Craver, Patti

From: Logan, Dennis
Sent: Thursday, October 13, 2011 3:26 PM
To: Imboden, Andy
Subject: FW: FW: Revised biological assessment conclusion for bull trout in Columbia Generating Station Section 7 consultation with FWS. NRC Docket 050-00397
Attachments: CGS FWS RESPONSE.PDF

Andy,

I got together with Dan shortly after he wrote this and answered his questions. We do not have to reply to USFWS, because this letter is a reply to us. This letter closes the consultation with USFWS, and we will note that in the FSEIS with reference to this letter.

Section 7 and EFH consultations with NMFS for Columbia are still open.

Dennis

From: Doyle, Daniel
Sent: Wednesday, October 12, 2011 5:08 PM
To: Logan, Dennis; Krieg, Rebekah
Subject: RE: FW: Revised biological assessment conclusion for bull trout in Columbia Generating Station Section 7 consultation with FWS. NRC Docket 050-00397

Dennis and Becky,

Attached is the response from USFWS which I received today. They concur with our revised finding and include some language about conditions under which the project should be reanalyzed or consultation should be re-initiated.

Can you **send Mr. Gauthier a brief email** acknowledging the letter or should I do it?

Is there **anything else we should do** about this as we move into the final SEIS?

Thanks,

Dan Doyle

Project Manager
Division of License Renewal
U.S. Nuclear Regulatory Commission
daniel.doyle@nrc.gov
(301) 415-3748

From: Luke_Gauthier@fws.gov [mailto:Luke_Gauthier@fws.gov]
Sent: Tuesday, October 04, 2011 10:53 AM
To: Logan, Dennis
Cc: Doyle, Daniel
Subject: Re: FW: Revised biological assessment conclusion for bull trout in Columbia Generating Station Section 7 consultation with FWS. NRC Docket 050-00397

B/31

Dr. Logan,

Thank you for sending this revision. I will review the information and send you a response as soon as possible.

Luke S. Gauthier
USFWS - Central Washington Field Office
215 Melody Lane, Suite 119
Wenatchee, WA 98801
509.665.3508 x24 (tel)
509.665.3509 (fax)
www.fws.gov/wafwo

"Logan, Dennis" <Dennis.Logan@nrc.gov>

09/29/2011 04:41 AM

To '"Luke_Gauthier@fws.gov"' <Luke_Gauthier@fws.gov>

cc

Subject FW: Revised biological assessment conclusion for bull trout in Columbia Generating Station Section 7 consultation with FWS. NRC Docket 050-00397

From: Logan, Dennis
Sent: Wednesday, September 28, 2011 5:29 PM
To: luke.gauthier@fws.gov
Cc: Imboden, Andy; Doyle, Daniel; Balsam, Briana; Krieg, Rebekah; NRR-PMDA-ECapture Resource
Subject: Revised biological assessment conclusion for bull trout in Columbia Generating Station Section 7 consultation with FWS. NRC Docket 050-00397

Dear Mr. Gauthier:

The NRC staff's August 2011 biological assessment concluded that the continued operation of the Columbia Generating Station (CGS) would have **no effect** on the **bull trout** (*Salvelinus confluentus*). After further consideration, however, the NRC staff has revised its conclusion and now believes that operation of the CGS is **not likely to adversely affect** bull trout. The following discussion summarizes the findings of the biological assessment and presents the justification for the revised conclusion.

Proposed Action
The NRC's Federal action is the decision whether to renew the CGS operating license for an additional 20 years.

CGS Water Withdrawal and Discharge Summary
In generating electricity, CGS produces heat, which is transferred to the atmosphere through evaporation using six mechanical draft cooling towers. CGS also routinely discharges a portion of cooling water to the Columbia River. The total water losses are replaced by withdrawal from the Columbia River (replacement water is called make-up water). During normal operating periods, the average makeup-water withdrawal is about 17,000 gpm (1.1 m^3/s). The plant withdraws water about 300 ft (91 m) from the shoreline through two intake screens that have an outer and inner perforated pipe sleeve to exclude adult fish. The outer sleeve has a 42-in. (107-cm) -diameter sleeve with 3/8-in. (9.5-mm)-diameter holes (composing 40 percent of the surface area). The inner sleeve has a 36-in. (91-cm)-diameter sleeve with 3/4-in. (19-mm)-diameter holes (composing 7 percent of the surface area). For the discharge, the State of Washington authorizes discharge in accordance with the special and general conditions of National Pollutant Discharge Elimination System Permit No. WA-002515-1.

Assessment of Impacts to Bull Trout
The FWS listed bull trout as threatened throughout their range in 1999. The CGS's action is the Hanford Reach, which lies within the Columbia River Distinct Population segment of bull trout. The FWS considers the Hanford Reach of the mainstem Columbia River to be a potential migratory corridor for bull trout. The Mainstem Upper Columbia River critical habitat unit (CHU) provides connectivity to the Mainstem Lower Columbia River CHUs and to 13 additional CHUs. This critical habitat is the main foraging, migration, and overwintering (FMO) habitat for the Entiat River core area and provides connectivity between several other core areas or critical habitat units. The FWS's Bull Trout Final Critical Habitat Justification indicates that bull trout reside year-round in certain areas of

the mainstem of the Columbia River as either sub-adults or adults and that spawning adults may also use the mainstem of the Columbia River for up to 9 months.

