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December 4, 2012

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: Trout Creek Reservoir Hydroelectric Project (P-14446); Combined Comments on Pre-Application, Scoping Document #1 and Study Requests.

Dear Secretary Bose:

Enclosed for filing in the above referenced proceeding are Trout Unlimited's combined COMMENTS ON PRE-APPLICATION, SCOPING DOCUMENT #1 and STUDY REQUESTS for the Trout Creek Reservoir Hydroelectric Proposal, FERC #14446.

Thank you for your assistance. Please contact Brian Hodge at (970) 846-0414 if you have any questions or need additional information about this filing. Please also add the signatories to the mailing list for this project.

Sincerely,

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Original License, Hydropower

**Peabody Trout Creek Reservoir
Hydroelectric Project**

FERC Project No. 14446

Peabody Trout Creek Reservoir, LLC

COMMENTS ON SCOPING DOCUMENT #1, PRE-APPLICATION DOCUMENT
AND STUDY REQUESTS
(Submitted December 4, 2012)

I. INTRODUCTION

On October 5, 2012, the Federal Energy Regulatory Commission (FERC or Commission) published “Notice of Intent to File License Application, Filing of Pre-Application Document (PAD), Commencement of Pre-Filing Process, and Scoping; Request for Comments on the PAD and Scoping Document, and Identification of Issues and Associated Study Requests.” This notice established December 4, 2012 as the deadline for response and comment. In response to these publications, Trout Unlimited provides the following comments, recommendations and requests for study.

II. BACKGROUND

Peabody Trout Creek Reservoir LLC (Peabody or Applicant) applied to FERC for a hydropower license for a proposed multi-purpose water storage project on Trout Creek, a tributary to the Yampa River, in Routt County, Colorado. The project would store water for use in generating hydropower and to support municipal, residential and industrial water uses and for other purposes. There is no existing development or project infrastructure currently in place at the proposed project location.

The Applicant's proposed project would include construction of a 1,900-foot-long, 75-foot-high compacted earth-fill dam designed to impound 11,720 acre-feet of water in a 392-acre reservoir. The project would include a 200-foot long emergency spillway ranging from 350 to 500 feet wide, construction of two all-weather roads from Routt CR 179, and development of a transmission line connecting the project to the nearby Yampa Valley Electric transmission line. The project would generate an estimated 756 megawatt-hours annually.

The proposed project would create a significant impoundment on Trout Creek, a currently free-flowing tributary to the Yampa River. Trout Creek currently supports several native fishes including, but not limited to, Colorado River cutthroat trout, mountain whitefish, roundtail chub, and flannelmouth sucker. Potential effects of this proposed project must be carefully evaluated to ensure protection of natural resources, recreation, and other existing values of Trout Creek and the Yampa River system. Current and meaningful data related to project need, existing environmental conditions, project impacts and alternatives are essential to ensure a robust record upon which to base a future licensing determination. To that end, we offer the following comments and recommendations.

III. COMMENTS AND RECCOMENDATIONS

A. Project Review under the National Environmental Policy Act (NEPA).

a. Proposed Action and Alternatives.

The Commission proposes to consider, at a minimum, the following alternatives: (1) a "no-action" alternative; (2) Peabody's proposed action; (3) alternatives to the proposed action. Alternatives to the proposed action may include alternative

construction, operation or mitigation related actions. In our resource specific comments below, we recommend additional evaluations or potential alternative configurations that FERC should consider during its review of the project proposal and alternatives, including evaluations related to instream flow, fish passage provisions and overall project operations.

b. Geographic Scope of Review:

The scope of analysis should include all lands and waterways above and below the proposed project site that may be impacted by project construction, operation and ongoing maintenance or mitigation. This includes evaluating impacts that may ultimately occur outside of the proposed project boundary, such as transmission line routing or road development along the entire distance of these proposed developments.

The proposed project will change downstream flow patterns and thus will likely alter sediment transport capacity, fish behavior, and habitat accessibility and availability. We recommend that the geographic scope include both Trout Creek (from the proposed dam site to its confluence with the Yampa River) and the Yampa River (from its confluence with Trout Creek through the Sage Creek Coal Diversion). The geographic scope of review should also extend upstream of the proposed dam site to include any stream reaches and habitats that will be affected by connectivity, reservoir inundation or other project effects. Ultimately, the extent of upstream review should be informed, in large part, by the results of fish distribution studies conducted during this study phase.

c. Cumulative Effects:

The Commission should work with the applicant to more clearly identify reasonably foreseeable future actions related to industrial, municipal and residential development

impacts – including the applicant’s own plans for mining operations and water delivery - and include those activities in the analysis of cumulative effects.

