

Chatfield Reallocation FR/EIS Study Meeting

Tetra Tech Conference Room, Lakewood, Colorado

Thursday, January 21, 2010: 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, Real Estate Plan, and incremental cost analysis); EIS Discussion Items (Environmental Mitigation Plan, recreation modification analyses, socioeconomic analyses, and public involvement), and Wrap-Up.
- Tom noted that Gwyn Jarrett is now the USACE project manager for the Chatfield Reallocation project while Eric is on 6 month assignment. Tom and Gwyn plan to hold weekly telephone meetings with Tetra Tech by telephone or other means to discuss project status. Eric Laux will participate in finalizing the Environmental Mitigation Plan and continue to provide other technical and project management support as needed.
- Tom announced that a CWCB board meeting would be held on January 26 at 1:00 pm at the DTC Hilton Garden Inn.
- The February 2009 draft FR/EIS was provided under a Freedom of Information Act request to an unidentified party. The request was made late November/early December 2009.

2) Study Updates—Eric Laux and Gwyn Jarrett (USACE-Omaha):

a. Project Management

- i. Summarize Current Budget and Schedule. The Corps is focusing on completing and reviewing the Real Estate Plan and Comprehensive Environmental Mitigation Plan (CMP) and finalizing the overall budget. Eric and Gwyn are working on the scope modification and funding to perform the independent external peer review (IEPR) and required Corps reviews of the draft FR/EIS document. The Corps is working with Tom to finalize the SACCR as soon as possible. Reprogramming needs to be considered at this time, including determining the amount of funds that are required and potential source projects.

Tony Truschel (Tetra Tech) provided the group with a preliminary schedule for the project through April 1, 2010. The goal is to produce a revised draft FR/EIS for USACE HQ review by April 1. Eric said that the main issues to conclude are the Environmental Mitigation Plan and the Real Estate Plan, and these plans will be the focus of the HQ review. Eric will work with HQ to determine the specific contents of the review package he will submit. The water user group will review and provide input to the revised draft FR/EIS document to be presented to USACE HQ. Comments and revisions made to the Real Estate Plan, CMP, and draft FR/EIS in the near term will be captured using track changes where practical to aid review by the water user group. A May 2010 date for public review of the draft FR/EIS seems realistic.

ii. Other PM updates.

- Bear Creek was discussed as a potential reallocation/storage project that could positively affect the reallocation project at Chatfield Reservoir. The reallocation at Chatfield Reservoir may not seem so unique and complex if a similar project were to be pursued at a site such as Bear Creek. The Corps has some flexibility of funds for Tri-Lakes under one authority, and \$100,000 of federal funds could be requested in a future year, such as FY11, to evaluate whether an FS should be conducted at Bear Creek. Funds allocated for a Bear Creek study could be redirected to the Chatfield project budget through reprogramming if the need occurred.
- David Howlett (Capitol Representatives) reminded the group that the planned trip to Washington, DC, is planned for March 2 through 4, 2010. The schedule and agenda will be similar to that followed during previous trips and a read-ahead will be available from Tom and Gwen. The purpose of the meeting is to meet with members of Congress to reinforce the need for Denver Metro area water supply solutions, meet with the USACE (including Assistant Secretary of the Army, Civil Works), and discuss the importance of the storage reallocation project, timeline, and funding mechanisms.

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. Eric and Gwyn put together an information package for USACE addressing the 404(b)(1) requirements and how they are met by the P&Gs. The Corps has received guidance from USACE Div on how to proceed with meeting the CWA specific to the Chatfield Reallocation project and a formal decision should be made within the next few weeks. Eric stated this is a significant issue that needs to be addressed before the draft is released for public review.
- Meetings between the Department of Natural Resources and EPA have been held recently to discuss several issues on the project level, and have proved helpful to increase inter-agency understanding of needs and communication.

c. Seismic Analyses

- i. Geotechnical and "Critical Structure" Considerations. Preliminary interpretation of the structural analysis indicated the intake structure was potentially a critical structure. However, upon reanalysis the intake structure does not appear to represent a dam safety issue and a new report was prepared to document the final seismic study results. Because of the preliminary critical structure failure considerations, an ATR review is needed. The review will require about 2 months to complete. 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

- *Real Estate Plan.* The ATR review of the Real Estate Plan should begin next week. In addition to the ATR review, Eric plans for a review of the Real Estate Plan and CMP by appropriate technical experts to ensure consistency between the two plans.

