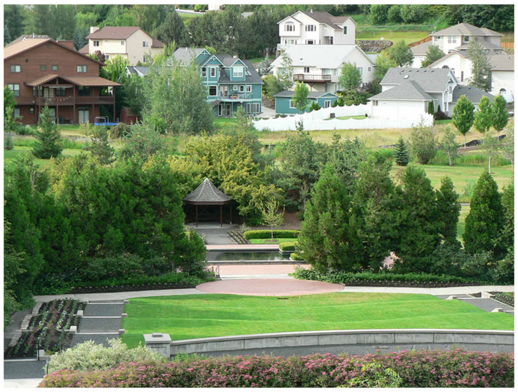

March 2017
Palouse Basin Aquifer Committee

EA Engineering, Science, and Technology, Inc., PBC

Palouse Groundwater Basin Water Supply Alternatives Analysis Report – Summary

Prepared for Palouse Basin Aquifer Committee/University of Idaho

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1 Summary

A Consultant Team was hired by the Palouse Basin Aquifer Committee (PBAC) to evaluate previously studied water supply projects to determine the most promising supply projects for meeting existing and future supply needs in the Palouse groundwater basin. This study was conducted as part of PBAC's mission to ensure a long-term, quality water supply for the Palouse Basin region, and associated goals (PBAC 2011). The evaluation study was jointly funded by PBAC and a grant from the Idaho Water Resource Board.

The evaluation process began in October 2015 and was completed in February 2017. The Consultant Team completed the following steps during this study, in coordination with PBAC:

- Developed a regional 50-year water demand projection and water supply target, with different levels of conservation savings applied.
- Developed a list of potential supply projects and management actions to evaluate in relationship to the water supply target and other factors.
- Applied a two-step screening and evaluation process for the list of supply projects and management actions.
- Formulated four different water supply alternatives and conducted a multi-criteria evaluation of these alternatives, including quantitative and qualitative measures.
- Summarized findings, recommendations, data gaps, additional information needs, and next steps.

Starting in 2017 and continuing during the next several years, PBAC will seek involvement from the public, communities, and stakeholders in selecting a preferred solution to meeting the supplemental water supply goal. This includes receiving input on the following items:

- The Final Draft Palouse Groundwater Basin Water Supply Study.
- Additional analyses and studies conducted to further evaluate and refine one or more alternatives and their associated project elements.
- Potential environmental effects anticipated from the projects and actions included in the alternatives.
- Related topics that might emerge during the public involvement process.

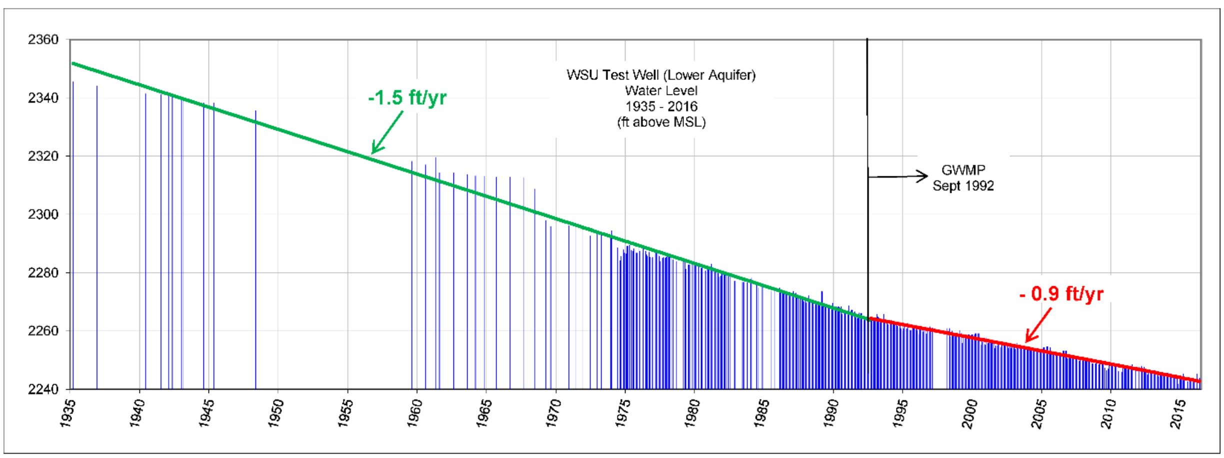
The PBAC decision timeline is to have a refined set of alternatives in place by 2020 and a plan ready for implementation by 2025. This timeline is consistent with the PBAC's Mission and Goals, which state that PBAC will develop and implement a balanced basin-wide Water Supply and Use Program by 2025 (PBAC 2011).

2 Aquifer Conditions

When the first wells were drilled in the region in the late 1800s, the aquifers were flowing artesian, rising to as much as 25 feet above the ground surface. Today, groundwater levels are declining (Figure 1), causing the basin to become the subject of numerous published studies, beginning in 1897 and continuing to the present. The cities and universities have implemented water conservation, wastewater reuse, and other management measures in an effort to reduce impacts on the aquifer.

Increased pumping that will be required to meet future water demands is expected to place additional stress on the deeper basalt aquifers and result in further aquifer declines. Not enough is known about groundwater to know how many years of additional pumping the deeper aquifer can sustain before the water supply begins to fail. PBAC and its member organizations are seeking to find out if alternate supplies might be available to serve a significant portion of projected long-term water supply needs to preserve the existing groundwater supply and meet projected future water demands.