Observation of bull trout in the Hanford Reach is rare, and the species may seldom use this migratory corridor. Resource scientists at DOE's Hanford Site have characterized the use of the Hanford Reach by bull trout as transient. The FWS Bull Trout Final Critical Habitat Justification indicated that the accounts of bull trout in the Hanford Reach are "anecdotal" and are "likely individuals moved downstream during the spring freshet. Furthermore, the habitat and water temperatures in the Hanford Reach are not ideal for spawning, and the NRC did not identify any reports of spawning activity by bull trout in the vicinity of the CGS during its review for the proposed CGS license renewal.

The lack of spawning in the Hanford Reach means that there is no potential for young bull trout or bull trout eggs to be entrained or impinged at the CGS site. Furthermore, entrainment studies conducted in 1979–1980 and 1985 did not collect any life stage of bull trout. Impingement studies conducted over the same period did not observe any fish impinged on the intake screens. Healthy adult bull trout that commonly inhabit rivers with water velocities above 4 fps (1.2 m/s) would not be susceptible to impingement with a through-screen velocity of 0.5 fps (15 cm/s).

Regarding the heated effluent, bull trout actively select for cooler water, thus there would be little potential for them to be affected by the thermal or chemical discharge from the CGS plant. The thermal effluent from the blowdown discharge during the spring is a long, narrow plume, comprising approximately one percent of the width of the river, and bull trout would likely avoid it while migrating or foraging.

Conclusion

Because the Hanford Reach of the river is neither spawning nor rearing habitat for bull trout and because bull trout are so rare in this area, the NRC staff's biological assessment concluded that the continued operation of CGS would have no effect on the bull trout. After further consideration, however, the NRC staff now believes that because the of the age of entrainment and impingement studies and the consideration that lack of bull trout in those samples would not absolutely preclude a take of bull trout in the future, its conclusion should be more protective and conservative. Therefore, the NRC staff revises its conclusion and now believes that operation of the CGS is **not likely to adversely affect** bull trout.

Please contact me if you have any further questions,

Sincerely,

Dennis Logan, Ph.D.
Ecologist
U.S. Nuclear Regulatory Commission
One White Flint North, Mail Stop O-11F1
11555 Rockville Pike
Rockville, MD 20852-2738

Phone: 301.415.0490
Fax: 301.415.2002

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington Fish and Wildlife Office
Central Washington Field Office
215 Melody Lane, Suite 119
Wenatchee, Washington 98801

October 5, 2011

In Reply Refer To:
USFWS Reference: 01E00000-2012-0004
Hydrologic Unit Codes: 17-07-01-01-01
RE: NRC-2010-0029

David J. Wrona, Chief
Division of License Renewal
Office of Nuclear Reactor Regulation

Dear Mr. Wrona:

This responds to your request for informal consultation on the Columbia Generating Station (CGS) License Renewal (Project), located in Benton County, Washington. Your August 23, 2011 cover letter and Biological Assessment (BA) were received in the U.S. Fish and Wildlife Service's (Service) Central Washington Field Office on August 31, 2011. Supplemental information and revisions to the original effects determination were received on September 29, 2011.

The U.S. Nuclear Regulatory Commission (NRC) has requested Service concurrence with the determination of "may affect, not likely to adversely affect" the bull trout (*Salvelinus confluentus*) in accordance with section 7(a)(2) of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*). Effects to other listed or proposed species, or their habitats, are not anticipated to occur.

The NRC is proposing to extend the current license for an additional 20 years. During normal operating periods, CGS withdraws about 17,000 gpm from the mainstem Columbia River. The pipe used to extract river water includes two intake screens and perforated pipe screens to exclude migrating adult bull trout. The pipe extends 300ft from the shoeline, which reduces impacts to near shore fish communities. For a complete description of the proposed license extension and conservation measures, please refer to the Project BA.

The Project BA describes effects that are either extremely unlikely to occur and/or are very small in scale. The Service agrees that the proposed license renewal will result in discountable and insignificant effects to individuals of listed species. Therefore, the Service concurs with your determinations of "may affect, not likely to adversely affect" for the bull trout, based on the

information included in the BA. Our concurrence is conditioned on the nuclear plants normal operation as described in the BA.

This concludes informal consultation pursuant to the implementing regulations of the Endangered Species Act, 50 C.F.R. § 402.13. This Project should be reanalyzed if new information reveals effects of the action that may affect listed or proposed species or designated or proposed critical habitat in a manner or to an extent not considered in this consultation; if the action is subsequently modified in a manner that causes an effect to a listed or proposed species or designated or proposed critical habitat that was not considered in this consultation; and/or, if a new species is listed or critical habitat is designated that may be affected by this Project. If a bull trout is impacted or harmed via harassment, disturbance, or capture during sampling activities, it will trigger a re-initiation of consultation.

Thank you for your assistance in the conservation of listed species. If you have any questions or comments regarding this letter, please contact Luke Gauthier at the Central Washington Field Office in Wenatchee at (509) 665-3508, extension 24, or via e-mail at luke_gauthier@fws.gov.

Sincerely,

Ken S. Berg, Manager
Washington Fish and Wildlife Office

cc: Dennis Logan, USNRC, Dennis.Logan@nrc.gov, 301-415-0490
Dan Doyle, USNRC, Dan.Doyle@nrc.gov, 301-415-3748