

PALOUSE BASIN AQUIFER committee

MEETING MINUTES

THURSDAY, May 18, 2023, 2:00 PM

UI, FACILITIES SERVICES CENTER, JACK'S CREEK MEETING ROOM

<https://uidaho.zoom.us/j/89476554152> (Passcode: PBAC)

Attendance

X: In-person attendance

V: Video attendance

X	Pullman: Cara Haley (Chair) City Engineer	X	Moscow: Tyler Palmer (Vice-Chair) Deputy Director, Public Works & Services
X	Pullman: Sean Wells Public Works Director		Moscow: Michael Parker Water Utility Manager
X	Pullman: Eileen Maccoll City Council Member	X	Moscow: Sandra Kelly City Council Member
X	Whitman County: Mark Storey Public Works Director/County Engineer		Latah County: Paul Kimmell Citizen/County Representative
V	Whitman County: Tom Handy County Commissioner		Latah County: Tom Lamar County Commissioner
X	WSU: Jeff Lannigan Facilities Services	X	UI: Lana Cohen Research Associate
	WSU: Jason Sampson Asst Director, Environmental Services	X	UI: Rusty Vineyard Director of Facilities
	WA, Dept of Ecology: Patrick Cabbage Unit Supervisor/Hydrogeologist		ID, Water Resources: Michelle Richman Regional Manager/Staff Engineer
	WA, Dept of Ecology: Chris Beard Hydrogeologist		ID, Water Resources: Daniel Sturgis Hydrogeologist

Others:

Steve Robischon, PBAC Technical Advisor (V); Tim Link, UI (X); Robin Nimmer, Alta Science & Engineering (X); Perrin Robinson (V); David Hall (X); Cristin Reisenauer, City of Pullman (V); Colt Shelton, JUB (V); Jody Opheim, Whitman County (V); Jake Garringer, Governor's Office (X)

PALOUSE BASIN AQUIFER committee

**Denotes Action Items*

1) Introductions

Meeting called to order at 2:00pm. Roundtable of introductions of in person and online participants.

2) Approval of Minutes – ([Video Link 5:27](#))

a. April 20, 2023 - Meeting Minutes – [Attached](#)

Motion:	Approve Minutes from April 20, 2023, Meeting
Mover:	Tyler Palmer – Vice Chair
Second:	Eileen Maccoll
Result:	ALL IN FAVOR, MOTION CARRIED

3) Public Comment for Items not on Agenda – None

4) Unfinished Business – None

5) New Business – None

6) Presentations & Discussion – ([Video Link 6:14](#))

a. New Committee Members

Welcome new PBAC members: Sean Wells, City of Pullman Public Works Director (in Shawn Kohtz's seat) and Lana Cohen, UI Research Associate (in Tim Link's seat).

b. Discussion: Review Draft 2022 Annual Report

DRAFT REPORT: 2022 Annual Report – [Attached](#)

The draft Annual Report was included in the packet and a final draft will be posted to the website.

c. Discussion: Next Steps Report – ([Video Link 10:15](#))

DRAFT REPORT: Surface Water Supply Alternative 5 Next Steps – [Attached](#)

Robin Nimmer, Alta Science & Engineering, and Perrin Robinson, Jacobs, presented the draft report focused on Alternative 5's next steps. The Technical Subcommittee met the week prior to review the first draft and offer comments. University and County roles should be listed as advisory. Financial numbers for each step will be available in the final draft. PBAC will likely need to workshop meeting to discuss next steps with other committee members and other staff from each entity.

PALOUSE BASIN AQUIFER committee

7) Subcommittee Reports – ([Video Link 52:42](#))

a. Transition

i. Job posted and interviews are underway

ii. Job Posting Link: [Executive Director, PBAC](#)

Transition Subcommittee has undergone two rounds of interviews. Third round interviews with two final candidates will be in the coming weeks, with a reception to follow for all of PBAC to attend if available.

b. Budget

i. Monthly Budget Report – [Attached](#)

No new expenditures this month except for the regular administrative compensation.

ii. Update from Members for Future Contribution Increases

No updates from members. Will need to formally approve the increase at a future meeting.

iii. Update on UI Commitment

Awaiting to hear back from VP Foisy.

iv. Drafting FY24 Budget

Budget Subcommittee will meet to review the draft budget and present the final draft at the June PBAC meeting for adoption.

c. Communications – None

d. Technical – None

8) Other Reports and Announcements – ([Video Link 1:02:56](#))

a. Agency Updates

i. Status of Mountain View Park Well?

IDWR not in attendance, will ask for an update at next month's meeting.

b. Recap: Woods Hole Oceanographic Institution Visit May 8-12

Paul Kimmell visited with WHOI during a few site visits. Will follow up via email to Alan and Rebecca to see how it went and when we can expect results.

PALOUSE BASIN AQUIFER committee

c. Update: Civic Planning Grant

Update provided by Tim Link. NSF Grant didn't get awarded, plan to submit again in Fall 2024.

9) Next PBAC Meeting

a. Thursday, June 15 at 2:00 PM

- i. Agenda to include: Elections, Reconfirm Committee Representatives, Adopt FY24 Budget, Approve Annual Assessments**

10) Adjourn at 3:14pm

Motion:	Adjourn
Mover:	Tyler Palmer, Vice Chair
Second:	Rusty Vineyard
Result:	ALL IN FAVOR, MOTION CARRIED

Minutes adopted at the June 15, 2023 Meeting

PALOUSE BASIN AQUIFER committee

****DRAFT** MEETING MINUTES**

THURSDAY, APRIL 20, 2023, 2:00 PM

UI, FACILITIES SERVICES CENTER, JACK'S CREEK MEETING ROOM

<https://uidaho.zoom.us/j/89476554152> (Passcode: PBAC)

Attendance

X: In-person attendance

V: Video attendance

X	Pullman: Cara Haley (Chair) City Engineer	X	Moscow: Tyler Palmer (Vice-Chair) Deputy Director, Public Works & Services
	Pullman: Vacant Position	V	Moscow: Michael Parker Water Utility Manager
X	Pullman: Eileen Maccoll City Council Member		Moscow: Sandra Kelly City Council Member
	Whitman County: Mark Storey Public Works Director/County Engineer	X	Latah County: Paul Kimmell Citizen/County Representative
V	Whitman County: Tom Handy County Commissioner	V	Latah County: Tom Lamar County Commissioner
X	WSU: Jeff Lannigan Facilities Services	X	UI: Lana Cohen Research Associate
	WSU: Jason Sampson Asst Director, Environmental Services	X	UI: Rusty Vineyard Director of Facilities
V	WA, Dept of Ecology: Patrick Cabbage Unit Supervisor/Hydrogeologist		ID, Water Resources: Michelle Richman Regional Manager/Staff Engineer
V	WA, Dept of Ecology: Chris Beard Hydrogeologist		ID, Water Resources: Daniel Sturgis Hydrogeologist

Others:

Steve Robischon, PBAC Technical Advisor (V); Robin Nimmer, Alta Science & Engineering (X); Brooke Chase, Nez Perce Tribe (V); Colt Shelton, JUB (V); Cristin Reisenauer, City of Pullman (V); Sean Wells (V); Jamie Hill (V); Pamela Titerenko (V); David Hall (X)

PALOUSE BASIN AQUIFER committee

**Denotes Action Items*

1) Introductions

Meeting called to order at 2:01pm. Roundtable of introductions of in person and online participants.

2) *Approval of Minutes – ([Video Link 8:02](#))

a. March 23, 2023 - Meeting Minutes – [Attached](#)

Motion:	Approve Minutes from March 23, 2023, Meeting
Mover:	Tyler Palmer – Vice Chair
Seconder:	Rusty Vineyard
Result:	ALL IN FAVOR, MOTION CARRIED

3) Public Comment for Items not on Agenda

- a. Vice Chair Tyler Palmer inquired about the new hire for Pullman Public Works Director - Sean Wells will be starting May 10. It is not yet confirmed if he will fill the vacant position on PBAC.

4) Unfinished Business – None

5) New Business – None

6) Presentations & Discussion – ([Video Link 10:18](#))

a. Discussion: Update from Committee Members regarding Contribution Increases

Memo: Status of PBAC Funds & Future Contribution Increases – [Attached](#)

At the February meeting members were directed to discuss an increase with their individual entity leadership. Committee members provided roundtable updates.