Figure 1
Historical and Current Groundwater Levels



Source: Palouse Basin Aquifer Committee 2016
Note: GMWP: Ground Water Management Plan

3 Water Demand Projections

Table 1 summarizes the water demand projection, the baseline additional supplemental supply target with currently projected conservation savings, and the selected supplemental supply target.

The increase in demand includes projected conservation savings, and an aquifer stabilization amount of the supplemental supply target, which represents current or baseline irrigation demand (735 MGY or 2,256 AFY). PBAC selected the 2,324 million gallons per day (MGD; 7,130 AFY) supplemental supply target as the most conservative approach for evaluating the performance of water supply alternatives in meeting future water needs. This is the target that would be needed to supply the increased demand and provide for aquifer stabilization for the baseline demand projection without additional conservation beyond what is currently projected.

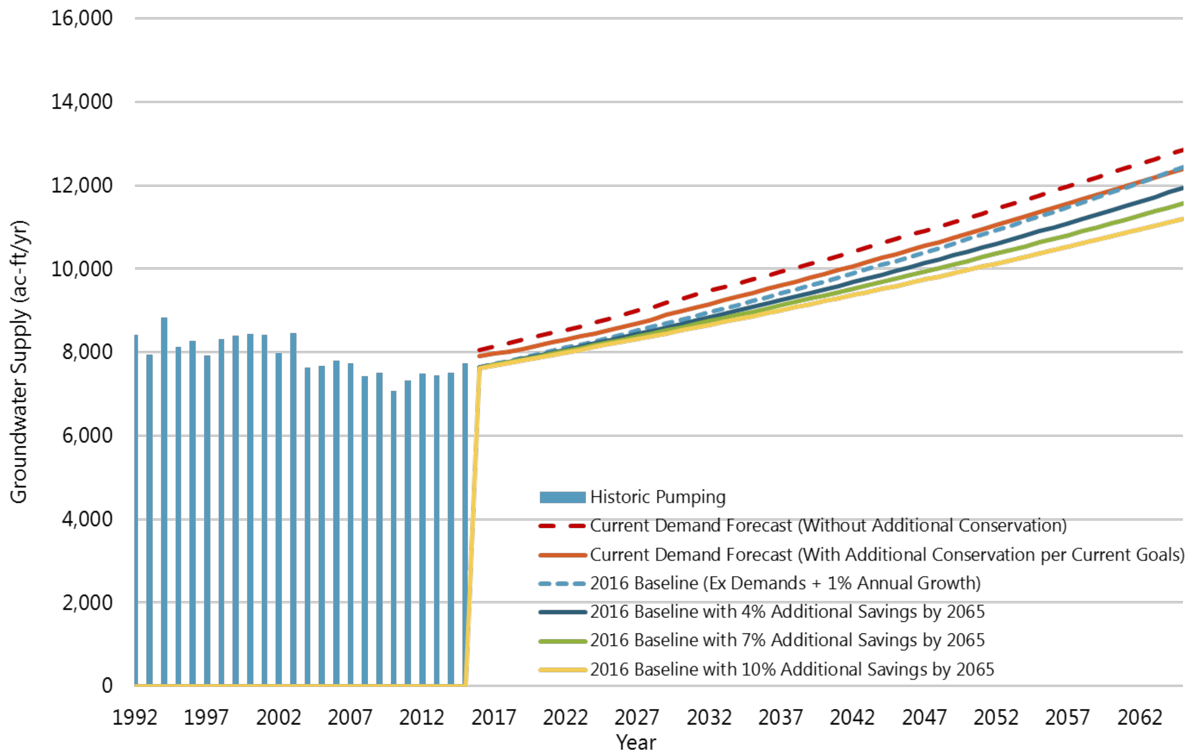
Table 1
Summary Projected Palouse Groundwater Basin Water Demands

Year/Type of Demand	Moscow (MGY)	Pullman (MGY)	WSU (MGY)	UI (MGY)	Palouse (MGY)	Total (MGY)	Total (AF)
Existing (Baseline) Demands[1]							
Irrigation	241	278	153	46	17	735	2,256
Non-Irrigation	623	637	322	106	40	1,728	5,304
Total	**864**	**915**	**475**	**152**	**57**	**2,464**	**7,561**
Baseline Projection (Existing Baseline with Currently Projected Conservation + 1% Annual Growth)							
2065	1,422	1,505	781	250	94	4,052	12,434
50-year Projected Increase[3]	**557**	**590**	**306**	**98**	**37**	**1,588**	**4,874**
Aquifer Stabilization[4]	**241**	**278**	**153**	**46**	**17**	**735**	**2,256**
Supplemental Supply Target[5]	**798**	**868**	**459**	**143**	**54**	**2,324**	**7,130**

MGY: million gallons per year
AF: acre feet

Figure 2 includes a graphic depiction of historical pumping and projected demand forecasts for the Palouse Basin region. The Current Demand Forecast with and without additional conservation reflects the combined current demand projections from each water purveyors water system plan or water system demand forecasts. As discussed earlier, a baseline demand projection was developed for the purpose of setting a supplemental supply target for evaluating water supply alternatives, which represents existing (average of 2013 to 2015) demands projected at a 1% annual growth rate. Figure 2 also shows baseline demand forecasted with additional levels of conservation (4, 7, and 10%).

Figure 2
Overall Palouse Basin – Historic Supply and Demand Forecast Data



Note: Overall Palouse Basin Supply and Demands include total estimated for Pullman, Moscow, WSU, UI, and Palouse.

