

**Peabody Trout Creek Reservoir Project**  
**Proposed Study Plan Meeting**  
**February 12, 2013, 9:00 a.m.**  
**URS Corporation, 8181 East Tufts Avenue, Denver, CO, 80237, 4 Main Conference Room**

**Meeting/\*Call Participants (Listed Alphabetically by First Name)**

*Billy Atkinson, Colorado Parks and Wildlife (CPW)	Clint Henke, ERO Resources Corporation (ERO)
*Danielle Domson, CPW	David Jones, URS Corporation (URS)
*Frank Winchell, Federal Energy Regulatory Commission (FERC)	David Merritt, URS
*Jacob Davidson, CPW	Don Conklin, GEI Consultants Inc. (GEI)
*Jennifer Adams, FERC	Gordon Tucker, URS
*Jim Haskins, CPW	Hal Schlicht, NWCC
*Lesley McWhirter, U.S. Army Corps of Engineers, Colorado West Regulatory Branch (Corps)	Heather Thompson, Ecological Resource Consultants, Inc. (ERC)
*Liza Rossi, CPW	Jean Marie Boyer, Hydros Consulting (Hydros)
*Steve Moore, Corps	Jody Glennon, URS
Andrew Todd, U.S. Geological Survey (USGS)	John Hausman, URS
Becky Anthony, Colorado Department of Public Health and Environment (CDPHE)	Kent Sandstedt, Creek Ranch
Bill Caile, Holland & Hart (H&H)	Kevin Young, Young Energy Services (YES)
Bill Chace, Creek Ranch	Matt Buhyoff, FERC
Billy Bunch, U.S. Environmental Protection Agency (EPA)	Matt Rice, American Rivers
Brian Len, Northwest Colorado Consultants, Inc. (NWCC)	Melanie Wasco, EPA
Brian Yansen, Peabody Trout Creek Reservoir LLC (PTCR)	Michelle Garrison, Colorado Water Conservation Board (CWCB)
	Sandi Snodgrass, H&H
	Sarah Fowler, EPA
	Sarah Wheeler, CDPHE
	Shana Murray, FERC
	Taylor Adams, Hydros
	Troy Thompson, ERC

**Meeting Handouts**

- Agenda
- Integrated Licensing Process (ILP) Schematic
- Proposed Study Plan, January 18, 2013
- Proposed Study Plan Meeting Presentation, February 12, 2013

## **Introductions and Meeting Overview**

David Merritt/URS (PTCR's environmental consultant for the Peabody Trout Creek Reservoir Project [Project]) opened the meeting by welcoming the meeting attendees and web connect/conference call participants. Introductions were made.

The Project website (<http://peabodytroutcreekreservoir.com>) was accessed and stakeholders were encouraged to visit the Project website for timely updates on the Project and to review and download meeting and Project materials.

## **Project Update**

Brian Yansen/PTCR provided a brief overview of the Project including the proposed site and status of the Project.

## **Process Update**

Shana Murray/FERC, the Project Coordinator assigned to the Project, provided an overview of FERC's ILP and reviewed the study plan development timeline.

## **Questions/Comments from the Corps**

Lesley McWhirter and Steve Moore/Corps led a discussion of questions/comments from the Corps on PTCR's Proposed Study Plan and Application for Preliminary Permit.

*Note: Bill Caile/H&H (PTCR's legal counsel) responded to the Corps' inquiries unless otherwise noted.*

Corps: Please define and clarify the basic or fundamental need for this Project.

- There is a need for a year-round water supply to meet augmentation requirements and water demands for mining by 2016.
- The need is for year-round water supply that is physically available to: (A) implement the Twentymile Mine augmentation plan (decreed in Case Nos. W-1502-78 and 90CW99, Water Division 6); (B) provide firm yield water supply for mining and coal processing operations and post-mining land uses at Twentymile Mine; and (C) supply Peabody Twentymile Sage Creek Mine and other future Peabody mining operations in Routt and Moffat counties.
- The hydropower need is ancillary to the other fundamental purposes, but is integral to the Project.
- The purpose of the proposed studies is to assess the effects of the Proposed Action on the environment at the current site.
  - The Corps indicated they would like to target one Purpose and Need statement that would satisfy FERC and the Corps and Mr. Caile acknowledged that.