- Pullman: Anticipating an update and accounted for an increase in the 23-24 budget. Will need a resolution at Pullman City Council to adopt. Leadership was concerned with UI's lack of Research contributions.
- Moscow: Council is anticipating the increase and supportive of water conservation and supply project.
- WSU: Okay with increase but needs a plan to go along with it. Need to be mindful of frequency for increases or establish an interval. Should discuss a combined funding source so funds can be easier to transfer from one account to another.

PALOUSE BASIN AQUIFER committee

- UI: Trying to get the PBAC Plan resolved, and in doing so there would be a payback of Research funds from the past 4 years. Then it would be a centrally funded effort. The increase has been communicated and a cost increase should be anticipated on a regular basis.
- Latah: Paul has not spoke with Tom but feel good about a continued commitment. Will be sure to get the increase into the next budget request as an early heads up.
- Whitman: Feels good and will give the Commissioners a heads up. The percentage increase is high but the dollar amount isn't too much.

Consensus is this increase should be approvable. The new Executive Director will draft a resolution for the upcoming fiscal year. Will follow up for one more check in at next month's meeting.

7) Subcommittee Reports – ([Video Link 26:19](#))

a. Transition

i. Job posted and open until April 26 for first round review

[Job Posting Link: PBAC Executive Director](#)

The subcommittee consists of Cara Haley, Tyler Palmer, Paul Kimmell, Rusty Vineyard, and Mark Storey. Meetings have been scheduled to review applications and the recruitment process will follow as such.

b. Budget

i. Monthly Budget Update - [Attached](#)

No new expenditures this month except the regular administrative compensation. No funds have gone to City of Genesee for the transducer quite yet.

c. Communications

i. Recent Meeting Update

Meeting was cancelled. Paul Kimmell will be drafting a press release for the Woods Hole visit and potentially coordinate a social hour with them.

PALOUSE BASIN AQUIFER committee

d. Research

- i. Meeting to Review Implementation Plan scheduled for May 11, 2-3:30pm**
- ii. Plan will be presented to Committee at May PBAC Meeting**
Meeting with Alta and Jacobs to review plan with the technical subcommittee. The draft will be sent out a week prior so the subcommittee can bring feedback to the meeting for discussion. Larger discussion with the entire Committee at the May meeting.

8) Other Reports and Announcements – ([Video Link 34:13](#))

- a. Committee to sign a thank you card to John Bush for his time spent on lecture series**

b. Agency Updates

This is a new item that would allow entities and agencies an opportunity to provide informational updates. It isn't expected to be formal, simply a verbal update to improve communication and sharing information.

- PBAC submitted additional information to IDWR for their Sustainability Project List.
- Latah County: Funds will still be able to accommodate an AmeriCorps member.
- WDOE: Washington legislation will allow funding in Oregon that will benefit Washington, specifically for the Walla Walla Basin which is bi-state.
- Website: Is now secure! Committee/New ED should contemplate purchasing email and domain to allow for record preservation.
- Pullman: Irrigation ordinance passed and now working on outreach and education.

c. Update: UI PBAC Plan – Tyler Palmer

Update provided earlier in the meeting (Item 6a).

d. Reminder: Well Sampling with Woods Hole Oceanographic Institution – Visiting May 8-12

Paul Kimmell to provide contacts and coordinate a get together.

e. Update: Website Domain

Update provided earlier in meeting (Item 8b).

- f. May 20th Music Gathering in Viola – Paul Kimmell will send out invite.**

PALOUSE BASIN

AQUIFER

committee

9) Next PBAC Meeting:

a. Thursday, May 18 at 2:00 PM

10) Adjourn at 2:52 PM

Motion:	Adjourn
Mover:	Paul Kimmell
Second:	Tom Lamar
Result:	ALL IN FAVOR, MOTION CARRIED

DRAFT

2022 ANNUAL REPORT

PALOUSE BASIN AQUIFER committee

Palouse Basin Aquifer Committee
University of Idaho
875 Perimeter Drive MS 3301
Moscow, ID 83844-3301

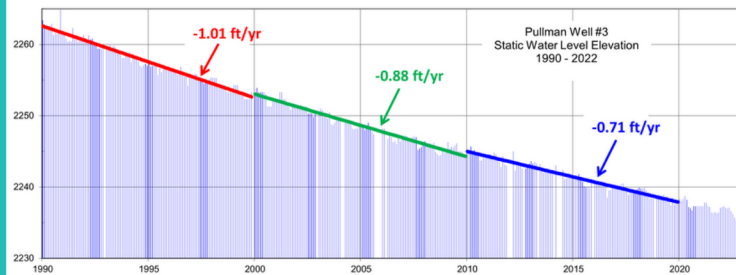
Phone: (208) 885-6429
Email: pbac@uidaho.edu
Website: palousebasin.org



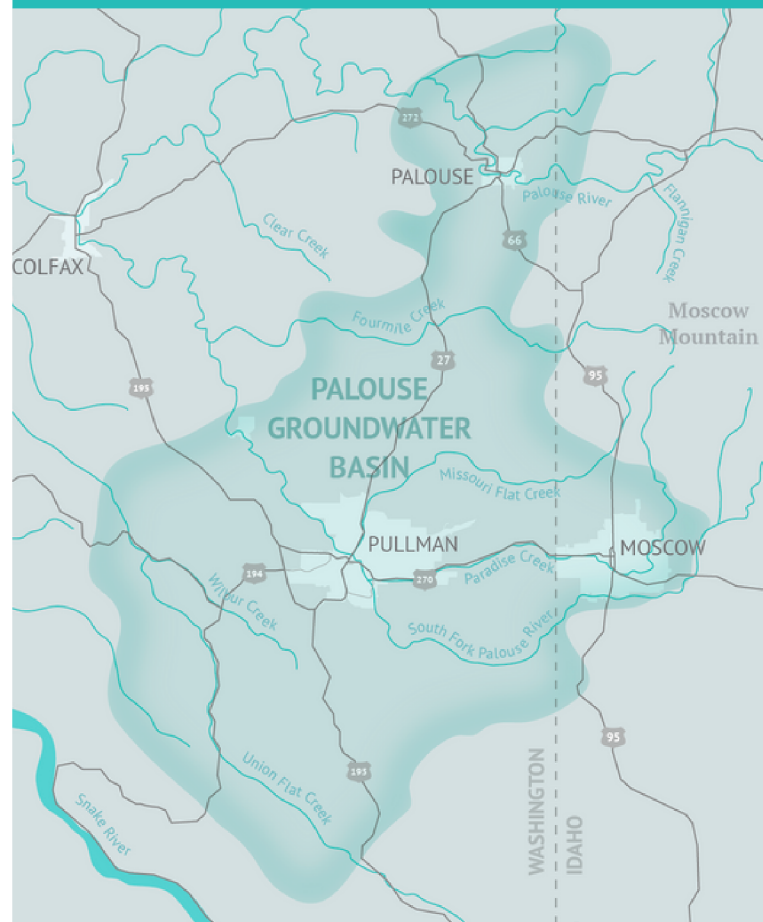
BACKGROUND of the Palouse Basin Aquifer Committee

The Palouse Basin Aquifer System provides the sole drinking water supply for over 80,000 residents in Whitman County (Washington) and Latah County (Idaho). Groundwater levels have been declining since the late 1800's when the area was first settled. Since then the amount of water being pumped from the aquifer system outpaces what re-enters from the natural recharge process.

In the 1990's, the decline rate was 1.3 feet per year. The current rate of decline in the basin is approximately 0.7 feet per year. While the rate of decline has decreased over the last 30 years, demonstrating conservation efforts and technology advancements have been effective, the aquifer water levels continue to drop as demand outstrips supply. State statute defines this as mining an aquifer, an unsustainable practice. This condition can lead either the Washington Department of Ecology (WDOE) or the Idaho Division of Water Resources (IDWR) to declare the Palouse Basin a Critical Groundwater Management Area (CGMA). This could significantly curtail future growth, including housing and businesses, and remove the authority for local decision-making. In an effort to maintain local control and demonstrate a willingness and ability to work on solutions to the supply challenges in the Palouse Basin, the local jurisdictions came together and established the Palouse Basin Aquifer Committee.



**THE CURRENT
RATE OF WATER
LEVEL DECLINE IN
THE BASIN IS 0.7
FEET PER YEAR.**



ABOUT THE COMMITTEE

PBAC MISSION:

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

The Palouse Basin Aquifer Committee is a cooperative, multijurisdictional, bi-state committee made up of representatives from cities, counties, and universities within the basin. This includes the City of Pullman, Whitman County, and Washington State University, in Washington state, and the City of Moscow, Latah County, and the University of Idaho, in the state of Idaho. Each entity has two voting representatives on the Committee. The City of Palouse, Washington, is also in the basin's boundaries, though not presently a formal member of the Committee. Ex-Oficio members include representatives from WDOE and IDWR.

