



Allyson Brooks Ph.D., Director
Stole Historic Preservation Officer

May 2, 2013

Ms. Barbara Bowerman
Office of Surface Mining
1999 Broadway, # 3320
Denver, Colorado 80201-6667

Re: Centralia Mine Pit 7 Reclamation Project
Log No.: 062309-25-OSM

Dear Ms. Bowerman:

Thank you for contacting our department. We have reviewed the materials you provided for the proposed Centralia Mine Pit 7 Reclamation Project in Lewis County, Washington.

We concur with your determination of No Historic Properties Affected.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and the concerned tribe's cultural staff and cultural committee and this office notified.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in compliance with the Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36CFR800.4. Should additional information become available, our assessment may be revised, including information regarding historic properties that have not yet been identified. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 586-3080
email: rob.whitlam@dahp.wa.gov



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UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, Washington 98115

NMFS Tracking No. 2010/00DIJ

November 3, 2010

James F. Fulton, Chief
United States Department of the Interior
Office of Surface Mining Reclamation and Enforcement
1999 Broadway, Suite 3320
Denver, Colorado 80202-3050

Re: Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation on the Pit 7 Lake Significant Revision, Central Field, Centrailia Mine OSM Project No. WA-0001-E-R-08 and Administrative Records Management System :\'o. 09/12/14-03 located in Lewis County, Washington (6th Field HUC 171001030304, Hanaford Creek).

Dear Mr. Fulton:

This letter is being provided in response to your request for consultation under the Magnuson-Stevens Fishery Conservation and Management Act (MSA).

Magnuson-Stevens Fishery Conservation and Management Act

The National Marine Fisheries Service (NMFS) has reviewed the application for a significant revision of the approved Pit 7 Reclamation Plan (Plan) at the Centrailia Mine submitted by TransAlta Centrailia Mining, LLC (TCM). The Plan includes a permanent lake, approximately 130 acres, as its main feature while reclaiming 600 acres of disturbed land. The Office of Surface Mining Reclamation and Enforcement (OSMRE) has requested an Essential Fish Habitat Consultation (EFH) for the above referenced proposal received on January 4, 2010 related to coho salmon (*Oncorhynchus kisutch*).

Federal agencies are required, under section 305(b)(2) of the MSA and its implementing regulations (50 CFR 600 Subpart K), to consult with NMFS regarding actions that are authorized, funded, or undertaken by that agency that may adversely affect Essential Fish Habitat (EFH). The MSA section 3 defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." If an action would adversely affect EFH, NMFS is required to provide the Federal action agency with EFH conservation recommendations (MSA section 305(b)(4)(A)).



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This consultation is based, in part, on information provided by the Federal action agency and descriptions of EFH for Pacific salmon contained in Appendix A to Amendment 14 to the Pacific Coast Salmon Plan (August 1999) developed by the Pacific Fishery Management Council and approved by the Secretary of Commerce (September 27, 2000).

Design of the proposed 130 acre Pit 7 Lake includes a narrow segment that connects its main body and the Sag Ann portion of the lake. That area will be graded to facilitate the flow of water through the lake. An outlet structure (channel) will be constructed at the north side, flowing out of the Sag Ann portion, of the lake. This new channel will connect to Ditch 300, which currently exists between the proposed Jake and Packwood Creek. Current plans are for Ditch 30D, which parallels Packwood Creek for over 6,000 feet, to serve as a permanent diversion channel. Ditch 30D drains to the Pond 5 System to control water quality and eventually discharges into Packwood Creek. In final reclamation, Pond 5 - will be reclaimed as a wetland and the flow from Pit 7 Lake will provide a water source for that wetland area. The outlet structure has been designed with a 14- foot wide inner channel that provides sufficient capacity for normal winter and summer outflows from the lake. It has a wide floodplain adjacent to the inner channel to accommodate outflows during large precipitation events.

Based on modeling results performed using precipitation patterns from the past eleven years, filling time is anticipated to range from approximately 2 to 5 years. The sequence of precipitation conditions encounter will determine the duration of the lake filling period. Once the lake is full, levels are expected to fluctuate seasonally, varying by approximately two feet. The highest average lake outflows, simulated over an 11 year period, were 5.1 cubic feet per second and occurred in January.

NMFS has determined that the project will adversely affect the EFH of coho salmon as listed below. These effects will occur in the riverine, both water column and substrate, habitat types" in Packwood Creek, Pit 7 Lake and its outflow channel. The amount of EFH affected would total approximately 11.5 acres.

1. Rearing habitat in over 6,000 feet of Packwood Creek will be affected by diverting flow down Ditch 30D and reducing flows in Packwood Creek. This would degrade the quantity and quality of pool, glide, riffle and spawning habitats. It may also decrease access to off- channel rearing areas and the recruitment of Large Woody Material (LWM).
2. Rearing habitat in Pit 7 Lake and its outlet will be affected by the absence of LWM. In this case, LWM creates hiding cover that allows fish to avoid predators. It also offers another type of medium for benthic invertebrates to utilize that benefits fish by diversifying the available food source. Under the current proposal, LWM would not occur naturally until the forest had time to grow old enough to provide a source for recruitment.
3. Rearing habitat in Pit 7 Lake and its outlet will be affected if non-native fish are planted in the lake. They would be reducing the limited existing food resources and could also alter the habitat through their actions (e.g. grass carp eating aquatic vegetation).

4. Rearing habitat in Pit 7 Lake will be affected by design of the narrow segment between the main body of Pit 7 Lake and the Sag Arm portion of the lake. If that area remains at too high of an elevation it would isolate fish in the Sag Ann portion of the lake and prevent utilization by fish residing in the main body of Pit 7 Lake. If the Sag Arm portion of the lake were at too high of an elevation, water quality would be compromised at lower lake levels. Design of the outlet channel from the Sag Arm portion of the lake to Ditch 30D will result in fish being stranded as water levels drop. Design of the wetland that will be created by reclaiming Pond 5 could also result in fish stranding and passage issues.

EFH Conservation Recommendations: Pursuant to Section 305(b)(4)(A) of the MSA, NOAA Fisheries is required to provide EFH conservation recommendations to Federal agencies regarding actions which may adversely affect EFH. Therefore, NMFS recommends the following conservation measures be implemented to address the effects mentioned above:

1. NMFS recommends Ditch 300 not serve as the permanent diversion channel for the outflow from Pit 7 Lake. The final design should have the outlet channel connecting to and not paralleling Packwood Creek. We recommend Pond 5 still be reclaimed as wetland but incorporated into Packwood Creek. A greater quantity and higher quality habitat will be created by having additional flow in Packwood Creek. By reclaiming Pond 5 as a wetland and incorporating it into Packwood Creek additional habitat will be created that can be utilized as floodplain storage, refugia from high flow events, and off-channel rearing. All parties, TCM, OSMRE, Washington Department of Fish and Wildlife (WDFW), and NMFS should work together on details of the final design for these elements.
2. NMFS recommends installation of large woody material (LWM) into the littoral zone of Pit 7 Lake, Sag Ann Lake, the Lake Outlet and Packwood Creek. A large woody material (LWM) management plan should be developed in conjunction with TCM, OSMRE, WDFW, and NMFS. The plan would include design details of structures, number of structures, installation schedule, maintenance, etc.
3. NMFS recommends that if any fish are planted into the lake only native salmonids should be utilized. This will prevent degradation of habitat by non-native fish.
- 4A NMFS recommends the narrow connection between the Sag Arm portion of the lake and the main body of Pit 7 Lake be designed to include a connecting channel. Specifications would include a bottom elevation of 215 feet above sea level with a minimum bottom width of five feet. This will allow for and ensure full utilization of the Sag Lake Ann as rearing habitat at lower lake levels.
- 4B. NMFS recommends that the proposed littoral zone for aquatic species in the Sag Arm portion of the lake, elevation 215-225 feet above sea level, be designed with the maximum

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amount of that area having a depth of 215 feet above sea level. This will create habitat at low lake levels which will provide cooler temperatures in that portion of the lake for fish.

