

Aspinall Unit EIS  
Hydrology Meeting  
8:00 a.m. 4/21/06

Attending: Heather Patno, Clayton Palmer, Dan Lueke, Bart Miller, Wayne Cook, Dan Crabtree, Coll Stanton, Erik Knight, Chris Cutler, Paul Davidson, Randy Seaholm, Michael Dale, Wayne Schieldt, Dave Kanzer, Steve McCall, Ed Warner, Dave Harpman, Jim Slattery, Rick Vinton, George Smith, Mike Gross, Melissa Trammell, Andrea Ray, Balaji, Satish, Michelle Garrison

Update on forecast algorithm. Reclamation-Salt Lake is working on this, should have something soon. Will use something similar to but not exactly like that developed for Flaming Gorge, used in CRSS model.

Unregulated vs. Natural Flows. Natural flows will be used in the modeling. Maybe slightly different than those used in the Flow Recommendations.

Iterative Traces – Leap Year problem has been fixed.

Period of record. Reclamation recapped proceedings since the last Hydrology meeting related to tree ring study process. NOAA held meeting in Boulder to further discuss tree ring process. Reclamation conducted several internal meetings to further investigate, discuss and determine applicability and practicality for this EIS.

Reclamation proposed period of record '37-97. Flow recommendations are based on this. StateMod can easily handle it. Can easily compare alternatives and get moving on modeling efforts. It is statistically representative. 37-97 includes the wettest (1984) and driest (1977) years since 1906. Gage data for StateMod is unreliable before 1937 and would require synthesization. Interested in comparing apples to apples or kumquats to kumquats. No need to redefine hydrologic categories which create the 6 hydrologic categories. Tree Ring methodology will be used in the future, but not right for this EIS. How to handle large extremes is out of the scope of this EIS. Tree ring analysis requires development of historical data back to 1569 or whatever start date is selected. Replacement years are selected based on annual hydrology not on seasonal similarities. Year-to-year transitions may be problematic if fall hydrology from previous year doesn't correspond with winter hydrology of current year. Spatial problem within basin.

There were no major objections to using the 37-97 period of record. The State said 37-97 is the best historic record; StateMod can create daily data from monthly data available. Good to compare apples to apples and put drought information in the Appendix. Aspinall hydrology is year-to-year with not that much carryover so 37-97 is adequate. Park Service said the jury was still out. Western said they could live with it, but would like tree ring process to be included in the appendix. Fish and Wildlife agreed with 37-97. Agreed to use '37-97 for modeling. Reclamation and NOAA will develop a paleo data set for appendix and to look at possible long-term climatic effects.

Reviewed modeling process in the Cooperating Agency Meeting. Basically 3 steps which will be iterated as necessary. Statemod adds depletions to natural flows. This output becomes Riverware input for operations. Riverware output is put back into Statemod to review water right impacts. The Power Model will be run separately but will be consistent with the hydrology model and use Riverware output.

Side-note – Western Area Power felt the discussion regarding period of record was cut short so they consequently asked for further clarification. Representatives from all Cooperating Agencies were invited to phone into a meeting held on April 27 in Salt Lake between Reclamation and Western. The State of Colorado, Fish and Wildlife Service, River District, and Reclamation’s Western Colorado Area Office (WCAO) attended via phone. The 37-97 period of record decision was re-discussed and all parties concurred with the decision.

Next Meeting - June 1, 2006 8:00 a.m. Reclamation’s WCAO