Memorandum of Agreement

Between the State of Washington and the City of White Salmon

For the City of White Salmon Aquifer Storage and Recovery Project

Parties

This Memorandum of Agreement (MOA) is entered into between the City of White Salmon (City) and the State of Washington (State), by and through the Department of Ecology (Ecology) Office of Columbia River (OCR).

Purpose, Objective, and Scope

This MOA outlines the mutual agreement between the Parties concerning development of an aquifer storage and recovery (ASR) project owned and operated by the City and funded in part by OCR. The objectives of the ASR facility are to provide additional water supply to the City to meet growth projections and assist in meeting peak water demand needs, and to provide instream flow benefits. The scope of this MOA includes required ASR permitting, long-term operations, project funding, coordination on instream flow releases, and other provisions necessary for successful operation of the ASR facility.

Background

For the past decade, the City has struggled with water rights and water supply issues. While many of the City's water supply and water rights challenges have eased significantly, the City remains committed to investing in water supply infrastructure to ensure it meets its statutory obligation to provide safe and reliable water supply to its retail service area. The following chronology summarizes the background for this MOA.

- In 2004, the City completed a Water System Plan that resulted in a growth moratorium for new connections based on a determination from Ecology and the Department of Health (DOH) that the City was using more water than it was authorized to use under its water rights.
- In 2007, the City discovered that its main supply wells, brought on line in 2002, were suffering severe declines that cause the City to significantly reduce its pumping rate and implement stringent conservation measures.
- In November 2007, the City submitted a preapplication to OCR requesting funding for an ASR facility during OCR's first competitive grant process.
- In March 2008, following an OCR preapplication screening process, the City submitted an application to OCR for an ASR facility.

Ecology Publication Number: 18-12-015

- On May 11, 2009, OCR issued the City a grant (#G0900235) totaling $956,950 to study and develop an ASR facility.
- In 2009, the City began design and construction of a new slow sand filtration plant on Buck Creek.
- In 2010, the City completed a Water System Plan update to reflect its new slow sand filtration plant.
- In 2010, the City entered into a water service agreement with Klickitat Public Utility District No. 1 to provide mitigation water to offset impacts to enable issuance of a new water right on Buck Creek.
- On April 22, 2011, Aspect Consulting submitted the City's ASR Feasibility Assessment.
- On May 13, 2011 Ecology issued a notice to proceed with ASR Phase II Pilot Testing and Implementation under grant #G0900235.
- On July 8, 2011 Ecology issued the City a new water right permit authorizing the diversion and use of water from Buck Creek totaling 2.2 cfs (non-additive) and 780 acre-feet (additive).

The City's water supply situation has stabilized with the construction of the slow sand filtration plant on Buck Creek. Similarly, the issuance of the new Buck Creek water right has allowed the City's growth moratorium to be lifted. The original crisis caused by the declining aquifer levels for the City's wells has now provided an opportunity for ASR. The proposed ASR facility has the potential to provide source redundancy, ensure the City's well supplies remain reliable in the future, offset peak water needs that might otherwise require expansion of the filtration plant, and benefit instream flows.

Recitals

Whereas the City is the primary water service provider for the regional water system comprised of the City of White Salmon, the City of Bingen, and the Port of Klickitat;

Whereas the City has a statutory obligation to provide safe and reliable water service for existing customers and new growth;

Whereas initial results of the City's ASR investigations appear to support its feasibility;

Whereas OCR is aggressively pursuing development of new water supplies that re-time water availability from periods of relative abundance to relative scarcity;

Whereas OCR has a statutory mandate to assist cities in securing long-term reliable water supply;

Whereas the Legislature created the Columbia River Account in RCW 90.90.010, which OCR uses to invest in water supply strategies and projects that will provide benefits for both instream and out-of-stream uses;

and

Whereas both the City and OCR desire a collaborative long-term agreement for the delivery of water from the ASR facility for City needs and instream flow needs, and a financial and permitting framework providing structure thereto;

Now, therefore, the Parties acknowledge and agree to the following:

1. Intent. Both the City and OCR intend to work collaboratively to evaluate the feasibility to construct and operate an ASR facility that will meet both the City and OCR's needs. These goals include understanding whether the City's proposed site is a viable location for ASR, learning about how ASR can be used to meet the City and OCR's mutual needs, and whether the ASR facility can be operated on a long-term economically-sound basis integrated with both the City's physical water system and its financial utility. The efficacy of the ASR facility will be determined jointly by the City and OCR following the pilot phase and will include a review of metrics such as: ASR volume, the comparison of costs to benefits, operational issues, and water quality.

2. Benefits: Both the City and OCR recognize benefits of further evaluating ASR as a viable strategy for making additional water available through storage, particularly during periods of peak water demand experienced by the City and periods of low flows in area rivers. A successful ASR program benefits the City by providing source diversification, stabilizing aquifer declines, and a means to supplement peak supply capacity. A successful ASR program benefits OCR by expanding municipal supplies, demonstrating the viability of ASR, and increasing instream flows.