4C. NMFS recommends design of transition section E-E' in the outlet channel from Pit 7 Lake incorporate a low flow channel. We also recommend that channel beds in all transition sections, except A-A', be sloped at a minimum 2 percent grade with not pits or potholes. This will prevent fish from stranding as water levels fluctuate in the newly created habitat.

4D. As mentioned in 1A above, NMFS recommends that all parties work together on details of the final design for reclaiming Pond 5 as a wetland.

Federal agencies are required to provide a detailed written response to NMFS' EFH conservation recommendations within 30 days of receipt of these recommendations (50 CFR 600.920(k)(1)). The response must include a description of measures proposed to avoid, mitigate, or offset the adverse affects of the activity on EFH. If the response is inconsistent with the EFH conservation recommendations, the response must explain the reasons for not following the recommendations. The reasons must include the scientific justification for any disagreements over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects.

This concludes consultation under the MSA. If the proposed action is modified in a manner that may adversely affect EFH, or if new information becomes available that affects the basis for NMFS' EFH conservation recommendations, will need to reinitiate consultation in accordance with the implementing regulations for EFH at 50 C.F.R. 600.920(1).

Thank you for your effort to protect EFH. If you have questions regarding this EFH consultation, please contact Tim Rymer of the Washington Stare Habitat Branch Office at (360) 753-4126, or by email at Tim.Rymer@noaa.gov.

Sincerely,



William W. Stelle, Jr.
Regional Administrator

cc: Glenn Waugh, OSMRE
Scott Brummer, WDFW

From: Tim Rymer [Tim.Rymer@noaa.gov]
Sent: Friday, August 19, 2011 3:50 PM
To: Bowerman, Barbara
Cc: Alex Callender; Peggy Miller; Waugh, Glenn
Subject: Pit 7 Comments

11-12-06-03

Hello Barbara:

I wanted to get back to you with comments from our August 11th, 2011 meeting with TransAlta Centralia Mining, LLC (TCM), as per your request. It was really good to meet with everyone and have an opportunity to see things in the field.

Regarding the response to our comments on the Pit 7 significant revision:

1. The proposed location for a final permanent outlet channel from Pit 7 looks very good. TCM has delineated a connection that would minimize removal of existing trees, which was excellent thinking. TCM has also proposed building the channel in advance. (a year or more?) of when water would be allowed to flow down it. This will give vegetative plantings a head start at providing shade for the new channel, once again an excellent idea. The NMFS has requested additional detail be provided for the final channel design such as: location of low flow channel relative to meanders; slope of floodplain benches; methodology to fix large woody material in place (LWM), amount and distribution of LWM, revegetation (avoid planting willows too close to the creek), etc. TCM agreed to provide these details and work with NMFS during their development. There was also discussion about how the time line for achieving this part of the reclamation could be moved up. Consideration includes the fact that Kopiah Pit is upstream of Pit 7 and will need water quality treatment for a longer time period. Generally, NMFS strongly supports any reclamation effort that will get additional water back into Packwood Creek at a point furthest upstream as soon as possible. TCM indicated Pond 5 is likely to be the last one reclaimed on their property. So, National Marine Fisheries Service (NMFS) understands discussions regarding Pond 5 reclamation will occur well into the future.

2. There was no discussion specifically centered on an in-water LWM management plan. The NMFS thinks this is an important detail that should be formulated with all interested parties working together on its development.

3. There was no discussion regarding planting of fish in Pit 7. But, Trans Alta has agreed to remove any reference to stocking fish from the plan.

4A. There was some limited discussion regarding this item while on the field visit. Up until the field visit, NMFS had not clearly understood that the Sag Arm portion of the proposed Pit 7 Lake was an existing feature (an embarrassing oversight to say the least). TCM had agreed with the NMFS recommendation regarding the connection between the Sag Arm and Pit 7 Lake. As a result, NMFS was now concerned with when (at what lake level as it filled) the connection would be made. TCM assured NMFS - that it would not happen until the water surface elevation in the Sag Arm

and Pit 7 Lake were close to being the same. The NMFS may want to revisit their recommendation in this regard so as to minimize the loss of any natural production in the Sag Arm. This could be accomplished through further discussions with TCM, Office of surface Mining Reclamation and Enforcement representative Glenn Waugh and .any other interested parties.

4B. As a result of the newly acquired information mentioned in 4A., NMFS now wishes to drop this recommendation.

4C. This has been covered in 'item 1. above.

4D. This has been covered in item 1. above.

Please let me know if you have any questions with regard to the above information. Thanks much

T.R.

Tim R. Rymer
Fisheries Biologist .
. Washington State Habitat 'Office
National Marine Fisheries Service
510 Desmond Drive SE, Suite 107
Lacey, WA 98506

Phone: (36,0) 753-4126
Fax: (360) 753-9517 fax
Email: Tim.Rymer@noaa.gov



United States Department of the Interior

OFFICE OF SURFACE MINING
Reclamation and Enforcement
Western Region Office
1999 Broadway, Suite 3320
Denver, CO 80202-3050



May 6, 2013

Tim Rymer
National Marine Fisheries Service, NOAA
United States Department of Commerce
510 Desmond Drive SE, Suite 103
Lacey, WA 98503

RE: Essential Fish Habitat (EFH) Consultation
Washington Department of Fish and Wildlife Comments
Pit 7 Lake Significant Revision, Central Field, Centralia Mine
OSM Project No. WA-0001-E-R-08

Dear Mr. Rymer:

Enclosed, for your information, is a copy of TransAlta Centralia Mining LLC's April 11, 2013, proposed Pit 7 Reclamation Plan (Administrative Records Management System No. 13/04/16-05). The application concerns development of a 130 acre end-cut lake as part of the final reclamation plan for the Pit 7 area. The proposed reclamation plan includes all revisions agreed to in OSM's January 20, 2011, response to your November 3, 2010, Essential Fish Habitat (EFH) consultation recommendations. As discussed below, OSM finds that TCM's proposed plan satisfies your EFH recommendations and the Washington Department of Fish and Wildlife's comment.

History.

- By letter dated December 24, 2009, the Office of Surface Mining Reclamation and Enforcement (OSM) formally requested EFH consultation for TransAlta Centralia Mining LLC's (TCM) December 9, 2009, Pit 7 end-cut lake and wetland reclamation project.
- You responded by letter dated November 3, 2010, with comments and EFH recommendations.
- By letter dated January 20, 2011, OSM provided you an initial response to your EFH consultation.
- By letter dated June 30, 2011, OSM provided you with a copy of TCM's June 23, 2011, Pit 7 lake reclamation plan (ARMS No. 11/06/27-15), revised in response to OSM's and the your November 3, 2010, consultation.
- On August 11, 2011, you and OSM met at the Central Mine. The purpose of the site visit was to discuss the revisions proposed in your response to your consultation as well as OSM's comments specific to surface water hydrology. Peggy Miller, with the WA Department of Fish and Wildlife, also attended.
- By e-mail dated August 19, 2011, you provided comments (including clarification)

concerning your review of OSM's January 20, 2011, response to your November 30, 2010, EFH consultation and TCM's proposed plans.

