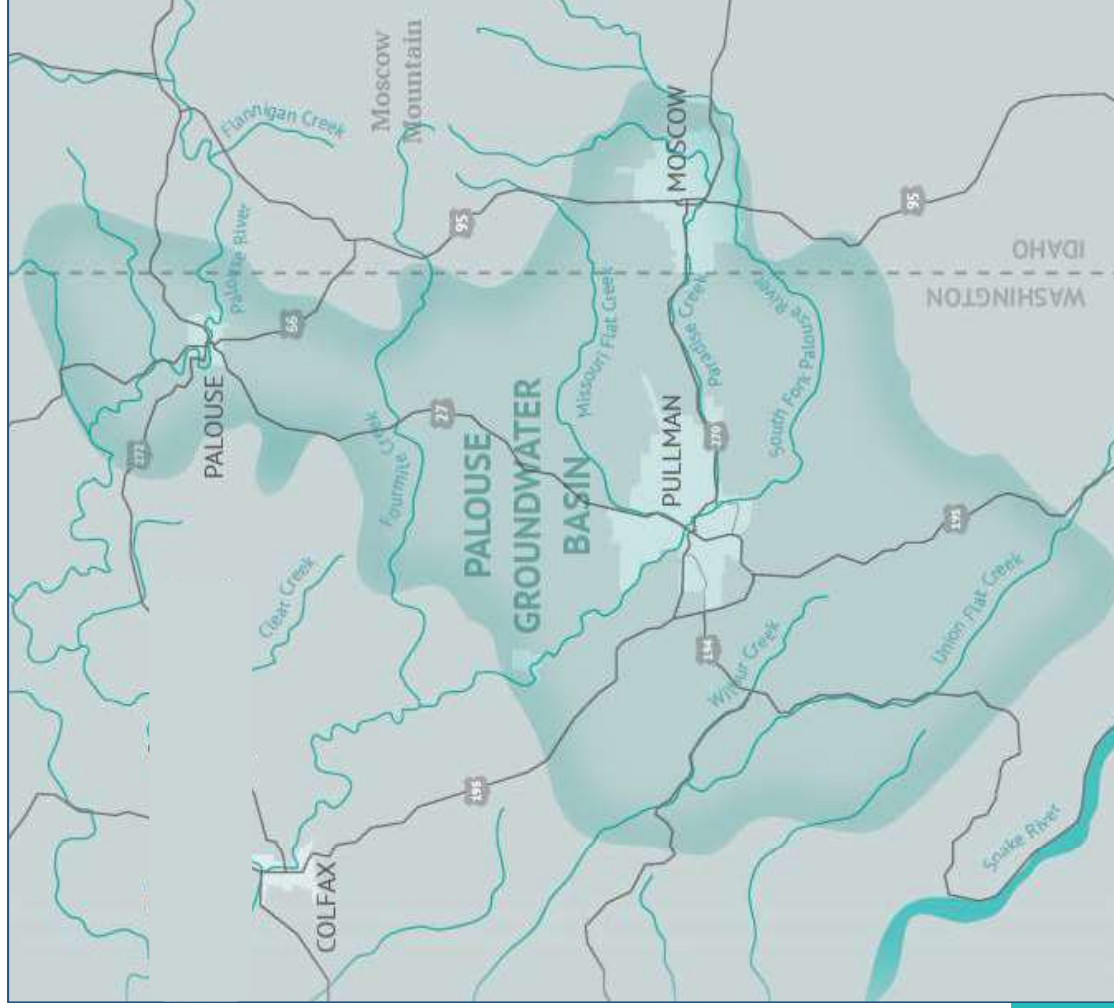
Working to ensure a long-term, quality water supply for the Palouse Basin region.

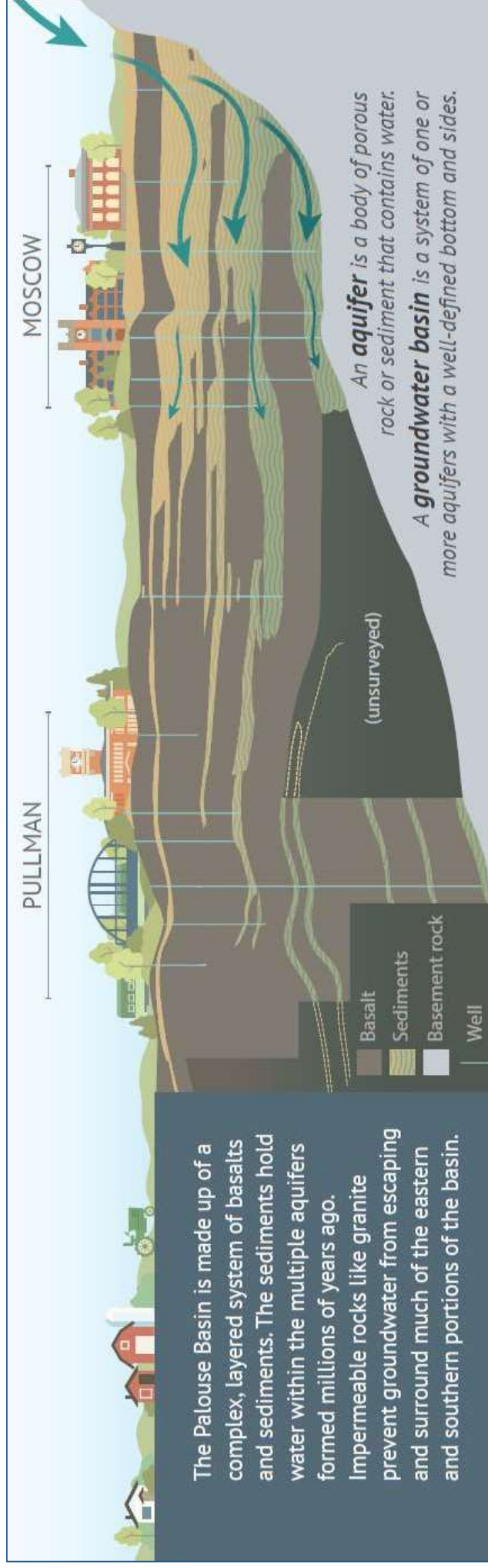
PBAC Member Entities

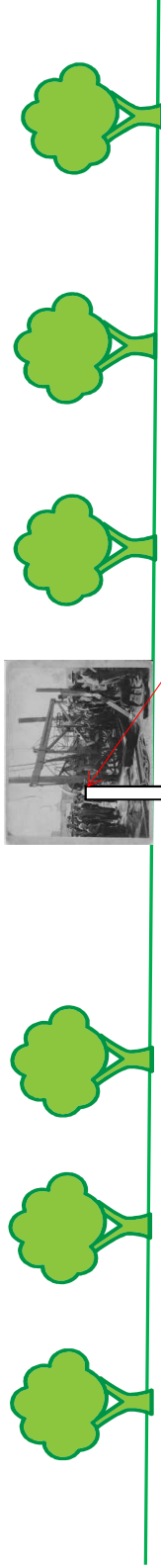


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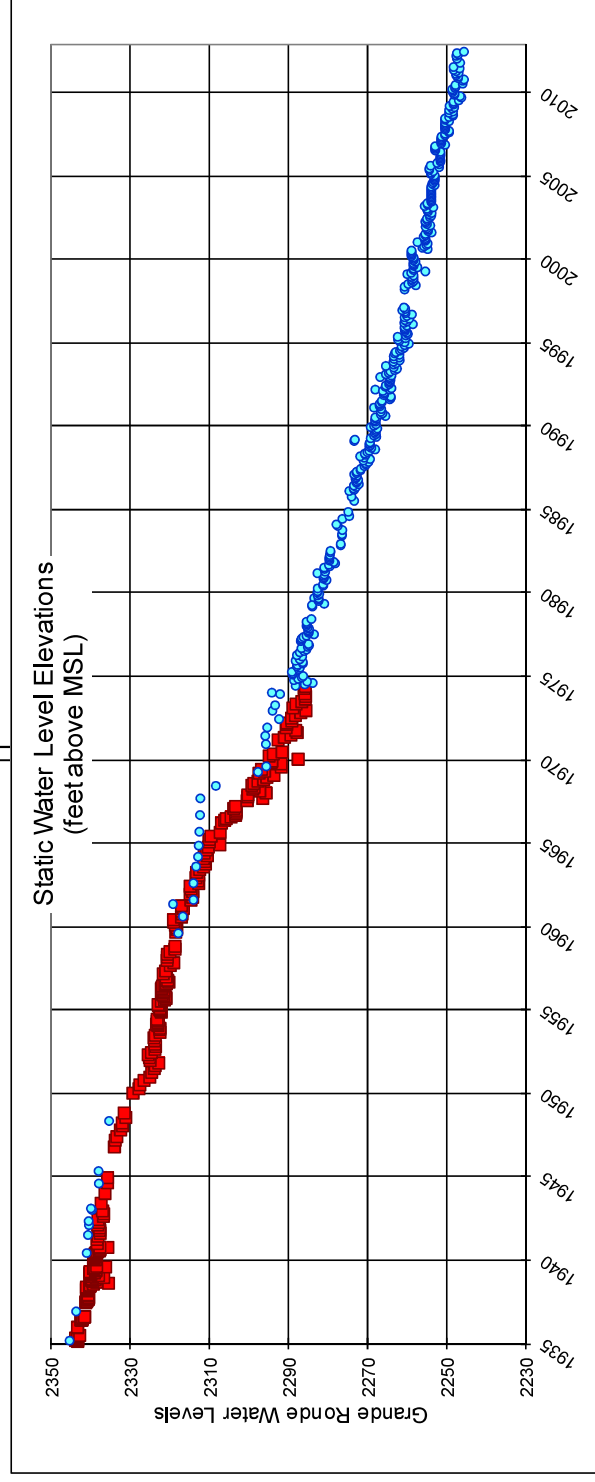
Palouse Groundwater Basin