3. Use of Stored Water: If the Parties agree the ASR project is feasible and meets the Parties' intent as described herein, then the Parties also will agree to a division of water stored in the ASR facility. The Parties agree that:

    a. The City will determine the highest and best use for the portion of the ASR project provided by City funding
    b. OCR will determine the uses for the portion of the ASR project provided by OCR funding, and intends to allocate two-thirds of this portion to out-of-stream beneficial uses and one-third to instream beneficial uses.

c. OCR agrees that it is appropriate to meet the City's needs with the component of OCR's portion (two-thirds) for out-of stream uses.

d. If the ASR project is determined to be feasible by the Parties, then the Parties agree to amend this MOA to reflect a final accounting of costs that each Party contributed and add general provisions to the MOA. In this MOA, the following table summarizes costs recognized by the Parties to-date:

Phase I - ASR Feasibility Study, Treatment Plant Design and Construction			
Pre-Construction		**$**	**309,942.13**
ASR Feasibility Study		*$*	*150,000.00*
Slow SandTreatment Plant, Professional Services (Design, Etc.)		*$*	*159,942.13*
Slow Sand Construction, Direct Costs		**$**	**1,590,040.01**
Slow Sand Treatment Plant Construction		*$*	*1,590,040.01*
Slow Sand Construction, Indirect Costs		**$**	**32,702.28**
Construction Management		*$*	*13,174.51*
Miscellaneous Testing and Supplies		*$*	*19,527.77*
Phase I Total (Actual) *		**$**	**1,932,684.42**
Phase II - ASR Pilot Testing and Implementation, Other System Improvements			
Pre-Construction		**$**	**167,400.00**
Preliminary Engineering, Survey, Layout		*$*	*40,000.00*
Final Design		*$*	*127,400.00*
Construction, Direct Costs		**$**	**1,541,281.00**
ASR Infrastructure Construction		*$*	*1,541,281.00*
Construction, Indirect Costs		**$**	**143,375.00**
Construction Management, Testing and Supplies		*$*	*143,375.00*
Contingency		**$**	**179,219.00**
Contingency		*$*	*179,219.00*
Phase II Total (Estimated)		**$**	**2,031,275.00**
Overall Project Total*		**$**	**3,963,959.42**
OCR Grant Total Contribution[1]	24%	$	956,950.00
City Obligation Total Contribution[1]	76%	$	3,007,009.42

e. For clarity, the Parties interpret the table above as follows. The City would control 76% of the water in the ASR facility. OCR will control 24% of the water in the ASR facility. Two-thirds of the OCR portion (16%) would be made available for City use. One-third of the OCR portion (8%) would be made available for

[1] The City also will track and submit matching labor expenses for the project which will affect the final allocation.

instream flows.

4. Permitting: The City and OCR will coordinate permitting for this ASR project, as well as partnering on efforts to meet the City's long-term permitting goals. Specific permitting goals include:
    a. The City will file an application for a storage permit under RCW 90.03.370. OCR will expedite processing of this permit as allowed by statute, and will approve it if the statutory tests for granting a new permit are met. The intent of the storage facility is opportunistic filling when excess treatment plant capacity exists, so multiple fillings of the ASR facility are intended to be authorized.
    b. The City plans to fill the ASR facility through exercise of its existing water rights and new water rights issued to support ASR.
        i. New Diversionary Water Right. The City's primary goal is to obtain a new diversionary right to fill the ASR facility to minimize mitigation requirements under Permit S4-35068 and provide source flexibility and reliability. The City will file an application for a new permit seeking opportunistic diversion from Buck Creek when water is available without impairing existing water rights or the public interest. The application will identify both the diversion quantities reserved for future municipal use and the diversion quantity reserved for future instream flow. While OCR cannot prejudge the outcome of a new diversionary permit application, if the statutory tests for a new water right are met, then OCR will process and approve an application seeking a new diversionary right for filling the ASR facility.
        ii. Existing Diversionary Water Rights. The Parties agree that the storage permit, if granted under Section 4.a., will identify that existing Buck Creek water rights S4-35068, S4-SWC3474C, and S4-SWC7109 can also be used to fill the ASR facility at the City's discretion.
    c. The City will file a secondary use application requesting a permit to use water from the ASR facility. The secondary use permit application will cover both the City's municipal uses and OCR instream flow uses. While OCR cannot prejudge the outcome of the secondary use application, if the statutory tests for a new secondary use permit are met, then OCR will approve it.
    d. In lieu of direct diversion from storage back into Buck Creek, the Parties agree that a diversion reduction agreement is preferable. Based on the process that led to the approval of of the City's Permit S4-35068P in 2011, the City understands that the critical flow period on Buck Creek of greatest interest to fisheries is August 1 to October 31. The City agrees that it will rely on the ASR supply for

municipal use from August 1 to October 31 for at least the amount of water identified as the OCR share to be used for instream flows. The effect of this reliance will be that more water will be left undiverted in Buck Creek during the critical flow period. The City will provide accounting of this reliance as part of its annual metering submittals in a format approved by Ecology.

Hypothetical Example: A new diversionary right, storage right, and secondary use permit are granted to the City for 500 acre-feet for filing and recovering water from the ASR facility. OCR's share of this water to be used for instream flows is 8% based on final cost accounting. The City will use at least 40 acre-feet from the ASR facility during August 1 to October 31 and not divert the same quantity from Buck Creek.

5. Operation Costs. The City agrees to assume the long-term cost of operation and maintenance of the facility, including the portion reserved by OCR for instream flows.

City of White Salmon

12/18/12

David Poucher, Mayor (date)

Office of Columbia River

1/15/13

Derek I. Sandison, Director (date)