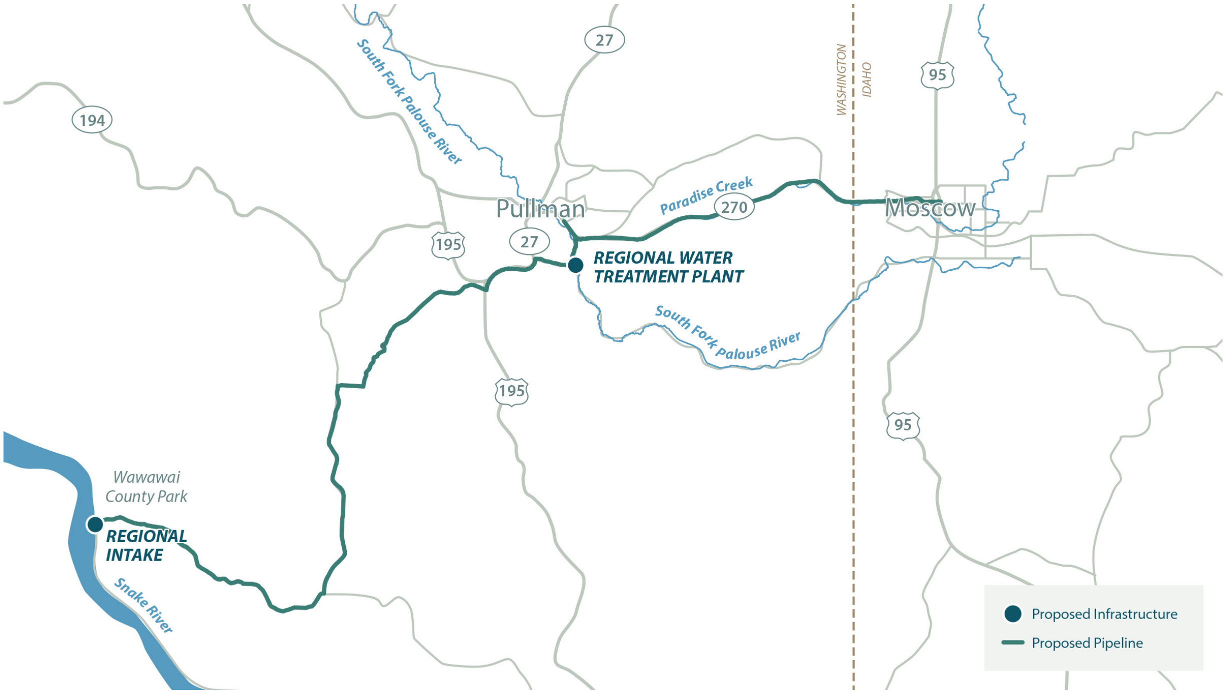
4 Alternative Descriptions

This section describes the formulation and analysis of water supply alternatives, or combinations/portfolios of water supply and water conservation projects, designed to meet the regional supplemental water supply target. Four alternatives were developed, reflecting a range of approaches to providing a future water supply to supplement existing sources. The four alternatives were then analyzed using a multi-criteria evaluation approach to identify those alternatives that appear most favorable for further consideration and/or implementation.

4.1 Alternative 1

This would be a regional project based on the 1989 *Reconnaissance Report, Palouse River Basin, Idaho and Washington* (USACE 1989) as modified by the 2013 *City of Moscow Surface Water Feasibility Study – Phase 2* (SPF and TerraGraphics 2013). This alternative would include a regional project composed of a direct diversion from the Snake River and a delivery system that would convey water to Pullman, WSU, Moscow, and UI. The project would supply a portion of the projected future water demands in the Cities of Pullman and Moscow, and would also be used to offset existing irrigation, for the cities and universities, based on a 10-month (approximately 304-day) diversion period. The revised concept provided in the 2013 study would deliver up to 10 cubic feet per second (cfs) from the Snake River to Pullman and Moscow. The diversion would be on the Snake River near Wawawai Canyon, and water would be treated and carried through a 25-mile pipeline to Pullman and Moscow. The estimated annual water supply that would be made available by this alternative is 1,967 MG (6,040 AF), which is 85% of the 2,324 MG target. Figure 3 provides an overview of the project elements, routing, and facility locations for Alternative 1.