Corps: Discuss the rationale for processing an Environmental Impact Statement (EIS).

- FERC determined that an EIS was appropriate and PTCR agrees. PTCR plans to prepare an EIS that will satisfy both FERC's and the Corps' National Environmental Policy Act (NEPA) analysis.

Corps: Discuss the timeline and processing of a Corps Department of the Army permit application.

- David Merritt/URS acknowledged that the schedule appearing in the Proposed Study Plan and on the Project website contained a mistake. Dave committed to amending the schedule to better reflect the reality of the permitting process for both FERC and the Corps. As this Project proceeds, PTCR will maintain close coordination with the Corps so that the two processes (i.e., FERC's and the Corps') merge as seamlessly as possible.

Corps: An Alternative Analysis will be critical to your Project and needs to be discussed early in the planning process. [Note: Our 404(b)(1) guidelines require that we examine other sites and methods for meeting Project need that may have less impact on the aquatic environment. An alternative analysis must be prepared for each separate Project need (if multiple needs are appropriate) and thoroughly evaluated to select the Least Environmentally Damaging Practicable Alternative (LEDPA).]

- PTCR acknowledges this and will follow the NEPA process as required by law.

Sarah Wheeler/EPA: Why is PTCR conducting studies on the current proposed site when it may not be the LEDPA?

- Sandi Snodgrass/H&H: PTCR is satisfying FERC's (as the lead agency) process.

Sarah Wheeler/EPA: Indicated she has witnessed projects like Trout Creek getting a FERC permit and then proceeding down the Corps' permit process. Wished to note that PTCR assumes risk by going down the FERC track initially instead of the Corps' permit process initially as the Corps may identify an alternative site as the LEDPA.

Corps: How will water from the proposed reservoir be delivered to various coal mining operations?

- The uses of the water from the proposed reservoir will be downstream – which is why PTCR was strategic with its selection of the Project site. Water will be delivered primarily through existing water courses. It is understood that the Corps' analysis will include analysis of all Project structures.

Corps: The Corps would like to clarify that whether a hydro license is issued by FERC would not preclude the Corps' analysis.

Sarah Wheeler/EPA: EPA recently went through a similar licensing process for Hunter Reservoir (i.e., the U.S. Forest Service looked at the Special Use Permit only and no other agency-specific needs). That project was later elevated to the Corps and it was determined that an alternate site was the least

environmentally damaging site. Ms. Wheeler expressed concern about PTCR going through and satisfying the FERC process only to potentially have the Corps identify an alternate site.

- Shana Murray/FERC indicated that was a risk PTCR would assume. Ms. Murray also indicated that several of the items noted on the Corps' presentation slides were items that warranted an off-line conversation between FERC and the Corps.

Corps: What is the proposed end-use for the electrical power generated by the hydropower station, and how and to where will that power be distributed?

- David Merritt/URS indicated the power would be fed into the grid via the Yampa Valley Electric Association proximal to the proposed dam site.

Corps: Inquired as to whether the power would be sold back to the grid to Xcel for residential use.

- David Merritt/URS explained the power would not be sold back direct to residential properties – residents would receive power direct from the grid.

Corps: It appears that both the State of Colorado and the Bureau of Land Management (BLM) administer real estate which will be directly impacted by the proposed Project. Please describe the involvement of these agencies and their anticipated role in the licensing/permitting process.

- Only private and BLM lands existed in the Project area. Land owned by the state resides outside of the Project boundary.

Corps: Has PTCR provided BLM notification of the proposed Project?

- Jody Glennon/URS confirmed that BLM has been included on all Project correspondence to date.

Corps: We understand that a revised wetland delineation for the Project area will be submitted to us for verification in the summer of 2013, possibly in August. This delineation should incorporate a FACWet analysis as well as the previous recommendations made by Mr. Nathan Green of our office.

- Clint Henke/ERO confirmed the Corps' statement was correct and that the boundary for the wetland delineation will match the cultural resources Area of Potential Effects (APE) for direct effects.

Corps: It should be noted that any alternate Project sites identified in the future as part of the EIS analysis will have to be delineated. We request that your wetland consultant coordinate with us to schedule a site visit once this new delineation report is finalized and the wetland boundaries flagged in accordance with the *Minimum Standards* and the *Final Map and Drawing Standards for the South Pacific Division Regulatory Program*. As discussed in the past, you also need to be aware that alternative Project sites may require jurisdictional delineations to fully analyze each alternative's potential aquatic impacts (again, for alternative analysis comparison).