Vicky French (Corps) has been identified to perform the review of the CMP and Steve Dougherty (ERO) will perform the reciprocal review of the Real Estate Plan. John Hendrick (Centennial) asked Eric to explain how the Real Estate Plan would be used to implement the project mitigation measures. Eric responded that the Real Estate Plan is a guide that clarifies 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. As part of the Real Estate Plan an appraisal process was completed to determine the land values/costs required to perform the incremental cost analysis and estimate mitigation costs. This information must be incorporated into the CMP. Comments on the Real Estate Plan and CMP will be made available to the water user group.

e. Incremental Cost Analysis (Tetra Tech and Corps)

- Gary Drendel (Tetra Tech) updated the group as to the status of the cost effectiveness/incremental cost analysis (CE/ICA). Chuck Hillerson (Tetra Tech) is leading this effort and has received the data needed from the CMP and ERO to run models. Chuck uses Corps-approved models and has produced an outline to ensure the CE/ICA will meet all Corps requirements. An internal draft will be ready for Corps review in about 2 weeks. Eric will work with the ATR reviewer in Kansas City to answer questions concerning the CE/ICA and how these results are incorporated into the CMP.

f. Other Items

- *Restructure Screening of Alternatives.* In response to the Policy Guidance Memorandum (PGM) the draft FR/EIS is being revised to add detail concerning other alternatives that were considered in addition to the four EIS alternatives. The intent is to show that all possible alternatives were considered in the FR/EIS by identifying these other alternatives explicitly and demonstrating the screening process that led to their subsequent elimination from consideration. The 2004 Statewide Water Supply Initiative (SWSI) implemented by the CWCB will be used as one source to identify other alternatives to be included in the discussion. The revised text in Chapter 2 will provide a more thorough discussion of the screening process as applicable. John Hendricks noted that no other water project can duplicate the water supply capacity that will be provided by the Chatfield Reallocation project but that the FR/EIS needs to clearly show this.
- *CEQ Revision.* Mike Mueller (Sierra Club) reported that the Council on Environmental Quality (CEQ) is in the process of revising their 1983 Principles and Standards (P&S). The draft is scheduled to go to the National Academy of Sciences in December for review. The new P&S will be binding on all federal agencies that address water policy. The new P&S contains language that if adopted would require all water projects to perform a quantitative analysis of risks from climate change. Eric noted that the new CEQ requirements would not affect the current project at Chatfield Reservoir.
- *Model Review Report.* Eric will compile a model review report for the PCX to document that the environmental models had been reviewed and approved. The

environmental model review process, comment resolution, and approval will be documented in the draft FR/EIS.

- *Proposed Revision to Designation of Preble's Mouse Critical Habitat.* The USFWS is proposing to revise the critical habitat designation for the Preble's meadow jumping mouse in Colorado, and the resulting Federal Register notice describes Plum Creek as new potential critical habitat. Critical mouse habitat currently available for mitigation purposes in the Chatfield area is limited and designation of new critical habitat along Plum Creek could enhance the project's ability to provide beneficial connectivity and buffer areas for this endangered species. The project is required to address habitat losses within the defined critical habitat zone, however, and USFWS policy does not allow use of lands not already designated as critical habitat. Because the Plum Creek critical habitat has been proposed, it has been included in the CMP as a possible outcome. The CMP will describe actions that could be taken if the proposed critical habitat designation is adopted in the future.
- *Downstream Damages.* Eric reiterated that there are no downstream damages related to implementation of the Chatfield Reallocation project. Hydraulic/hydrologic modeling results showed that the hydrology downstream is unchanged. Any comments on downstream damages stemming from the ATR or IEPR review will be addressed based on the hydraulic/hydrologic models and Corps technical experts.