Figure 3
Alternative 1



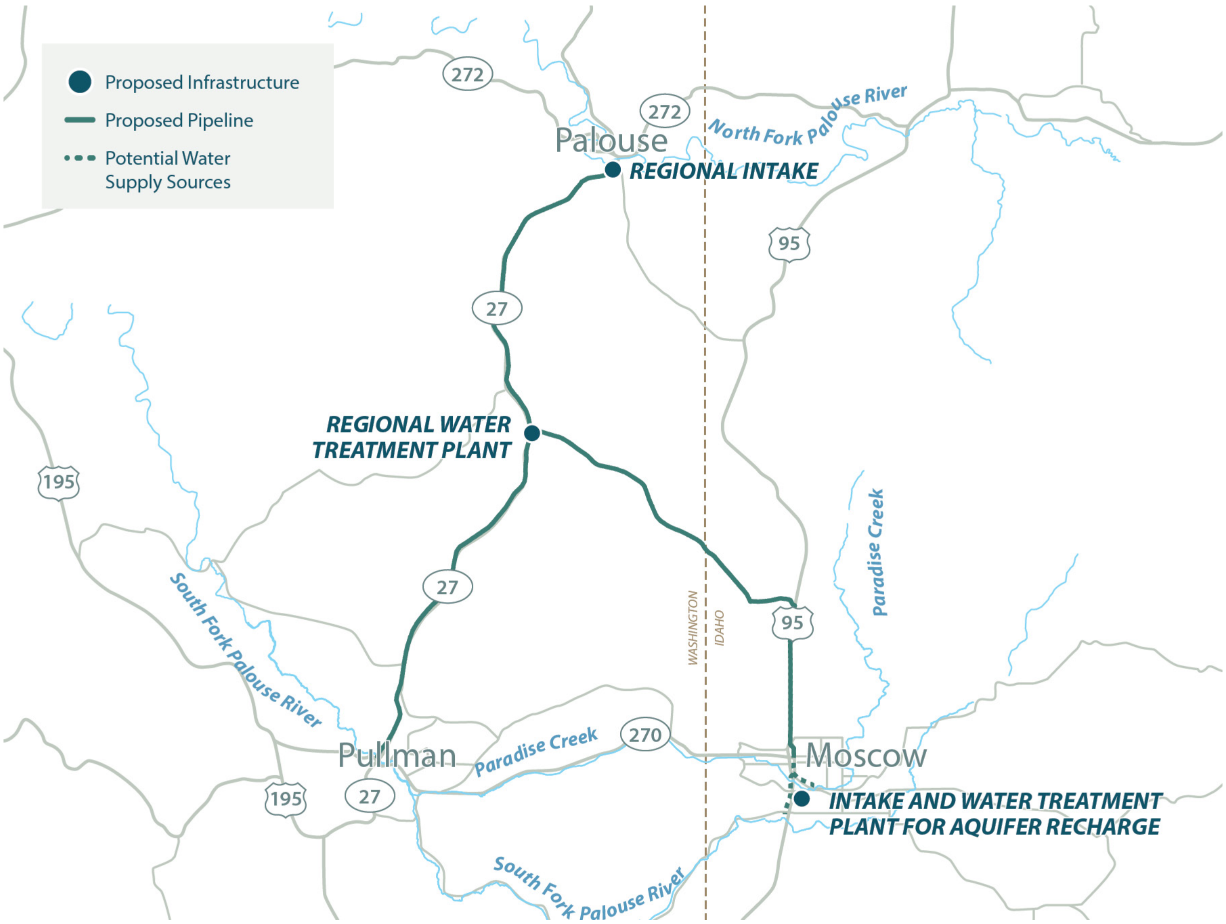
4.2 Alternative 2

This would also be a regional alternative. It would include two diversions—one on the North Fork Palouse River and another on Paradise Creek or the South Fork Palouse River. The estimated amount of supply from this alternative is 1,908 MG (5,860 AF), which is 82% of the 2,324 MG target.

The North Fork Palouse River project would include a direct diversion (no storage) from the North Fork Palouse River, pumping and conveyance to a treatment plant 7 miles north of Pullman, and pumping, conveyance, and delivery of treated water to the City of Moscow and City of Pullman water systems. It would be a variation of the ASR project studied in the 2006 *Palouse Watershed (WRIA 34) Multi-Purpose Storage Assessment* (Golder Associates 2006) and the North Fork Palouse – Direct Use Alternative (Alternative A5) from the 2013 *City of Moscow Surface Water Feasibility Study – Phase 2* (SPF and TerraGraphics 2013), designed to serve Pullman and Moscow.

The second diversion project, on Paradise Creek or the South Fork Palouse River, would include a direct diversion (no storage) to capture winter and spring runoff (generally January through April), treatment, and active injection of treated water to aquifer recharge wells in Moscow, as studied by the 2011 *City of Moscow Surface Water Feasibility Study – Phase 1* (SPF and TerraGraphics 2011). Figure 4 provides an overview of the project elements, routing, and facility locations for Alternative 2.