1890 Water Level



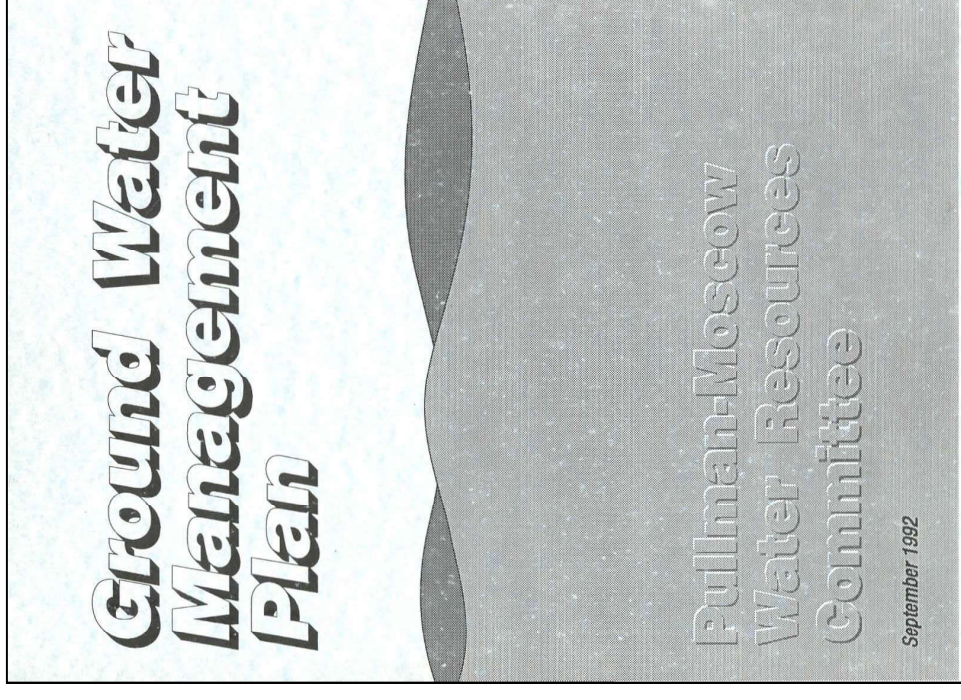
2022 Water Level

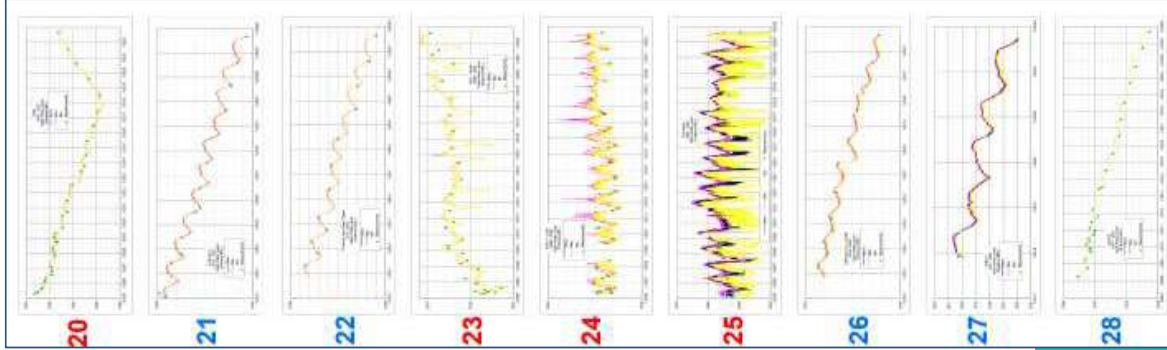
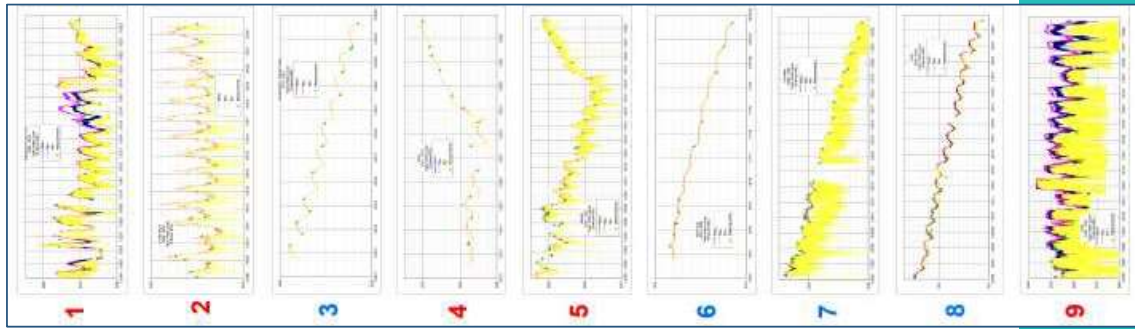
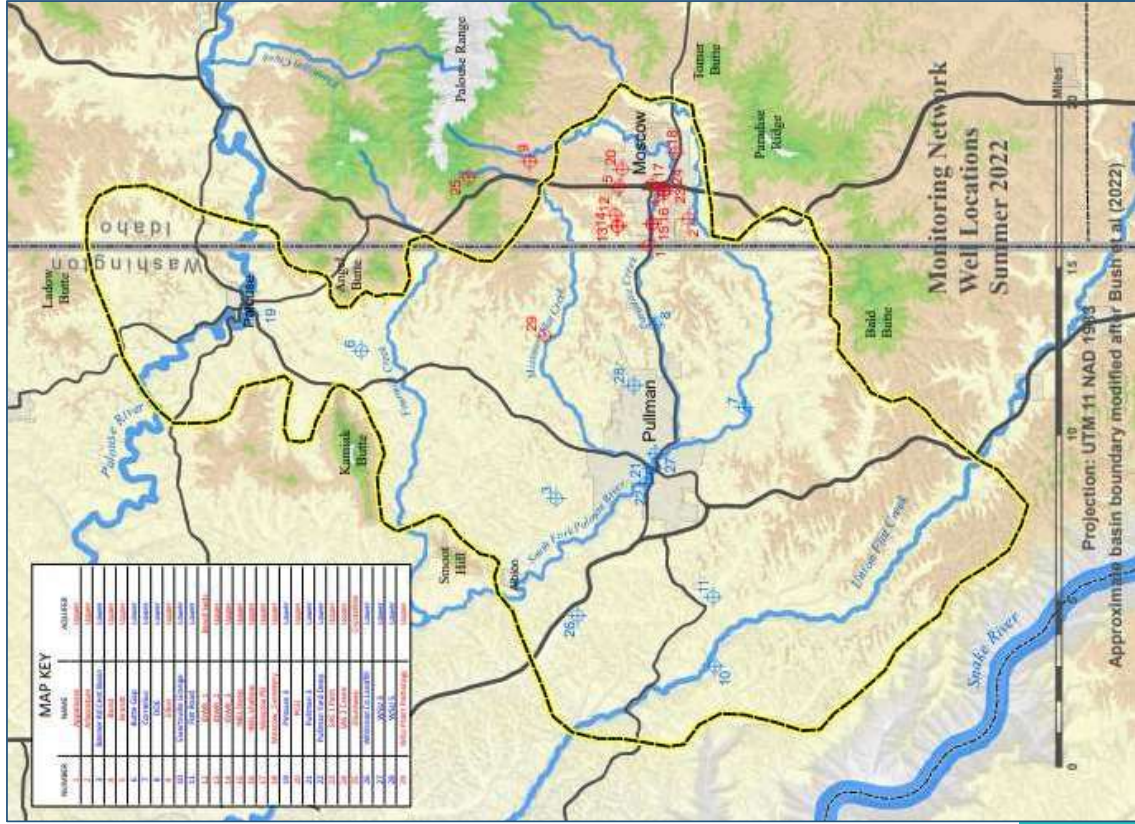
Mission:

To ensure a long-term, quality water supply for the Palouse Basin region.