- Clint Henke/ERO confirmed PTCR understands this.

### **Proposed Study Plan Overview**

David Merritt/URS provided an overview of the resource studies included in the Proposed Study Plan. Following that overview, the respective resource specialists presented a broad synopsis of their studies as described below.

#### ***Geotechnical Investigation -- Brian Len/Hal Schlicht, NWCC***

- NWCC will coordinate with FERC on the specifics of the geotechnical study, being sure to address underground mining concerns, landslide potential, locations of test pits, etc.
- It should be noted that the photos contained on the slides for this study show a more severe embankment than what actually exists due to the pictures getting compacted for purposes of the meeting presentation.
- The final alignment of the dam is based on the water right decree.
- It should be noted that FERC will have authority over reservoir operations “forever.”

#### ***Existing Channel Conditions and Sediment Supply Study -- Troy Thompson, ERC***

- Matt Buyhoff/FERC requested that the language for this study be modified to better explain the proposed methodology so that it is clear that the study will be based on more than a desktop review of existing data. FERC also requested that PTCR describe the relationship of downcutting and deposition while considering transport capacity.

#### ***Channel Morphology -- Troy Thompson, ERC***

- Bill Chace/Creek Ranch stated the Pre-Application Document (PAD) acknowledged the streambed was armoring and that there was a good deal of horizontal migration potential. Mr. Chace requested that PTCR make recommendations for channel modifications in the report for this study, if appropriate. Mr. Chace also expressed concern over the level of accuracy of the model proposed for this report.
  - Mr. Thompson/ERC acknowledged the level of accuracy wasn't always great with the models and that to account for that, the variability of the model would be assessed. Mr. Thompson also confirmed for Mr. Chace that the model would be run with and without the proposed dam to properly assess changes with the dam.

#### ***Review and Analysis of the Results from Groundwater Monitoring Wells -- Clint Henke, ERO***

- The groundwater data collected from October 2011 to October 2012 is being analyzed now and is expected to be available within the next month.
- Groundwater monitoring could continue for an additional year, if needed, and will depend on what the Corps requests.

- Sarah Wheeler/EPA emphasized that the EIS analysis would need to consider direct, indirect, and cumulative effects.
  - Clint Henke/ERO confirmed the wetland delineation would be discussed later and that the delineation would extend downstream to assess indirect and cumulative effects.
- According to the PAD, there are approximately 73 acres of wetlands in the Project site and the Project would fill or inundate 2.2 miles of Trout Creek and 2.6 miles of Middle Creek.

***Hydrology and Stream Flow Assessment -- Heather Thompson, ERC***

- Need to coordinate efforts to gather channel cross-section data on Trout Creek below the proposed reservoir. Cross-section data is needed for water quality, geomorphology, aquatics, and possibly riparian habitat.
- Need to be sure that the Colorado Decision Support System (CDSS) Model provides data where the resource specialists will need it below the reservoir. ERC can provide flow data below the reservoir, below the confluence with Fish Creek, and at the confluence with the Yampa River. Since it is only six miles to the confluence with the Yampa River and there is not much going on in terms of diversions and tributary inflows other than Fish Creek, PTCR believes that seems sufficient but will have its resource specialists and appropriate agencies/stakeholders confirm that.
- It was noted that ERO would like stage data for the riparian study. ERC can develop stage data based on the stage-discharge relationship for the gage that Twentymile is operating. Beyond that, ERC will not have stage data for other locations below the dam.
- On the Yampa River, ERC will provide flow data below the confluence with Yampa River and Trout Creek, flow data below the proposed diversion near Sage Creek, and any other node in the Model on the mainstem downstream of the Twentymile diversion.
- Need to provide the Section, Township and Range of the proposed diversion near Sage Creek. The only location ERC can provide stage data is at the Yampa River below Hayden 09244410 gage, since that is the only location where ERC knows a stage-discharge relationship exists.
- Brian Yansen/PTCR mentioned that the gage Twentymile is operating is 200 feet below the proposed dam, which is below the confluence with Middle Creek, and someone mentioned another gage on Creek Ranch property that is further upstream.
- Michelle Garrison/CWCB spoke regarding the calibration of the CDSS model and indicated the model is run backwards and forward to calibrate gages for it.

