

## **Chatfield Reallocation FR/EIS Study Meeting**

**Tetra Tech Conference Room, Lakewood, Colorado**

**Thursday, December 3, 2009: 9:00 am–11:30 am**

### **1) Introductions and General Announcements (Colorado Water Conservation Board [CWCB]):**

- Tom Browning (CWCB) welcomed the group and introduced the agenda. Topics included Study Updates (project management, pending response to EPA letters, seismic analyses, and Real Estate Plan); EIS Discussion Items (Environmental Mitigation Plan, recreation facility modification analyses, socioeconomic analyses, and public involvement), and Wrap-Up.

### **2) Study Updates—Eric Laux (USACE-Omaha):**

#### **a. Project Management**

- i. Summarize Current Budget and Schedule. Status of schedule and budget largely unchanged from last meeting. Focus is currently on completion and review of the Real Estate Plan and Environmental Mitigation Plan. Eric is working on the contract modification to perform the internal technical review (IEPR). PCX has become involved, and the scope of the IEPR is being re-evaluated. An expanded review, if conducted, would include additional reviewers. \$80,000 of ARRA funds had been originally allocated to perform the IEPR; additional needs could be met with ARRA funds or other federal funds. Eric will discuss the scope of the IEPR in a vertical team meeting to evaluate whether a more extensive review than originally anticipated is required.

Eric noted that funding has not yet been allocated for FY10, but is expected during the first part of December. No funds can be allocated for the project through reprogramming until after the FY10 budget is released.

- ii. Other PM updates. Eric Laux will serve temporary duty with the Corps Regulatory/Technical Outreach Program for 6 months beginning in mid-January 2010, but will continue some involvement with the project. Gwen Jarrett will serve as the project manager while Eric is on temporary assignment.

The Corps (Eric and Gwen) and the state will work together to evaluate future funding needs for FY2011.

#### **b. Pending Response to EPA Review Letters**

- The Corps is developing their response to EPA's May 2009 letters regarding the need for a 404 permit, scope of 404(b)(1) analysis, and NEPA requirements. A formal response will be provided to EPA when it is completed.

#### **c. Seismic Analyses**

- i. Geotechnical and "Critical Structure" Considerations. Interpretation of the structural analysis results indicates the intake structure is a critical structure. The intake structure does not appear to represent a dam safety issue, however, because any

potential failure would occur only under an extremely unlikely chain of events. A new report is being prepared to document the seismic analysis and final results, including recommendations concerning the intake structure. Because of critical structure failure considerations, an internal technical review is needed. The IEPR team has been identified and will require about 2 months to complete the review once funding is available. This review will be conducted as a concurrent process and will not affect the timeline to complete the draft FR/EIS.

#### **d. Real Estate Plan and Other Items**

- *Real Estate Plan.* The Real Estate Plan should be completed before the end of December and will require review. The plan will clarify what types of real estate needs are associated with each alternative including easements, rights-of way, location of lands needed for mitigation (including Preble's mouse habitat and enhancements for riparian and migratory birds ownership), and costs. The appraisal process to determine the land values/costs required to perform the incremental cost analysis and estimate mitigation costs has been completed. This information will be incorporated in the Environmental Mitigation Plan.
- *Draft Easement Agreement.* The state has approved the language of the draft conservation easement agreement. There was a discussion among the group members about potential legal issues surrounding easements in general and how the easement for the Chatfield Reallocation project would be held and implemented.
- *Climate Change.* Gene Reetz (ASGD) and Mike Mueller (Sierra Club) expressed concerns about the potential effects of climate change on the Chatfield Reallocation project over the next 50 years. Gene noted that CEQ requires consideration of potential impacts from climate change as part of the NEPA process. Mike suggested including an uncertainty analysis of impacts from climate change associated with the selected alternative (e.g., how might socioeconomic conditions be affected if flows were 5% higher or lower?). Eric said that climate change was included as part of the risk analysis based on conclusions from existing studies and is discussed in the draft FR/EIS. In addition, Chapter 1 will be expanded to address new studies on climate change.

Mike noted that quantitative variability in hydrological regimes caused by climate change is hard to incorporate into an EIS. He pointed out that the 2007 Bureau of Reclamation Colorado River Interim Guidelines for addressing climate change and variability provides operating guidelines for 20 years, but not for a 50-year timeframe. This illustrates the difficulty of predicting impacts long term based on available climate change models. Although climate change is a risk factor to be considered in the FR/EIS, no one can predict conditions 50 years in the future. However, the article does show how new quantitative sensitivity analyses can be used as a resource planning tool for EIS development. A second reference, the Joint Front Range Climate Change Vulnerability Study (CWCB Web site), will examine potential effects of climate change on Colorado watersheds. The study will provide a quantitative estimate of water flow in the South Platte River in 2040 and 2070 versus 1940-1999. Although these results will not be available at the time the draft FR/EIS is completed, this study should be referenced in the report.

Eric noted that no study can pinpoint where risk will occur or characterize its magnitude based on current models, and the project needs to consider that mitigation efforts are subject to uncertainty and risk. However, he believes that the issue is addressed through monitoring and adaptive management.

John Hendrick (Centennial) concluded the discussion with the observation that the Chatfield Reallocation project is still needed to meet water needs, even considering uncertainty over the long-term effects of climate change.