B. Project Specific Resource Issues

The PAD outlines several key potential resource impacts. Additionally, Section 4.2 of SD1 includes a preliminary list of resource issues to be evaluated during environmental review of the proposed action. Read in combination, we believe that the applicant and Commission have identified most issues of interest or concern to our organization. We offer the following comments to highlight additional questions or evaluations necessary to fully evaluate the proposed project, its impacts and potential alternatives.

a. Water Quantity and Quality

Anticipated Flow Alterations: The proposed project would significantly alter the timing, magnitude and release of water through Trout Creek and the Yampa River. Owing to a lack of real-time flow data on Trout Creek, the applicant relies on the Yampa River Basin Water Resources Planning Model (Yampa Model) to estimate flows under proposed project operations. We agree that this is a reasonable approach to making initial evaluations, but recommend that both the applicant and commission further evaluate and confirm details through the study period.

Flow-Habitat Relationship: Table 3.2-10 in the PAD (outputs from the CDSS model) suggests that the proposed reservoir project would result in significant, year-round reductions in discharge in the Yampa River at the Sage Creek Coal Diversion. Similarly, outputs in Table 3.2-7 suggest that flows in Trout Creek would be reduced from March through July. Because flows influence both aquatic and riparian habitat, we

encourage the applicant to evaluate in detail the potential effects of reducing flows in Trout Creek and the Yampa River. In particular, we encourage the applicant to evaluate the potential effects of project operations on quantity and quality of aquatic habitat in Trout Creek and the Yampa River – particularly in late summer and fall. Discharge (i.e., water volume) is directly related to wetted perimeter and thus availability of fish habitat. Also, water volume is indirectly related to stream temperature and thus suitability of fish habitat.

Project Induced Flow Fluctuations: The applicant indicates that the project would be operated primarily for water supply with power production as an incidental outcome. While it seems clear that the project will not operate in a ramping and peaking mode for the purposes of power generation, it is unclear whether and to what degree the anticipated water supply operations would result in project-induced ramping events in the river downstream. Depending on severity, rapid rise and fall in water releases can have significant impacts on downstream resources- including impacts on fish habitat and population health, macroinvertebrate production, riparian resources, and channel morphology.

The applicant should provide additional detail about anticipated operations and develop a plan for minimizing project-induced ramping impacts. The effects of flow fluctuations, diversion, and minimum flows should be carefully analyzed and evaluated in relationship to the project effects on the existing hydrologic regime. Specific resource impacts to evaluate include: stranding and trapping of fishes, downstream displacement of fishes, dewatering and scouring of redds, erosion of streambanks, and effects to macroinvertebrate populations (i.e., fish food sources).

Dissolved Oxygen and Temperature:

As was noted and illustrated in the PAD, water quality data from Trout Creek are limited. In GEI Consultants' report to Peabody Energy, the authors noted that stream temperature data were collected continuously in September-November, 2011. In addition, the authors noted that Tier II coldwater standards were not exceeded during this time period. The authors did, however, acknowledge limitations of the data. To this latter point, year-round temperature data are required before we can hope to understand the thermal regime in Trout Creek. Further, it's of minimal instructive value to compare an incomplete data set to temperature criteria for coldwater fishes, especially when the data gap includes the warmest months of the year. To accurately evaluate effects of dam construction and operation on stream temperature (4.2.2), a reliable baseline is required. Along those lines, in Section 3.2.2. of the Scoping Document, there's a reference to "desired downstream water temperature and water quality conditions". We assume that these parameters will be identified from baseline data, but we are still unclear about the end goal. Clearly, appropriate water quality criteria (e.g., temperature, DO) differ among species or among suites of species.

b. Fishery Resources

As noted above, construction and operation of the proposed project would have significant impacts on water quality and aquatic resources. To better understand the potential project effects on fishery resources, we suggest additional study in the following areas:

Assessment of Fishery Resources: In GEI Consultants' report to Peabody Energy, the authors specify that fish surveys were conducted only in October. Because some fish utilize tributaries on a seasonal basis (e.g., to rear or spawn), a single sampling

event is not necessarily representative of a fish assemblage. Moreover, presence/absence of a particular species within a stream segment is not an accurate measure for the biological significance of that stream segment. To fully capture potential effects of the proposed project on fishery resources (4.2.3), more comprehensive biological sampling is required. A request for additional study of Impacts on Existing Fishery Resources in Trout Creek and the Yampa River is included as Attachment A to this filing.