3) EIS Discussion Items:

a. Environmental Mitigation Plan (ERO and Tetra Tech)

- *Status.* The Corps and Tetra Tech are finalizing review of the CMP. Tetra Tech is preparing the CE/ICA based on the CMP mitigation projects; details of the ICA will be included in the CMP, and the CMP will be an appendix to the draft FR/EIS. The ERO draft plan contains updated costs of environmental mitigation and real estate costs; these two plans will undergo reciprocal reviews to ensure internal consistency. Following preliminary review by the Corps and resolution of comments by ERO, the CMP will be available for review by the group.
- *Water Rights.* Gene Reetz (Audubon Society) asked whether water rights sufficient to maintain wetlands and associated habitat are addressed in the CMP. Steve Dougherty (ERO) responded that the CMP assumes no additional water rights are required, although a brief discussion is currently included in the CMP. Onsite mitigation specifies performance of water level tracking in numerous monitoring wells that will document any water level fluctuations that occur. The water level data from this monitoring well network can be used to design structures to respond to any fluctuations. Gene stated that it is necessary to understand the hydrologic regime to ensure that the implemented mitigations are successful. Eric responded that the project will use proven technology to monitor water levels, and that the large body of water within the reservoir will contribute to the alluvial water table. This should ensure fairly consistent hydrological conditions within Chatfield State Park.
- *Preble's Mouse Critical Habitat.* Mitigation of critical habitat for Preble's jumping mouse can only occur within the same critical habitat unit, such as within Pike National Forest. Steve Dougherty (ERO) conducted field work in the Preble's mouse critical habitat unit on the South Platte and met with the USFWS, the US Forest

Service, and Tetra Tech to present results and propose potential mitigation strategies within the South Platte area. Sugar Creek in Douglas County was proposed as the main potential mitigation area in this critical habitat unit. A 4-mile reach of critical habitat is being significantly affected by sediment associated with the highway next to the creek and road maintenance. Sugar Creek has been affected by sedimentation linked to unpaved road conditions and road maintenance since the 1980s. The US Forest Service indicates that every year Douglas County road maintenance crews apply new road base, which gets washed into the adjacent stream segments. The creek cannot clear out influent sediment and some critical habitat has disappeared as a result. A sealed asphalt pavement has been proposed for the road along some reaches of the creek. Only a small proportion of the road crosses private property, so new development is not likely.

A study of Sugar Creek conducted by CH2M Hill identified potential improvements (primarily sediment/erosion control) on Sugar Creek that could benefit critical mouse habitat (sponsors include Douglas County, US Forest Service, South Platte Enhancement Board, and Trout Unlimited). Potential improvements include more actions than just paving road surfaces, such as installing sediment traps, removing sediment, redoing culverts, creating additional beneficial habitat for the mouse at selected pullouts, and changing the tilt of the road to drain away from the creek. The plan is under review but funding issues are significant. Eric noted that Douglas County has a Conservation Management Plan that takes into account losses due to road maintenance and paving practices, and may not have to make any changes to address the sedimentation issues along Sugar Creek as these are not federal actions. It was noted that the action of removing sediment from the creek could in itself cause damage to critical habitat.

The Chatfield project's mitigation strategy could potentially be integrated with improvement plans along Sugar Creek to benefit the mouse. The US Forest Service, Douglas County, and the Chatfield partners could pursue a memorandum of agreement to prevent additional sediment from entering the creek which could allow the creek to clear itself over time.