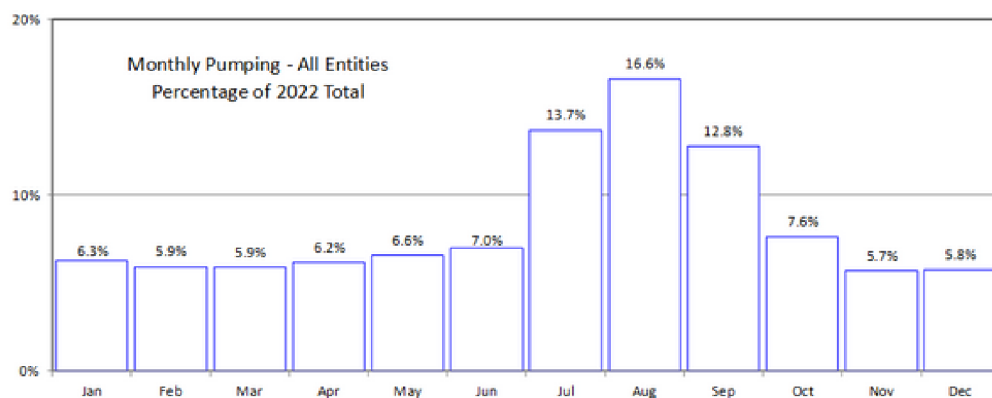
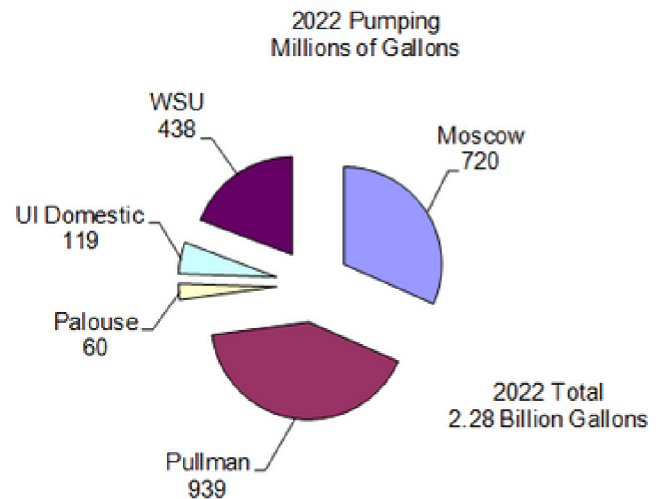
The [Groundwater Management Plan](#) (GWMP) and an associated [interagency agreement](#) include requirements to gather annual pumping numbers, analyze water level information, research the basin's geology, actively engage and educate the community, foster and maintain relationships with state and local agencies, and implement a supplemental water source with the goal of aquifer stabilization.

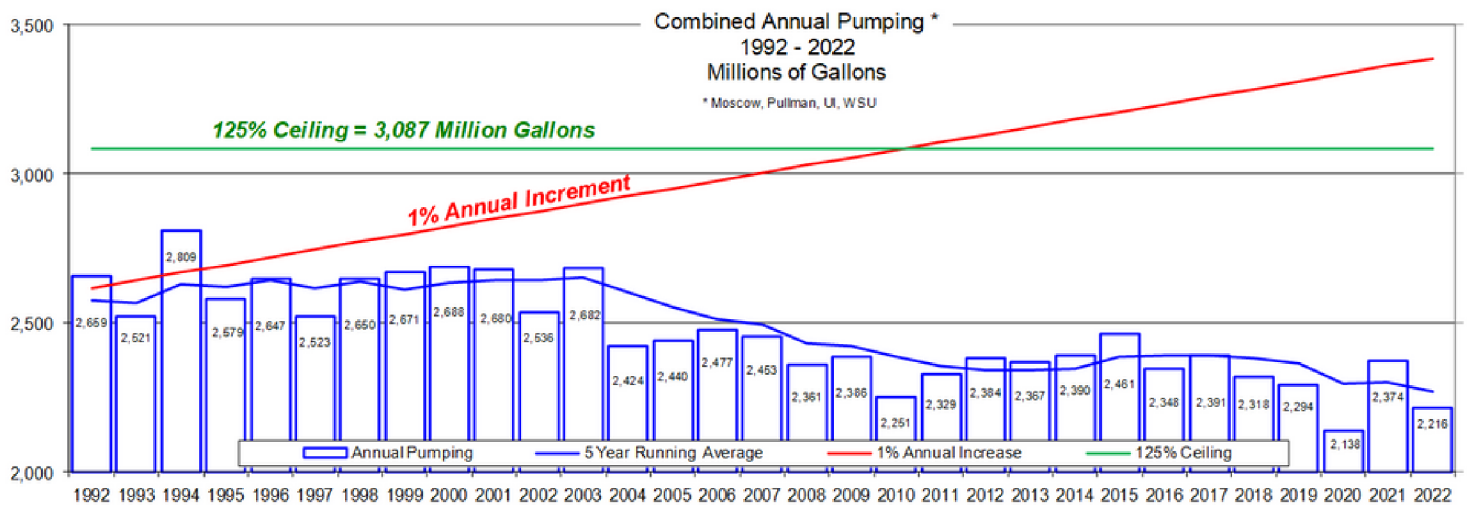


2022 GROUNDWATER USAGE

The total combined groundwater pumped by the cities (Pullman, Moscow, and Palouse) and the universities (WSU and UI) for the year 2022 was 2.28 billion gallons. In aggregate, this was 6% less than was pumped in 2021 (2.48 billion gallons), and 17% less than was pumped in 1992 (2.74 billion gallons), the first year the GWMP took effect.

During the months of November through April, the water used indoors (due to the colder climate) is known as 'baseline use'. Pumping increases significantly during the warmer months typically, starting in May and continuing through October, primarily due to outdoor irrigation or what is known as 'non-baseline use'. In 2022, the region experienced a longer, cooler, wetter spring, resulting in a late start to the irrigation season which in turn meant less water use. During the three months of July through September the water pumped accounted for 43.1% of the water used for the entire year. In theory, if outdoor irrigation use was eliminated, those months would have used roughly 18.9% of the annual water use.





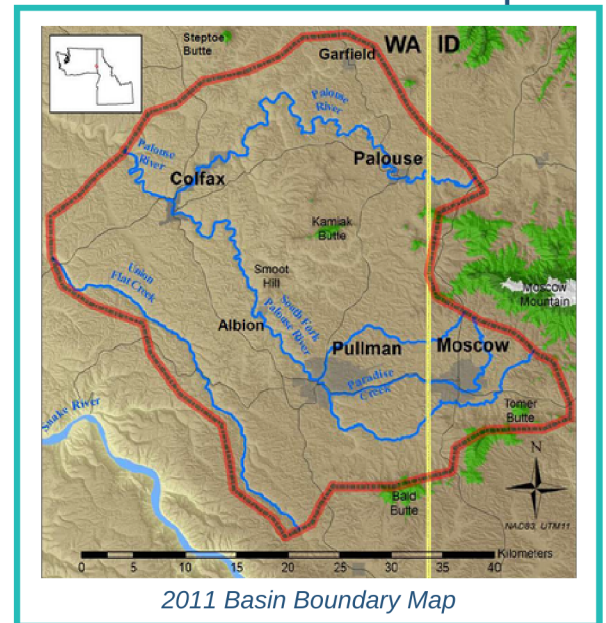
As part of the GWMP, each major pumping entity agreed to pumping limitation goals. The effort was to limit annual pumping increases to 1% from the 1986-1990 five-year average pumping amount (the red line in the chart above). In addition, entities agreed to a cap of no more than 125% of the 1981-1985 five-year average pumping amount (the green line). The entities have met these goals almost every year, except once. With the cities prioritizing the creation of a regional conservation plan, it's likely each entity should revisit their action plans and create new pumping caps with a goal to conserve more and more each year. Conservation continues to be the most economical first step and will help extend the lifespan of any future water supply project.

