

**Bighorn River System Issues Group
Meeting Summary
Billings, Montana
April 2, 2009**

Welcome/Introduction (Tom Sawatzke, Bureau of Reclamation)

Tom welcomed everybody to the meeting and reviewed the agenda for the meeting.

Friends of Bighorn River Simulator (Doug Haacke, Friends of Bighorn River)

Doug developed a simulator for the Friends of Bighorn River website and presented a PowerPoint on the simulator. The simulator can be found at the Friends of Bighorn River website, <http://bighornriver.org>. Doug gained a better understanding of the reservoir operations and will use any knowledge gained to become an asset to the process. He figured out the parameters required to model for either lake elevation or river discharge. Inputs into the simulator include data from Reclamation's Hydromet data website.

Doug's work showed him that most of the inflow to Bighorn Lake comes from Boysen and Buffalo Bill releases and he learned the importance of good coordination and cooperation. He stated that he also received a better understanding of how to develop and implement operational rule curves.

Some discussion ensued about the water content in the snow at the SNOTEL sites, which are administered by the Natural Resource Conservation Service.

Winter Release Criteria and Operation Rule Curves (Gordon Aycock, Bureau of Reclamation)

Gordon presented on winter operations using the winter release criteria he developed. The presentation included a comparison of forecasted inflows and a comparison of procedural operations using the winter release criteria and actual operations.

Gordon also presented information about rule curve operations. Since the last meeting, Gordon refined the rule curves based on earlier evaluations. Gordon evaluated all 42 years of record using the refined rule curves. He also developed a modified set of rule curves based on raising the top of the joint use pool elevation which is currently being evaluated by the US Army Corps of Engineers (Corps). Gordon presented rule curve operations on multiple inflow scenarios using the rule curves he developed.

A question was asked from the group: What will Reclamation do with this information and modeling? Gordon said the information will be compiled into a report and possibly have the report peer reviewed before being considered for operations.

Technical Studies Update (Stephanie Hellekson, Bureau of Reclamation)

Stephanie gave a status update on three studies currently being conducted by Reclamation in conjunction with Reclamation's Technical Service Center and the Corps.

Travis Yonts of the Corps is working on the flood pool reallocation study. Travis has completed the calibration and baseline simulation. A draft report should be ready for review this fall.

The Corps is also working on the sedimentation management study. They have completed the sedimentation model and draft report. Reclamation is currently reviewing the draft report and will probably be finished with the review by mid-May. A draft report will probably be ready for review this coming August.

The Bighorn River side channel study is being conducted by Reclamation's Technical Service Center. The MOU was signed in November, 2008. Part of the geomorphic analysis is completed. Rest of the geomorphic analysis should be completed this year with a presentation to the group this fall.

Wrap-up (Clayton Jordan, Bureau of Reclamation)

Clayton suggested that we meet this fall, possibly September or October in conjunction with the fall operations meeting. A meeting date was not set but will be scheduled sometime this fall.