Mary Orton from The Mary Orton Company attended the meeting as facilitator.

Agenda
The group used the following agenda as a guide for the meeting:

1. Welcome: Betty Roppe, Chair
   Desired outcome: Clarity on the deliverables requested from BSWG.

   - Identify what instream flow demands for the Crooked should be included in the proposal. If this is unknown, identify this as a potential subject for the Basin Study.
   - Identify studies needed to assess flow-ecology relationships. (This will inform the instream targets and help us understand benefits of meeting these targets incrementally.)
   - Either identify adaptation and mitigation strategies that would meet future demands for the Crooked that should be analyzed during the Basin Study, or identify what is needed in order for the subgroup to be able to identify those strategies.

2. Check-in: Mary Orton, Facilitator

3. Overview and approval of agenda: Mary
   Desired outcome: Clarity on when the deliverables are due from the subgroup.

   - Letter of Interest, due December 20: deliverables not needed.
   - Proposal, due late February, we think: deliverables might be helpful but not necessary.
   - Scope of Study, due October 2014: deliverables are needed.

4. Review of deliverables as assigned by BSWG
   Desired outcome: Agreement on objectives and deliverables.

   - Are the deliverables above the right ones? Should others be added?
   - Are there other objectives the subgroup wants to consider?

5. Timeframe of deliverables
   Desired outcome: Common understanding of action items; generation of ideas for the next meeting agenda.

   - Action items and parking lot
   - Report to BSWG on December 12
   - Next meeting of the Crooked Subgroup

6. Develop objectives for the subgroup
   Desired outcome: Continuous improvement of meetings and processes.
Welcome
Betty Roppe welcomed the group. She noted that Senator Jeff Merkley would likely introduce Crooked River legislation in the Senate this year. She expressed appreciation for his work.

Background on Basin Study
Steve Johnson provided a brief history of Reclamation’s Basin Study program. He said Reclamation initiated the Water 2025 program for supply and demand forecasting and planning in the 17 western states west of the Mississippi. The program has changed over time and is now named Water Smart. Two years ago, for the first time, funding became available for Basin Studies. The program is very competitive, and the difference between a successful and unsuccessful proposal can be less than one point. The Basin Study has to have four components:

1. Projections of water supply and demand within the basin, including an assessment of risks to the water supply relating to climate change.
2. An analysis of how existing water and power infrastructure and operations will perform in the face of changing water realities, such as population increases and climate change.
3. Development of appropriate adaptation and mitigation strategies to meet future water demands.
4. A trade-off analysis of the strategies identified and findings, and recommendations as appropriate.

Steve said he thought the basin has matured enough to take this step. He said he believed that the Basin Study is the best vehicle that can involve federal and state agencies and other stakeholders, as well as provide funding, to put together a 20-year plan for the basin. The basin will then have a state and federal stamp of approval. If there were sufficient buy-in, consensus would help the basin to obtain funding to implement the resulting plan as well.

He noted that the Basin Study has a 1:1 match requirement. Deschutes Water Alliance (DWA) submitted a proposal in 2004 that was unsuccessful because they did not have enough cash match. This time, the group has matching funds from the state. The focus is above Pelton Round Butte.

He noted that the Letter of Interest (LOI) is due to Reclamation on December 20, 2013. If the LOI is approved, Reclamation will work with the group to develop the proposal. The proposal would be due in late February 2014. Steve said the Deschutes Basin Board of Control would be the applicant because of its ability to sign state and federal contracts and do the proper accounting.

Mike Kasberger announced that his Board approved their participation in the Basin Study process, and asked about the $2,000 assessment from DWA. Steve said that would be a contribution to help with preparation and submission of the Basin Study proposal. The group discussed the relationship between the Basin Study Work Group (BSWG) and the DWA. Steve said that the Basin Study requires broad stakeholder representation and participation, and the DWA did not have a broad enough membership to be successful. Therefore, a new group, BSWG, was formed to work with the Deschutes Basin Board of Control (DBBC) on the LOI and proposal. Suzanne Butterfield is the chair the BSWG. Kate from Deschutes River Conservancy and Adam Sussman from GSI are serving as co-coordinators the group. Mary will facilitate the group. The Deschutes River Conservancy (DRC) is contributing the cost Mary’s contract and process coordination by Kate, and DWA and the DRC are sharing the costs of retaining GSI for technical coordination. The DBBC is the administrative and financial agent for both the BSWG and the DWA.
Mary reviewed the six proposed Subgroups under the Basin Study Work Group. Subgroups are asked to make recommendations to the BSWG, which will make the decisions for the Basin Study process.