**2.28 BILLION GALLONS
OF GROUNDWATER
WAS PUMPED IN 2022**

2022 ACCOMPLISHMENTS

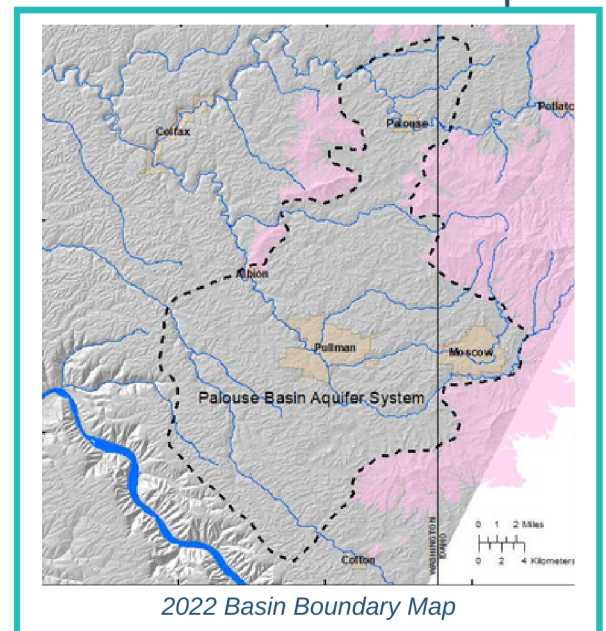
ADJUSTED BOUNDARIES

- Through their extensive decades of research and involvement in the basin, Emeritus Professor John H. Bush, Pamela Dunlap, and Steve Robischon presented new boundaries for the Palouse Groundwater Basin. In summary, with geological analysis, well connectivity tests, and water level data analysis, the city of Colfax was once thought to be within the basin and has now been removed. The [new boundary map](#) was adopted by the Committee in May.



ANNUAL DATALOGGER DOWNLOADS

- Over 30 wells in the region have transducers that take readings of water levels once an hour. Throughout the year data is stored and each summer the data is obtained through field work. This year's downloads were performed by Alta Science & Engineering with a total cost of \$15,000. Data is reviewed and analyzed and tracked to determine water levels in the basin. It is vital to maintain consistent data each year to track trends in conjunction with pumping reports. The [2022 hydrograph](#) includes a map with well locations and the data obtained from each transducer in each well over the past several decades.



ARPA FUNDS

- In the spring, PBAC requested through Latah County to utilize ARPA (American Rescue Plan Act) funds specifically for outreach and education regarding water conservation. The request was formally awarded at \$50,000 in July but has not yet reached PBAC accounts due to processing logistics.

TRANSITION TO AN EXECUTIVE DIRECTOR

- PBAC's staff has historically been part time positions responsible for the monthly public meetings, contract and financial management, and technical data analysis. In 2022, the Executive Manager role transitioned to a full time Executive Director position. Expanding this role allows for more consistent community outreach and further advancement of a water supply project.

ADOPTION OF ALTERNATIVE WATER SUPPLY REPORT

- In 2020, PBAC contracted with Alta Science & Engineering to further the work completed in the 2017 Water Supply Alternatives Analysis Report. In July of 2022, the Committee held a workshop to discuss the final details of Alta's report which focused on refining the potential alternative supply options and ranked five projects. The Committee [adopted the report](#) on August 18, 2022. The report and the work in total cost \$200,000. After adoption, presentations to each member entity took place in September and again at a Leadership Roundtable in November, where stakeholders discussed next steps. With a preferred alternative identified, PBAC has commissioned preliminary work on additional conservation, water rights analysis, and preliminary project funding exploration. All of this considers that there are significant potential developments that could influence that viability of each of the identified alternatives including the adjudication of the Palouse Basin and the potential for a pumped storage project. PBAC is closely monitoring these and is prepared to pivot as new information becomes available.



2023 GOALS

OUTREACH & EDUCATION

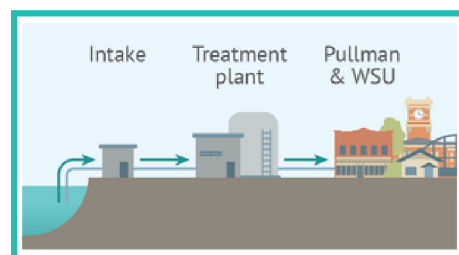
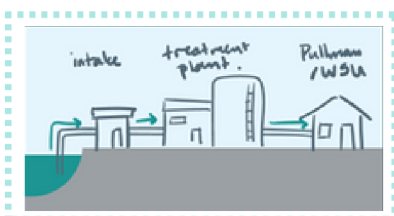
- There is an inherent complexity in the analysis of groundwater systems, monitoring of declining water levels, and especially the generation of water supply projects. Public outreach and education are critical components of PBAC's work. A lack of clear, consistent, and timely public outreach and involvement played a key role in failures of previous attempts at implementing water supply projects. PBAC is in the final review phases for a series of infographics that help communicate the challenges and explain the projects to a variety of audiences. The initial infographic creation is projected to cost \$9,000. There will likely be another phase to create additional infographics based solely on the topic of water conservation which could be another \$10,000. Additionally, planning and executing public outreach events will require various forms of media and collateral which is estimated to cost \$5,000.



Conceptual Sketch



Final Infographic



CONTINUED PARTNERSHIPS

- Leaning into the collaborative nature of PBAC, maintaining relationships and making others aware of the work PBAC is charged with is a continued priority. For example, the Idaho Water Resource Board's July meeting will be held in Moscow where PBAC will have a unique opportunity to present an update on the basin and request financial resources.

RESEARCH

- In 2022, the City of Genesee drilled a roughly 820-foot deep well - the deepest, furthest south well in the nearby area. Chips from the driller were obtained and will be analyzed with PBAC research dollars in 2023, for an estimated cost of \$7,000. There will also be future coordination for placement of a transducer to be added to PBAC's monitoring network which will generate data to help determine possible connectivity in the southern boundary of the basin.
- Each year data from transducers in the monitoring network are obtained, batteries are checked and equipment is replaced to ensure consistent data is collected. Four transducers will need to be replaced in 2023, along with the routine data collection work, estimated to cost \$20,000.
- Alternative 5 is the project the Committee chose to focus efforts towards when adopting the Alternative Water Supply Projects Report in the summer of 2022. However, the other Alternatives are still viable, especially as interest grows from the private sector which could allow for collaboration and potential cost-sharing benefits. Opportunities may arise in 2023 for PBAC to be a partner with feasibility studies.

STRATEGIC PLAN FOR WATER SUPPLY PROJECT

- Historically, PBAC has focused its efforts on research to understand the dynamics of the basin. Now, with an aquifer stabilization and target need goal for our growing region, PBAC is pivoting to an applied technical research role, specific to the supplemental water supply project. PBAC directed Alta to create a prioritized implementation plan to determine next steps for project implementation of a supplemental water supply project. This work is scoped at \$20,000 and is scheduled to finish in the spring. The results will identify next steps for data collection, technical planning, engineering, and permitting elements; provide a suggested sequence and prioritization of identified next steps; and provide budgetary values for the first few steps to better understand future financial expectations.
- The prioritization list will be the foundation in creating a 5-10-year strategic plan and will guide next steps for PBAC, or individual entities, to take the lead on project elements and facilitate funding discussions based on what next steps are required. It could also facilitate a future RFP to perform future critical work for state or federal approval.

FINANCIALS

Entity	Admin	Research	Total
Pullman	\$27,000	\$20,000	\$47,000
Moscow	\$27,000	\$20,000	\$47,000
Whitman County	\$6,750		\$6,750
Latah County	\$6,750		\$6,750
WSU	\$27,000	\$20,000	\$47,000
UI	\$27,000	*	\$27,000
Total	\$121,500	\$60,000	\$181,500
*UI has not contributed to research since FY20			

The Committee is financed through contributions from its member entities. The major pumpers (i.e. Pullman, Moscow, WSU, and UI) contribute a larger amount as the major pumping entities in the basin with independently-operated water systems, while the counties (i.e. Whitman and Latah) contribute a smaller amount as they do not operate water systems, but represent the number of small pumpers scattered through rural Whitman and Latah Counties. PBAC's fiscal year (FY) is July 1 through June 30.

Administrative Account Activities

Income	Budget	Balance
\$121,500	\$140,000	\$164,375

The administrative contributions are applied toward salary, fringe benefits, and professional development for PBAC personnel, contract management, memberships dues, collateral for public engagement and education outreach, and general office expenses including the PBAC website. PBAC employs one full time position, an Executive Director, and one temporary help position, a Technical Advisor.