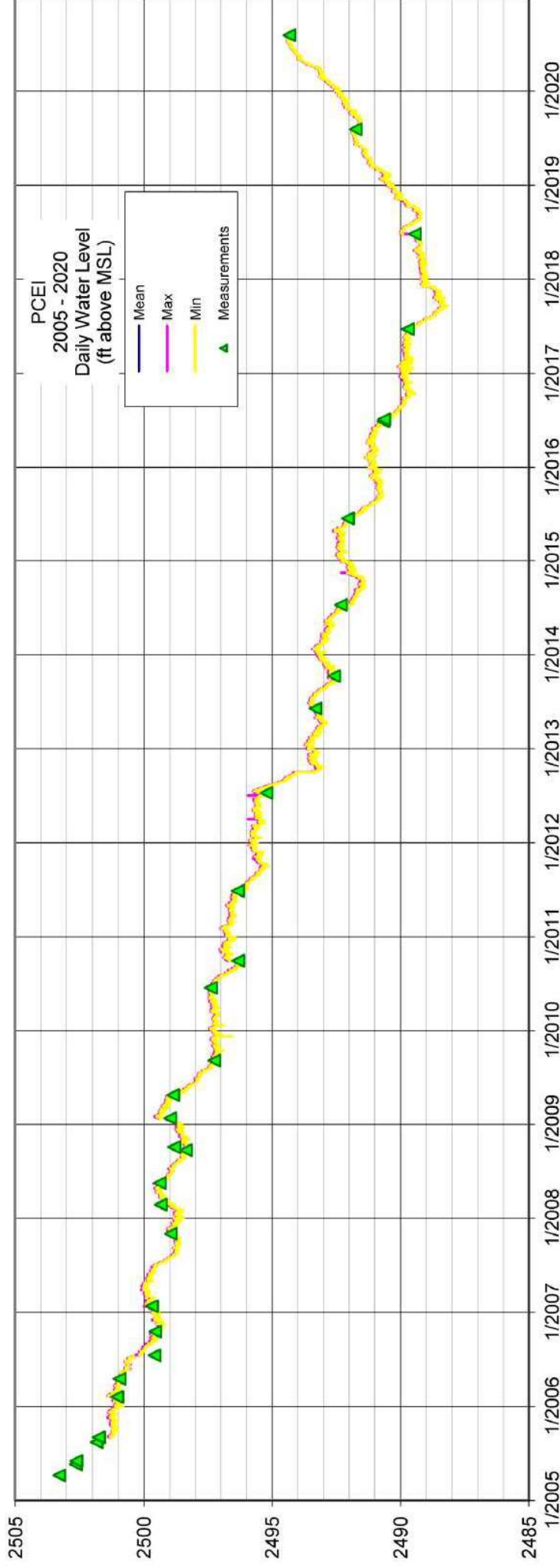
Goals:

- Consistent with the Palouse Basin Groundwater Management Plan, develop and **Implement a balanced basin wide Water Supply and Use Program by 2025.**
- Create and maintain an **action plan for aquifer system sustainability**, enhancement and/or alternate water supply development.
- Direct research and implement pilot projects necessary to **understand the basin hydrogeology** in a manner sufficient to support the Water Supply and Use Program and the affiliated supply projects.
- Encourage and facilitate **entities in meeting their specific pumping, conservation, efficient use, water recycling and other goals.**
- **Educate entities and the public on the state of the basin** water supply and the status of PBAC's mission and goals.
- Maintain harmonious and **effective working relationships across the state line** to fairly meet the needs of all entities.