Also attached is a copy of OSM's technical evaluation (TE), dated December 17, 2012, for TCM's October 31, 2012, proposed Pit 7 Reclamation Plan application, which included revisions made in response to your EFH consultation (as well as the Washington Department of Fish and Wildlife and other OSM comments). Please note that all October 31, 2012, proposed revisions are contained in TCM's April 11, 2013, application, therefore the references in OSM's TE to locations where TCM revised its application in response to your consultation remain valid.

OSM's December 17, 2012, TE resulted in three comments, sent to TCM by letter dated January 18, 2013. TCM satisfied, by revisions included in the April 11, 2013, proposed application, two of the three comments (one a non-substantive editorial revision and one a substantive revision of Table 5.5-2). In the April 11, 2013, proposed application, TCM revised Table 5.5-2, General Erosion Control Seed Mixtures, to replace "Birdsfoot Trefoil" with "Fireweed", which satisfied a Washington Department of Fish and Wildlife, August 29, 2011, comment.

OSM's third comment concerned your August 19, 2011, request that TCM develop an in- water large woody material (L WM) management plan. TCM's construction of the permanent outlet channel for the Pit 7 lake (a permanent diversion) cannot occur until TCM has demonstrated that the water in the permanent impoundment will meet the necessary water quality criteria for fish and wildlife habitat (receiving stream water quality standards). After TCM constructs the lake (a permanent impoundment) and the permanent outlet channel, TCM must submit an as-built design certified by a professional engineer demonstrating that the lake and channel were constructed as approved. After construction of the channel and the final topography surrounding the lake, which will not be under water, TCM must also demonstrate that the soil meets the criteria approved in TCM's permit for the top four feet. After this demonstration, TCM will revegetate the area according to its approved permit and install LWM features that do not function as design elements of the channel. During a minimum five-year period after initial revegetation and until TCM is able to demonstrate success of revegetation, TCM must accomplish whatever maintenance is necessary to ensure that, at the time TCM submits a phase 3 bond release application (which includes the channel), the number and size of the LWM meets the success standards established in TCM's approved permit. In addition, during this same timeframe, TCM must maintain the functionality of the channel as permanent diversion. OSM could not approve final bond release should erosion of other aspects of the channel design fail during the period for demonstration of revegetation success.

OSM's regulations do not require a maintenance plan and schedule for this minimum 5-year timeframe. Rather than prescribing how TCM meets the success standards, OSM evaluates TCM's achievement of success of reclamation. Once TCM has satisfied the requirements for phase 3 bond release, OSM will terminate jurisdiction over the area subject to the phase 3 bond release application. OSM cannot require maintenance of the reclaimed area once our regulatory jurisdiction is terminated.

Because TCM must conduct whatever maintenance may be necessary prior to bond release, and because, after phase 3 bond release, OSM has no regulatory authority over the

reclaimed land, OSM does not believe an in-water LWM management plan is necessary. Therefore, TCM did not make revisions in its April 11, 2013, application in response to this comment.

OSM concludes that TCM's April 11, 2013, Pit 7 Reclamation Plan demonstrates that TCM has satisfied all of your EFH recommendations (as well as Washington Department of Fish and Wildlife and OSM comments), with the exception of development of a LWM management plan, for reasons discussed above.

OSM would appreciate a response from you (letter or e-mail) stating that you agree with our conclusion. If you have any questions, please do not hesitate to contact me at 303-293-5021.

Sincerely,

Barbara Bowerman
Centralia Mine Permit Coordinator
Washington State Mines Team

Cc w/ enclosure:

Peggy Miller, Washington Department of Fish and Wildlife

Cc w/out enclosure:

OSM Olympia Area Office

Dennis Morr, TCM

**Technical Evaluation of TransAlta Centralia Mining
Pit 7 Reclamation Plan Revisions
Dated October 31, 2012**

1. **COMPANY:** TransAlta

2. **MINE/OPERATION:** Centralia

3. **TRACKING SYSTEM INFORMATION.**

- **Mine Information Project Planning System (MIPPS):** WA-0001-E-R0S
- **Workload Assignment Tracking System (WATS):** FPD08535
- **Administrative Records Management System (ARMS):** 12/11/01-08
- **Letterhead date of submittal:** October 31, 2012

4. **TYPE OF APPLICATION/DOCUMENT REVIEWED.**

181 Other: TCM Pit 7 Reclamation Plan revisions dated October 31, 2012

5. **EVALUATION.**

A. Part of application/document reviewed:

- Review of TCM's response to the NMFS November 3, 2012 (consultation as committed to in OSM's January 20, 2011 response to NMFS
- Review of TCM's response to August 19, 2011 NMFS comments
- Review of TCM's response to the August 29, 2011 WA DFW comments
- Review of TCM's response to OSM's letter dated December 8, 2011

(1) Citation of applicable regulations:

- 30 CFR 947.816.97
- 30 CFR 947.777.11
- 30 CFR 947.780.23 (b)

- 30 CFR 947.780.14 (b)(9)
- 30 CFR 947.816.133
- 30 CFR 847.780.16 (b)(3)(11)

Primary Review Criteria: Drawings 5.1, 5.2, 5.3, and 5.4, Table 5.5-12, 5-5-13a, 5.5-14a of the stand alone document titled, *TransAlta Centralia Mine Central Field Pit 7 Reclamation Plan, Norwest, August 2012* and Sections 4.9.2.3, 5.2,5.4, 5.5.8, 5.6.3, 5.5.8.2 and Appendix 4.9-1 of the revised PAP dated October 31, 2012.

(2) Evaluation of compliance with the requirements of the applicable regulations:

National Marine Fisheries Service {NMFS}:

Recommendation No. 1

NMFS recommends Ditch 30D not serve as the permanent diversion channel for the outflow from Pit 7 Lake. The final design should have the outlet channel connection to and not paralleling Packwood Creek. We recommend pond 5 still be reclaimed as wetland but incorporated into Packwood Creek. A greater quantity and higher quality habitat will be created by having additional flow in Packwood Creek. By reclaiming Pond 5 as a wetland and incorporating in Packwood Creek additional habitat will be created that can be utilized as floodplain storage, refugia from high flow events, and off -channel rearing. All parties, TCM, OSMRE, Washington Department of Fish and Wildlife (WDFW), and NMFS) should work together on details of the final design for these elements.

➤ **Response Evaluation**

- TCM has satisfied this recommendation by including in its May 11, 2012 revisions to the Pit 7 Reclamation Plan an interim drainage plan for the Pit 7 Lake (routing discharge from the lake via Ditch 30D to Pond 5. Furthermore, TCM has proposed a permanent outlet in this revision and demonstrated consultation with NMFS and WDFW representatives on August 11, 2011. TCM responded to additional comments on the outlet in TCM's October 31, 2012 Pit 7 Reclamation Plan response package.
- TCM has shown the detail of the low flow channel on Drawings 5.2 and 5.3 of the stand-alone document titled, 'TransAlta Centralia Mine Central Field Pit 7 Reclamation Plan, Norwest, and August 2012'. The sections shown on each of these drawings show the flood plain benches within the channel. Methodology for fixing large woody material in place will be according to industry practice. TCM has discussed in Section 4.9.2.3 the details pertaining to the amount and distribution of wildlife enhancement features in the outlet channel and the littoral zone surrounding the Pit 7 Lake. TCM has committed to not planting willows within the outlet channel to Pit 7 Lake as noted on Table 5.5-12 of Section 5 of the Permit Application Package.

Recommendation No. 2

NMFS recommends installation of large woody material (LWM) into the littoral zone of Pit 7 Lake, Sag Arm Lake, the Lake Outlet and Packwood Creek. A large woody material (LWM) management plan should be developed in conjunction with TCM, OSMRE, WDFW, and NMFS. The plan would include design of structures, number of structures, installation schedule, maintenance, etc.