Compensation alone accounts for approximately \$130,000 annually. The administrative budget is currently outspending the annual income. When the Executive Manager position transitioned to full-time in FY22, the PBAC Board approved the expenditure to fund the position with a realization that reserves would be drawn down within two to three years, and an increase request to the participating entities would be necessary. A variety of solutions have been identified and include reallocating research funds to support the Technical Advisor's salary or increasing contribution amounts from the entities. A solution will need to be implemented by FY25.

Research Account Activities

Income	Budget	Balance
\$181,500	Varies	\$248,700

Research activities vary year to year. In 2022, the aforementioned Alternative Water Supply Report was funded at \$200,000 and finished after two years' worth of work. The essential annual groundwater monitoring efforts were also funded by research contributions as it provides holistic, regional data required by the GWMP. This data also is imperative to inform conversations about water usage and conservation.

Research projects have encompassed a wide range of topics from creating a new groundwater model, tracking isotopes to determine the age of water or the amount of recharge occurring, to selecting alternative water supply projects for a regional supplemental water project and the data refinement to move a project forward. Research funds are not typically spent in full each year due to the high cost of projects, which can range from \$50,000-\$300,000. With annual contributions of \$60,000, it is vital carryforward occur from year to year to ensure PBAC can support future projects. The below table details a three-year outlook for future Research projects and the anticipated costs.

3-Year Research Expenditure Outlook	
Research Project	Anticipated Budget Need
Genesee Well Chips	\$7,000
Creation of Prioritization List	\$20,000
Public Outreach Education	\$30,000
Pumped Storage Feasibility Study Participation	\$50,000
Project Implementation Data Refinement RFPs	\$300,000-500,000
Updates to Groundwater Model	\$100,000

Historically, PBAC has funded over \$1.5 million worth of research on aspects of the basin. To see a list of modern and historical research content, view the [research webpage](#).

PBAC has actively worked to identify and pursue additional sources of revenue such as grants from the member entities or funding awarded by the states, depending on the scope of the project proposed. In July 2022, PBAC was awarded \$50,000 ARPA funds through Latah County for outreach and education for water conservation. In December 2022, PBAC applied for the Idaho Water Resources Board's Regional Sustainability Water Priority List and is now formally on the list, listed with an approximately \$75 million price tag. PBAC is actively engaged with both State's water resource departments to ensure coordination of a future project so resources can be allocated appropriately.

PALOUSE BASIN AQUIFER committee

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Instagram

instagram.com/palousebasinaquifercommittee

Twitter

twitter.com/palousebasinaq1

**2022
ANNUAL
REPORT**

PALOUSE BASIN AQUIFER

committee members

Chair: Cara Haley (Pullman)

Shawn Kohtz (Pullman)

Eileen Macoll (Pullman)

Mark Storey (Whitman Co)

Tom Handy (Whitman Co)

Jeff Lannigan (WSU)

Jason Sampson (WSU)

Vice-Chair: Tyler Palmer (Moscow)

Michael Parker (Moscow)

Gina Taruscio (Moscow)

Past-Chair: Paul Kimmell (Latah Co)

Tom Lamar (Latah Co)

Rusty Vineyard (UI)

Tim Link (UI)

ex-officio members

Patrick Cabbage (WDOE)

Michelle Richman (IDWR)

staff

Céline Acord (Executive Director)

Steve Robischon (Technical Advisor)

PALOUSEBASIN.ORG

Surface Water Supply Alternative 5 Next Steps - DRAFT

Date:	May 15, 2023	Jacobs Engineering Group Inc.
Project name:	Palouse Groundwater Basin Alternative Water Supply	999 W. Main St
Project no:	D3444805	Suite 1200
Attention:	Executive Director	Boise, ID 83702
Client:	Palouse Basin Aquifer Committee (PBAC)	United States
Prepared by:	Perrin Robinson, Jacobs; Robin Nimmer, Alta	T +1.208.345.5310
Revision no:	0	www.jacobs.com
Copies to:	File	

1. Background

The Palouse Basin Aquifer Committee (PBAC) has been actively engaged for several decades in addressing concerns about the declining groundwater level in the aquifer. Aquifer declines are caused by the almost exclusive reliance on groundwater since withdrawals first occurred in the late 1800s. PBAC's primary role is to promote implementation of the *Palouse Basin Groundwater Management Plan*, as enacted in 1995, by its member entities. The member entities are the cities of Pullman, Washington, and Moscow, Idaho; Whitman County in Washington and Latah County in Idaho; Washington State University (WSU); and the University of Idaho (UI). One of PBAC's missions is to identify alternative water supply sources to supplement and possibly mitigate groundwater withdrawals.

Over the years, PBAC, its member entities, and federal and state agencies have conducted studies and evaluations of water supply alternatives and potential groundwater impact mitigation measures to implement. In 2020, PBAC hired Alta Science and Engineering, Inc. (Alta), including subconsultants Jacobs Engineering Group Inc. (Jacobs), McCormick Water Strategies, and SPF Water Engineering, to refine the top four water supply alternatives developed in 2017 by conducting public outreach activities, filling water rights data gaps, developing project phases, developing an alternative decision matrix, and investigating potential project financing. Alta prepared the *Palouse Groundwater Basin Water Supply Alternatives Report* dated August 4, 2022 (2022 Report), which was adopted by PBAC in August 2022.

Based on the information presented in the 2022 Report, the Modified Alternative 4 ranked first and a recommendation was made to focus attention and resources on the selection of one to two alternatives for further refinement. PBAC decided to follow that recommendation and focus on Modified Alternative 4 (now referred to as Alternative 5).

A description and characterization of Alternative 5 is provided in Attachment 1.

2. Scope of Next Steps Memorandum

Following adoption of the 2022 Report, PBAC identified the need to establish and prioritize the next steps for Alternative 5 to advance the project definition, planning, data acquisition, and other activities in the near term and beyond. To aid in this "next steps" identification, Jacobs has prepared this memorandum to provide a list of important activities and general prioritization in support of PBAC's decision-making process. Additionally, for planning purposes, this memorandum provides rough-order-of-magnitude budgetary estimates for several of the activities recommended to be executed first depending on available funding.

3. Approach

Jacobs and Alta collaborated to gather available historical documents, presentations, collected data, and other information that have been developed over the years as the declining Palouse Basin groundwater levels have been monitored and studied. A catalog of the reference material was developed with brief descriptions of the content, applicability to Alternative 5, its relevancy if applicable to Alternative 5, and the location of the relevant content within the material. This catalog was developed as a guide to determine the recommended path forward.

A team of Jacobs subject matter experts with experience in funding, planning, design engineering, permitting, and project development and implementation for infrastructure projects similar to Alternative 5 was identified. Jacobs conducted a series of internal workshops to share the purpose and need of the scope, to collaborate on the recommendations, and to recommend sequencing of the next steps. Between the workshops, all team members evaluated the current level of project development, independently identified necessary forward-looking activities, and applied their own prioritized order of execution. The individual lists were merged, and the workshop was conducted to adjudicate the activities and overall prioritized sequencing.

This memorandum summarizes this effort.

4. Recommended Next Steps

Attachment 2 provides the complete list of recommended next steps developed by Jacobs, with prioritization assignment. These activities would be performed for both the proposed South Fork of the Palouse River diversion in Pullman and the proposed Paradise Creek diversion in Moscow as detailed for Alternative 5. From this long list, and in conjunction with Section 11, Near-Term Next Steps, in the 2022 Report, Jacobs identified the following eight activities recommended for initial focus and execution:

1. Determine/confirm the initial project implementation governance structure among PBAC representative entities (Cities, Counties, and Universities) and execute a written agreement on roles, responsibilities, and path forward.
2. Develop an initial funding plan inclusive of outside funding opportunity identification and application for the water project planning, studies, and evaluations listed.
3. Install a flow monitoring gage and data logger on the South Fork of the Palouse River.
4. Continue water availability and rights evaluation and acquisition planning and execution.
5. Evaluate water treatment alternatives and conceptual design preparation.
6. Prepare a desktop siting evaluation for intake, water treatment plant (WTP), conveyance pipeline route, and connections to existing infrastructure.
7. Perform a reevaluation of Alternative 5 compared to Alternatives 1, 2, 3, and 4.
8. Formalize the project progression process.

These activities listed are envisioned to be performed by the municipalities, the universities, the counties, an outside consulting firm, or a combination of these entities in collaboration. Steps 1 and 2 need to be completed prior to initiating Steps 3 through 8.