***Cumulative Hydrologic Effects Analysis of the Proposed Trout Creek Reservoir and Related Diversions on Flows in the Yampa River -- Heather Thompson, ERC***

- The 2009 CDSS Model will be utilized for this study; ERC and URS will work with the CWCB to add any new projects coming on-line to it.

***Ongoing Temperature and Dissolved Oxygen Monitoring of Trout Creek -- David Merritt, URS and Peabody/Twenty Mile Mine***

- Sarah Wheeler/EPA had a question regarding depletions and David Merritt/URS clarified that depletions reflect all consumptive uses of the Project, including evaporation.
- Becky Anthony/CDPHE clarified that CDPHE's standards are dissolved. David Merritt/URS confirmed PTCR would convert its reporting to reflect total recoverable, and would request reporting in that format from ACZ Laboratory, the laboratory that does the analysis.
- Matt Buhyoff/FERC would like PTCR to specify the number of Hobos that will be deployed and describe the specific locations of where those will be located as part of its revisions to the Proposed Study Plan.

***Water Quality Monitoring and Modeling (AKA Hydrology Assessment and Reservoir Operations Model) -- Jean Marie Boyer and Taylor Adams, Hydros***

[Note: At Joe Hassell's/FERC's request on February 25, 2013, this study was re-named "Stream and Reservoir Water Quality Modeling."]

- Private property access could be an issue – will coordinate closely with PTCR to work to obtain access.
- A caller inquired as to PTCR's position on the proposed outlet structures; David Merritt/URS clarified that the location of the outlet structures on the preliminary drawings are exactly that, preliminary locations, and can and will be modified following the results of the stream and reservoir water quality model to place them in the most beneficial locations to manage water quality both in the reservoir and downstream.

***Flow/Habitat Effects Evaluation on Existing Fishery Resources in Trout Creek and the Yampa River -- Don Conklin, GEI***

- Bill Chace/Creek Ranch mentioned he would share a report from Bowen for PTCR to take a look at to see if any updates are required to this study based on that review.
- Matt Buhyoff/FERC would like PTCR to do consultation to see if the single PHABSIM site is sufficient or if additional sites should be added.

- Michelle Garrison/CWCB advised PTCR to do consultation with the U.S. Fish and Wildlife Service (USFWS) regarding non-native species and which Endangered Species Act species may utilize tributary habitat.
- Billy Atkinson/CPW requested that PTCR consider additional macroinvertebrate studies downstream for inclusion with the reporting for this study.

***Fish Species and Longitudinal Habitat Utilization Study -- Don Conklin, GEI***

- No comments or questions were received on this study.

***Fish Entrainment Study -- Don Conklin, GEI***

- Billy Atkinson/CPW requested that the proposed study elaborate on whitefish migration and their status in the basin and potential impacts from the Project on spawn runs. Mr. Atkinson also requested that PTCR consider screening outflows on the dam so that the ability to drain the reservoir exists – Mr. Atkinson stated that should be included in the Fishery Management Plan.

***Whirling Disease Study -- Don Conklin, GEI***

- Bill Chace/Creek Ranch indicated the proposed resource studies, including this one, may need to consider reaches more upstream to Creek Ranch.
- Billy Atkinson/CPW requested that the proposed methodology for this study be revised to reflect sampling points further upstream than what is currently noted. Mr. Atkinson also indicated worms typically do not get infected in waters with temperatures greater than 20 degrees Celsius and requested that PTCR consider future thermal changes on worm habitat due to the proposed Project.

***Migratory Bird and Raptor Survey -- Clint Henke, ERO***

- PTCR will follow-up with CPW in regards to their request for a map showing the final study area boundaries for ERO's resources. That map will be included as an exhibit in the revised Proposed Study Plan.
- ERO's wildlife biologist recommended a 0.25-mile buffer around the reservoir footprint for the migratory bird and raptor survey – ERO is seeking concurrence from CPW on that buffer for PTCR.
- CPW confirmed their understanding that PTCR is not proposing any wildlife surveys as part of its Proposed Study Plan. ERO and URS previously discussed this topic and agree that an additional study on wildlife/wildlife corridors is not justified. A copy of the current County List will be included in the revised study plan as an exhibit.



