

MEETING MINUTES

THURSDAY, FEBRUARY 16, 2023, 2:00 PM UI, FACILITIES SERVICES CENTER, JACK'S CREEK MEETING ROOM <u>https://uidaho.zoom.us/j/89476554152</u> (Passcode: PBAC)

Attendance

X: In-person attendance **V**: Video attendance

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

Others:

Céline Acord, PBAC Executive Director (X); Steve Robischon, PBAC Technical Advisor (V); Kyle Duckett, Alta Science & Engineering (X); Robin Nimmer, Alta Science & Engineering (X)

Community Members:

Allison Lebeda, Nez Perce Tribe (V); Brooke Chase, Nez Perce Tribe (V); Melissa MacKelvie (V); Cristin Reisenauer, City of Pullman (V); Colt Shelton, JUB (V); Jeanne Elliot (X); David Hall (X); Eija Sumner (V)

*Denotes Action Items

1) Introductions

Meeting called to order at 2:02pm. Roundtable of introductions of in person and online participants.

2) *Approval of Minutes – (Video Link 09:07)

a. January 19, 2023 - Meeting Minutes - Attached

Motion:	Approve Minutes from January 19, 2023, Meeting
Mover:	Paul Kimmell
Seconder:	Tyler Palmer, Vice Chair
Result:	ALL IN FAVOR, MOTION CARRIED

3) Public Comment for Items not on Agenda – None (Video Link 09:25)

a. A member of the public asked a question about the proposed biodiesel plant. Committee Member Maccoll removed herself from the room. Discussion was minimal as there was no information at this time to present to the Committee for discussion. After discussion finished, Member Maccoll returned.

4) Unfinished Business – None

5) New Business – (Video Link 10:38)

- a. Appointments:
 - i. Technical Committee Chair: Jeff Lannigan
- b. Genesee Well Chip Samples Kyle Duckett
 - i. Scope of Work <u>Attached</u>

Kyle presented an overview of the proposed scope of work, including 6 tasks. John Bush has provided advisory comments and will continue to offer his opinions as information arises. Committee provided discussion and confirmed a fence diagram was beneficial as a deliverable. This data will eventually be shared with the City of Genesee.

Motion:	Approve Scope of Work, not to exceed \$7,000 from the Research Budget			
Mover:	Jeff Lannigan			
Seconder:	Lana Cohen			
Result:	ALL IN FAVOR, MOTION CARRIED			

6) Presentation & Discussion – (Video Link 27:10)

- a. Update: Alta Extension Contract Céline Acord
 - A brief status update was provided. The contract was set to expire March 1, 2023, and is being extended to May 31, 2023, with the City of Moscow.
 Work is underway.

b. Review: Final Draft of Infographics - Céline Acord

i. Infographics - <u>Attached</u>

The final drafts of the infographics were presented. Final comments are requested to be returned to Céline by the end of the week.

c. Presentation: 2022 Pumping Numbers – Steve Robischon – (Video Link 36:10)

i. Steve presented the 2022 pumping numbers (2.28 billion gallons), how they compare from 2021 (-6.3%), the 5 year average, and since 1992 (-17%) when the Groundwater Management Plan was enacted. Multiple "side trips" were discussed to tie back "the why" of why PBAC was created and what its charge is, including the need to adjust the target number moving forward.

d. Discussion: Interagency Agreement and Bylaws Updates – *Céline Acord* – <u>(Video</u> <u>Link 1:30:15)</u>

i. Céline presented various updates that are needed for PBAC's governing documents, including the Interagency Agreement, the Bylaws, and the Groundwater Management Plan.

7) Subcommittee Reports

- a. Budget None (Video Link 1:40:50)
 - i. Monthly Update <u>Attached</u>

A brief review of the monthly update sheet was provided.

- b. Communications None
- c. Research None

8) Other Reports and Announcements – (Video Link 1:44:500)

a. FY23 Assessments

All assessments have been received, except for the UI Research contribution.

b. Executive Director Resignation

Céline Acord submitted her resignation to PBAC but will continue to work part time to help coordinate monthly meetings and pay invoices. A transition subcommittee was formed to include: Cara Haley, Tyler Palmer, Rusty Vineyard, Paul Kimmell, and Mark Storey.

9) Next PBAC Meeting: (Video Link 1:48:10)

a. Thursday, March 23 at 2:00 PM

i. Well Sampling with Woods Hole Oceanographic Institution

Next month will bring a presentation by WHOI. All representatives, including Ex-Oficio members, are highly encouraged to attend to facilitate introductions for WHOI requested well sampling.

ii. Feasibility Study for Alternative 1

Next month more information will be provided to discuss the potential for participating in a feasibility study for installation of pumped storage infrastructure with the local utility, Avista, along the Snake River, which coincides with the proposed Alternative 1 water supply project.