Note that water quality sampling and testing is not listed as one of the initial eight activities because there are previous water quality test results for both Paradise Creek and the South Fork of the Palouse River available to inform the evaluation of water treatment alternatives and conceptual treatment plant design. Following these initial eight steps, Jacobs recommends performing additional water quality testing as shown in Attachment 2.

Installation of a new flow monitoring gage on Paradise Creek is not recommended as one of the initial next steps because there is an existing United States Geological Survey (USGS) monitoring gage (13346800) located downstream of the University of Idaho. Because the proposed location of the new diversion on Paradise Creek has not yet been identified, the decision on installing a new monitoring gage has been delayed.

The following sections provide more context to the vision and intent of each of the eight previously listed recommended next steps.

4.1 Initial Project Implementation Governance Structure and Memorandum of Agreement

This task is intended to allow the PBAC members to discuss and decide how the initial consultant-led tasks will be administered (that is, as the PBAC or individual municipalities) and how the projects that make up Alternative 5 are envisioned to be implemented if it advances (for instance, as a joint authority or individual municipalities). More specifically, what entity/entities will be responsible for contracting with the consultant for the initial next steps and potentially what entity/entities would be responsible for advancing the projects through further refinement, design, and ultimately construction of Alternative 5, assuming this is the alternative that advances. This initial framework characterization is recommended to inform agency discussions and outside funding applications associated with these initial next steps.

Execution of this recommended activity is envisioned to be accomplished by PBAC members and documented either in meeting minutes, a letter of intent, or a memorandum of agreement (MOA). If desired, consultant support to work through this process can be provided.

4.2 Initial Funding Plan and Outside Funding Opportunities

This step is recommended to allow PBAC members to establish how and who will pay for these initial activities. There may be adequate funding available through PBAC, municipality and university general funds, or some combination. It is envisioned that some form of outside funding would be explored as well from the Idaho Water Resource Board/Idaho Department of Water Resources, Washington Department of Ecology, Washington State Department of Health, U.S. Department of the Interior, and other potential sources. If outside sources are sought, requests and applications will need to be prepared and submitted.

Execution of this recommended activity is envisioned to be accomplished primarily by PBAC members with potential consultant support for grant opportunity identification, application development, presentation involvement, and other funding research and needs.

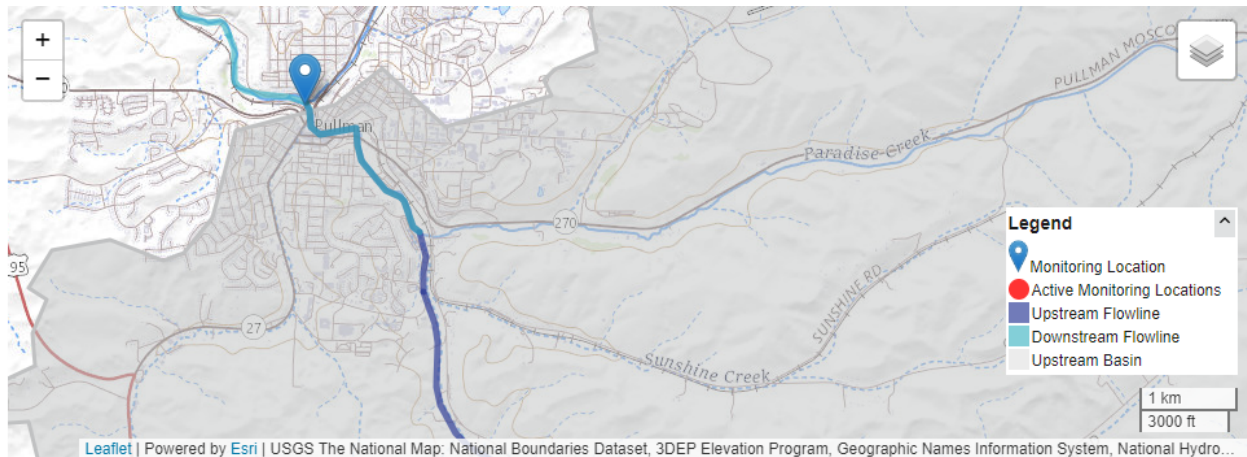
4.3 Install Flow Monitoring Gage and Data Logger on South Fork of Palouse River

The USGS maintains and publishes data from a river gage located in Pullman, Washington, on the South Fork of the Palouse River downstream of the confluence with Paradise Creek as shown on Figure 1. This gage is number 13348000 and has a 52-year period of record. Alternative 5 is described as having a new water diversion on the South Fork of the Palouse River upstream from the confluence with Paradise Creek. Therefore, it is recommended that a new river gage be installed and monitored by USGS or another qualified entity to collect flow data in the general vicinity of the new surface water diversion. While this new river gage will not have a long period of record to inform future evaluations and design alone, it will provide beneficial data for correlations to other nearby gages with long periods of record.

Furthermore, Jacobs recommends that a turbidity sensor be installed as part of the new river flow gage to collect water turbidity data throughout the year to support the basis of design for the water treatment plant.

This recommended task will be initiated by PBAC and its members but, ultimately, it will be performed by USGS, the Washington Department of Ecology, or a qualified firm.

Figure 1. Location of USGS South Fork Palouse River Gage 13348000



Source: <https://waterdata.usgs.gov/monitoring-location/13348000/#parameterCode=00060&period=P7D>

4.4 Water Availability and Rights Evaluation, Acquisition Planning, and Execution

Previous water availability evaluations have been performed based on the information available at that time and water rights evaluations were performed as part of the 2022 Report. Now that focus is being applied to Alternative 5, Jacobs recommends that additional water availability and rights evaluations be performed to continue to validate that a path forward exists and to reduce the amount of uncertainty regarding outstanding data gaps. Previous work determined that Alternative 5 water supply goals likely exceed existing surface water rights. New appropriations require consultation, demonstration that biological needs are sustained, and ultimately filing of applications.

Work performed as part of this task includes hydrologic and statistical analysis of historical river gage data, potential incorporation of gage data collected as part of the task described in Section 4.3, and possible adjustments based on contributory upstream inputs. An evaluation of the anticipated available water during the period of diversion compared to the current and future water demands is recommended to document this relationship. This relationship will inform whether storage is needed, to what degree, and what form of storage options are to be explored going forward (for instance, aboveground storage, managed aquifer recharge, or aquifer injection for aquifer storage and recovery).

Additionally, it is envisioned that there will be continued preliminary consultation with state and federal agencies, including the Washington Department of Ecology, IDWR, fisheries agencies, and others. Building on the water rights evaluations previously performed, additional work is proposed to develop strategies for purchasing existing water rights, obtaining the balance through new appropriations, and developing an anticipated timeline to work through this process. Confidence in a path forward toward obtaining the requisite water rights is paramount for the project to proceed.

It is envisioned that a consultant will lead this task with support and engagement by PBAC members.

4.5 Water Treatment Alternatives Evaluation and Conceptual Design

Jacobs recommends that a consultant make use of the available historical water quality data, river gage data, flow diversion evaluations, and other pertinent data to identify the suite of potential water treatment process technologies to determine the recommended treatment for these applications associated with Alternative 5. Based on synthesis of the available historical data and recommended treatment technology,

a conceptual design will be developed to provide an initial high-level treatment facility conceptual design, three-dimensional plant renderings, and a construction cost estimate. The output from this task will provide the initial building blocks for follow-on planning, data gathering, and design activities.

It is envisioned that a consultant will lead this task with support and engagement by PBAC members.

4.6 Desktop Siting Evaluation

A general understanding of the location of the new surface diversion on the South Fork of the Palouse River near Pullman, Washington, is known. A less definitive understanding of a new surface diversion on Paradise Creek for Moscow, Idaho, has been identified. In both cases, Jacobs recommends that the output from the task described in Section 4.5 inform a desktop evaluation of potential siting locations for the intake diversion, WTP, conveyance pipeline from the intake to the WTP, and conveyance connection to the existing distribution system infrastructure. The consultant and municipalities will coordinate regarding evaluation of potential incorporation of new sources of potable water into the city distribution system through scenario-based hydraulic modeling using the existing system models for each respective municipality. The consultant will provide input values that will inform scenario modeling by the municipalities.

The results of this evaluation will inform future land planning activities, engagement with regulatory agencies, and funding pursuits. It is envisioned that a consultant will lead this task with support and engagement by PBAC members.