➤ Response Evaluation

- TCM has addressed the concerns of installation of large woody material (LWM) in all the areas specified by NMFS. This can be found in Section 4.9.2.3 Wildlife Management Techniques during Reclamation, beneath the subheading 'Permanent Impoundment (Lake) Development details describing where wildlife enhancement features will be placed in the Pit 7 Lake and Outlet Channel. TCM also proposed the quantities and spacing of the features to be placed as a success standard. **However, an in-water (LWM) management plan has not been developed by TCM as recommended by NMFS in the letter dated August 19, 2011. NMFS indicated that this is an important detail that should be formulated with all interested parties working together on its development. 30 CFR 947.780.16(b) (3) (II) states in part that where the plan does not include enhancement measures, a statement shall be given explaining why enhancement is not practicable. TCM must address this comment before OSM can complete this Technical Evaluation.**

Recommendation No. 3

NMFS recommends that if any fish are planted into the lake only native salmonids should be utilized. This will prevent degradation of habitat by non-native fish.

➤ Response Evaluation

TCM has satisfied this recommendation by removing all references of stocking fish in the Pit 7 Lake. The current proposed language can be found in Section 4.9.2.3 of the PAP under the subheading of Permanent Lake Impoundment Development and reads as follows: *"Fish stocking is not proposed as the stream channels connecting the lakes to the adjacent creek(s) are designed to be accessible to all life stages of salmonids and other non-game fish currently found in the adjacent creek(s). If it is determined that stocking of an impoundment is needed to enhance or support the fish management plan, the stocking prescriptions will be determined in conjunction with WDFw.*

Recommendation No. 4A

NMFS recommends the narrow connection between the Sag Arm portion of the lake and the main body of Pit 7 Lake be designed to include a connecting channel. Specifications would include a bottom elevation of 215 feet above sea level with a minimum bottom width of five feet.

This will allow for and ensure full utilization of the Sag Lake Arm as rearing habitat at lower lake levels.

➤ **Response Evaluation**

- TCM has satisfied this recommendation by including new design detail on the connection between the lake and Sag Arm portion of the lake in the October 31, 2012 submittal. See revised Drawing 5.1 and new drawing 5.4 of the TransAlta Centralia Mine Central Field Pit 7 Reclamation Plan, Norwest, August 2012 stand-alone document.
- Additional detail on the design of the inlet to the Sag Arm area from the main lake area, including more detail on the contours within the Sag Arm area have been developed and presented in a new drawing to the stand-alone document titled, 'TransAlta Centralia Mine Central Field Pit 7 Reclamation Plan, Norwest, August 2012'. TCM directs NMFS to Drawing 5.4 Sag Lake Arm Detail.

Washington Department of Fish and Wildlife (WDFW):

Recommendation No. 1

WDFW commented in an email dated August 29, 2011 in reference to a meeting with TCM August 11, 2011. WDFW had made concern about the inclusion of birdsfoot trefoil (*Lotus corniculatus*) in the lowland forest and permanent impoundment erosion control seed mixtures (Table 5.5.-2). WDFW request that TCM consider removing this species or minimizing its use in the mix.

➤ **Response Evaluation**

- TCM responded adequately to this recommendation based on the fact that there was no direct recommendation from WADFW to not use it. TCM stated that they would consider revising table 5.5-2 of the permit application package in the future if WADFW provided a suggestion of an alternative species to be used. However, OSM contacted Peggy Miller by phone on December 11, 2012 to discuss TCM's response and provide WADFW with an opportunity to make suggestions of this species.
- Peggy Miller (WADFW) responded by email on December 17, 2012 with suggestions of replacing the birdsfoot trefoil with fireweed. Her suggestion is based on the overall ecology of the area and the specific benefits it would provide for wildlife foraging.
- **TCM needs to revise table 5.5-2 of the permit application package to show that they have removed this species or significantly minimized its use to satisfy this comment.**

OSM's Comments Letter to TCM Dated December 8, 2011:

C. Section 4.9.2.3, Wildlife Management Techniques During Reclamation

Comment No. 1

In response to OSM's September 23, 2010, comment number A.La (Attachment 2), concerning a map identifying the fish and wildlife enhancement features and a minimum standard pertaining to placement of fish and wildlife enhancement features specific to the Pit 7 lake, TCM responded that Drawing 5.3 of the stand alone document "Pit 7 Reclamation Plan" shows the proposed enhancement features.

Figure 5.3 does include an illustration of the use of wildlife enhancement features specific to the outlet channel. However, TCM intends to implement such features throughout the Pit 7 lake area. TCM's proposed Section 4.9.2.3 text does refer to Figure 5.3 for "the typical enhancement features for the outlet channel, including but not limited to rootwads, woody debris and log barbs." However, nowhere does TCM specify or discuss enhancement features other than the three mentioned in this sentence. Section 5.4 of the Pit 7 Reclamation Plan stand alone document does not include a discussion of enhancement features at all, only the more general goals for wildlife habitat as a result of the lake plan, which TCM has proposed to list in the Section 4.9.2.3 text.

OSM will accept Figure 5.3 as a map that satisfies the requirements of 30 CFR 947.780.14(b)(9) only if, in accordance with 30 CFR 947.777.11 and 30 CFR 947.816.97(a), TCM revises the Section 4.9.2.3 text specific to the Pit 7 lake to (1) further elaborate upon the types of habitat enhancement features (if only the three identified will be used, say so, otherwise identify other features that will be used to meet the standard specific to enhancement features), (2) clarify where these features will be implemented in the design of the Pit 7 Lake area (not only the outlet channel) and (3) clarify that these features will be used to meet the wildlife enhancement feature reclamation success standard. In other words, TCM should clarify if these enhancement features will be placed around the entire Pit 7 lake perimeter including the sag arm and the permanent outlet structure. TCM must also make a distinction between the interim outlet structure and the permanent outlet structure (see comments concerning the NMFS EFH consultation).

➤ Response Evaluation

- TCM has satisfied this comment by revising the text within proposed Section 4.9.2.3 to add discussion to clarify what type of enhancement features TCM will use, where these features will be placed within the lake and the permanent outlet channel and state that the features will be used to meet the wildlife enhancement feature reclamation success standard.

Comment No. 2

In response to OSM's September 23, 2010, comment number A.Lb (Attachment 2), TCM proposed revision of the Section 4.9.2.3 text to include the following statement. "TCM will

place habitat enhancement features (e.g. tethered logs, woody debris, root wads, etc.) at a density of approximately 1 feature per 2,500 square feet." In accordance with 30 CFR 947.777.11 and 947.816.97, consistent with TCM's revision of the Central Packwood Reclamation Plan, after TCM clarifies the area (acreage) where TCM will place these features in the Pit 7 Lake Reclamation Plan, TCM must further revise the proposed Section 4.9.2.3 text specific to Pit 7 to clarify the proposed Pit 7 lake fish and wildlife enhancement feature reclamation success standard by identifying the acreage subject to placement of the features and the actual number of features to be placed. In addition to the total number of features to be placed, TCM must revise the Section 4.9.2.3 text to include the fact that, in the outlet channel itself, TCM commits to place these features at intervals of less than 100 feet (as stated by TCM on Figure 5.3) and clarify the minimum number of features that must be placed specific to the outlet channel.

➤ **Response Evaluation**

- TCM has satisfied this comment by adding a discussion to identify the acreage within which the wildlife enhancement features will be placed around the Lake and Sag Arm and the actual number of features to be placed. TCM went on to discuss that enhancement features will be placed in the permanent outlet channel at intervals less than 100 feet at an estimate of 27 wildlife enhancement features.