10) Adjourn at 3:47pm

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

Minutes Adopted at the March 23, 2023 Meeting

DRAFT MEETING MINUTES

THURSDAY, JANUARY 19, 2023, 2:00 PM UI, FACILITIES SERVICES CENTER, JACK'S CREEK MEETING ROOM <u>https://uidaho.zoom.us/j/89476554152</u> (Passcode: PBAC)

Attendance

X: In-person attendance V: Video attendance

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

Others:

Céline Acord, PBAC Executive Director (X); Steve Robischon, PBAC Technical Advisor (V); Kyle Duckett, Alta Science & Engineering (X)

Community Members:

Jeanne Elliot (X); Allison Lebeda, Nez Perce Tribe (V); Melissa Makelvie (V); Cristin Reisenauer, City of Pullman (V); Colt Shelton, JUB (V)

*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 04:20)
 - a. November 17, 2022, Meeting Minutes Attached

Motion:	Approve November 17, 2022, Minutes
Mover:	Vice-Chair Tyler Palmer
Seconder:	Shawn Kohtz
Result:	ALL IN FAVOR, MOTION CARRIED

3) Public Comment for Items not on Agenda

a. None

4) Unfinished Business

- a. None
- 5) New Business (Video Link 04:58)
 - a. Appointments:
 - i. UI Temporary Appointment: Lana Cohen
 - ii. City of Moscow Appointment: Sandra Kelly

6) Presentation & Discussion

a. Update: 2022 Datalogger Downloads – *Kyle Duckett & Steve Robischon* (<u>Video Link</u> <u>08:22</u>)

i. 2022 Monitoring Event Summary Document Attached

Kyle provided an update on the 2022 datalogger downloads. The contract was executed successfully and within budget. Next year's work will require 4 dataloggers to be replaced, and Alta's fees have increased, so expect a slight increase for 2023.

Steve provided background information on the process to download information from the dataloggers and the bigger picture of why we should care about the water monitoring process. (*Video Link 22:47*) Further discussions were had regarding connectivity within the aquifers and the importance of continuing research and analyzation.

b. Genesee Well Chip Samples – *Steve Robischon, Kyle Duckett & Céline Acord* (<u>Video</u> <u>Link 1:02:00</u>)

The City of Genesee drilled two wells, the first not being successful finding water and the second drilling into the Grande Ronde Aquifer. Steve recommended chip samples from the well drillings be analyzed to determine if there are similarities from other well sites and if Genesee is within the Palouse Basin Aquifer System. John Bush has provided direction for Kyle to perform initial reviews of the samples. Kyle will provide a scope of work to determine the costs of analyzing the chips. Further exploration with the City of Genesee, IDWR and Alta will determine if PBAC could place a datalogger in the well. The Technical Subcommittee should assist in reviewing these details before the Committee approves anything.

c. Update: Alta Extension Contract – Céline Acord (Video Link 1:08:05)

A status update was provided reviewing Alta's work to date. Their extension contract began in August 2022 to provide additional outreach and refinement assistance. The contract was for \$50,000 and \$29,651 remains. Currently, Alta is assisting with meetings with state agencies. Discussion with the Committee was to confirm what next steps should be taken. The remaining funds should be used to create a scope of work/next steps for Alternative 5, focusing on water treatment and water rights. The Technical Subcommittee should assist with crafting and reviewing the scope of work as well.

7) Subcommittee Reports (Video Link 1:24:37)

a. Budget - Céline Acord & Rusty Vineyard

A brief update was provided regarding PBAC's financials: Admin Balance: \$166,240.80 Research Balance: \$256,040.38

The next Budget Subcommittee Meeting is February 7 at 10am.

An update was provided regarding UI's contributions and support for PBAC:

- UI has historically housed PBAC since its inception and have contributed to PBAC with an annual admin fee and a research fee (current fees are \$27k and \$20k, respectively). Starting in FY20 the research contribution amount stopped due to UI's budget crisis.
- The VPs of Research and Finance met with President Green and have given PBAC a list of requirements before continuing their contributions. They are as follows:

- UI won't continue research payments until PBAC provides a research plan.
- If there's no research plan, then PBAC needs to provide an implementation plan instead. That would need to include a spenddown plan for how they intend to use the "hundreds of thousands of dollars that they have accumulated in the research fund".
- If a plan isn't provided to UI, all support from UI will be eliminated in FY24 (July 2023). UI will withdraw from everything – contributions, leave the Committee, and PBAC would need to find a different host entity.