4.7 Reevaluation of Alternative 5 Compared to Alternatives 1 through 4

Following completion of the work described in Sections 4.5, 4.6, and 4.7, it is recommended that PBAC perform a comparison of Alternative 5 characterization and project basis to similar work previously developed for Alternatives 1, 2, 3, and 4 as documented in the 2022 Report. Projected construction cost and operations and maintenance cost estimates in the 2022 Report will require escalation to align with Alternative 5 cost estimating. It is assumed that the alternative comparison approach used for the 2022 Report would be replicated for this recommended reevaluation. The purpose of the reevaluation is to confirm whether Alternative 5 remains the apparent preferred alternative following development of this body of work and to guide the direction for the follow-on body of work.

Execution of this task is envisioned to be led by a consultant with active participation and engagement by PBAC members during workshop sessions similar to the collaboration culminating in the 2022 Report documentation.

4.8 Project Progression Process Formalization

The purpose of this activity is to determine the next body of work that needs to be performed based on the outcomes of the work presented previously. Depending on the results from the work performed and decisions made, the prioritized list of recommended next steps provided in Attachment 2 is anticipated to guide the selection of how to proceed with the advancement of Alternative 5. This decision-making process to identify the follow-on work is expected to be performed by PBAC members with potential support from the consultant.

Table 1 provides budgetary estimates for consulting services either in a support or lead role as indicated. The support role activities are not defined well enough to provide an estimate as indicated by “tbd” and the Consultant Budget estimates are subject to further scope definition and contracting negotiations. It is anticipated that PBAC members would determine the level of involvement desired of a consultant and

Technical Memorandum

include in a future statement of work. The intent of the Consultant Budget estimates is to provide PBAC members with rough budgetary values for preliminary planning purposes.

Table 1. Initial Prioritized Next Steps, Entity Role, and Consultant Budgetary Values

No.	Description	PBAC Role	Municipality Role	University/ County Role	Consultant Role	Consultant Budget
1	Initial Project Implementation Governance Structure and MOA	Lead	Lead	Support	Support	tbd
2	Initial Funding Plan and Outside Funding Opportunities	Lead	Lead	n/a	Support	tbd
3	Install Flow Monitoring Gage and Data Logger on South Fork Palouse River	Lead	Support	Support	n/a	---
4	Water Availability and Rights Evaluation, Acquisition Planning, and Execution	Support	Support	n/a	Lead	\$xxxx
5	Water Treatment Alternatives Evaluation and Conceptual Design	Review	Review	n/a	Lead	\$xxxx
6	Desktop Siting Evaluation	Support / Review	Support / Review	n/a	Lead	\$xxxx
7	Reevaluation of Alternative 5 Compared to Alternatives 1 through 4	Review	Review	Review	Lead	\$xxxx
8	Project Progression Process Formalization	Lead	Lead	n/a	Support	\$xxxx

5. References

Alta Science and Engineering, Inc., Jacobs Engineering Group, Inc., McCormick Water Strategies, and SPF Water Engineering, LLC. 2022. *Palouse Groundwater Basin Water Supply Alternatives Report*. August.

Attachment 1 – Description and Characterization of Alternative 5



The Palouse Basin Water Project

ALTERNATIVE 5

OVERVIEW OF WATER SUPPLY ALTERNATIVE PROJECT:

The Palouse Groundwater Basin is the sole source of drinking water for the communities of Moscow, Idaho; Pullman, Washington; and Palouse, Washington; which also includes the land-grant universities of the University of Idaho (UI) and Washington State University (WSU). Water is obtained from the deeper of two aquifers (lower aquifer), which has a current rate of water-level decline of 0.77 feet per year. Although the rate of decline has decreased over the last 30 years, the aquifer level continues to drop as the demand exceeds supply.

In response to declining water levels, the Palouse Basin Aquifer Committee (PBAC) determined the target water supply for the Palouse Basin for the next 50 years and identified four preliminary water supply alternatives to help meet the future demand and stabilize groundwater levels. Further refinement resulted in an additional alternative, with components of the others. Based on refinement criteria, PBAC selected this alternative, Alternative 5 (referenced previously Modified Alternative 4 in the July 2022 report), to focus attention and resources for further investigations. The other alternatives remain viable and may be considered in the future, should findings from the investigative process indicate the need.

Alternative 5 has three project elements which are broken out in detail on the following pages. The below table, however, has the overall estimated annual supply quantities, costs, and schedule for the entire proposal of Alternative 5. Supply and target numbers and the cost per acre foot are slightly modified from the report based on further refinement. Figure 1 shows the approximate project locations.

OVERALL ESTIMATED ANNUAL SUPPLY, COST ESTIMATE & SCHEDULE:

Estimated Annual Supply:	1,643 million gallons (MGY) (76% of target)
Capital Cost:	\$73,767,727*
Annual Operating and Maintenance (O&M) Cost:	\$1,637,000*
Timeframe to Implement:	12 years

** Costs are associated with a lower diversion amount for Phase 2; actual costs may be different. Does not include conservation measures annual operating costs as they are not yet defined*

PROJECT ELEMENTS INCLUDE:

Phase 1:

Additional Conservation (Both Idaho & Washington)

By implementing additional conservation measures into the communities, it would result in an additional 15% savings. This would extend the lifespan of the various project elements included in this alternative.

Estimated Supply and % Demand:

Estimated Annual Supply	609 MGY
Estimated Annual Supply	1,869 (acre-feet [AF])
% of Projected Palouse Basin Supplemental Demand at Year 50	28%

2021 Cost Escalation & Recalculated:

Capital Cost to Implement	\$25,772,446
% of Alternative Capital Cost	35%
Capital Cost to Implement	\$13,790/AF of Annual Supply
Annual Operating Cost	-

Present Value of Costs (2021):

Present Value of Annual Operating Costs	-
Total Present Value (Capital Cost + Annual Operating Cost)	\$25,772,446
Total Present Value	\$13,790/AF of Annual Supply

Timeframe to Implement: 6 years

Phase 2:

South Fork of the Palouse River (Washington)

Use of Water: Direct Use

This project consists of building a new diversion intake structure from the South Fork of the Palouse River near Pullman before the confluence with Paradise Creek. Water would be conveyed via pipeline to a water treatment plant in Pullman and treated and distributed in the Pullman municipal system.

Estimated Supply and % Demand:

Estimated Annual Supply	688 MGY
Estimated Annual Supply	2,111 AF
% of Projected Palouse Basin Supplemental Demand at Year 50	32%

2021 Cost Escalation & Recalculated:

Capital Cost to Implement	\$28,776,452
% of Alternative Capital Cost	39%
Capital Cost to Implement	\$13,629/AF of Annual Supply
Annual Operating Cost	\$864,000

Present Value of Costs (2021):

Present Value of Annual Operating Costs	\$41,942,000
Total Present Value (Capital Cost + Annual Operating Cost)	\$70,718,452
Total Present Value	\$33,494/AF of Annual Supply

Timeframe to Implement: 11 years

Phase 3:

Paradise Creek (Idaho)

Use of Water: Direct Use

This project consists of building a new diversion intake structure from Paradise Creek to the east of Moscow. Water would be conveyed via pipeline to a water treatment plant in Moscow and treated and distributed in the Moscow municipal system.

Estimated Supply and % Demand:

Estimated Annual Supply	346 MGY
Estimated Annual Supply	1,062 AF
% of Projected Palouse Basin Supplemental Demand at Year 50	16%