Comment No. 3

TCM does in Section 4.9.2.3 provide more detailed information concerning littoral zone design plans than is provided in Section 5.4 of the stand alone document. And, in the initial proposed Section 4.9.2.3 text, TCM provides general references to Sections 5.5.8 and 5.6.3 of its permit for more detailed information pertaining to the Pit 7 Lake. However, in accordance with 30 CFR 947.777.11, TCM should further revise the proposed Section 4.9.2.3 text to specify where more detailed information can be found concerning (1) the littoral zone design and (2) the planting plan for aquatic and emergent species.

➤ **Response Evaluation**

- TCM satisfied this comment by adding a reference to Section 5.5.8.2 of the PAP for more information of the planting plan and Tables 5.5-13a and 5.5-14a for the littoral design details.

E. Appendix 4.9-1, NOAA and FWS Consultation Letters

Comment No. 4

TCM's title of Appendix 4.9-1 in the Section 4, Table of Contents, is "NOAA and FWS Consultation Letters". However, TCM has revised the appendix to include letters from other agencies. In accordance with 30 CFR 947.777.11, OSM requests that TCM revise the title of Appendix 4.9-1 to more accurately describe the contents (e.g., Federal and State Agency Consultation & Comment Letters).

➤ **Response Evaluation**

- TCM has satisfied this comment by renaming Appendix 4.9-1 Table of Contents to "Federal and State Agency Consultation & Comment Letters". **However, TCM needs to edit the text in Section 4 that still reads "NOAA and FWS Consultation Letters" to match the Table of contents.**

C. Section 5.2.4, Post-Mine Land Use Permanent Impoundments of Water (Developed Water Resources)

Comment No. 5

In response to OSM's September 23, 2010, comment number D.3 (Attachment 2), TCM revised Section 5.2.4 to present information concerning the Pit 7 Lake as a developed water body, with references to other locations in Section 5 for more detailed information. The revised text is adequate with respect to references to other sections of TCM's permit.

However, OSM requests that TCM submit the Pit 7 related revisions in Section 5.2.4 in the context of the revisions proposed for section 5.2.4 in TCM's August 12, 2011, CPRP and show, using highlighted text or some font that distinguishes the language proposed as part of the Pit 7 plan from the language proposed as part of the CPRP. TCM must include CPRP revisions made in response to OSM's October 12, 2011, comment letter concerning section 5.2.4 (see OSM's October 12, 2011, comment numbers C.5, 6, 7 and 8).

➤ **Response Evaluation**

- TCM has satisfied this comment by reformatting Section 5.2.4 to present information for Pit 7 in similar form of the approved Central Packwood Reclamation Plan.

Comment No. 6

TCM should retain the paragraphs proposed in the Pit 7 plan which begin with "the final reclamation plan for the Kopiah Pit has been approved with no open water body" and "On May 8, 2009 representatives from the U.S. National Marine Fisheries Service (NMFS) and the State of Washington, Department of Fish and Wildlife (WDFW) met with TCM to review the proposed final reclamation plan for Pit 7, more specifically the development of a lake". And, as requested in OSM's October 12, 2011, comments numbered 7 and 7.a concerning TCM's CPRP (provide unique paragraphs specific to each proposed permanent impoundment and propose a statement, *prior to the unique paragraphs*, applicable to all areas (e.g., TCM is the owner of the surface rights in the areas where all permanent impoundments are planned)), TCM must, in the Pit 7 reclamation plan proposed Section 5.2.4 text, group all paragraphs concerning each pit area together with an introductory paragraph with information common to all permanent impoundments. For example, the discussion concerning the Kopiah Pit reclamation plan should not be inserted in between paragraphs discussing the Pit 7 reclamation plan and the discussion concerning the references to other sections of TCM's permit for more detailed information

should be included in the introductory paragraph which should be applicable to all permanent water bodies.

➤ **Response Evaluation**

- TCM has satisfied this comment by reorganizing the discussion at Section 5.2.4 to group the paragraphs according to each pit area while retaining the paragraphs noted above.

Comment No. 7

In addition, for clarity, OSM requests that TCM further revise the initial text in Section 5.2.4 to clarify that the post-mining land use for all approved permanent impoundments is fish and wildlife habitat.

➤ **Response Evaluation**

TCM satisfied the comment by making this clarification in the third full paragraph beneath Section 5.2.4 and reads as follows: *"The post-mining land use for all approved permanent impoundments is fish and wildlife habitat and will enhance the overall wildlife utilization of the area by providing wetland and shoreline habitat"*.

E. Section S.6.3.2, Hydrologic Reclamation Plan, Detailed Water body Reclamation Plans, Central Field - Existing Bathymetry of Sag Arm Lake.

Comment No. 8

In response to OSM's February 3, 2011, comment number I.L.4, concerning a description specific to the Sag Arm portion of the proposed Pit 7 Lake (data which provides detailed information concerning the existing configuration, including depths, of the Sag Arm portion of the proposed lake), TCM responded that "[b]athymetry contours for the Pit 7 lake including the "Sag Lake arm" are provided in the May 2011, TransAlta Centralia Mine Pit 7 Reclamation Plan, stand alone report. The plans include regrade of the narrow segment between the main body of Pit 7 and the Sag Lake area to facilitate the flow of water through the lake and to prevent stranding within the Sag Lake Arm when lake levels drop during extended dry periods."

TCM revised the proposed Section 5.6.3.2 text to state: "The elevation-storage-area relationship for the final Pit 7 Lake and the lake bathymetry contours are provided in the stand alone document, *TransAlta Centralia Mine Central Field Pit 7 Reclamation Plan, Norwest, May 2011*. The lake bathymetry contours include the planned regrade of the narrow segment between the main body of Pit 7 and the Sag Lake area to facilitate the flow of water through the lake and to prevent stranding within the Sag Lake Arm when lake levels drop during extended dry periods. See Drawings 5.1 in the stand alone document for the regraded contours in the Sag Lake Arm."

TCM appears to show on proposed Drawing 5.1, Pit 7 Lake Plan and Outlet Location, that the connection, between the main body of the Pit 7 Lake and the Sag Lake Arm portion of the proposed lake, will occur at elevation 225, but this detail is not discussed in Section 5.6.3.2 text or in Section 5. TCM also shows elevations of the proposed Pit 7 Lake on Drawing 4.2, Pit 7 Lake and Cross Sections. However, the elevations shown on Drawing 4.2 are not detailed enough to support construction plans for the connection between the pit and Sag Lake Arm. *Drawing 5.1 does not show (1) the existing depth/elevation of Sag Lake Arm, (2) the depth/elevations of the littoral zone and of Sag Lake Arm or (3) the elevation of Sag Lake Arm where it will connect with the permanent outlet structure.* In Section 5.2 of the *Central Field Pit 7 Reclamation Plan* stand alone document, TCM states that the permanent outlet structure will be constructed with an invert elevation of approximately 231.8 feet asl. Construction of (1) the connection between the main body of the proposed Pit 7 Lake and the Sag Lake arm and (2) the connection between the permanent outlet channel and Packwood Creek are both critical construction points for which TCM has not provided a clear explanation (including construction method and timeliness).

TCM must further revise Drawing 5.1 to show the existing bathymetry of Sag Arm Lake in order to document the depth of the existing littoral zone. OSM notes that without the information concerning Sag Lake arm discussed above, TCM will not be able to adequately revise its application in response to the U.S. NMFS comments concerning the impacts of the proposed lake on the existing Sag Lake arm and the permanent outlet channel for the Pit 7 Lake.