Habitat Loss and Fragmentation: Additional evaluation and consideration is needed with respect to potential effects of dam construction and operation on migration, rearing, and spawning of fishes. During their biological sampling of Trout Creek, GEI Consultants observed juvenile, but not adult, mountain whitefish (a coldwater species). The authors concluded i) that whitefish are successfully reproducing in Trout Creek , and ii) that adult whitefish are likely moving down into the Yampa River between spawning events. Also, GEI noted that flannelmouth suckers have previously been captured in Trout Creek.

As was noted in Section 3.3.2 of PAD, construction of a dam on Trout Creek will block upstream movement of whitefish and other migratory fishes like flannelmouth sucker. Because fragmenting a stream can have significant deleterious affects on fish populations, and because numbers of both whitefish and flannelmouth sucker have departed greatly from historical figures, we suggest that the applicant explore fish passage-friendly dam designs. Further, to the degree the reservoir inundates a lotic coldwater fishery, we suggest that the applicant evaluate opportunities to expand or otherwise create a lotic coldwater fishery below the project.

Introduction of Predatory Nonnative Fishes: Fisheries in the nearby Elkhead and Stagecoach reservoirs, to name a few, have been severely impacted by introduction

of predatory, nonnative fishes (e.g., smallmouth bass, northern pike). These predatory species can have significant effects on populations of native fishes. Further, control and removal of these predatory species from the Yampa River has become a significant and resource-demanding task. Given the proximity of Trout Creek to Elkhead and Stagecoach reservoirs, and to County Road 179, the proposed reservoir is a potential target for illegal stocking. The applicant acknowledges this threat in the PAD, though absent from Section 4.2.3 of the Scoping Document is *effects of predatory nonnative fishes*.

We recommend that the applicant develop a plan to minimize or eliminate the risk of illegal stocking of the proposed Trout Creek Reservoir. Further, we recommend that the applicant take pre-emptive measures to control the magnitude and implications of any illegal fish stocking should such an event occur. At a minimum, this should include plans to contain the problem by selectively restricting upstream and downstream movement of these fish from the reservoir or eradicating unwanted fishes from the reservoir.

Threatened and Endangered Species: In Section 3.6 of the PAD, the applicant notes that “special status species” will include, among others, i) species listed by Colorado as those of special concern and ii) species listed by BLM as sensitive for federal lands. Section 3.6-1 in the PAD and Section 4.2.5 in the Scoping Document name a number of terrestrial and aquatic species. While roundtail chub were included on the list of special status species, flannelmouth sucker were not. Because flannelmouth sucker have been captured in Trout Creek, and because they are both a State species of “greatest conservation need” and a BLM sensitive species, we urge the applicant to consider this fish when evaluating potential impacts of the proposed project.

Protective Measures for Fishery Resources: Section 3.2.2 of the Scoping Document (preventative measures for protecting environmental resources) includes no recommendations for fishery resources. We encourage the applicant to address fishery resources in the same manner, and to the same extent, that they addressed *Geologic and Soil Resources, Water Quality, and Terrestrial Resources*. Simple examples might include: i) minimize downstream delivery of sediment during reservoir construction and ii) release/bypass enough water during the construction and fill periods to sustain a fishery.

C. Additional Comments

Water Rights & Water Availability: FERC should ensure that the applicant conduct a thorough review of existing water rights, reservations and uses in the downstream river to inform a meaningful evaluation of potential impacts related to any changes in timing, magnitude or duration of water releases from the proposed project.

Recreational Access and Opportunities: In evaluating potential project impacts and alternatives for minimizing or mitigating those effects, we suggest the Applicant and the Commission evaluate the potential for creating a public recreational fishery at Trout Creek.