Figure 4
Alternative 2



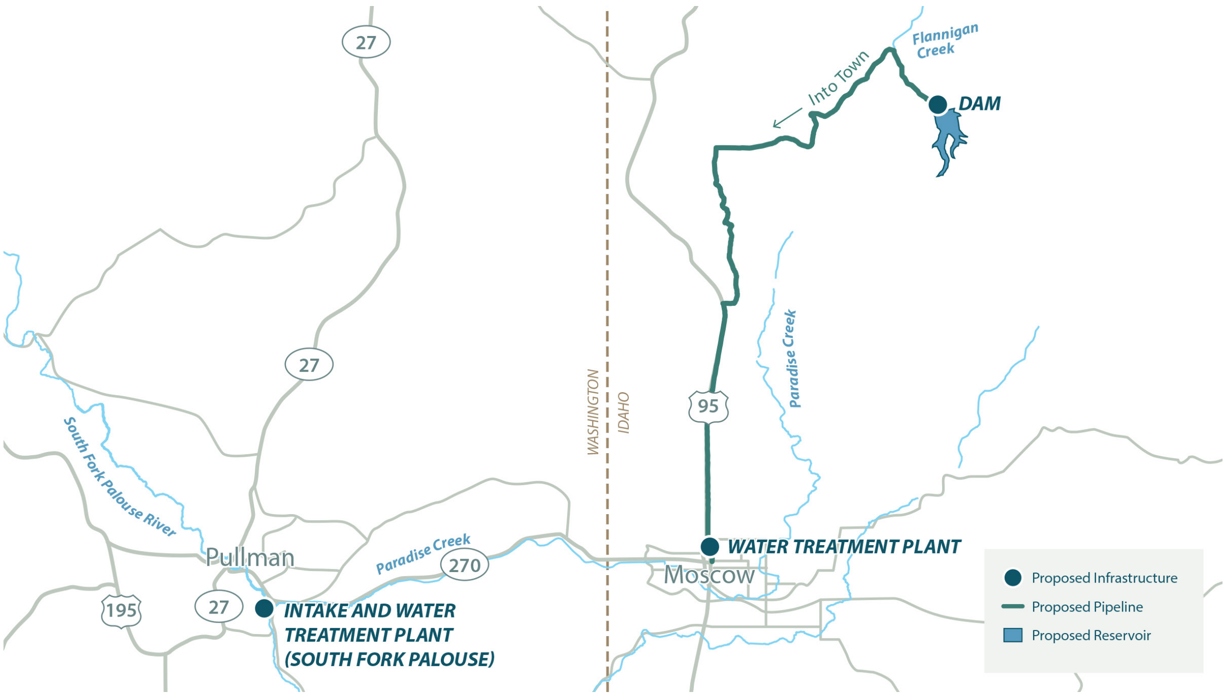
4.3 Alternative 3

This would be a regional alternative and would include two diversions—one from a proposed storage reservoir on Flannigan Creek and another on the South Fork Palouse River. The estimated amount of annual supply from this alternative is 2,324 MG (7,143 AF), which is equal to the targeted supplemental water supply for the Palouse Basin. The Flannigan Creek project would supply 1,430 MG (4,400 AF), and the South Fork Direct Diversion project would supply the additional 894 MG (2,743 AF) needed to meet the target.

The Flannigan Creek project would include a new storage reservoir on Flannigan Creek on the north side of Moscow Mountain, an intake structure and diversion at the new reservoir, pumping and conveyance to Moscow, treatment, and delivery to the City of Moscow and UI water systems. This project was identified and studied as Alternative A1 in the 2011 *City of Moscow Surface Water Feasibility Study – Phase 1* (SPF and TerraGraphics 2011).

A second diversion would be located on the South Fork Palouse River to capture winter and spring runoff (as available, from November through June), for treatment and direct use (no storage) in the Pullman and WSU systems. Figure 5 provides an overview of the project elements, routing, and facility locations for Alternative 3.

Figure 5
Alternative 3



4.4 Alternative 4

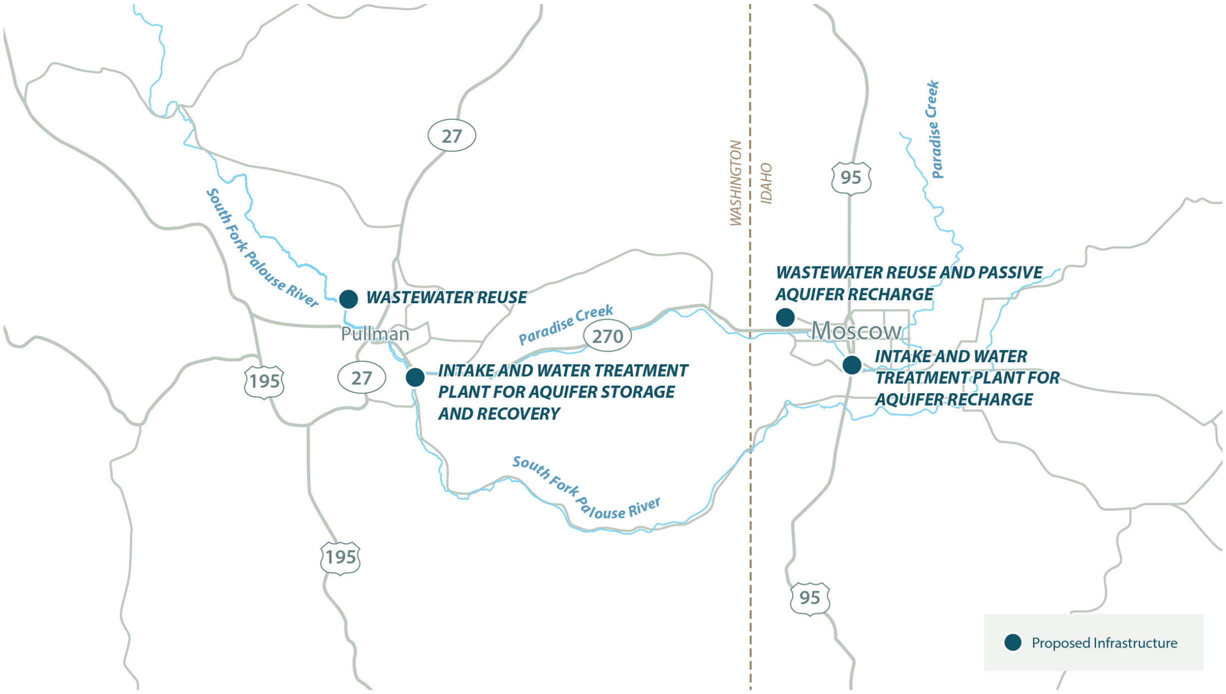
This alternative would include a combination of projects that would collectively supply projected future water demands in Pullman and Moscow. The projects would also be used to offset existing irrigation, for the cities and universities, primarily through aquifer recharge in Moscow, ASR in Pullman, wastewater reuse, groundwater recharge, and additional conservation to come as close as possible to meet the annual 50-year supplemental supply target of 2,324 MG. The aquifer recharge and ASR projects would use South Fork Palouse River and Paradise Creek water during the natural runoff period of approximately 4 months (generally January through April). It would also include a wastewater reuse project in Pullman, a combination wastewater reuse and groundwater recharge project in Moscow, and additional conservation to provide 1,893 MG of supply. This amount is 81% of the 2,324 MG target. It is not expected that additional water conservation opportunities, even at the aggressive level assumed under this alternative, will be able to fully fill the gap (1,060 MG) between what the other four projects would provide and the target. A target of 15% additional conservation savings (609 MG) was assumed for this analysis, which is approaching a reduction in per capita demand similar to winter water usage.