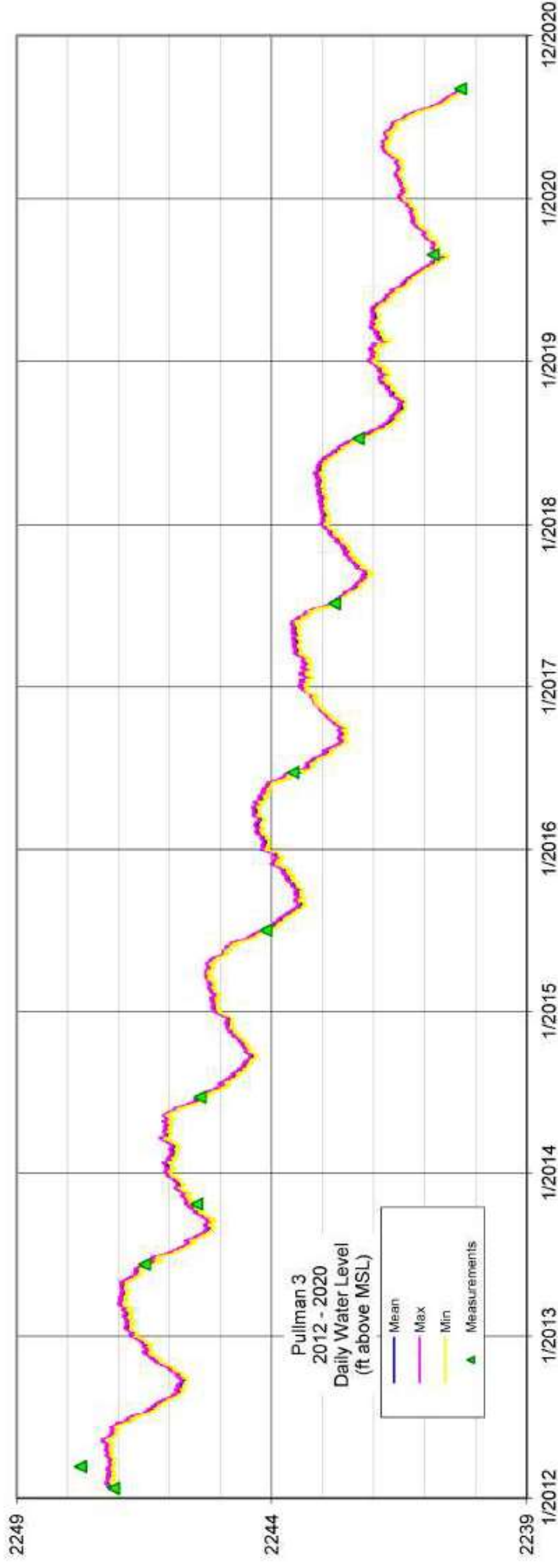




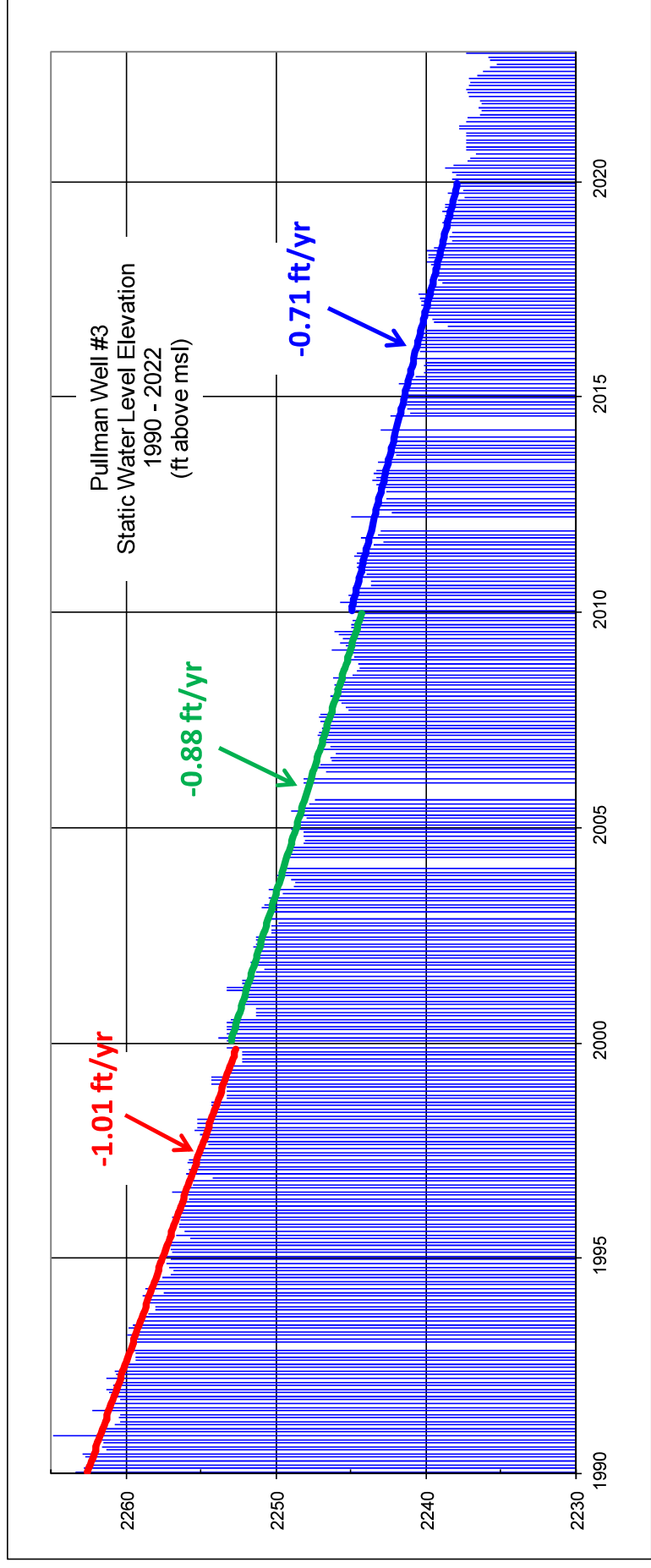
Upper Aquifer Levels

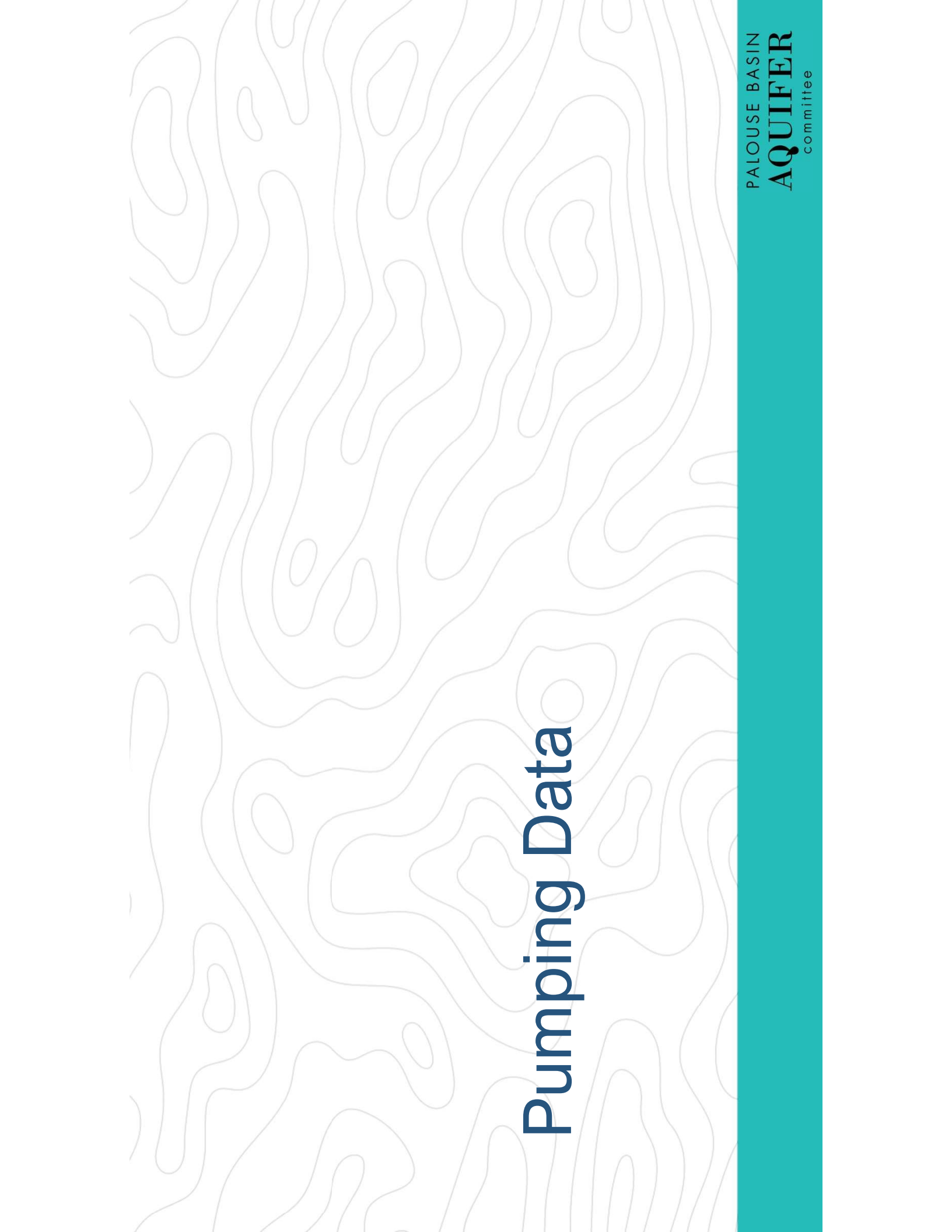


Lower Aquifer Levels



Declining Water Levels (Lower Aquifer)

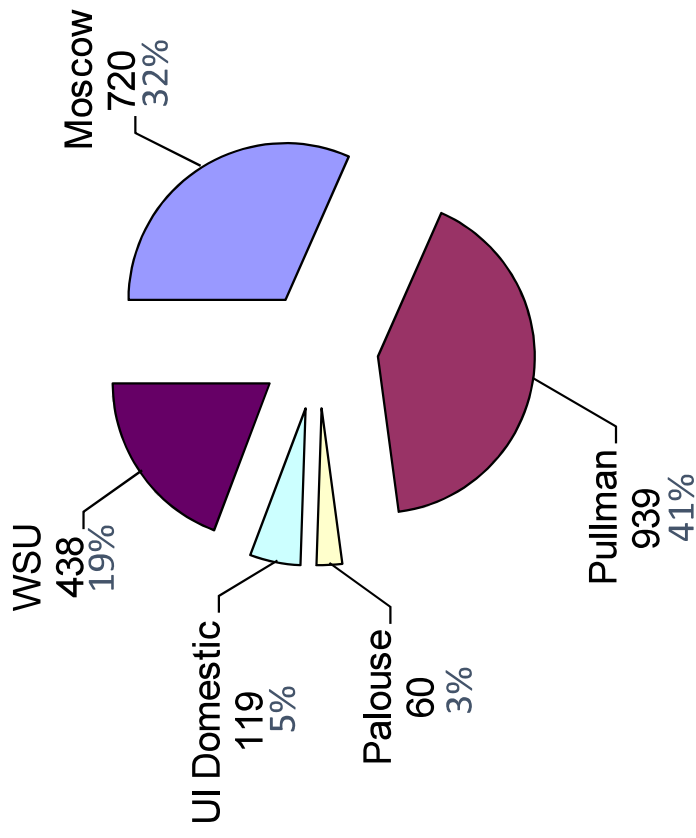


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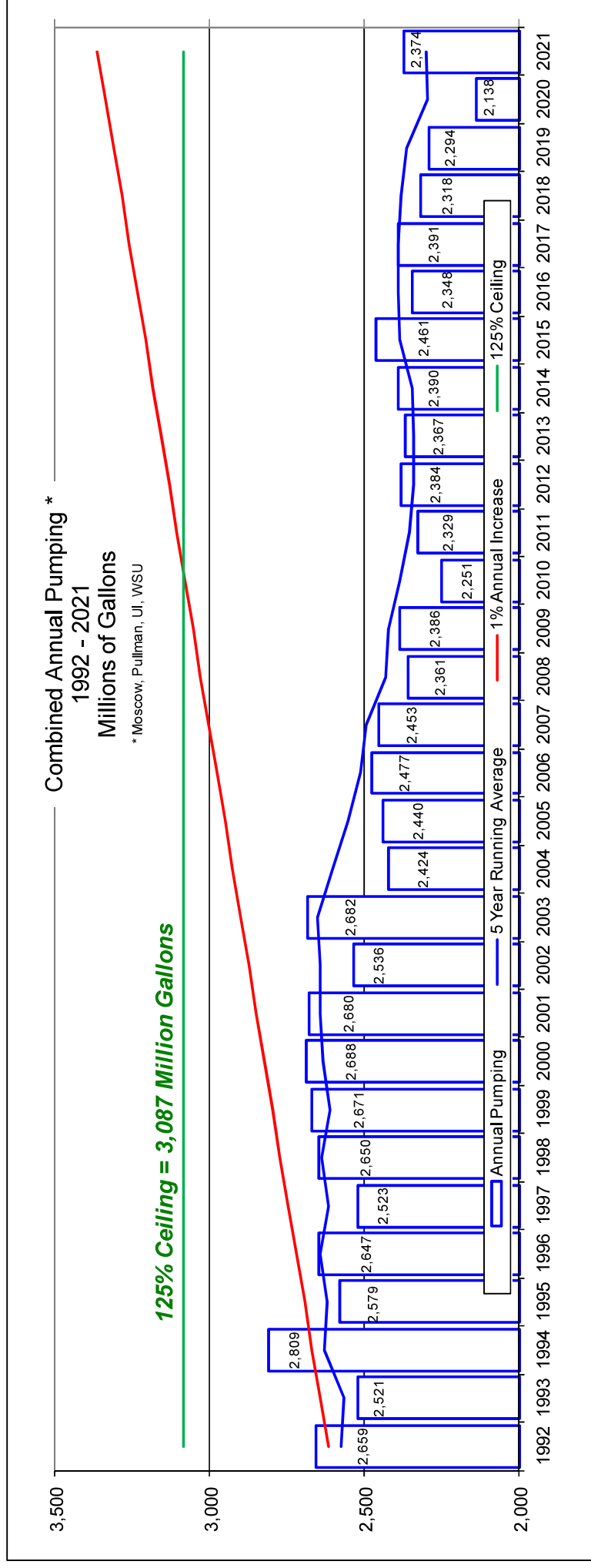
Pumping Data