***Downstream Riparian, Wetlands, and Littoral Habitat Study -- Clint Henke, ERO***

- No comments or questions were received on this study.

***Wetland Delineation for Entire Project Area -- Clint Henke, ERO***

- The Corps indicated earlier in the meeting their understanding that a revised wetland delineation for the Project will be submitted to the Corps for verification in the summer of 2013. Clint Henke/ERO confirmed that statement was correct and that the boundary for the delineation will match the cultural resources APE for direct effects.

***Noxious Weed Survey -- Peabody/Twentymile Mine***

- Bill Chace/Creek Ranch indicated his concern over canary grass, a grass that is common in the Project area, and requested that it be included in PTCR's surveys and future monitoring.

***Transportation System Assessment -- John Hausman, URS***

- No comments or questions were received on this study.

***Recreation Study -- Kevin Young, YES***

- Shana Murray/FERC expressed concern over this study indicating she was the assigned Recreation Planner for the Project. Ms. Murray questioned how PTCR would measure existing use. Ms. Murray stressed that part of FERC's regulations require public access.
- A caller stated that public access to the proposed Trout Creek Reservoir would have to be limited and addressed in coordination with CPW due to the zebra mussel situation in Colorado.
- Bill Chace/Creek Ranch expressed his concern over the notion of public access to Trout Creek, stressing that such access would encourage illegal stocking of the reservoir.
- Matt Rice/American Rivers stressed the need for a recreation study so that opportunities to enhance public access could be considered along with what benefits would result from recreation, like who would benefit from a tailwater fishery.

***Class III (Intensive Pedestrian) Cultural Resources Survey -- Gordon Tucker, URS***

- The APE for indirect effects considered visual impacts since those would be considered long-term and permanent; auditory and atmospheric impacts were not included in that APE as those are considered temporary and tied to a one-time event (i.e., Project construction).
- Frank Winchell/FERC requested that PTCR clarify how the APEs for the various other studies previously conducted in the Project area compare to PTCR's Project APE for direct effects – PTCR needs to distinguish between the APEs of those studies and its current APE. Mr. Winchell also requested that PTCR re-arrange/better tie in the discussion of the APE throughout this study

write-up. Mr. Winchell further requested the existing maps in the Proposed Study Plan be updated to illustrate the historical APEs and current Project APE.

- Frank Winchell/FERC encouraged PTCR to involve the SHPO, FERC, tribes, and BLM on calls/subset meetings for cultural resources. Mr. Winchell stressed that any tribe-to-tribe consultation would only be done by FERC, never the Applicant.
- Frank Winchell/FERC indicated the Advisory Council on Historic Preservation typically does not participate in FERC's process. Mr. Winchell requested that PTCR coordinate directly with him to get the correct process language in the revised Proposed Study Plan. Mr. Winchell also clarified that the Commission does not consult...PTCR does, and that the language in the study should be updated to reflect this.
- Frank Winchell/FERC stressed that FERC utilizes a Programmatic Agreement (PA), not a Memorandum of Agreement (MOA), and that this needed to be updated in the revised Proposed Study Plan.
  - Sandi Snodgrass/H&H clarified then that FERC utilizes MOA and PA interchangeably and Mr. Winchell concurred.

### **Overview of Discussions**

Shana Murray/FERC, inquired about the path forward and suggested that PTCR notify agencies and stakeholders of the availability of a track change version of the Proposed Study Plan that reflects updates resulting from the Proposed Study Plan discussions and additional updates that result from the subset meetings and conference calls that will be scheduled over the next month to consult with various agency staff and stakeholders on the studies.

Brian Yansen/PTCR indicated his team would target having a revised Proposed Study Plan in track change format available by March 15<sup>th</sup> and would communicate availability of that plan to stakeholders so that final inputs could be considered before the April 18<sup>th</sup> filing of the revised Proposed Study Plan with FERC.

For interim status reports and updates, Matt Rice/American Rivers, suggested hosting the meetings in Steamboat Springs, Colorado instead of Denver. David Merritt/URS noted that request would be taken into consideration but could be unrealistic with the majority of agency staff located in Denver, Colorado.

Matt Rice/American Rivers requested that raw data that results from the various studies discussed be made available in a user friendly format.

David Merritt/URS thanked the meeting and call participants and reminded stakeholders that the materials from today's meeting would be available for download from the Project website.