D. Comments on Studies & Request for Additional Information

The Scoping Document and PAD both indicate additional study or information needs. Section 4.2.3 of the Scoping Document specifies that the following issues will be evaluated (among others): i) effects of fish entrainment; ii) effects of dam construction on fish migration, rearing and spawning; and iii) effects of a newly created lacustrine ecosystem on the existing riverine ecosystem. However, none of the proposed studies in

Table 1 of the Scoping Document (or section 4.2.3 of the PAD) address these three issues. We recommend that the Applicant and Commission include studies aimed at evaluating these issues.

In addition to the above discussion of related to questions, concerns or need for additional information, Attachment A to this filing includes Trout Unlimited's request for the following additional study: "Impacts on Existing Fishery Resources in Trout Creek and the Yampa River." (Attachment A).

IV. CONCLUSION

The proposed project would significantly alter the existing environments of both Trout Creek and the Yampa River. Construction and operation of the proposed project would block migration for resident fish species, inundate approximately 392 acres of landscape and three miles of stream channel under the proposed project reservoir and alter the timing, magnitude and duration of flows from storage and release of water for project purposes. These changes would all result in impacts to coldwater species and their habitat – in Trout Creek and ultimately in the Yampa River.

Consistent with our comments above, we urge the Applicant and FERC to carefully evaluate the potential project impacts to ensure a complete picture of potential detrimental effects – along with any potential opportunities for mitigation, enhancement of affected resources. Several such issues have been identified in these comments. We look forward to continued discussion with Peabody, the Commission, and other stakeholders related to the potential development of this water storage and hydroelectric project.

We thank you for the opportunity to review and provide comments on these documents. We hope that these comments, questions and requests for additional study are helpful in developing a strong and complete record upon which to evaluate this proposed project.

Respectfully submitted this 4th day of December 2012.

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ATTACHMENT A
Additional Study Requests

Study: Impacts on Existing Fishery Resources in Trout Creek and the Yampa River

The proposed Trout Creek Reservoir may influence existing fishery resources through change in flow regimes, loss of habitat, fragmentation, and introduction/recruitment of predatory nonnative fishes.

Goals and objectives: To better understand existing biological conditions and requirements, as to better evaluate the long-term impacts of reservoir construction at both the species and ecosystem scales.

Relevant Public Interest: The Yampa River is an important and popular recreational destination. Residents of Routt County and beyond will be interested in any potential impact that reservoir operations might have on viability of the local fishery.

Existing Information: The applicant provided access to an aquatic inventory (GEI 2012), which included information from the State. Specific comments about the aquatic inventory are included in Section Two of this document.

Nexus to Project Operations: Project construction and operations may adversely affect local fishery resources.

Methodology:

1. To evaluate the effects of the flow alteration on fishery resources, we suggest that the applicant consider and model both physical and biological parameters. Increased fine sediment (i.e. lack of flushing flows) can embed spawning gravels and significant changes in discharge, and resulting changes in stream temperature, can greatly alter species composition. Therefore, we encourage the applicant to examine the influence of reservoir operations (magnitude and frequency of flow events) on sediment transport. Also, we encourage the applicant to first establish a baseline thermal regime, to next examine how reservoir operations will alter thermal regimes, and to finally determine the implications of such changes to the existing fish assemblage (i.e., examine the relationship between temperature and thermal preference/tolerance of individual species).
2. To evaluate both the degree to which reservoir construction will create a loss in lotic habitat and the degree to which an impoundment will fragment habitat, we encourage the applicant to conduct a more thorough spatial and temporal survey of existing fishery resources. In particular, we suggest that fish sampling be conducted during spring, summer, and fall; specifically, to capture seasonal changes in distribution and fish movement. Movement of flannelmouth sucker and mountain whitefish might be best captured in spring and fall, respectively.
3. To evaluate the implications of an introduction of predatory, nonnative fishes, we encourage the applicant to i) conduct some research on the recent history of Elkhead and Stagecoach reservoirs, and ii) consult with local CPW biologists.

Consideration of Costs and Alternatives: Trout Unlimited is unable to estimate the required costs to complete this study.

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Original License, Hydropower

**Peabody Trout Creek Reservoir
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Peabody Trout Creek Reservoir, LLC

FERC Project No. 14446

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated this 3rd day of December 2012.



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