- **By reach:**
  1. Deschutes
  2. Crooked
  3. Whychus

- **By sector:**
  4. Instream
  5. Groundwater
  6. Irrigation

The group discussed the pre-proposal process and clarified that they are currently gathering background information necessary and identifying what additional studies are needed for the Basin Study proposal, not completing additional studies. Steve emphasized that the Basin Study will build on all of the prior work done in the Deschutes Basin. It was noted that a database of studies in the basin was created for the Habitat Conservation Plan (HCP) and this should be made available for the Basin Study.

Mary pointed out that the BSWG has not yet resolved all issues related to structure and process, such as membership and decision rule. The group acknowledged that the BSWG would have to consent to language in the LOI and proposal.

**Check-In**

Mary Orton invited group members to state their name and affiliation, why they are interested in participating in the Crooked Subgroup, and what they hope to achieve from the Basin Study.

Betty Roppe, City of Prineville: Betty noted that water is vital to the City of Prineville. She is looking for a unified agreement on what needs to be done for the health and care of the Crooked River.

Mike Britton, North Unit Irrigation District: Mike noted that North Unit Irrigation District diverts water from the Crooked River and is already participating in the North Unit Water Supply Program with the DRC. He is looking for a unified water management plan where every entity obtains the water to meet its needs.

Mike Kasberger, Ochoco Irrigation District: Mike commented that Ochoco Irrigation District diverts water from both the Crooked River and Ochoco Creek. Water is part of the existence and economic viability of individuals throughout the Prineville Valley. He is hoping for a plan that meets everyone’s needs and is implemented.

Steve Johnson, Central Oregon Irrigation District: Steve noted that, although Central Oregon Irrigation District does not divert water from the Crooked River, it does participate in the North Unit Water Supply Program and has both direct and indirect return flows into the Crooked River. He is looking for a clear understanding of how to meet water supply needs with concrete solutions.

Amy Stuart, Oregon Department of Fish and Wildlife (ODFW): Amy commented that the lower Crooked River could be “the last worst place” in the Deschutes Basin. She hopes to reach consensus and move forward with a plan that gets everyone something. Amy also announced that she was retiring from ODFW effective December 1, and would work with the group for the next few months until her replacement is named.

Garry Sanders, Crooked River Watershed Council (CRWC): Garry noted that CRWC works on water quality monitoring and active restoration along the lower Crooked River, and might serve as a technical resource to the BSWG. He hopes that this process will help the CRWC and their partners with water quality monitoring and planning long-term restoration projects.
Eric Klann, City of Prineville: Eric noted that the City is a permit-seeker in the HCP process, that this is a tool that could contribute to the success of anadromous fish reintroduction, and that the City needs water to provide for development. Eric hopes to develop a path forward to meet the above objectives.

Kimberly Priestley, WaterWatch: Kimberly highlighted WaterWatch’s interest in instream flow. She is hoping for an agreement on stream flow targets and volumes, including dry year management planning.

Lisa Morgan, City of Prineville: Lisa is looking for a workable plan that can be implemented to meet our needs, our children’s needs, and our grandchildren’s needs.

Kate Fitzpatrick, Deschutes River Conservancy / Basin Study Work Group: Kate noted that she is here in her role as Basin Study co-coordinator. She is looking to see the Basin Study pull everyone together.

Brett Golden, Deschutes River Conservancy (DRC): Brett represents the DRC’s interests in stream flows in the Crooked River. He is hoping for an implementable plan.

**Agenda**

Mary Orton reviewed the agenda. She noted that, as facilitator, her role is to help with process and not offer substantive suggestions. She also noted that she worked for the whole group, and invited members to let her know if the process is not meeting their needs.

It was suggested that Terrebonne and the Deschutes Valley Water District be included in future meetings of the Groundwater Subgroup. Garry noted that COCC open campus in Prineville has video- and audio-conferencing ability.

**Review of Deliverables**

The group reviewed the application process, the selection criteria, and the proposed deliverables from the Subgroup (see Attachment 1). Kate noted that the Letter of Interest, due December 20, is high level enough that few details are needed. The proposal, which may be due in late February, is a maximum of 20 pages, and so also is fairly high level. If the proposal is accepted, then the group works with Reclamation to put together a plan of study, which would be completed in October. This requires detailed task descriptions and a budget.