The aquifer recharge project would include a direct diversion (no storage) on Paradise Creek by Moscow to capture winter and spring runoff (generally January through April), treatment, and active injection of treated water to recharge wells in Moscow, as studied by the 2011 *City of Moscow Surface Water Feasibility Study – Phase 1* (SPF and TerraGraphics 2011). The ASR project on the South Fork Palouse River, in Pullman upstream of its confluence with Paradise Creek, would also include a direct diversion (no storage) to capture winter and spring runoff (generally January through April), treatment, and active injection of treated water to ASR Wells in Pullman, as studied by the 2014 *City of Pullman Water System Plan Update* (Anchor QEA 2014). A variation of this project could include direct use of treated water to the City of Pullman system without ASR.

The wastewater reuse project in Pullman would include an upgrade to the Pullman Wastewater Treatment Plant (WWTP) to produce Class A reclaimed water for distribution and reuse at selected sites within Pullman and the WSU campus. The wastewater reuse project in Moscow would include additional use of Class A reclaimed water from the Moscow WWTP for passive recharge within Moscow. Infiltration basins with an area of approximately one acre would be constructed to provide for passive infiltration of reclaimed water into the Wanapum basalt aquifer. It should be noted that this second part of the project, the ability to infiltrate into the Wanapum basalt aquifer, is not well understood and very likely may not be successful if pursued. Of all the elements of each of the four alternatives, this component is the most uncertain.

The conservation element of this alternative would include additional measures equating to 15% additional savings beyond the baseline projection (1,869 AF or 609 MG). This would include reducing landscape irrigation from measures that have yet to be determined. The additional conservation savings that would have to be realized to meet the supplemental water supply target (greater than 15%) would reduce demand to something that would be close to or even less than typical per capita winter, or indoor, water usage, which is approximately 75 gallons per day per person. Because this did not seem realistic, the additional conservation savings of 15% was selected for this alternative, which is still a very aggressive goal. Figure 6 provides an overview of the project elements, routing, and facility locations for Alternative 4.

Figure 6
Alternative 4



5 Evaluation Criteria

A multi-criteria evaluation approach was used to compare the four alternatives. A wide range of water supply project considerations was discussed within PBAC, resulting in 13 criteria selected for use in the analysis. Although some criteria are readily assessed in monetary terms, others are more appropriately considered in a qualitative fashion. Table 2 summarizes the 13 criteria and the manner in which they were included in the analysis. Descriptions of the criteria are provided in the sections that follow.

Table 2
Alternative Evaluation Criteria

No.	Name	Monetize	Quantify	Qualitatively Assess	
				Potential Impact on Schedule	Potential Impact on Cost
1	Capital Cost	X			
2	Annual Operating Cost	X			
3	Greenhouse Gas Emissions	X			
4	Criteria Air Contaminant Emissions	X			
5	Risk Associated with Yield Variability		X		
6	Water Quality Impacts				X
7	Aquifer Data/Model Accuracy				X
8	Water Rights Complexity			X	X
9	Permitting Challenges – State/Local			X	X
10	Permitting Challenges – Federal			X	X
11	Extent of Regional Agreements Required			X	X
12	Willingness of Property Owners to Participate			X	X
13	Public Acceptance			X	X

The results from this evaluation concluded that Alternative 1 would be the most expensive, but if water rights could be secured, could provide the simplest and perhaps the longest-term reliable supply. Alternatives 2 and 4 provided better value than the others based on lower capital costs and lifecycle costs, and lower environmental impacts, recognizing neither alternative meets the 2065 target as reliably as the Alternatives 1 and 3. Between Alternatives 2 and 4, Alternative 2 is a better option overall, when considering not only cost and yield criteria, but also other evaluation criteria. It provides for 85% of the supplemental supply target through 2065, and also has opportunity for further refinements that could potentially further improve yield amount and reliability.

This analysis did not identify a recommended alternative that clearly stood above the rest in terms of the criteria considered. This finding, along with the potential for additional analyses to further refine the multi-criteria evaluation leads to a recommendation to not remove any alternative from further consideration at this time. The merits of each should be re-evaluated in the future in light of addressed data gaps and refined analysis within this framework.