The Committee discussed how to proceed, confirming this should be a top priority over the next couple months. With regards to budget accountability/spend down plan, a combination of the Technical and Budget Subcommittee will work on prioritizing a plan. This will help satisfy UI but also inform all PBAC entities of the work ahead. As for research funds, while PBAC's future might be more applied research, or technical research, there is much in the way of history of PBAC supporting research efforts at UI and WSU. All of this should be included in the deliverable to UI. Money has been well spent over the years but it's a balance of prioritization and keeping an appropriate amount of funds available as its slow to grow. Further discussions will take place to clarify what criteria UI is looking for, and if there are structural and/or fundamental concerns with PBAC, to ensure an appropriate product is delivered.

b. Communications – Paul Kimmell

We've received initial text and concept sketches from Fuse for the Alternative 5 and Aquifer 101 graphics. We'll continue to work through those details, and the other graphics (Alternatives 1-4) and hope to have something to show the Committee next month. Until graphics are complete, public outreach will not yet begin.

c. Research – None

No meetings have occurred. Need to convene a meeting to discuss Alta's next steps and overall implementation planning and discuss new subcommittee chair.

8) Other Reports and Announcements (Video Link 1:47:46)

a. None

Shawn Kohtz has submitted his resignation to the City of Pullman. This will leave a vacant seat for the City of Pullman within PBAC and within the Technical Subcommittee.

9) Next PBAC Meeting:

- a. Thursday, February 16 at 2:00 PM
- 10) Adjourn at 3:50pm

Motion:	Adjourn	
Mover:	Jeff Lannigan	
Seconder:	Eileen Maccoll	
Result:	ALL IN FAVOR, MOTION CARRIED	



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MEMORANDUM

To: Céline Acord, PBAC

From: Kyle Duckett

Date: February 13, 2023

Job Code: 23037

Subject: Draft Scope of Work – Genesee Driller's Chip Analysis

Alta Science & Engineering, Inc. (Alta) is pleased to provide a cost estimate and scope of work for analysis of driller's chips sampled from the Genesee well provided to PBAC by Genesee Public Works Department. This letter contains the scope of work and cost estimate to log the lithology of the driller's chips, submit samples for XRF analysis, and document the results conclusions of the analysis in a succinct yet comprehensive report.

Task 1: Project Management

This task includes project management duties including general team coordination, budget reviews, correspondence, invoicing, and subcontracting setup.

Cost: \$296.00

Task 1: Driller's Chip Lithology

This task includes creating a lithologic log of the Genesee well based on the driller's chip samples provided by Genesee Public Works Department. This log will include changes in the lithology with depth down the boring for correlation with the driller's log and analytical results.

Cost: \$594.00

Task 2: XRF Sample Preparation

This task includes using the driller's chips to create subsamples for XRF analysis according to recommendations made by John Bush based on the driller's logs from the Genesee wells. These recommendations will be supplemented with observations made while logging the driller's chips during Task 1 to identify the necessary sample ranges for stratigraphic correlation.

Cost: \$594.00

Task 3: Lab Analysis (XRF)

This task includes coordinating and delivering ten driller's chip samples for XRF analysis at the Peter Hooper GeoAnalytical Laboratory at Washington State University (WSU) in Pullman, Washington. Included in the analytical fee, WSU will complete a supervised machine learning model which will correlate the XRF sample results with the likely Columbia River Basalt Group (CRBG) unit.

Labor: \$396 XRF Analysis: \$660 for 10 samples

Cost: \$1,056.00

Task 4: Interpreting Analytical Results

This task includes interpretation of the XRF laboratory results and the machine learning model results produced by the WSU GeoAnalytical laboratory. Alta will compare the proposed stratigraphic sequence suggested by the model with the conceptual model, and compare XRF results with historical CRBG geochemical data where necessary to confirm alignment of geochemical signals and likely stratigraphic members.

Cost: \$495.00

Task 5: Reporting

This task includes documenting the results and conclusions resulting from the work completed in previous tasks. Alta will synthesize the driller's chip analysis into a report which correlates likely stratigraphic units and depths in the Genesee well and the relationship to the same stratigraphic units in the Moscow-Pullman Basin.

Cost: \$1,383.50

Task 6: Fence Diagram

This task includes creating one fence diagram which compares the stratigraphy at depth in the Genesee well with the generalized documented stratigraphy in the Moscow-Pullman Basin.

Cost: \$590.00

Total Cost

Total Cost Estimate: \$5,008.50

Please contact me with any questions. Thank you for the opportunity to provide this scope of work and cost estimate. Alta looks forward to continuing to support PBAC on this important project.