**Water Supply and Demand (1b in the Attachment)**

- Irrigation: Current understanding of supply and demand is adequate for the Basin Study proposal.
- Municipal: Current understanding of supply and demand is largely adequate for the Basin Study proposal. The Groundwater Subgroup will address uncertainties related to Terrebonne and Deschutes Valley Water District.
- Instream: Stakeholders have not agreed on instream supply and demand. The completed IFIM studies and instream water rights can provide starting points for instream demands. The Basin Study could do studies to quantify these amounts, or they could discuss among themselves, with help from Mary if needed, to agree what studies are credible. The group discussed the fact that they should be clear that ongoing efforts might change instream demands.

**Flow-Ecology Relationships (1c in the Attachment)**

The group discussed flow-ecology relationships. They agreed that the term referred to how much water was needed, at which location, and at what time of year to meet an ecological need. That is, the term refers to the instream benefits from each increment of stream flow in the Crooked River.
The group noted that the Deschutes Subgroup is relying on the Instream Subgroup to address these questions in the Deschutes River and that the Crooked Subgroup could follow the same approach.

The group agreed that the biggest unanswered questions were: what quantity of water is needed, at what time of year, to receive what ecological benefits. Members made the following comments:

- We need to differentiate between storage and live flow, and identify how future options will relate to legislation.
- Instream flow targets might create gross demands.
- Temperatures are the major water quality monitoring issue. Some return flow issues are also important, for steelhead and perhaps other organisms as well.
- How do we do restoration and flow increases at the same time – when, where, how much?
- It is not just a question of water quantity – we need water for a functioning system.
- Is erosion an issue because of flood control?
- There are many fine scale questions. Beyond organisms, we also need to consider riparian vegetation. Many landowners are fencing, which allows reed canary grass to grow. We might need higher flows certain times of the year for hardwood starts.
- We may need higher flows at this time, lower flows at another time, etc.
- How do flows relate to good functioning condition? What flows are needed for what purpose?
- We need to consider non-district irrigation demands.

Garry noted that this group could work in tandem with Watershed Council and obtain separate funding for complementary efforts that may not fit into the Basin Study. For example, the City of Prineville is moving to wastewater treatment with wetlands. There may be 5-7 cfs of groundwater from wetlands plus restoration at same time. He thought the group could identify similar projects to work on together.

Mitigation/Adaptation Strategies (2c in the Attachment)

The group discussed the need to prioritize actions. They noted that they have developed mitigation and adaptation options through other processes, such as moving the diversion, the McKay switch, and Mike Britton’s options. They just need to agree what they want to recommend to the BSWG.

Steve noted that there would be budgetary limits and a need to prioritize. Kate suggested the group review the strategies at next meeting. Garry suggested coming up with a list of unknowns from the restoration side. He thought there might be some joint interests and others might drop off, or need to be funded elsewhere.

Mike Kasberger said his biggest concern with the CREF study was that there did not appear to be any science on what productivity is in the Crooked today, and what difference 25 or 250 additional cfs would make. He suggested that any proposal for changes, such as more cfs in the river at certain times of the year, needed to be backed up with science and everyone needed to know what benefits would accrue.

Actions

The group agreed to actions before the next meeting as described below.

- Kate Fitzpatrick will refer GSI to Marty Vaughn to obtain the database of prior studies in the Deschutes Basin that his staff compiled for the HCP.
- Lisa Morgan will send a Doodle poll to schedule the next meeting for January 8-9.
- Kate will invite Terrebonne and Deschutes Valley Water District to participate in the Groundwater Subgroup.
Amy Stuart will bring information on instream flow needs to the next meeting (Kate will follow-up with her as she had to leave the meeting early)

Kate Fitzpatrick will contact DEQ and ask them bring their temperature modeling results to the next meeting.

Kate will contact the tribes and ask them to join the group, and bring existing info and/or unresolved questions regarding flow and habitat to the next meeting.

Garry Sanders will summarize the CRWC water quality data and come up with a short list of unresolved questions regarding restoration.

Garry Sanders will send out a list of potential Crooked River Watershed Council goals for the Crooked River.

Kate Fitzpatrick will bring a list of actions that partners have already discussed as mitigation/adaptation strategies to the next meeting.

Eric Klann will provide information on the benefits of the city’s Crooked River Wetlands project to the meeting.

The meeting adjourned.
Attachment 1: Basin Study Proposal – Criteria and Subgroup Deliverables
Updated November 6, 2013

The following table has been updated from the one that was handed out at the Basin Study Work Group meeting of November 1, 2013, in order to clarify the subgroup deliverables. Only the green cells need attention from subgroups at this point in the process.