Table 3
Summary of Key Findings

Multi-Criteria Evaluation Results		
Alternative	**Cost-Effectiveness**	**Water Supply Reliability**
1 – Snake River	• Ranks lowest • Highest cost (median cost of ~$5,000/MG), and by a significant margin compared to others • Greatest amount of uncertainty in cost, but with no probability of being lower cost than any other alternative	• Ranks second • Meets supplemental water supply target fully until 2055, with shortfalls occurring thereafter based on current design
2 – North Fork Palouse Diversion/ Paradise Creek or South Fork Palouse Aquifer Recharge	• Ranks highest (i.e., having lowest cost, at ~$2,500/MG), along with Alternative 4 • Least amount of uncertainty in cost	• Ranks third • 50% probability of providing >85% of supplemental water supply target • Significantly greater uncertainty compared to Alternatives 1 and 3
3 – Flannigan Creek Storage/ South Fork Diversion	• Slightly less cost-effective than Alternatives 2 and 4, with a median cost of ~$3,400/MG	• Ranks highest • Meets supplemental water supply target demand >92% of the time • Least amount of uncertainty or variability in yield year-to-year
4 – Paradise Creek Aquifer Recharge/South Fork ASR/ Pullman Wastewater Reuse/Moscow Wastewater Reuse/Recharge/Additional Conservation	• Ranks highest (i.e., having lowest cost, at ~2,500/MG), along with Alternative 2	• Ranks lowest • Most likely to provide 60% of supplemental water supply target • No probability of providing >85% of target • Greatest amount of uncertainty

Notes:
MG: million gallons

6 Data Gaps, Information Needs, and Next Steps,

Based on the alternatives evaluation results, data gaps and additional information needs are summarized for each alternative below.

6.1 Alternative 1

For this project, physically diverting, treating, and conveying surface water from the Snake River to Pullman and Moscow appears feasible. What is in question is the feasibility of securing a water right and other regulatory approvals that would allow for project implementation. If PBAC were to pursue this project, at least two data gaps would need to be addressed, including:

- Surface water right – It would need to be determined if there is an ability to secure a new Washington or Idaho Snake River surface water right, or secure and transfer an existing Washington or Idaho Snake River surface water right(s) with instantaneous and annual quantities needed to meet the demand target. Confirming the expected cost range for water rights acquisition will also be important.
- Endangered Species Act (ESA) and other permitting approvals – Even if a water right with sufficient instantaneous and annual quantities was available, it would need to be determined if a new diversion and withdrawal on the Snake River at the desired diversion location would successfully be granted ESA and other permitting approvals needed to construct the diversion and withdraw the water.

It is recommended that additional work be done on addressing these data gaps prior to moving forward with other activities to better define the more specific project elements.

6.2 Alternative 2

For this alternative, physically diverting and conveying surface water from the North Fork Palouse River to Pullman and Moscow appears feasible. What is in question is the feasibility of treating diverted water during higher runoff periods and, in light of the duration and frequency of turbidity events, if treatable water is available in sufficient quantities to warrant the investment of intake, treatment, and conveyance facilities. Better understanding water right conditions and constraints would also be important prior to additional design activities, recognizing the analysis has been conducted with the assumption that such a water right could likely be secured.

If PBAC were to pursue this project, at least the following data gaps would need to be addressed, including:

- Surface water treatability –The typical timing, frequency, and duration of surface water turbidity events that would prevent water diversion would need to be determined, along with determining whether sufficient water would be available during the targeted late fall, winter, and spring diversion time-period. The expected diversion rates to meet the targeted amount would also need to be determined.

- Surface water right – The ability to secure a new Idaho or Washington surface water right with instantaneous and annual quantities needed to meet the supplemental supply target would need to be determined, as would the likely conditions to accompany such a right.
- Evaluate water availability and average day demand in Moscow, Pullman, WSU, and UI, during the targeted diversion period, and how that relates to the amount of water projected to be available for diversion. This evaluation should address whether the cities and universities would be able to rely completely on surface water, or whether they would also need to pump groundwater for a significant part of winter or include a storage component to make this alternative more viable.
- Determine what impacts, if any, might be expected in City and University water distribution systems if surface water (with a different chemical composition from groundwater) is placed into systems that have only conveyed Palouse Basin groundwater. This would include comparing historical groundwater quality data collected by each entity with water quality for the North Fork Palouse surface water.
- Outline options for a regional organization to develop and operate a regional water system with authorities, responsibilities, timelines, estimated costs to develop and other elements. The findings from this effort would also be applicable to Alternative 1 and potentially Alternative 3, depending upon how these projects were developed and water supplied.

Additionally, opportunity exists for refining this project concept. A proposed variation is to consider whether additional water might be available for withdrawal during higher flow periods, conveyed, treated, and stored in ground through aquifer recharge utilizing the North Fork Palouse system proposed. This could potentially be an additional project component, or serve as a substitute for the second part of the aquifer recharge alternative. Also, other piping alignments could be considered, such as an alignment along an existing railroad right-of-way.

It is recommended that additional work be done on addressing these data gaps and further project refinement be made prior to moving forward with the activities to better define the more specific project elements.

6.3 Alternative 3

For this alternative, the feasibility of a Flannigan Creek storage site will help determine whether it is warranted to pursue additional next steps under this alternative.

If PBAC were to pursue this project, at least the three information needs should be addressed, including:

- Surface water storage – General geotechnical evaluation of potential dam locations should be conducted to ensure stable foundational soil conditions.
- Property acquisition – It should be determined if there are landowners potentially willing to sell the property needed for a dam location and for water conveyance right of way. Property ownership should be evaluated and landowners contacted to determine if they are open to discussing sale of property or providing an easement, as applicable.
- Surface water right – It should be determined if there is an ability to secure a new surface water right with instantaneous and annual quantities needed to meet the supplemental supply target, as well as the likely conditions to accompany such a right.

It is recommended that additional work be done on addressing these data gaps prior to moving forward with other activities to better define the more specific project elements.