2022 Water Use

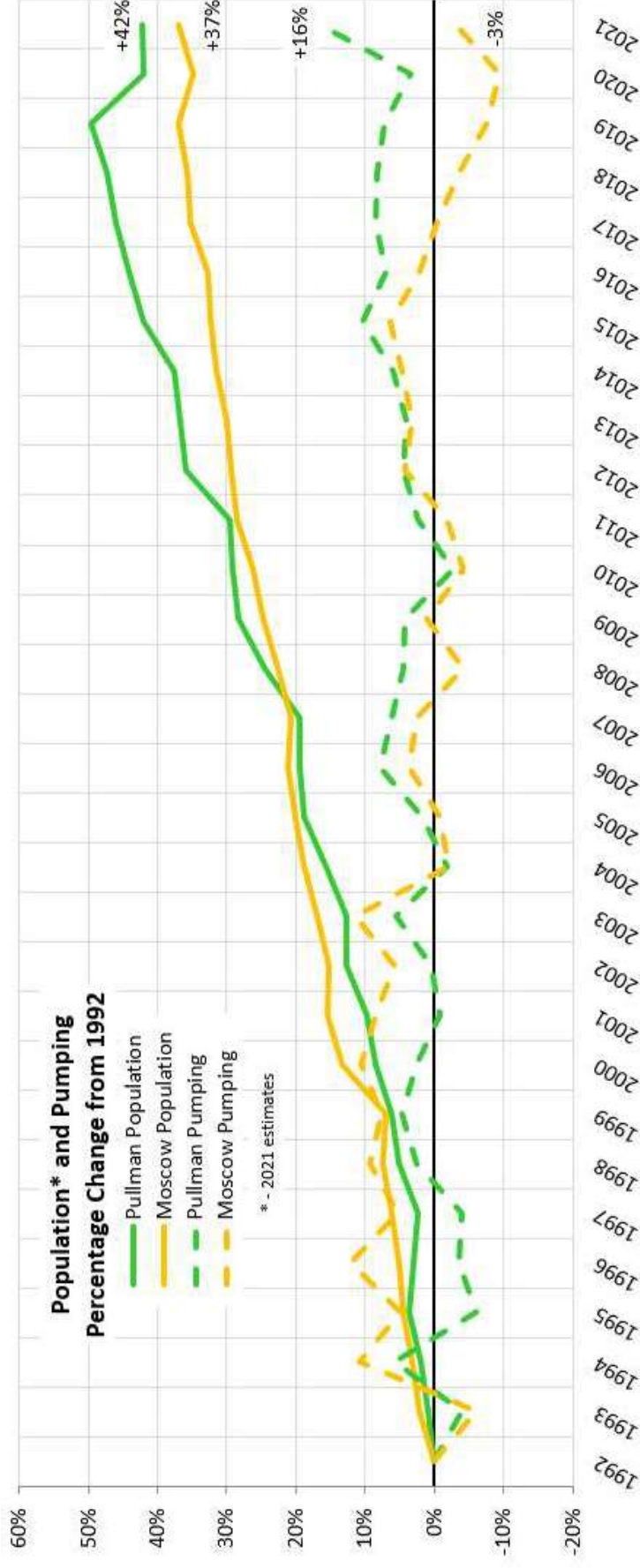
Total 2022 Pumping =
2.28 Billion Gallons



