

**Colorado Basin Roundtable Nonconsumptive Needs Assessment Subcommittee Meeting Summary
Nonconsumptive Needs Quantification Water Supply Reserve Account Grant Project
October 19, 2009 and November 5, 2009 Meetings**

Participants in 1 or both meetings: Gerry Knapp, Caroline Bradford, Lane Wyatt, Nicole Rowan, Thomas Clark, Paula Belcher, Kerry Sundeen, Kathy Kitzman, Ken Neubecker, Peggy Bailey, Kirk Klanke, Jacob Bornstein, LeRoy Poff, Pat Wells, John Sanderson, Brian Bledsoe, Jim Pokrandt

Following is a meeting summary from the Colorado's Basin Roundtable's Nonconsumptive Needs Assessment Subcommittee Meetings held October 19, 2009 in Glenwood Springs and November 5, 2009 in Avon. This a summary of the major outcomes, action items and recommended path forward decided at each meeting. It does not contain a verbatim account of the meetings but is intended to provide a summary of the outcome and next steps for the roundtable's Water Supply Reserve Account Grant for Nonconsumptive Needs Assessment Quantification.

Major Outcomes

Following are the major outcomes of the October 19, 2009 and November 5, 2009 meetings:

- At the October 19, 2009 meeting it was decided that if the effort moves forward that geomorphic sub-classification should be considered. This classification would allow for differentiation on the basis of stream physical characteristics and will help in assessing which flow-ecology relationships apply in various reaches in the basin. The group also discussed that as part of the Roaring Fork pilot there was differentiation in where flow-ecology relationships were applied. For example, the riparian flow-ecology relationship was applied below elevation of 9600' and the warm water fish flow-ecology relationship was applied at the very lower portions of Roaring Fork.
- At the November 5, 2009 it was agreed to request the consultant team to determine whether a flow metric and associated risk level could be established for channel form and pawning bed maintenance. It was discussed that the IHA software predicts a small and large "flood" that is related to channel maintenance.
- At the October 19, 2009 meeting it was recommended that if the project moves forward that the technical team would convene an expert panel to evaluate the riparian flow-ecology relationships. This workshop would be similar to the workshop held regarding fish during the pilot effort. In addition the flow relationship would be revised based on new studies available since the pilot project, and any input from the expert panel.
- At the October 19, 2009 meeting it was recommended that if the project moves forward recreational experts would be added to the technical team and would bring knowledge of the efforts from the Wild & Scenic process. This expertise would be used to evaluate the results of the application of the "Alberta relationship" for various stream segments in the Colorado basin.
- At the October 19, 2009 and November 5, 2009 it was discussed that a metric that it related to winter flows should be explored. At both meetings it was discussed that the macroinvertebrate flow-ecology

relationship should be utilized in the WFET where appropriate and that it may be able to provide insight into necessary winter conditions.

- At the October 19, 2009 it was agreed that it is inappropriate to develop a composite hydrographs based on risk levels and that each ecological or recreational indicator should be considered independently.
- At the November 5, 2009 meeting the group reviewed a map of the nodes being proposed for use in the CRWAS, and other existing CDSS nodes. The group suggested additional nodes for the CRWAS for purposes of comparing with the NCNA results. The group also recommended areas in the basin they would like additional nodes added for the Colorado basin NCNA.
- At the November 5, 2009 meeting the group discussed how to gather input from local stakeholders for purposes of identifying issues in reaches to be evaluated by WFET that may not be apparent in gage data, and ultimately for evaluating WFET results and . One of the first areas of gathering information from local stakeholders is to develop node maps for each SEO water district that the committee can then use for outreach in each water district. The group also discussed that an initial identification of potential high risk areas should be completed early on in the process and this could help focus where additional local input should be sought as well as to focus where validation and calibration should occur.
- At the November 5, 2009 meeting the group discussed methodologies for establishing risk levels for purposes of WFET analysis. The group decided that the procedure to be used will be to first examine what the literature and science reveal about risk levels and also the validation and calibration efforts before any social component is considered in the process.

Action Items

Action Items from the meetings are as follows:

- The technical team will revise the node mapping based on feedback from the November 5, 2009 meeting and will create maps based on water district.

Path Forward

If the roundtable decides to move forward with the effort the following are recommended next steps:

1. Finalize node mapping and add new CDSS nodes as appropriate
2. Complete initial hydrologic modeling and work with subcommittee to identify specific reaches and areas to focus on initially based on areas where existing nonconsumptive quantification has occurred in the basin (e.g. Upper Fraser, Colorado River from Windy Gap to the Blue River, and Upper Eagle).
3. Complete initial geomorphic sub-classification

4. Determine appropriate metric for winter flow relationship
5. Evaluate possibility of including channel maintenance, and spawning bed cleaning flows in WFET
6. Identify what and where flow-ecology and recreational relationships apply in the basin, including macroinvertebrate
7. Complete riparian flow-ecology relationship workshop and revise relationship as appropriate. Convene an expert panel to evaluate the riparian flow-ecology relationships.
8. Expand team to include recreational experts
9. Complete preliminary risk mapping
10. Schedule and hold required update workshops to gage progress.

After these steps are completed, there would be another meeting with subcommittee to gather feedback before proceeding to further steps. There would be regular conference calls with committee chairs and technical team as this work is completed.

It is essential that work begin and progress be made toward the completion of these goals in order to complete the aims of the WFET project and answer the various questions and concerns raised through the past several meetings and workshops. Therefore, the Subcommittee recommends to the CBRT that work as specified in the Grant proceed as outlined above.