► **Response Evaluation**

- TCM has satisfied this comment by adding a new drawing (5.4), which shows the existing bathymetry of Sag Arm Lake and the proposed revisions to connect the Sag lake arm with the main body of the Pit 7 Lake. This bathymetry was prepared based on soundings of the Sag Lake Pond completed by TCM on August 13-14, 2012. This drawing provides two cross sections, a profile showing, and bathymetry of the Sag Arm Lake at a contour interval of 2-feet. This drawing provides the detail needed to develop plans for construction. The extent of the littoral zones in Drawing 5.1 has been revised based on this bathymetric survey. Section 5 of the *Central Field Pit 7 Reclamation Plan* stand alone has been revised to include the new drawing 5.4 and the associated revisions to Drawing 5.1 and the text.

(3) Technical Evaluation Findings: For the topics addressed in this report (cited above), OSM has reviewed the annotated comments provided by TCM regarding recommendations and comments made by NMFS, WADFW, and OSM.

[8] This part of the application/document does not comply with the requirements of the applicable regulations. To bring the document into compliance, **TransAlta needs to correct the deficiencies noted in bold located beneath subheading "Response Evaluation"**.

6. **PRIMARY AND PEER REVIEWERS.**

- **Primary reviewer:**



Spencer Shumate, Natural Resource Specialist

December 17, 2012

- **Peer reviewer:**



Barbara Bowerman, Environmental Protection Specialist

December 17, 2012

From: **Miller, Peggy A (DFW)** <Peggy.Miller@dfw.wa.gov>
Date: Mon, Dec 17, 2012 at 1:23 PM
Subject: RE: Seed Mix
To: "Shumate, John" <jshumate@osmre.gov>

Hi Spencer,

From a native plant and wildlife perspective, a co-worker suggested fireweed. It's a preferred species for elk, a native and fits the young forest setting. PacifiCorp is including it in their seed mixture for the Lewis River basin so a seed source should be available. Ecology suggested the original seed mixture and may have another suggestion from an erosion control point of view.

Thanks for allowing us to provide input for the seed mixture!

Peggy

Peggy Miller - Energy/Major Projects Biologist, Habitat

Washington Department of Fish and Wildlife
600 Capitol Way North - Olympia WA 98501
peggy.miller@dfw.wa.gov 360-902-2593

From: Shumate, John [[mailto: jshumate@osmre.gov](mailto:jshumate@osmre.gov)]
Sent: Monday, December 17, 2012 9:18 AM
To: Miller, Peggy A (DFW)
Subject: Seed Mix

Hi Peggy! I just wanted to follow up with you regarding our conversation last week about the proposed seed mix. I can imagine things are just as busy in your shop this time of year as they are mine. As mentioned previously, I am hoping to complete this evaluation ASAP so let me know if there is anything additional you may need from me.

Thanks,
Spencer

J. Spencer Shumate

Natural Resource Specialist
U.S. Department of the Interior
Office of Surface Mining
Reclamation and Enforcement
Denver Field Division
1999 Broadway Suite 3320
Denver, CO 80202
Office: (303) 293-5046
Fax: (303) 293-5017

Dennis Morr

From: Miller, Peggy A (DFW) <Peggy.Miller@dfw.wa.gov>
Sent: Friday, September 16, 2011 2:58 PM
To: Dennis Morr
Subject: RE: State and Federal Threatened & Endangered Species at the Centralia Mine

Hi Dennis,

I looked at the public version of the PHS application, an internal version of the PHS application, and GIS data. I'm happy to let you know that I came up with the same species list as you did utilizing the public version. The public version does identify the state and federal T&E species on project lands.

I did come up with a different list utilizing the internal version and GIS data. The Olympic mudminnow, a state sensitive species, was located on project lands in 1972 and included on the list generated utilizing the internal PHS application. The reason it did not show up on your report is that the cutoff date for localities to be included in the public version of the PHS application is 1978.

Is OSM asking you to include state sensitive species? If so, I will need to do further research to verify that species found before 1978 (and not again after 1978) are dropped from consideration.

Peggy

Peggy Miller - Renewable Energy Biologist, Habitat

Washington Department of Fish and Wildlife
600 Captol Way North - Olympia WA 98501
360-902-2593

From: Dennis Morr [mailto:Dennis_Morr@transalta.com]
Sent: Monday, September 12, 2011 11:07 AM
To: Miller, Peggy A (DFW)
Subject: State and Federal Threatened & Endangered Species at the Centralia Mine

Good morning Peggy!

Thank you for your willingness to take a look at the attached report I generated using the interactive Priority Habitat and Species Report and Map generator.

From what I see on this report Coho and Cutthroat are the only Federal listings as "Threatened" and then the Townsend's Big-eared Bat is shown as a Federal Species of Concern/also listed as a candidate for State listing. My concern is if this is a complete report for the mine area.

If you could validate the State & Federal T&E listings for the mine area, I would be most appreciative.

Thank you in advance for your time and effort.

Best regards,
Dennis

Dennis Morr

Sr. Environmental Specialist

Ph: 360-330-8209 | Cell: 360-508-0099
913 Big Hanaford Rd | Centralia, WA 98531



www.transalta.com



WASHINGTON DEPARTMENT OF FISH AND WILDLIFE PRIORITY HABITATS AND SPECIES REPORT

SOURCE DATASET: PHSPublic
REPORT DATE: 09/12/2011 10.02 AM

Query ID: P110912100140

Common Name	Site Name	Priority Area	Accuracy	Federal Status	Sensitive Data	Source Entity
Scientific Name	Source Dataset	Occurrence Type		State Status	Resolution	Geometry Type
Notes	Source Record	More Information (URL)		PHS Listing Status		
	Source Date	Mgmt Recommendations				
Coast Resident Cutthroat Oncorhynchus clarki	FISHDIST 18068	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WA Department of Fish & Wildli Lines
Coast Resident Cutthroat Oncorhynchus clarki	FISHDIST 17760	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WA Department of Fish & Wildli Lines
Coast Resident Cutthroat Oncorhynchus clarki	Hanaford Creek FISHDIST 19944	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WA Department of Fish & Wildli Lines
Coast Resident Cutthroat Oncorhynchus clarki	Packwood Creek FISHDIST 41291	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WA Department of Fish & Wildli Lines
Coast Resident Cutthroat Oncorhynchus clarki	FISHDIST 20486	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WA Department of Fish & Wildli Lines
Coast Resident Cutthroat Oncorhynchus clarki	FISHDIST 19916	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WA Department of Fish & Wildli Lines
Coast Resident Cutthroat Oncorhynchus clarki	FISHDIST 20485	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WA Department of Fish & Wildli Lines

Common Name Scientific Name	Site Name Source Dataset Source Record	Priority Area Occurrence Type More Information (URL)	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Notes	Source Date	Mgmt Recommendations				
Coast Resident Cutthroat Oncorhynchus clarki	North Hanaford Creek FISHDIST 21003	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WA Department of Fish & Wildli Lines
Coho Oncorhynchus kisutch	Hanaford Creek SASI 3605	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Coho Oncorhynchus kisutch	SASI 3605	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Coho Oncorhynchus kisutch	SASI 3605	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Coho Salmon Oncorhynchus kisutch	FISHDIST 16562	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Coho Salmon Oncorhynchus kisutch	Hanaford Creek FISHDIST 20499	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Coho Salmon Oncorhynchus kisutch	FISHDIST 19917	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Cutthroat Oncorhynchus clarki	SASI 7580	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines