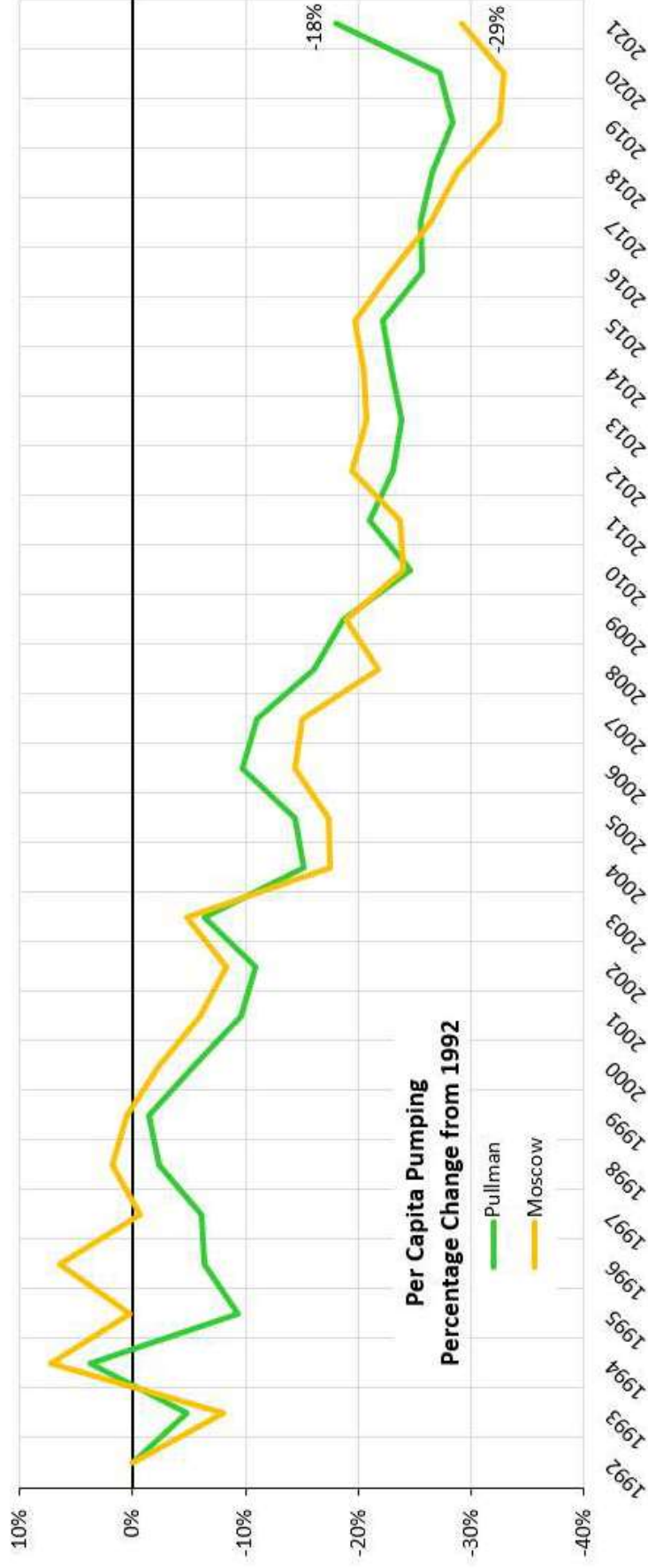
Combined Annual Pumping – 1992-2021

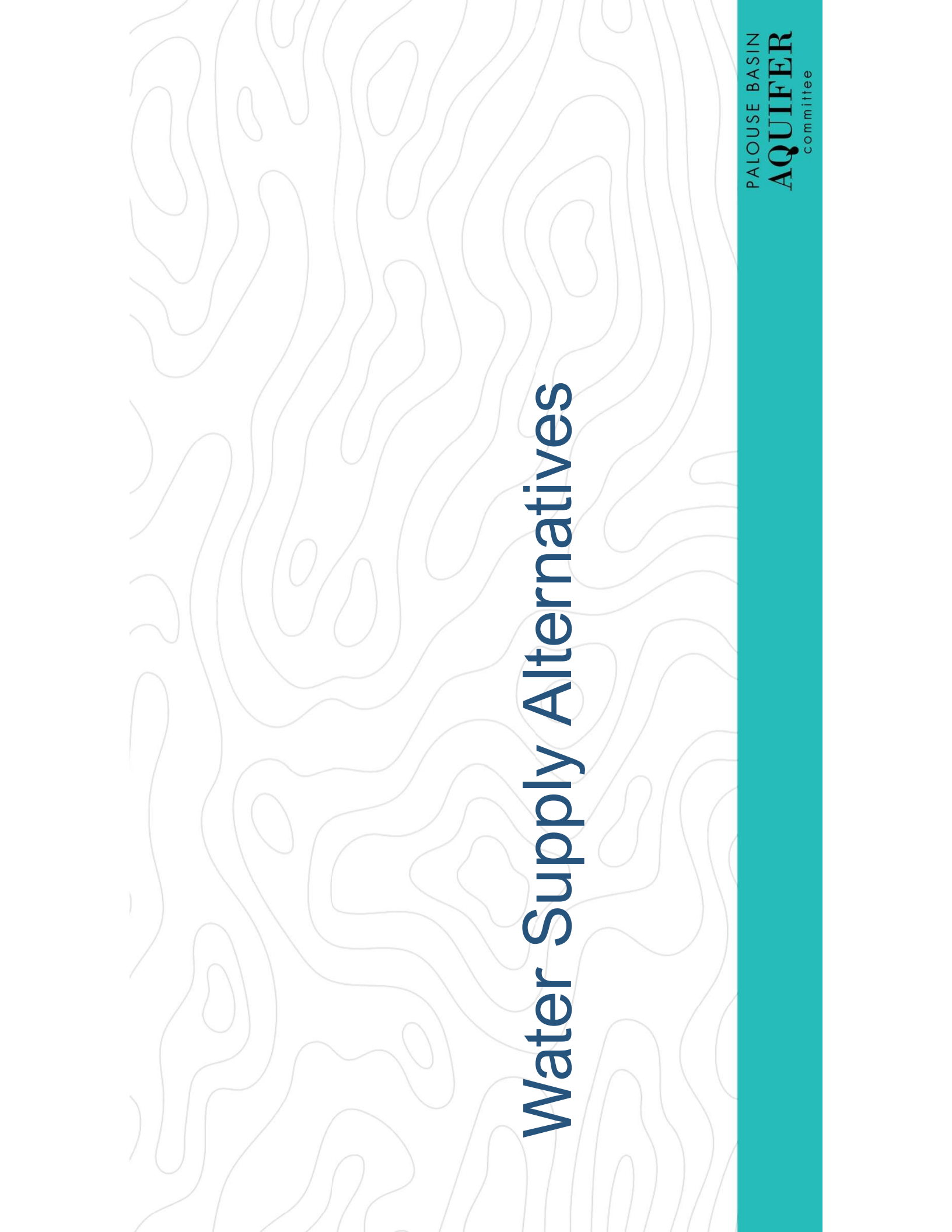


Pop & Pumping % Change from 1992



Per Capita Pumping % Change from 1992



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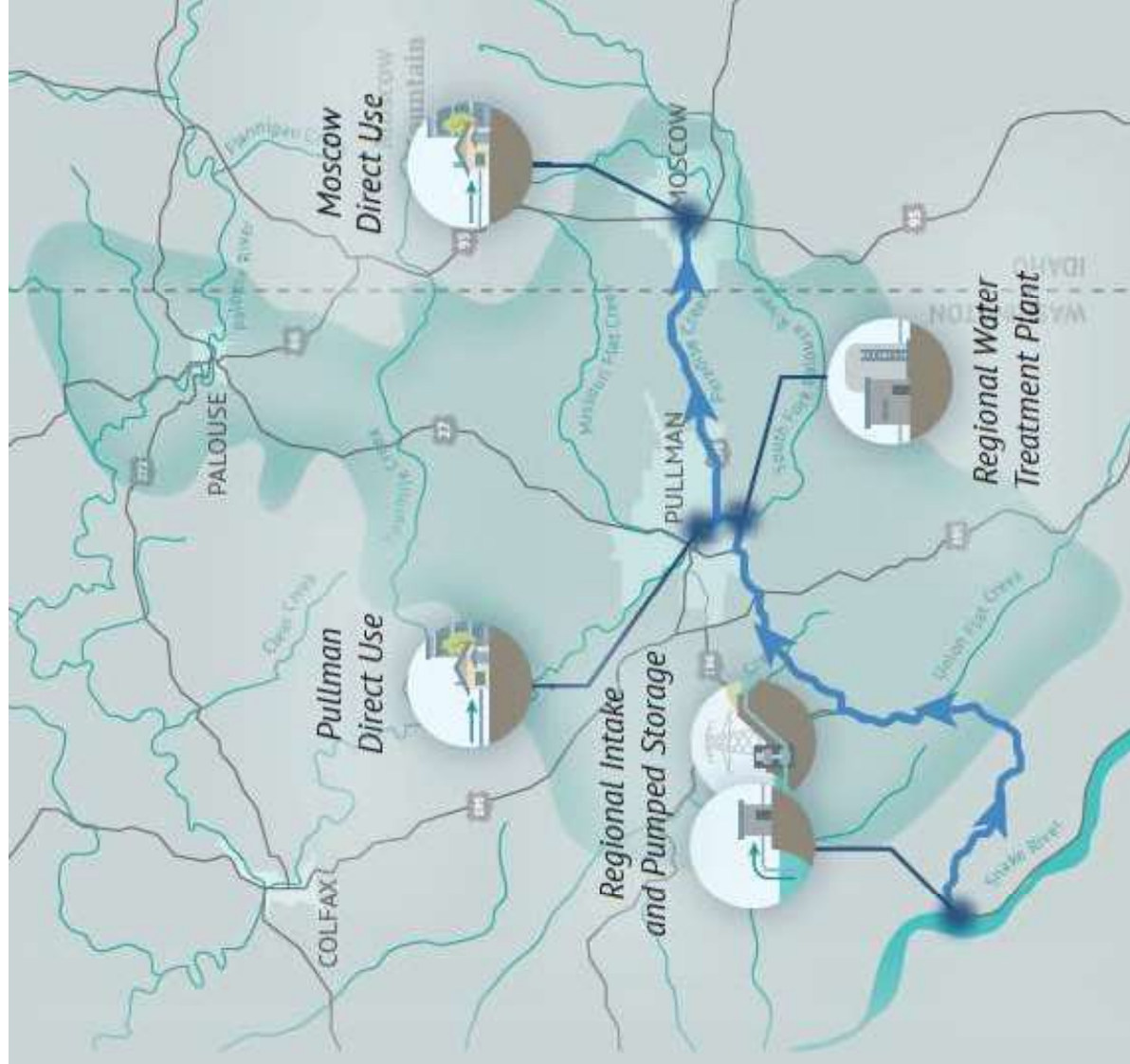
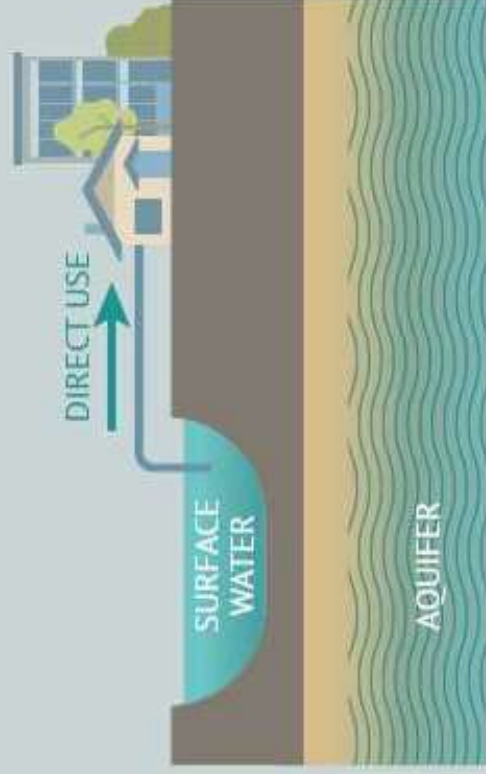
Water Supply Alternatives

Alternative 1

Direct Use of the Snake River:

Surface water would be diverted from the Snake River and conveyed to a new regional water treatment plant. There it would be treated and conveyed into the existing municipal water system for Pullman and WSU. An additional pipeline would allow treated water to be conveyed to Idaho into the existing municipal system for Moscow and Ul.

Due to the topography change from the Snake River to the Palouse region, the potential for an off-channel pumped storage reservoir and hydropower facility would be considered to help offset costs and create additional power for the region.