2021 Cost Escalation & Recalculated:

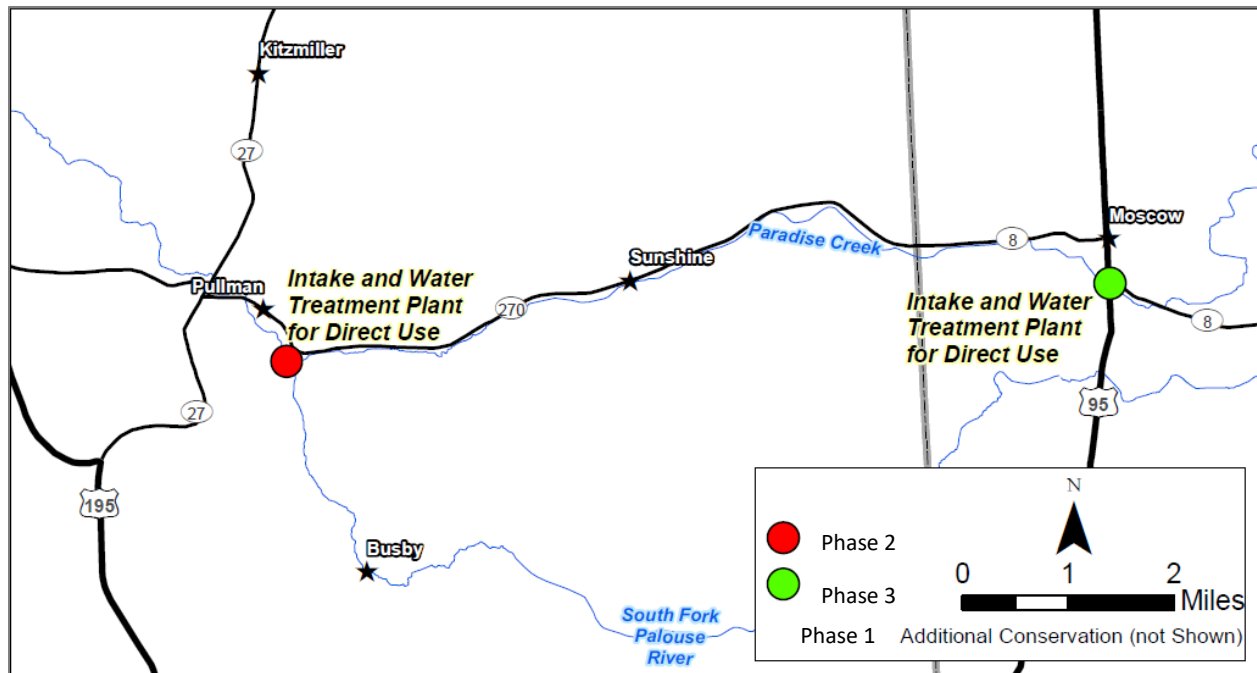
Capital Cost to Implement	\$19,218,829
% of Alternative Capital Cost	26%
Capital Cost to Implement	\$18,100/AF of Annual Supply
Annual Operating Cost	\$773,000

Present Value of Costs (2021):

Present Value of Annual Operating Costs	\$37,524,000
Total Present Value (Capital Cost + Annual Operating Cost)	\$56,742,829
Total Present Value	\$53,438/AF of Annual Supply

Timeframe to Implement: 11 years

Figure 1. Alternative 5



Attachment 2 – Prioritized List of Recommended Next Steps



Palouse Basin Aquifer Committee
2023 Next Steps Tasks

Priority Tiers

- 1 Key, to be executed as early as possible
- 2 Important but can wait until additional project definition is available
- 3 Next portion of project development prior to final design and permitting
- 4 Remaining steps for preparation of bid documents and permitting
- 5 Construction and implementation activities

Item No.	Priority Tier	Task / Activity Description	Task Type
1	1	Determine/confirm the initial project implementation governance structure among PBAC representative entities (Cities, Counties, and Universities) and execute a written agreement on roles, responsibilities, and path forward	Planning
2	1	Develop an initial funding plan inclusive of outside funding opportunity identification and application for the water project planning, studies, and evaluations	Planning
3	1	Install a flow monitoring gage and data logger on the South Fork of the Palouse River	Data Collection
4	1	Continue water availability and rights evaluation and acquisition planning and execution	Data Collection
5	1	Evaluate water treatment alternatives and prepare conceptual design	Technical Planning
6	1	Prepare a desktop siting evaluation for intake, water treatment plant (WTP), conveyance pipeline route, and connections to existing infrastructure	Desktop Evaluation
7	1	Reevaluation of Alternative 5 to Alternatives 1-4	Evaluation
8	1	Formalize the project progression process	Planning
9	2	Perform initial environmental and cultural resources evaluation	Desktop Evaluation
10	2	Begin collecting desktop level environmental information on the alternatives to be fully evaluated in a NEPA document (EA or EIS).	Desktop Evaluation
11	2	Prepare updated outreach plan and implement	Outreach
12	2	Initial review of hydrologic and hydraulic considerations	Desktop Evaluation
13	2	Perform cryptosporidium monitoring	Data Collection
14	2	Collect additional water quality data	Data Collection

Item No.	Priority Tier	Task / Activity Description	Task Type
15	3	Secure water rights	Implementation
16	3	Identify and engage with likely lead federal agency (USACE) to determine NEPA approach	Consultation
17	3	Perform site investigations: survey, bathymetry, and geotechnical	Fieldwork
18	3	Conduct treatment bench scale and/or pilot test to validate the treatment approach	Data Collection
19	3	Prepare WTP Facility Plan and update Capital Improvement Plan	Engineering
20	3	Review local/regional transportation, comprehensive and land use plans. Update water demand forecasts and compare to needs assessment.	Data Collection and Planning
21	3	Develop and implement conservation plan to achieve 15% reduction in annual water use	Engineering
22	3	Site visit for diversion/intake facilities	Data Collection
23	3	Assess power supply for WTP sites, intake sites, and conveyance (pumping)	Desktop Evaluation
24	3	Geomorphology evaluation	Desktop Evaluation
25	3	Detailed hydrologic and hydraulic modeling evaluation	Analysis
26	3	Develop diversion strategy and fisheries protection strategy	Analysis
27	3	Assess potential impacts to the aquifer resulting from project implementation	Technical planning/analysis
28	3	Identify specific outside grant/loan programs relevant for the selected construction projects and select preferred outside funding strategy funding programs to target.	Data Collection/Analysis
29	3	Identify local funding strategy (bonding, taxes, fees) for local share of substantial project costs for Pullman and Moscow for their respective projects	Consultation
30	3	Project annual cost stream and local revenue/fee requirements based on selected funding strategies for Pullman and Moscow (including projected debt service for any loans or bonds	Analysis
31	3	Identify construction grant and loan cycle(s) for relevant grant/loan applications	Data Collection
32	3	Secure stakeholder and political leadership support for selected funding strategy elements	Consultation

Item No.	Priority Tier	Task / Activity Description	Task Type
33	3	Prepare and submit applications for planning and design outside funding opportunities	Consultation
34	3	Prepare list of anticipated permits and projected application schedule	Permitting
35	3	Develop facility operational strategy	Technical Planning
36	3	Coordinate with regional economic development agencies	Data Collection
37	3	Acquire property through purchase or condemnation	Implementation
38	3	Begin collecting site specific environmental field data on the alternatives to be fully evaluated in a NEPA document (EA or EIS).	Data Collection
39	4	Biological Assessment	ESA Permitting
40	4	Prepare NEPA/SEPA document and engage in formal process	Permitting
41	4	Design intake, WTP, and pipeline	Engineering
42	4	Develop applications for construction grant and loan programs targetted in outside funding strategies.	Consultation
43	4	Identify level of sustainability features to be incorporated into the project	Technical Planning
44	5	Construct intake, WTP, and pipeline	Implementation
45	5	Facility commissioning	Implementation

Note: The steps listed for Priority Tiers 2 through 5 are not listed in a particular order nor intended to represent a sequence of activities.

PALOUSE BASIN AQUIFER committee

BUDGET REPORT

Overview of FY23 PBAC Funds

(as of 5/12/23)

CATEGORIES	ACTUALS
Revenue	\$ 235,665.71
Entity Contributions	\$ 235,665.71
Administrative Assessment Fee	\$ 121,500.00
Research Assessment Fee	\$ 60,000.00
Other Funds	\$ 54,165.71
Research / Technical	\$ (65,710.64)
Professional Services	\$ (65,710.64)
Consultant – Alta: Data Logger	\$ (14,401.89)
Consultant – Alta: Genesee Well Chips	\$ (1,308.75)
Consultant – Alta: Outreach Extension	\$ (50,000.00)
Operations	\$ (105,970.78)
Operating Costs	\$ (10,157.20)
Events	\$ (977.71)
Office Supplies	\$ (179.49)
Marketing	\$ (9,000.00)
Professional Development	\$ (2,741.41)
Conference/Registration Fees	\$ (1,958.41)
Dues/Memberships	\$ (783.00)
Salary & Benefits	\$ (93,072.17)
Executive Director	\$ (75,669.98)
Technical Advisor	\$ (17,402.19)
Earned Year to Date	\$ 235,665.71
Spent Year to Date	\$ (171,681.42)

UI Account Balances	Totals
725PAD Admin	\$ 168,156.51
725PRS Research	\$ 254,399.88
725PPG Program	\$ 50,000.00
725PSL Compensation	\$ 39,250.06
Overall Total	\$ 511,806.45