6.4 Alternative 4

For this alternative, the same activities and associated timing and sequence for the Paradise Creek or South Fork Palouse Aquifer Recharge for Moscow as described for Alternative 2 also apply. Additionally, much is known about the Pullman Wastewater Reuse project, because a 30% design report has been developed, describing this project in greater detail than any other project included in any of the alternatives.

However, this alternative is different from the others in that there are significant questions about the feasibility of the Moscow Water Wastewater Reuse and Groundwater Recharge project, and whether the concept could work. If PBAC were to pursue this project, the following data gaps would need to be addressed:

- Sediment vertical permeability in project area – This is directly proportional to infiltration rate and infiltration facility size. Could be low enough to make infeasible.
- Flow top weathering in project area – If top of Wanapum is weathered to clay, or has clay-infilled fractures, this portion of the subsurface could exhibit lower vertical permeability than the overlaying sediments, inhibiting water migration downward into the basalt.
- Flow interior fracturing – If the flow interior/entablature of the upper Wanapum flow does not have significant fracture or joint permeability, then vertical water movement could be extremely limited.
- Uppermost interflow depth, saturation, thickness, permeability (with respect to air), and chemical composition – If infiltrated water is to be recovered, a recovery well or wells would most likely be installed in the uppermost zone that becomes saturated with infiltrate. The mechanism for how and where this water could enter the existing saturated portion of the

confined aquifer is increasingly complex with depth and the number of unsaturated interflows. Characterizing the uppermost interflow is needed to assess:

- Whether groundwater is present or if the infiltration would fully saturate this zone.
- Whether water would begin to migrate laterally before fully saturating the zone, leading to saturated and unsaturated wetting and drying conditions that encourage biological growth.
- The geochemical composition of sediments, clays, or fracture-lining minerals, in order to assess the potential for undesirable changes in infiltrate water quality in a zone not currently in chemical equilibrium with a stable groundwater.

Additional conservation under this alternative has been identified as a way to partially meet the additional supply needs. Achieving the 15% reduction in water usage on top of the measures in place or planned by the cities and universities to meet current conservation goals would require some fundamental regional changes in landscaping and associated irrigation practices. Public involvement planned for the four alternatives should include receiving input from the public on interest and openness to fundamentally changing the way landscape irrigation is currently conducted.

6.5 First Priority Actions for Alternatives

As described above, each alternative would benefit from some additional analysis and follow up work that would strengthen and further refine the evaluation results. Accordingly, the activities summarized in Table 4 are identified as first priority actions.

Table 4
First Priority Actions

Alternative	Action	Description
Alternative 1	Water Rights	For the Snake River, potential water rights for acquisition should be researched in both Idaho and Washington, in coordination with IDWR and Ecology. Identify the top 2 or 3 options and refine the estimated purchase costs, and outline the steps and timeline for acquiring and transferring the point of diversion location. Recommend meeting with Ecology's Office of Columbia River to see if the programs administered under this office could help in securing water supply.
	ESA/Permitting – Preliminary Meetings	In parallel with evaluating water right acquisition opportunities, hold preliminary discussions with NMFS, USFWS, and USACE on the likely ESA and associated environmental review/permitting steps and timeline.
Alternative 2	Water Rights	Many of the water rights evaluation process steps for the North Fork Palouse River and Flannigan Creek are common and can be applied to both projects, with additional evaluation of existing water rights, potential impairment considerations, and recommended water availability periods for both project locations. Work on this evaluation should also identify the steps and likely timeline for securing a water permit.

Alternative	Action	Description
	Surface Water Treatability	Conduct a study evaluating existing water quality data collected in both Idaho and Washington during the proposed diversion period, and identify the frequency and duration of events where turbidity would prevent effective treatment of drinking water. Summarize findings and results.
	Evaluate North Fork Palouse Flows for Groundwater Recharge Potential	Evaluate whether additional water might be available for withdrawal during higher flow periods then conveyed, treated, and stored in-ground through aquifer recharge utilizing the proposed North Fork Palouse River system. Update project description.
Alternative 3	Explore Property Acquisition Potential for Flannigan Creek	Evaluate property ownership and meet with landowners to determine if any potential issues might exist for acquiring property.
	Water Rights	See Alternative 2 description of actions.
All Alternatives	Develop Public Involvement Strategy and Plan	Incorporate study's findings into the PBAC communication action plan strategies, tactics, and timelines to better engage the public, communities, and stakeholders. As part of receiving stakeholder input, seek specific input on the supply study analyses, formulated alternatives, and findings from those knowledgeable on the Palouse Groundwater Basin, including individuals at the universities and others with expertise in groundwater, surface water, water quality, and related topics.
	Brief Elected Officials	Share report findings, recommended actions, and next steps. Keep officials updated as actions are completed.
	Develop Regional Organization Approach	Begin to outline elements of a regional agreement for applicable alternatives, including defining participants, roles and responsibilities, decision-making structure, and other elements.
	Update Multi-criteria Evaluation	Using the information from the actions listed above, update the evaluations for each of the alternatives.
	Develop Implementation Plan	Develop an implementation plan that confirms first, second, and third priority actions and includes additional detail on next steps, timing, and sequencing of activities.

Notes:
Ecology: Washington State Department of Ecology
IDWR: Idaho Department of Water Resources
NMFS: National Marine Fisheries Service
USACE: U.S. Army Corps of Engineers
USFWS: U.S. Fish and Wildlife Service

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