BEFORE THE DEPARTMENT OF WATER RESOURCES OF THE STATE OF IDAHO

IN THE MATTER OF BASIN 37 ADMINISTRATIVE HEARING

) REQUEST FOR) STAFF MEMORANDUM

On May 4, 2021, the Director of the Idaho Department of Water Resources ("IDWR") issued a Notice of Administrative Proceeding for Basin 37, Wood River Basin. The Notice scheduled a hearing for June 7-11, 2021.

During the winter of 2020 – 2021 and the spring of 2021, IDWR staff participated in and presented technical information for a series of meetings of the Big Wood River Ground Water Management Area Advisory Committee. Facts and technical information presented should be included as evidence in the administrative proceeding hearing. Because IDWR initiated the contested case, the Director will also rely on IDWR staff expertise in deciding the contested case arising from the administrative proceeding. This Request for Staff Memoranda seeks information from IDWR staff pertinent to the issues to be addressed at the administrative proceeding hearing.

Staff preparing staff memoranda will testify at the hearing and be subject to cross-examination.

The Director requests Department staff prepare memoranda addressing the following subjects:

1. Describe the hydrology and hydrogeology of the Big Wood River, Little Wood River, Silver Creek, and Camas Creek Basins ("Wood River Basins"). Please cite to technical reports and materials that support the descriptions.

2. Describe methods of predicting surface water supplies for the Wood River Basins. Based on IDWR expertise, recommend a method for predicting the water supply for the upcoming 2021 irrigation season.

3. Describe the surface water deliveries in the Wood River Basins. The description should include:

a) Irrigation delivery infrastructure and systems of importance. Examples are Magic Reservoir and the Milner Gooding Canal. This description should also explain operations that alter the normal supply of water. For example, operation of Magic Reservoir alters delivery of natural flow water rights.

- b) Surface water rights, including dates of priority, in the various drainages that were both historically delivered and curtailed in good water years, average water years, and water-short years. These descriptions should include sub-reaches of each river basin, describing both geographical variability in supply, reliability of supply, and impact of storage or delivery of water from out-of-basin sources or return flows from irrigation.
- c) Identify an analog year or analogous years prior to the advent of ground water irrigation well diversions that would be similar to the upcoming 2021 irrigation season.

4. Summarize the development and beneficial use of ground water in the Wood River Basins. The summary should include quantities developed and associated water right priority dates over the period of development.

5. Describe the development and operation of the Wood River Valley Groundwater Flow Model Version 1.1 (WRV1.1). The narrative should include a general description of the modeling platform, the anticipated accuracy of the model, the boundaries of the model, and the purposes for which the model was developed.

6. Simulate full curtailment of junior ground water rights within the WRV1.1 model boundary beginning on the following 2021 dates: May 1, June 1, July 1, and August 1. Identify areas within the WRV1.1 model boundary where curtailment of groundwater use has a minimal contribution to streamflow in Silver Creek and the Little Wood River. Remove these areas from the area of simulated curtailment, and simulate full curtailment of junior ground water rights within the reduced area, beginning on May 1, June 1, July 1, and August 1.

7. Evaluate the simulated curtailments to determine the total benefits of curtailment to the Big Wood River, including Magic Reservoir; Silver Creek, and the Little Wood River for the model simulations above.

8. The Snake River Basin Adjudication Court decreed some surface water rights authorizing diversion from the Big Wood River and the Little Wood River with a condition that states the delivery of water is subject to the water exchange provisions in contracts between the Bureau of Reclamation, American Falls Reservoir District No. 2, and the Big Wood Canal Company. Please explain the condition, and explain assumptions by IDWR in determining whether diminished Wood River flows from ground water flow would cause injury to water rights with this condition.

9. Explain IDWR analysis to identify lands irrigated by water from the Little Wood River and Silver Creek that could be injured by depletions caused by ground water pumping.

10. Explain methods of analysis for identifying possible injury. These methods might include:

- a) Comparison of Little Wood River and Silver Creek water right priorities (a) that were deliverable in a water supply year analogous to 2021 prior to the advent of ground water pumping, and (b) that may be deliverable during 2021.
- b) Comparison of evapotranspiration ("ET") values for water right places of use during years of adequate water supply and years of reduced water supply.
- c) Analysis of watermaster records to determine water deliveries for water rights during water supply years analogous to 2021.

The staff memoranda should be submitted to the Director on or before May 17, 2021. Department staff preparing memoranda will testify at the hearing and will be subject to cross examination.

Dated this 11 day of May, 2021.

Cary Spackman

Gary Spackman Director