Common Name Scientific Name	Site Name Source Dataset Source Record	Priority Area Occurrence Type More Information (URL)	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Notes	Source Date	Mgmt Recommendation s				
Cutthroat Oncorhynchus clarki	North Hanaford Creek SASI 7580	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Cutthroat Oncorhynchus clarki	SASI 7580	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Cutthroat Oncorhynchus clarki	SASI 7580	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Cutthroat Oncorhynchus clarki	SASI 7580	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Cutthroat Oncorhynchus clarki	Packwood Creek SASI 7580	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Cutthroat Oncorhynchus clarki	SASI 7580	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Cutthroat Oncorhynchus clarki	Hanaford Creek SASI 7580	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	Threatened N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Eastern wild turkey Meleagris gallopavo silvestris	LITTLE HANFORD VAL WS_OccurPoint 67724 September 11, 1992	Regular Concentration Biotic detection http://wdfw.wa.gov/publications/pub.php?id=00026	1/4 mile (Quarter	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Points

Common Name	Site Name	Priority Area	Accuracy	Federal Status	Sensitive Data	Source Entity
Scientific Name	Source Dataset	Occurrence Type		State Status	Resolution	Geometry Type
Notes	Source Record	More Information (URL)		PHS Listing Status		
	Source Date	Mgmt Recommendations				
Eastern wild turkey	SKOOKUMCHUCK	Regular Concentration	1/4 mile (Quarter	N/A	N	WA Dept. of Fish and Wildlife
Meleagris gallopavo silvestris	WS_OccurPoint	Biotic detection		N/A	AS MAPPED	Points
	67716					
	February 20, 1990	http://wdfw.wa.gov/publications/pub.php?id=00026		PHS LISTED		
Elk	CENTRALIA MINE	Regular Concentration	General locality	N/A	N	WA Dept. of Fish and Wildlife
Cervus elaphus	PHSREGION	Regular concentration		N/A	AS MAPPED	Polygons
	918524					
		http://wdfw.wa.gov/publications/pub.php?id=00614		PHS LISTED		
Harlequin duck	SKOOKUMCHUCK RIVER	Breeding Area	1/4 mile (Quarter	N/A	N	WA Dept. of Fish and Wildlife
Histrionicus histrionicus	PHSREGION	Breeding occurrence		N/A	AS MAPPED	Polygons
	901462					
		http://wdfw.wa.gov/publications/pub.php?id=00026		PHS LISTED		
LACUSTRINE LITTORAL	N/A	Aquatic Habitat	NA	N/A	N	US Fish and Wildlife Service
	NWIPOLY	Aquatic habitat		N/A	AS MAPPED	Polygons
		http://www.ecy.wa.		PHS Listed		
LACUSTRINE LITTORAL	N/A	Aquatic Habitat	NA	N/A	N	US Fish and Wildlife Service
	NWIPOLY	Aquatic habitat		N/A	AS MAPPED	Polygons
		http://www.ecy.wa.		PHS Listed		
PALUSTRINE	N/A	Aquatic Habitat	NA	N/A	N	US Fish and Wildlife Service
	NWIPOLY	Aquatic habitat		N/A	AS MAPPED	Polygons
		http://www.ecy.wa.		PHS Listed		
PALUSTRINE	N/A	Aquatic Habitat	NA	N/A	N	US Fish and Wildlife Service
	NWIPOLY	Aquatic habitat		N/A	AS MAPPED	Polygons
		http://www.ecy.wa.		PHS Listed		

Common Name Scientific Name	Site Name Source Dataset Source Record	Priority Area Occurrence Type More Information (URL)	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Notes	Source Date	Mgmt Recommendations				
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

Common Name Scientific Name	Site Name Source Dataset Source Record	Priority Area Occurrence Type More Information (URL)	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Notes	Source Date	Mgmt Recommendations				
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons
PALUSTRINE	N/A NWIPOLY	Aquatic Habitat Aquatic habitat http://www.ecy.wa.gov	NA	N/A N/A PHS Listed	N AS MAPPED	US Fish and Wildlife Service Polygons

Common Name Scientific Name	Site Name Source Dataset Source Record	Priority Area Occurrence Type More Information (URL)	Accuracy	Federal Status State Status PHS Listing Status	Sensitive Data Resolution	Source Entity Geometry Type
Notes	Source Date	Mgmt Recommendations				
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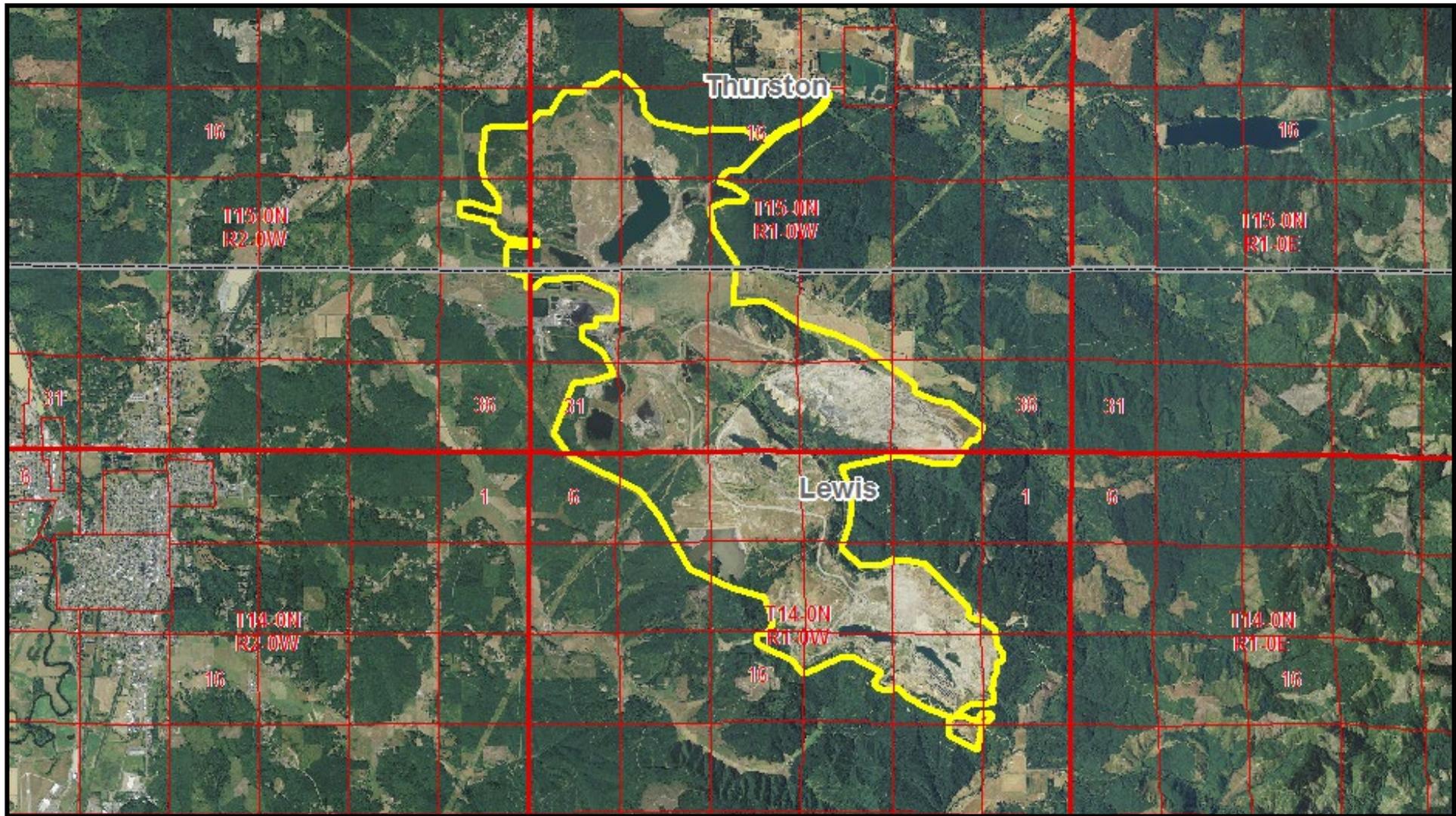
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Steelhead Oncorhynchus mykiss	Hanaford Creek SASI 6609	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Steelhead Oncorhynchus mykiss	SASI 6609	Occurrence Occurrence http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS Listed	N AS MAPPED	WDFW Fish Program Lines
Steelhead Trout Oncorhynchus mykiss	Hanaford Creek FISHDIST 41302	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines

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Steelhead Trout Oncorhynchus mykiss	FISHDIST 41292	Occurrence/Migration Occurrence/migration http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Steelhead Trout Oncorhynchus mykiss	Hanaford Creek FISHDIST 17806	Breeding Area Breeding area http://wdfw.wa.gov/wlm/diversty/soc/soc.htm http://wdfw.wa.gov/publications/pub.php?id=00033	NA	N/A N/A PHS LISTED	N AS MAPPED	WDFW and/or LFA Reports, NWIFC Lines
Townsend's Big-eared Bat Corynorhinus townsendii	WS_OccurPoint 108654 June 26, 2010	Communal Roost Biotic detection http://wdfw.wa.gov/publications/pub.php?id=00027	GPS	Fed Spp Concern Candidate PHS LISTED	Y TOWNSHIP	WA Dept. of Fish and Wildlife Points
Waterfowl Concentrations	SKOOKUMCHUCK PHSREGION 902435	Regular Concentration Regular concentration http://wdfw.wa.gov/publications/pub.php?id=00026	1/4 mile (Quarter)	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
Wood duck Aix sponsa	SCATTER CREEK PHSREGION 902431	Breeding Area Breeding occurrence http://wdfw.wa.gov/publications/pub.php?id=00026	1/4 mile (Quarter)	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Polygons
Yuma myotis Myotis yumanensis	WS_OccurPoint 110201 June 23, 2010	Regular Concentration Biotic detection http://wdfw.wa.gov/publications/pub.php?id=00605	GPS	N/A N/A PHS LISTED	N AS MAPPED	WA Dept. of Fish and Wildlife Points

DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.



Study Area Diagram

BOUNDING BOX: -13680636,5889508,-13663690,5910409
(web mercator meters)

Query ID: P110912100140

09/12/2011 10.02 AM

21

From: Crandell, Caren J NWS [Caren.J.Crandell@usace.army.mil]
Sent: Wednesday, March 03, 2010 10:01 PM
To: Bowerman, Barbara
Cc: -- Waugh, Glenn; Terzi, Gail M NWS; Lamprecht, Michael J NWS
Subject: Comments on TransAlta Pit 7 Lake Significant Revision; Centralia Mine (WA-0010E-R-08).
Follow Up Flag.: Follow up
Flag Status: Flagged

Hi, Barbara.

Thank you for sending us the proposed revision to the TransAlta Centralia Mine, specifically Pit 7 Lake. The OSM reference number is WA-0010E-R-08: We appreciate your calling the relevant sections to our attention and have the following comments.

- 1) Use of Bottom Ash - We are concerned about the use of bottom ash in the surface layers of the area near the proposed lake. Some years ago, we approved a mitigation site (Pond 3B) that included bottom ash in the substrate of the reclaimed area, but we notified TransAlta that we would not again consider the use of bottom ash in mitigation sites. For a variety of reasons, TransAlta recently withdrew Pond 3B from its mitigation plan and is in the process of finding a replacement site. Bottom ash is a concern because of the polyaromatic hydrocarbons that can be associated with ash - following the coal combustion process. If such compounds, or others, become bioavailable, the lake area could become an attractive nuisance (i.e., drawing wildlife to an area that is contaminated). We request that the inclusion of bottom ash in this area be reconsidered.
- 2) Ditch 30 and Packwood Creek - In Drawing 5.2, Ditch 30 appears to run parallel to and separate from remaining segments of Packwood Creek. However, Section 5 refers to the fact that Ditch 30 water quality is important to predict and monitor because the flow will eventually join Packwood Creek. Could you tell us where Ditch 30 flows into Packwood Creek? Also, assuming the water quality of Pit 7 outflow is acceptable, what limitations are there on abandoning the Ditch 30 diversion and restoring more flow to Packwood Creek and recreating a more natural floodplain? Or conversely, what advantages are there to keeping these two channels separate?
- 3) Open Water a Limited Resource? - Given that the Pond 3 and 5 series are likely to remain wetlands and open water at the mine site, is open water considered a limited resource in the area? If so, what wildlife might Pit 7 Lake support that would not be served with these waterbodies nearby? If not, it seems that the rationale for Pit 7 Lake is best based on other factors.
- 4) Diverting Pond 19 - Section 5 mentions possibly diverting Pond 19 to Pit 7 Lake if additional flow is required to keep the lake at predicted levels. Does Pond 19 currently contribute to the hydrology of Pond_ 5 (farther downstream along Ditch 30)? If so, please explain how diverting Pond 19 to Pit 7 Lake would affect (or not) the hydrology of Pond 5 [and presumably Packwood Creek].
- 5) Sulphate Levels - Water quality sections of Section 5 refer to sulphate levels. According to the text, reduction of sulphate is not currently occurring in the existing pit water and it is expected that mixing (oxygenation) of the water (as well as low levels of organic matter in the system) will decrease the likelihood of sulphate reduction. We would appreciate clarification of why the existing pit water levels are comparable to proposed lake levels in terms of modeling mixing (or oxygenation at lowest depths) and why, since mixing would occur outside the growing season, this annual turnover would be adequate to prevent sulphate reduction from occurring.
- 6) Low Nutrients Levels in Lake - If the lake is expected to be oligotrophic (low in nutrients), how successful is plant production (habitat) expected to be in the shoreline and emergent areas?

We very much appreciate the opportunity to comment. Please let us know if may provide any clarification.

--Caren

Caren Crandell
Regulatory Project Manager
Corps of Engineers, Seattle District
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· caren.i.crandell@usace.army.mil ·



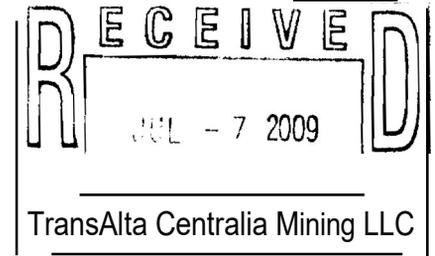
Lewis County

Community Development Department

Divisions:

Administration
Building & Fire Safety
Permit Center
Planning

2025 N.E. Kresky Avenue Chehalis WA 98532 (360) 740-1146 Fax: (360) 740-1245 . TDD: (360) 740-1480 . www.co.lewis.wa.us



June 29, 2009

Mr. James Fulton, Chief - Denver Field Division
U.S. Department of the Interior
Office of Surface Mining, Reclamation and Enforcement Western Region
1999 Broadway, Suite 3320
Denver, Colorado 80202-5733 Re:

Proposed Pit 7 Lake

Dear Mr. Fulton,

Lewis County would like to provide this letter of support for TransAlta's proposal to leave a lake in the Pit 7 mine area as part of their final reclamation plan. We have reviewed the lake proposal with TransAlta personnel and support the concept.

The opportunity for a lake in this area, which lies near our largest population center, offers great future potential as a recreational resource for Lewis County citizens. In addition, we support the further development of an aquatic environment for fish, waterfowl and wildlife that will benefit from the construction of this lake. Please note that Lewis County has no lakes of this size in the western portion of the county. This lake would provide diversity and aesthetic value, complementing the surrounding forested areas.

Sincerely,

Robert A. Johnson
Community Development Director Lewis
County, Washington

cc. Tony Briggs TransAlta