- *Scientific Studies of the Effects of Sedimentation on Critical Mouse Habitat.* Ann Bonnell (Audubon Society) questioned whether research on adverse affects to the Preble's mouse from excess sediment in streams, such as is occurring at Sugar Creek, had been conducted. Douglas County does not know of any research concerning effects from sedimentation on Preble's mouse habitat, but biologists have observed loss of habitat in wetland/riparian to upland environments that appear connected to sedimentation. Mike Mueller (Sierra Club) has heard that there were a number of sediment studies conducted at Dillon Dam and Reservoir that could possibly provide insight about potential affects of sedimentation on the Preble's mouse and critical habitat at Sugar Creek.
- *Biological Assessment/Biological Opinion.* Tetra Tech is completing the draft BA. It will include the SPWRAP BA that will address central Platte River species. The BA will be included in the draft FR/EIS. Pete Plage (USFWS) will prepare a biological opinion (BO) based on the BA; the BO will be prepared after the Public Draft is released and will not affect the schedule of the Public Draft.

- *Tree Removal.* The project needs to decide whether trees should be cleared prior to inundation and to what elevation the clearance should be conducted. Clearing trees would leave no debris in the flood pool that could cause water quality problems in the reservoir. Based on model results for the expected duration of inundations, number of inundations, and tolerance of cottonwoods to inundation, it is anticipated that the majority of trees would be killed up to an elevation of 5,439-5,440 ft. Costs to remove the trees are being evaluated. The Colorado State Forest Service visited the site in December and determined that a contractor would be needed because of the size of the job. The Colorado State Forest Service is too busy to remove the trees, so an independent contractor will need to be hired, perhaps one that has experience with large jobs. Disposal of the biomass will also be necessary. The Colorado State Forest Service believes that a market for cut cottonwood does not currently exist and so potential cost-offsets from this source are not feasible. Kent Wiley stated that tree removal should be part of the adaptive management plan for the project. It may be desirable to leave as many trees as possible in case some trees are not killed by inundation, and drowned trees could provide potential habitat. However, floating trees could damage the dam and stumps are hazards to boats and trees would need to be removed to the roots. He thought that chipping could help save money over hauling trees from the site. To be conservative, the impacts analysis in the FR/EIS and the CMP assumed that trees up to an elevation of 5,444 ft would be killed and the project would mitigate based on the maximum expected impact to wetlands, bird habitat, and Preble's mouse critical habitat to compensate for losses. The cost estimate for tree removal should be available by mid February and the tree removal action will be incorporated into the FR/EIS or CMP.

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

- i. A meeting was held in December 2009 to resolve remaining comments on the Recreation Facility Modification Plan. EDAW, State Parks, ERO, and CWCB have finalized the re-grading plan, cut-and-fill details, and delineation of borrow sites. The Recreation Facility Modification Plan was reviewed by State Parks and comments have been submitted and incorporated. The new version includes Geotechnical Study results, utility placement, and haul road construction and is ready for review by USACE HQ and the water user group. The Recreational Facility Modification analysis results will be incorporated into the Environmental Mitigation Plan and Recreation facility Modification Plan.

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.* The updated scope for the revised BBC study has been prepared and the purchase order for the additional work will be awarded within 90 days. At that point the Phase 2 work efforts could begin. The additional scope of work was needed by the Corps to provide data to evaluate regional economic development and show how operations at Chatfield State Park will be affected by the reallocation project. The updated BBC study will undergo ATR review by the Corps. Tetra Tech will need to incorporate into the FR/EIS the conclusions of the revised BBC study.

d. Public Involvement (Webb PR)

- Sarah Oehler (Webb PR) prepared a memo to provide the public outreach update. Eighty-five additional flyers were distributed to the Visitors Center and States Parks office during December 2009.
- The memo now includes a chart that shows the monthly history of web activity since January 2009. In December 2009 the Web site (www.chatfieldstudy.org) experienced 159 unique visitors and 2,396 total visits. The most viewed pages during this period were those providing information about current reservoir use, reallocated reservoir use, and contact information.
- Stakeholder List: Current composition includes 599 general contacts. A total of 68 proactive additions have been reported to date, including 12 from calls to the hotline, 9 from e-mail requests, and 49 contacts via the “Contact Us” form on the Web site.

4) Wrap-up—Next Meeting Date:

- Next meeting date: Thursday, March 11, 2010, at 9 am, Tetra Tech conference room on 10th floor (Gary will check on availability of the Conference Room and notify Tom).