If a subgroup member feels that mediation or facilitation would be useful, feel free to contact Kate Fitzpatrick (541.382-4077, ext. 18, kate@deschutesriver.org) or Mary Orton (702.210-9642, mary@maryorton.com) to request those services.

<table>
<thead>
<tr>
<th>Proposal Selection Criteria</th>
<th>Decisions To Be Made For Proposal</th>
<th>Proposed to be addressed by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Extent and consequences of existing or anticipated imbalances in water supply and demand.</td>
<td><strong>1a. Deliverable:</strong> The subgroup will agree how the groundwater or mitigation demands should be presented in the proposal. Will it be based on permits filed, or another metric? If the level of demand is unknown, the subgroup should identify this as a potential subject for the Basin Study.</td>
<td>Groundwater Demands Subgroup</td>
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<tr>
<td>1b. Deliverable: The subgroups will agree on what instream flow demands should be included in the proposal, by reach (Deschutes River, Crooked, Whychus). If the level of demand is unknown, the subgroup should identify this as a potential subject for the Basin Study.</td>
<td>DWP, Crooked, Whychus, and Instream Subgroups</td>
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<tr>
<td>1c. Deliverable: Identify studies needed to assess flow-ecology relationships. (This will inform the instream targets and help us understand benefits of meeting these targets incrementally.)</td>
<td>Instream Subgroup will do the initial work, then work with DWPI, Crooked, and Whychus subgroups.</td>
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<tr>
<td>2. Extent to which the proposal describes and provides support for the study proponent’s ability to address the following elements of a basin study within the timeframe required. (25 points)</td>
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<tr>
<td>a) Projections of water supply and demand within the basin</td>
<td><em>Climate change analysis written into Proposal.</em> No subgroup work is needed for this element.</td>
<td>Further discussion needed?</td>
</tr>
<tr>
<td>b) Analysis of how existing water and power infrastructure and operations will perform in the face of changing water realities and climate change…</td>
<td><em>Additional modeling written into Proposal.</em> No subgroup work is needed for this element.</td>
<td>Further discussion needed?</td>
</tr>
<tr>
<td>c) Development of appropriate adaptation and mitigation strategies to meet future demands.</td>
<td><strong>Deliverable:</strong> The subgroup will agree on the DWPI scenarios that will be included in the Proposal, as well as other strategies that might need to be analyzed in the Basin Study.</td>
<td>DWPI Subgroup</td>
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<tr>
<td>Proposal Selection Criteria</td>
<td>Decisions To Be Made For Proposal</td>
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<tr>
<td>Deliverable: The subgroup will either identify adaptation and mitigation strategies that would meet future demands for the Crooked that should be analyzed during the Basin Study, or will identify what is needed in order for the subgroup to be able to identify those strategies.</td>
<td>Crooked Subgroup</td>
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<tr>
<td>Deliverable: The subgroup will identify adaptation and mitigation strategies that would meet future demands for the Whychus that should be analyzed during the Basin Study, as needed.</td>
<td>Whychus Subgroup</td>
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<td>d) Trade-off analysis of strategies identified and findings and recommendations as appropriate, including an analysis of all proposed alternatives in terms of their relative cost, environmental impact, risk, stakeholder response, or other attributes.</td>
<td>Agreement on studies needed for sufficient trade-off analysis will be negotiated with Reclamation, and will depend on the rest of the studies identified above.</td>
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<td>3. Extent to which Federal involvement is needed due to the nature and complexity of the issues involved, and the strength of any nexus between the Basin Study and a Reclamation project or activity. (15 points)</td>
<td>Existing information describing need for Federal involvement is sufficient. No subgroup involvement needed.</td>
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<td>4. Availability and quality of existing data and models, and the ability of the Basin Study partners to assess future imbalances in water supply and demand. (15 points)</td>
<td>Summarize existing information* Identify additional data/model needs that could include:  - Hydrologic modeling  - Climate data/modeling  - Flow-ecology models  - Economic data and models *May be a technical GSI task more than a Subgroup task. Subgroup deliverables identified above may inform GSI identification of additional data/model needs.</td>
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<tr>
<td>5. Level of support for Basin Study and diversity of stakeholders that will be involved. (10 points)</td>
<td>Letters of Support from BSWG partners. No subgroup involvement needed.</td>
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<tr>
<td>6. Extent to which the proposed study will employ an integrated watershed planning and management approach. (5 points)</td>
<td>GSI will draft this part of the proposal. No subgroup needed.</td>
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