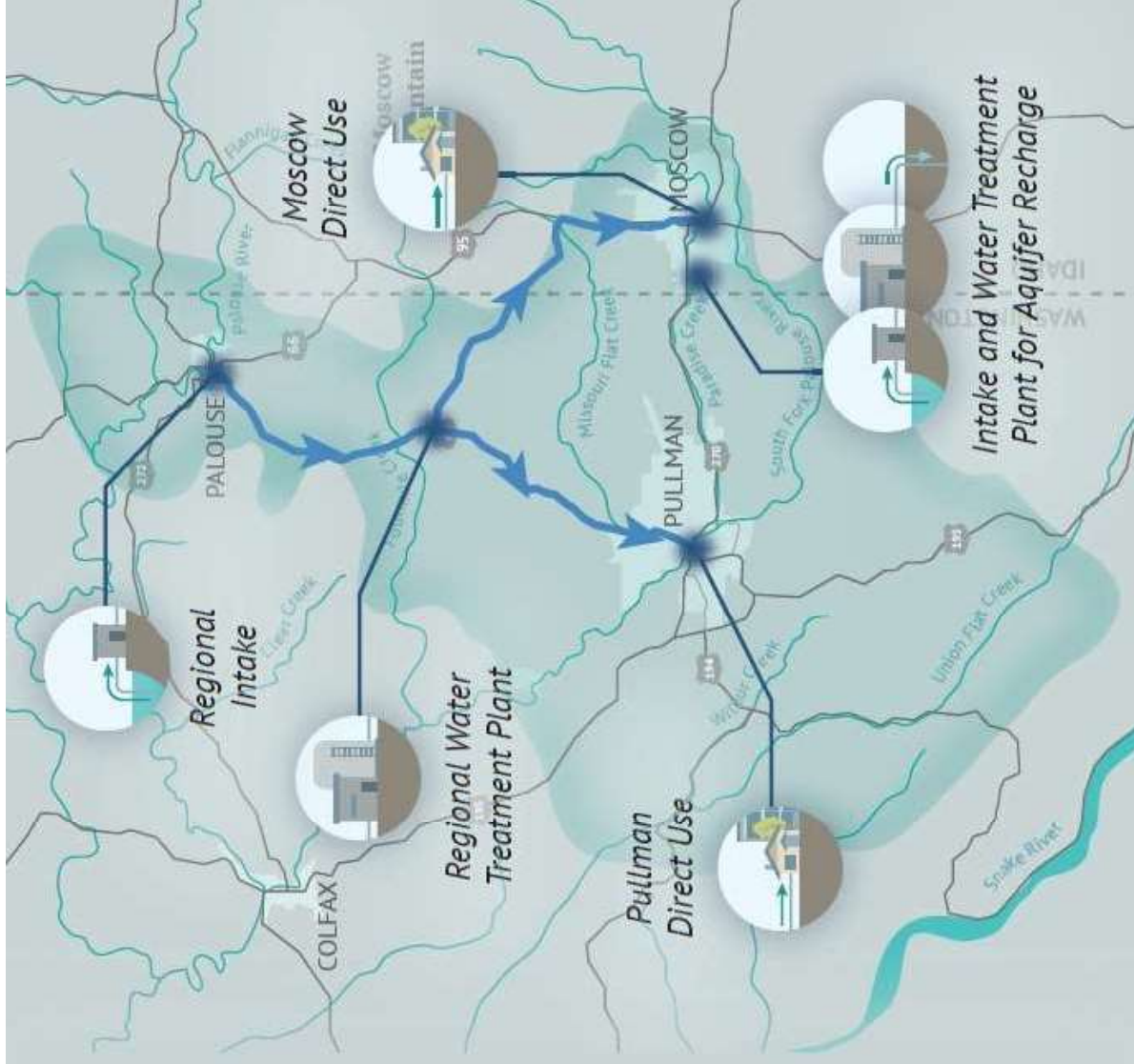
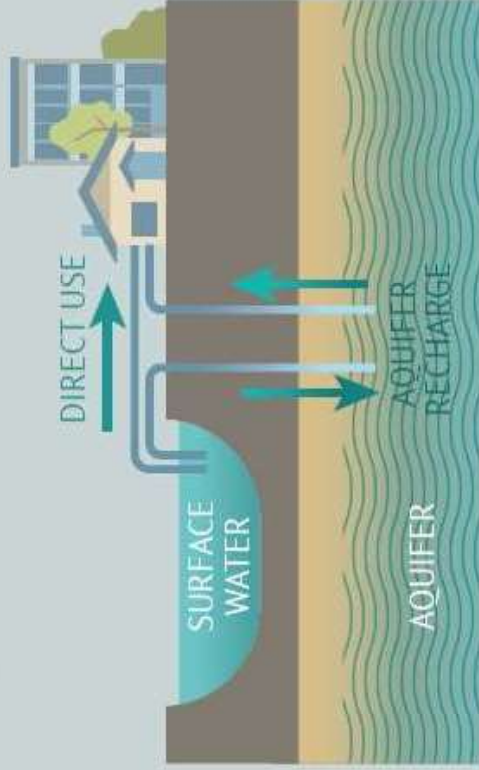
Alternative 2

Direct Use of the North Fork of the Palouse River:

Surface water would be diverted from the North Fork of the Palouse River near Palouse and conveyed to a new regional treatment plant. There it would be treated and conveyed into the existing municipal water system for Pullman and WSU. An additional pipeline would allow treated water to be conveyed to Idaho into the existing municipal system for Moscow and UI.

Aquifer Recharge from the South Fork of the Palouse River or Paradise Creek:

Surface water would be diverted from the South Fork of the Palouse River or Paradise Creek, treated, and injected into the aquifer system via recharge wells.



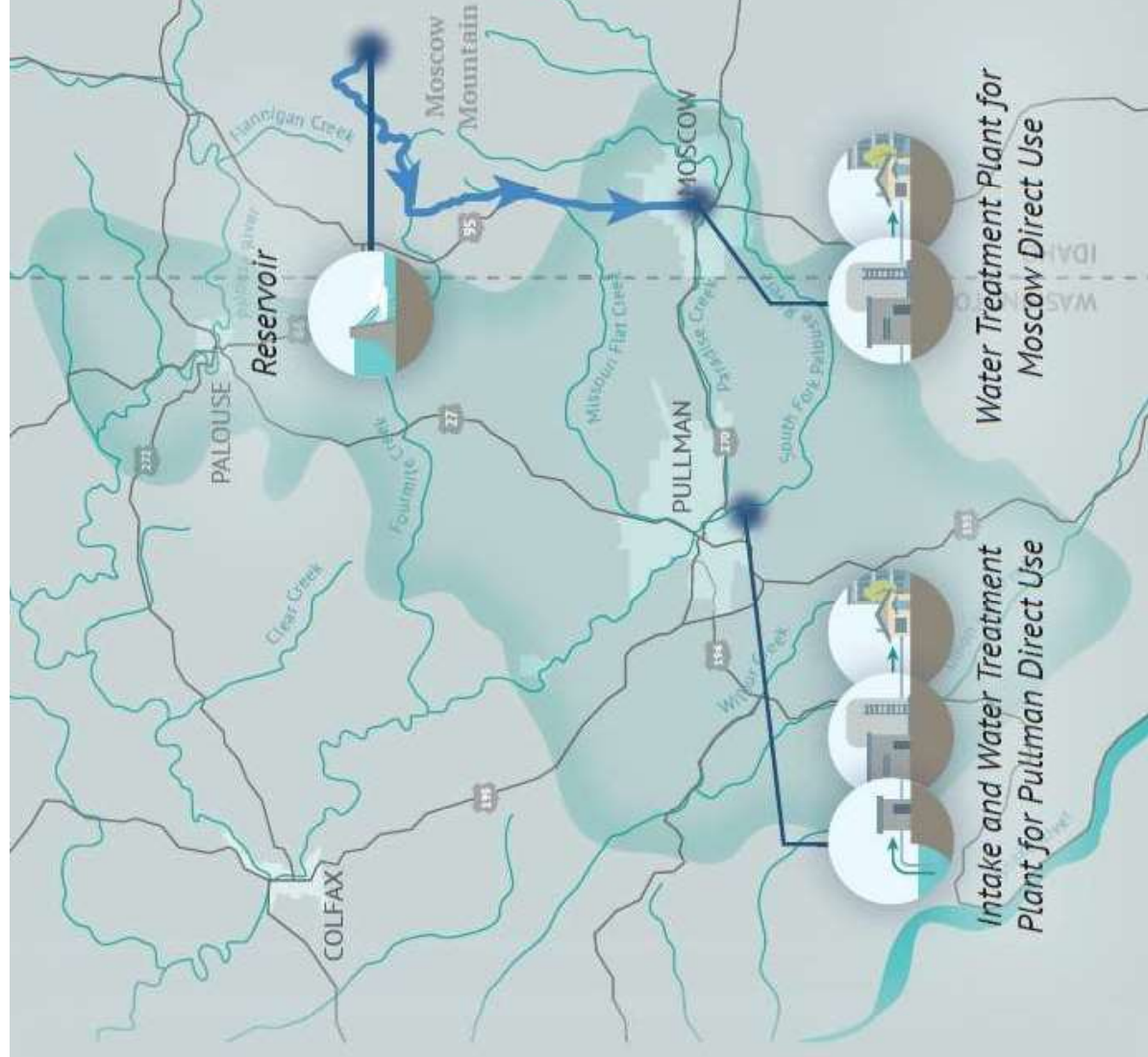
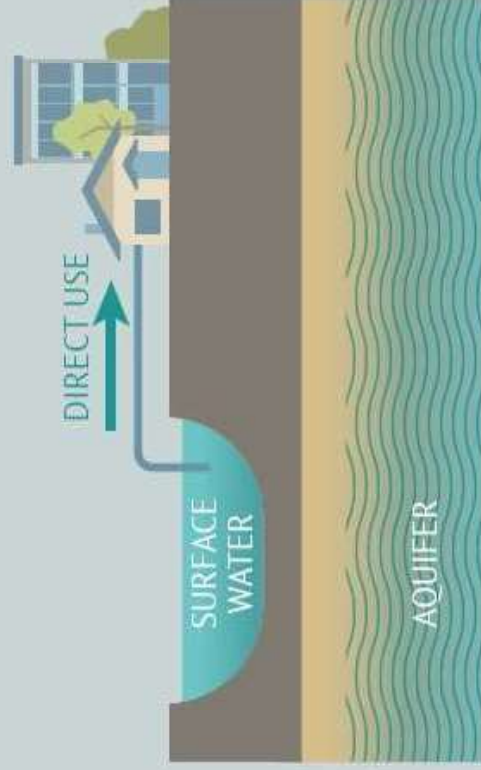
Alternative 3

Direct Use of Flannigan Creek:

Surface water from Flannigan Creek would be stored behind a new reservoir. Water would be pumped to Moscow to be treated and conveyed into the existing municipal water system for Moscow and UI.