Sincerely,

Kyle Duckett, Project Manager





Palouse Basin Aquifer System

Hundreds of feet beneath the rolling hills of the Palouse, an aquifer system holds the drinking water of over 60,000 people. Groundwater has enabled communities stretching across Washington and Idaho to grow and thrive, from rural farmlands in Whitman and Latah counties, to cities like Pullman, Moscow, Palouse, and the campuses of Washington State University (WSU) and the University of Idaho (UI).



PALOUSE GROUNDWATER BASIN

Water Cycle of the Palouse Groundwater Basin

Understanding the geology of the basin

Snowmelt enters the basin area from nearby mountains.

Where the mountains meet the edge of the basin, some water is able to seep underground into the upper aquifer. The water spreads to other parts of the basin via connected layers of sediment, cracks, and fissures in the basalt.

Because of the heavy, impervious clay soils and layers of dense basalt, most water flows across the surface as streams and rivers.

Wells pump water out of aquifers throughout the basin. As more water is pumped out than enters the system, groundwater levels drop.

A supplemental source of water is needed for a thriving community

Groundwater is the sole source of potable water for all users in the Palouse Basin. Current pumping levels outpace the system's ability to recharge—and have for many decades.

The Palouse Basin Aquifer Committee recommends diverting local surface water, treating it, and either using it immediately or storing it in the aquifers to use at a later time. A project of this scale will require large financial investments, could take over a decade to implement, and take even longer to see the aquifer stabilize.

All wells in the basin draw from the same system-from the well

that serves a single home to the municipal wells that serve thousands. It will take continued cooperation by all of us to ensure safe, reliable water for future generations.

Conserving the groundwater in the Palouse Basin Aquifer System is not only the most economical first step, but also extends the life of any future water supply project. If we all change our daily habits, we can ensure there is water for everyone, for generations to come. We are all in this together!



The Palouse Basin Water Project

Securing our future water supply

The Palouse Basin Aquifer System is the only source of drinking water for people living and working in the cities of Pullman, Moscow, and Palouse, along with the Washington State University (WSU) and the University of Idaho (UI) campuses, and the surrounding rural areas in Whitman and Latah counties.

Demand for water exceeds what the system can naturally provide, and groundwater levels are steadily dropping. A supplemental source of water is needed to stabilize groundwater levels and meet the needs of our growing communities.



There are two main approaches for implementing supplemental water sources: conveying surface water directly to communities (direct use) or using surface water to replenish the groundwater (aquifer recharge).

OLFAX

PALOUSE

GROUNDWATER

BASIN

PULLMAN

Mountain

MOSCOW

After considering several water supply alternatives, **the Palouse Basin** Aquifer Committee recommends a direct use strategy.

Intake

Paradise Cra

Treatment

plant

Moscow & UI

MOSCOW

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

PALOUSE BASIN AQUIFER committee

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 UI.

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.





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.





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.





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 conversation measures resulting in 15% less water than currently being used.



Intake and Water Treatment Plant for Aquifer Recharge

Wastewater Reuse

for Irrigation

COLFAX

Intake and Water Treatment Plant for Aquifer Recharge

PALOUSE

PULLMAN

palouse River

Moscow

MOSCOV

Wastewater Reuse for

Passive Aquifer Recharge



BUDGET UPDATE

Overview of FY23 PBAC Funds

(as of 2/13/23)

CATEGORIES			Α	ACTUALS	
	Rev	<i>v</i> enue	\$	183,885.00	
		Entity Contributions	\$	183,885.00	
		Administrative Assessment Fee	\$	123,885.00	
		Research Assessment Fee	\$	60,000.00	
I	Res	search / Technical	\$	(64,401.89)	
		Professional Services	\$	(64,401.89)	
		Consultant - Alta - Data Logger	\$	(14,401.89)	
		Consultant - Alta - Outreach Extension	\$	(50,000.00)	
(Op	erations	\$	(81,715.75)	
		Operating Costs	\$	(1,157.20)	
		Events	\$	(977.71)	
		Office Supplies	\$	(179.49)	
		Marketing	\$	-	
		Professional Development	\$	(2,741.41)	
		Conference/Registration Fees	\$	(1,958.41)	
		Dues/Memberships	\$	(783.00)	
		Salary & Benefits	\$	(77,817.14)	
		Executive Director	\$	(63,900.00)	
		Technical Advisor	\$	(13,917.14)	
	_		+		

Earned Year to Date	\$ 183,885.00
Spent Year to Date	\$ (146,117.64)

UI Account Balances				Totals
725PAD	Admin	Ş	\$	175,375.80
725PRS	Research	Ş	\$	255,708.63
725PPG	Program	¢	5	1,780.71
725PSL	Compensation	\$;	54,505.09
		Overall Total	\$	487,370.23