- *WISE (Water, Infrastructure and Supply Efficiency) Partnership*). Gene Reetz brought the WISE Partnership, a cooperative water development project, to the group's attention. Aurora Water, South Metro Water Supply Authority, and Denver Water are developing potential new water supplies from excess system capacities and unused but reusable water sources (e.g., excess capacities in the Aurora Prairie Water and East Cherry Creek Valley projects, and unused reusable water from Denver and Aurora Water). The WISE partnership was showcased at a recent AWRA luncheon (November 24, 2009). Gene wondered whether some captured effluent could be stored in Chatfield Reservoir. John Hendricks stated that the WISE model does not evaluate use of Chatfield Reservoir for storage.

Ann Bonnell (Audubon) wanted to clarify that the downstream restoration project at the South Platte River is not a part of a reallocation study.

- *Bear Creek*. Eric wondered if the group had any interest in evaluating Bear Creek as a potential storage project. Federal funds (\$100,000) could be requested in a future year, such as FY11, to evaluate whether an FS should be conducted. It could benefit the Chatfield Reallocation project to study Bear Creek as a potential storage site. The Corps has some flexibility of funds for Tri Lakes under one authority, and funds allocated for Bear Creek study could enhance the Chatfield project budget. Also, reallocation at Chatfield Reservoir may not seem so unique and complex if a similar project were to be pursued.

### **3) EIS Discussion Items:**

#### **a. Environmental Mitigation Plan (ERO and Tetra Tech)**

- Tetra Tech and ERO are working to review and finalize the Environmental Mitigation Plan. Tetra Tech will prepare the cost effectiveness/incremental cost analysis (CE/ICA) based on the approved Ecosystem Models; details of the incremental cost analysis will be provided in an appendix to the draft FR/EIS. The ERO draft plan contains updated costs of environmental mitigation and real estate costs will be incorporated when available. A very preliminary mitigation cost for the wetlands, Preble's meadow jumping mouse, and migratory birds was estimated at \$66 million. Following preliminary review by the Corps and resolution of comments by ERO, the Environmental Mitigation Plan will be available for review by the group.

**b. Recreation Facility Modification Analyses (Corps, State Parks, and Centennial)**

- i. CTL Geotechnical Investigations. The geotechnical contractor (CTL) indicates that all materials tested are suitable for their intended purpose based on results of borehole drilling and geotechnical testing. Geotechnical investigation results will be incorporated into the Environmental Mitigation Plan and Recreation facility Modification Plan.
- ii. Next Steps. A meeting is planned the week of December 7 to resolve any remaining comments on the Recreation Facility Modification Plan. EDAW, State Parks, ERO, and CWCBC will use the geotechnical study results to finalize the re-grading plan, cut-and-fill details, and delineation of borrow sites. After refinement, the Recreation Facility Modification Plan will be submitted to the Corps for review.

**c. Socioeconomic Analysis (Corps and State Parks)**

- i. UDV Study. The UDV study has been completed and the UDV Analysis report has undergone ATR review. The draft FR/EIS will include a summary of the recreation-economic evaluations (i.e., UDV study and BBC study). Eric Laux noted the need to ensure that the UDV and BBC studies use the same assumptions and are consistent.
- ii. BBC Study and Regional Economic Development (RED) Comments. The comments for the BBC study have been received and responses reviewed. The Corps, State Parks, and BBC discussed via teleconference what information is required by the Corps to support the FR/EIS process going forward and to provide RED numbers and how this information will be extracted and refined from the study. The study will undergo ATR review by the Corps.

**d. Public Involvement (Webb PR)**

- Sarah Oehler (Webb PR) informed the group about flyer distribution. Over 2,066 flyers have been distributed via various means, including over 1,700 at the park gates and information centers, 225 by email, 97 via postal mail, and 45 to the Downtown Denver Trout Unlimited members and Cutthroat Chapter Trout Unlimited board.
- The Web site ([www.chatfieldstudy.org](http://www.chatfieldstudy.org)) experienced an increased number of hits in November (214 unique visitors and 320 total visits). The most viewed pages during this period were those providing information about reallocated reservoir use, FR/EIS process, and proposed alternatives.
- Stakeholder List: Current composition includes 597 general contacts, 100 state legislators, 46 PIOs, and 26 media groups. A total of 66 proactive additions have been reported to date, including 12 from calls to the hotline, 9 from e-mail requests, and 47 contacts via the “Contact Us” form on the Web site.
- Public Outreach Activities. Several public outreach activities are ongoing, including further development of the user group/stakeholder contact list and verification of the contact phone numbers and email addresses for the entire list in preparation for release of the draft FR/EIS. The team also contributed information on public outreach activities to date for inclusion in the draft FR/EIS and provided additional material for Chapter 6 of the draft FR/EIS, Public Involvement. A new PowerPoint

presentation showcasing the study was completed and is under review. When approved, the presentation is intended for use prior to release of the draft FR/EIS.

**4) Wrap-up—Next Meeting Date:**

- Next meeting date: Thursday, January 21, 2010, at 9 am, Tetra Tech conference room on 10th floor (Gary will check on availability of the Conference Room and notify Tom).