

HOOD RIVER BASIN STUDY STATUS UPDATE

April 1, 2013

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April 1, 2013 Status Update

This document provides an update of the Hood River Water Planning Group’s (HRWPG) efforts from mid-January to March 1, 2013 associated with the Bureau of Reclamation’s (Reclamation) Hood River Basin Study and the Oregon Department of Water Resources (OWRD) Hood River Basin Surface Water Storage Feasibility Study. The objectives outlined in Reclamation’s Plan of Study for this effort are:

1. Define current and future basin water supply and demands, with consideration of potential climate change impacts;
2. Determine the potential impacts of climate change on the performance of current water delivery systems (e.g., infrastructure and operations);
3. Develop options to maintain viable water delivery systems for adequate water supplies in the future; and
4. Conduct an analysis and modeling scenarios of the options developed, summarize findings and make recommendations on preferred options.

The Hood River Basin Study is conducted with Reclamation and Hood River County (HRC) through in-kind services and the OWRD study was contracted to Herrera, Watershed Professionals Network (WPN), and Normandeau with coordination of the two studies by HRC. The studies have similar objectives and the key tasks from these studies overlap so Table 1 clarifies each task and the parties involved with completing each task. In the following sections, each task is briefly defined and the to-date progress associated with each task is described.

Table 1. Key tasks associated with the Reclamation and OWRD studies and the responsible parties associated with each].

Key Task	Responsible Party
Groundwater Modeling	Reclamation with assistance by HRC
Climate Change Analysis	Reclamation and WPN
Water Storage Assessment	Reclamation, WPN with assistance by HRC
In-stream Flow Assessment	Normandeau
Water Needs Assessment	Herrera/WPN
Water Conservation Assessment	Herrera/WPN
Water Resources Modeling	Reclamation

OVERALL CONSIDERATIONS

No new updates.

GROUNDWATER MODELING (JENNIFER JOHNSON AND JON ROCHA)

1. A draft Groundwater model design document was distributed to the groundwater sub-group on March 4. Reclamation hosted a webinar on March 13 to discuss the contents of the design document and take comments from the sub-group. It was determined that the recharge calculation and the base flow calculation would need additional work prior to using the parameters in the model. New calculation methods are being investigated and will be included in the final design document once they are determined.
2. Work has started on the MODFLOW model. The grid has been established, and the steady-state model has been populated and run with estimated data. As the refined calculations of the recharge and base flow are completed, the MODFLOW model will be updated.

CLIMATE CHANGE ANALYSIS (BOB LOUNSBURY)

1. A meeting was held with UW (Dennis Lettenmaier, Bibi Naz, and Bart Nijssen on March 7 to discuss DHSVM model calibration. Dennis agreed to have a student (Cindy) extend the record using Linveh et al dataset back to 1916 (rather than using station data). This is underway.
2. There was some discussion about providing funds to the UW to support Bibi's involvement, but she is unable to commit time given her schedule and upcoming new position.
3. Reclamation provided a copy of the model to Herrera and the County (Ed Salimen) so that they could start calibration steps.

WATER STORAGE ASSESSMENT (DOUG BENNETT AND ROGER WRIGHT)

No new update.

RESERVOIR MODELING (TONI TURNER)

1. Herrera and Reclamation held a conference call to review the updated water needs report. It was agreed that the summary data provided by Herrera would be used in the reservoir model. Entering data into a useable ModSim format will begin prior to April, but until the water needs report is completed the model cannot be fully completed.
2. T. Turner will be on leave most of April and work will begin again after she returns. B. Lounsbury will be the back-up for the reservoir modeling work while she is gone (though likely due to his workload, not much more work will be done on the ModSim model until Toni returns.

IN-STREAM FLOW ASSESSMENT (NORMANDEAU)

COMPLETED

NEXT STEPS

WATER NEEDS ASSESSMENT (HERRERA/WPN)

COMPLETED

NEXT STEPS

INTERACTIVE MAP OF HOOD RIVER BASIN (GOOGLE EARTH OR ARC EXPLORER)

WATER CONSERVATION ASSESSMENT (HERRERA/WPN)

GROUNDWATER MONITORING PROGRAM (HRC/MATTIE)

COMPLETED

NEXT STEPS

CROP AND IRRIGATION SYSTEM INVENTORY (HRC/MATTIE)

COMPLETED

NEXT STEPS