Direct Use of the South Fork of the Palouse River:

Surface water would be diverted from the South Fork of the Palouse River, treated, and conveyed into the existing municipal water system for Pullman and WSU.



Alternative 4

Aquifer Recharge from the South Fork of the Palouse River:
Surface water would be diverted from the South Fork of the Palouse River in Pullman, treated, and injected into the aquifer system via recharge wells.

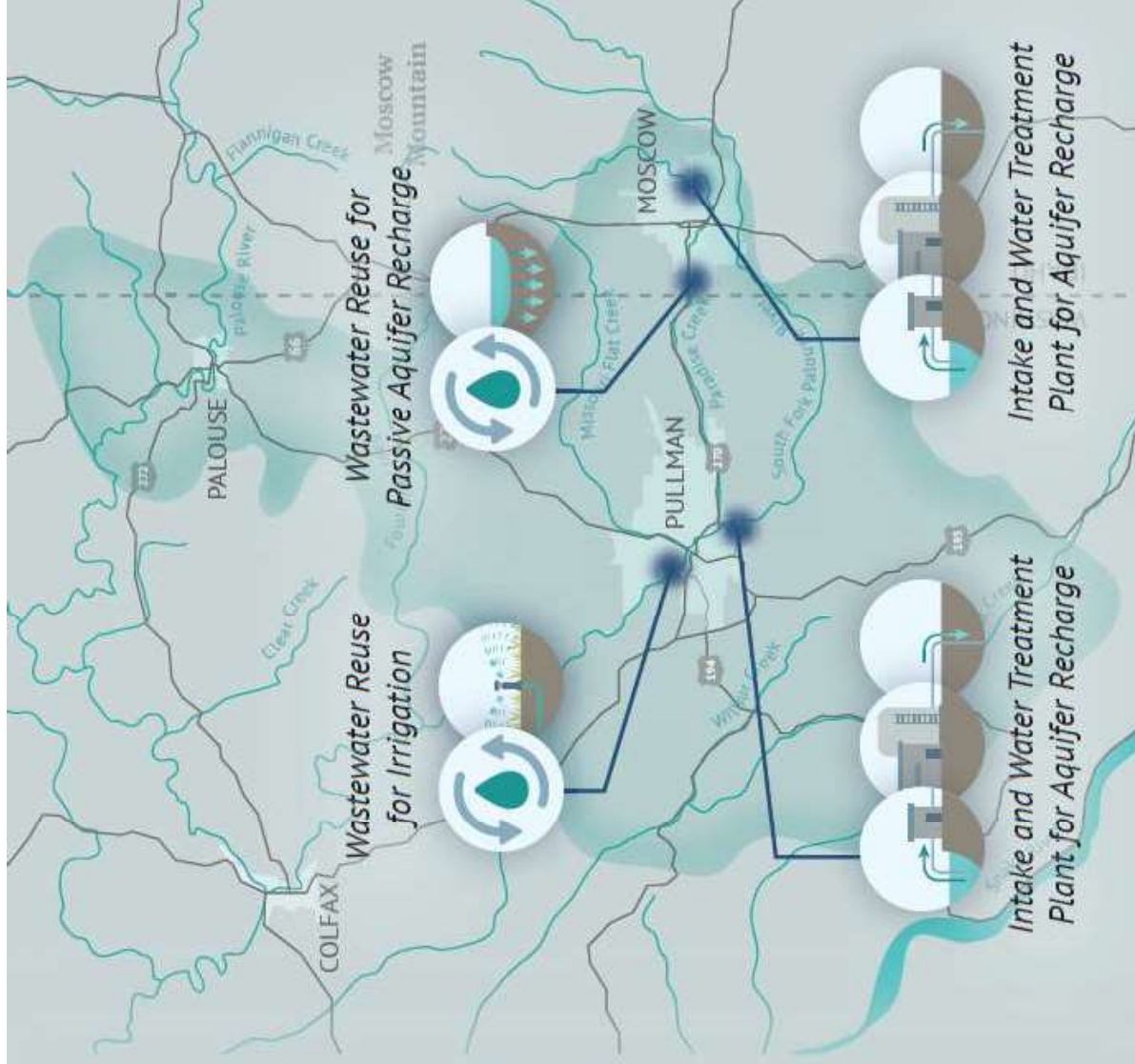
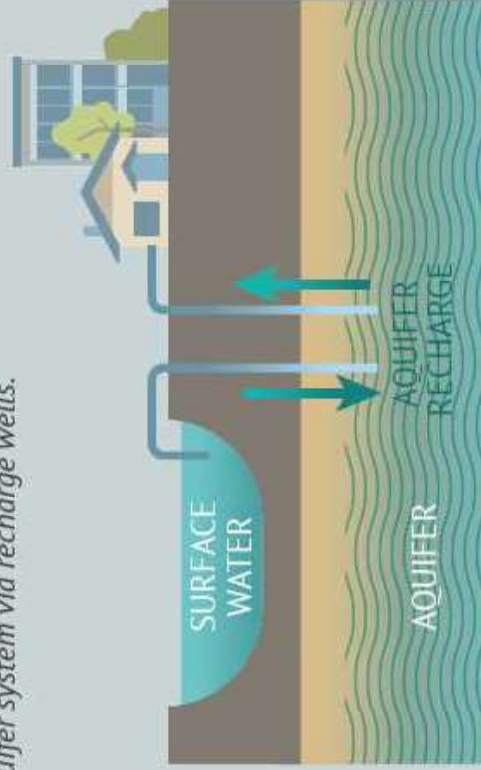
Aquifer Recharge from Paradise Creek:

Surface water would be diverted from Paradise Creek in Moscow, treated, and injected into the aquifer system via recharge wells.

Pullman Wastewater Reuse:
Using treated wastewater for irrigation in Pullman.

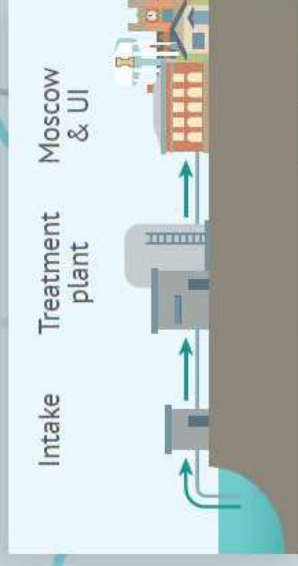
Moscow Wastewater Reuse:
Using treated wastewater for passive aquifer recharge in Moscow.

Additional Water Conservation:
Implementing conservation measures resulting in 15% less water than currently being used.

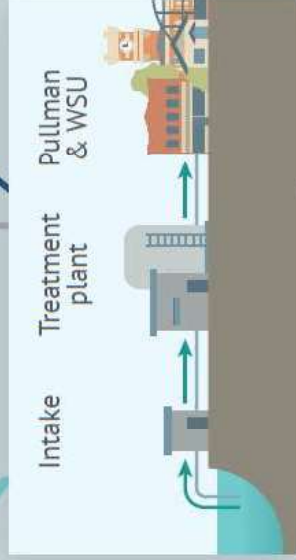


Paradise/South Fork Direct Use:

This project involves diverting water from Paradise Creek and the South Fork of the Palouse River to supply the communities of Moscow and Pullman. New facilities will collect and treat the water before directing it into existing city water systems. In addition to these direct use projects, additional conservation measures will be implemented with a goal to use 15% less water than currently being used.



Direct Use of Paradise Creek
Surface water would be diverted from Paradise Creek, treated, and then conveyed into the existing municipal water system for Moscow and UI.



Direct Use of the South Fork of the Palouse River
Surface water would be diverted from the South Fork of the Palouse River, treated, and then conveyed into the existing municipal water system for Pullman and WSU.

Protecting our critical groundwater resources will help our communities thrive and ensure safe, reliable drinking water for generations to come.

To learn more about the Palouse Basin Aquifer System or the proposed Paradise/South Fork Direct Use project, visit palousebasin.org

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Monthly Meetings on the Third Thursdays