HOOD RIVER BASIN STUDY STATUS UPDATE

July 1, 2013

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July 1, 2013 Status Update

This document provides an update for the month of June of the Hood River Water Planning Group's (HRWPG) efforts 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 OWRDstudies 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

1. Reclamation and WPN staff are currently developing a matrix of potential scenarios to consider for analysis. These scenarios will include storage, supply, and demand alternatives to prioritize for analysis. Once draft is developed, HRC will review. This is expected by the end of the July or August.

GROUNDWATER MODELING (JENNIFER JOHNSON, JON ROCHA)

COMPLETED

1. No new update.

NEXT STEPS

1. Continuing to work on model construction.

DHSVM AND CLIMATE CHANGE ANALYSIS (BOB LOUNSBURY, JON ROCHA, TONI TURNER)

COMPLETED

2. Obtained calibrated model from Ted Bohn (UW). Reclamation double checking that the model is outputting flow at all required locations and will then make a final run covering the 1915-2011 period. Runs take about 3 days to complete.
3. Initiating climate change process (obtaining necessary data to for input to DHSVM modeling).

NEXT STEPS

1. Select future climate change scenarios.
2. Generate flow for those scenarios.
3. Use that future flow generated in DHSVM as input to MODSIM model to analyze yet-to-be-determined scenarios.

WATER STORAGE ASSESSMENT (DOUG BENNETT AND ROGER WRIGHT)

No new update.

RESERVOIR MODELING (TONI TURNER)

COMPLETED

1. Continued development of the MODSIM model.
    a. Verified locations of inflow being generated by the DHSVM model (those will be used as input to the MODSIM model). Constructed GIS shapefile of DHSVM inflow locations.
    b. Developing demand time series for input to MODSIM.
2. Using draft Needs Assessment document to prepare MODSIM model. Finalized document not yet available.

NEXT STEPS

1. Finish constructing the baseline MODSIM model.

2. Finish developing time series of demands throughout the basin.
3. Run baseline model and compare to existing conditions. Address differences or note.
4. Revise model to incorporate change scenarios agreed to by team.

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