



United States Department of the Interior

BUREAU OF RECLAMATION
Pacific Northwest Region
Lower Columbia Area Office
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FEB 17 2006

MEMORANDUM

To: Regional Director
Attn: PN-1000

From: Ronald J. Eggers
Area Manager

Subject: National Marine Fisheries Service Biological Opinion, Incidental Take Statement, and Magnuson-Stevens Fishery Conservation and Management Act (MSA) Consultation for Continued Operations and Maintenance of the Deschutes River Basin Project—Deschutes, Crooked River, and Wapinitia (NMFS Reference No. 2003/01270)

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The Bureau of Reclamation submitted a biological assessment (BA) on September 30, 2003 to the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (FWS) requesting concurrence with its not likely to adversely effect conclusions with respect to species listed under the Endangered Species Act (ESA). The BA described three separate proposed actions involving future operations and routine maintenance at three Reclamation projects in the Deschutes River basin, including the Deschutes, Crooked River, and Wapinitia projects. Reclamation received a letter from the FWS on May 28, 2004, concurring with the not likely to adversely affect conclusions for bald eagle and bull trout.

Reclamation received a Biological Opinion (Opinion) and incidental take statement from NMFS on February 17, 2005. The Opinion contains NMFS's determinations with respect to the Middle Columbia River (MCR) steelhead (*Oncorhynchus mykiss*) evolutionarily significant unit (ESU) and its findings relative to the MSA with respect to effects to essential fish habitats for Chinook (*O. tshawytscha*) and coho (*O. kisutch*) salmon. NMFS concluded that Reclamation's proposed actions will adversely affect the MCR steelhead ESU, and thus, provided reasonable and prudent measures (RPMs) and terms and conditions (T&Cs) to minimize incidental take.

Reclamation notified NMFS that the RPMs and associated T&Cs contained in the incidental take statement were outside its authority to implement. After further discussion with Reclamation, NMFS amended one of the RPMs and T&Cs in an August 30, 2005 letter. The amendment encompassed a rewording of the RPM and T&C to clarify the intent and to clearly tie it to Reclamation's project operations.

Reclamation has prepared the attached Decision Document describing how we will proceed with the proposed actions and implement the RPMs and T&Cs to comply with the ESA. We request your review and concurrence before transmitting this document to the NMFS.

Attachment

DECISION DOCUMENT

Concerning

***NATIONAL MARINE FISHERIES SERVICE
BIOLOGICAL OPINION, INCIDENTAL TAKE STATEMENT, AND
MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT
ACT CONSULTATION***

for

*Bureau of Reclamation Continued Operations and Maintenance of the Deschutes
River Basin Projects*

Deschutes, Crooked River, and Wapinitia Projects

NMFS Reference No. 2003/01270

**U.S. Bureau of Reclamation
*Pacific Northwest Region
Lower Columbia Area***

February 17, 2006

Introduction

On September 30, 2003, Reclamation submitted a Biological Assessment (BA) to the National Marine Fisheries Service (NMFS) under Section 7 of the Endangered Species Act (ESA) for future operations and routine maintenance at its three Deschutes River basin projects. Reclamation requested concurrence from NMFS on its not likely to adversely effect conclusion. Reclamation also conducted an analysis of effects to essential fish habitat (EFH) pursuant to Section 305(b)(4)(A) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) as amended by the Sustainable Fisheries Act of 1996.

Reclamation received a Biological Opinion (Opinion) and incidental take statement from NMFS on February 17, 2005. On August 30, 2005, NMFS submitted an amendment to the incidental take statement to Reclamation. The Opinion contains NMFS's findings with respect to the Middle Columbia River (MCR) steelhead (*Oncorhynchus mykiss*) evolutionarily significant unit (ESU) and effects to EFHs for Chinook (*O. tshawytscha*) and coho (*O. kisutch*) salmon.

The Section 7 ESA implementing regulations at 50 CFR § 402.15(a) state that "following the issuance of a biological opinion, the Federal agency shall determine whether and in what manner to proceed with the action in light of its Section 7 obligations and the Service's biological opinion." The MSA requires the Federal agency to provide a written response concerning EFH conservation recommendations (50 CFR 600.920(k)). This Decision Document constitutes Reclamation's written notification to NMFS pursuant to the MSA requirements with respect to EFH conservation recommendations contained at page 61 in the Opinion. It also describes Reclamation's commitment to carry out the activities identified in NMFS's February 17, 2005 Opinion and incidental take statement, including reasonable and prudent measures (RPMs) and terms and conditions (T&Cs) set forth at pages 58 to 60 in the Opinion, as amended on August 30, 2005.

Summary of the Proposed Actions

The proposed actions encompass future operation and routine maintenance involving features and facilities at three Federal projects -- Crooked River, Deschutes, and Wapinitia Projects. Reclamation does not coordinate operation among the projects, but rather operates the projects independently of each other. As a matter of administrative convenience, Reclamation addressed these actions as one proposed action in a single biological assessment. The proposed actions generally encompass:

- Storage and release of water from Federal reservoirs and dams
- Diversion of water at Reclamation facilities
- Routine maintenance at Reclamation project facilities

Table 1 summarizes Reclamation's major storage and on-stream diversion facilities associated with the three projects and the proposed actions. There are also several facilities whose

operations are interrelated or interdependent to Reclamation's proposed actions that were described in the BA.

Reclamation submitted a biological assessment and supporting documents that supplement or clarify information in the assessment (listed below).

- U.S. Bureau of Reclamation. 2003. *Biological Assessment on Continued Operations and Maintenance of the Deschutes River Basin Projects and Effects on Essential Fish Habitat under the Magnuson-Stevens Act – Deschutes, Crooked River, and Wapinitia Projects*. Pacific Northwest Region, Lower Columbia Area Office.
- U.S. Bureau of Reclamation. 2003. *Operations Description of the Deschutes River Basin Projects*. Pacific Northwest Region, Lower Columbia Area Office.
- U.S. Bureau of Reclamation. 2004. *Additional Information and Analyses to Supplement the Biological Assessment on Continued Operation and Maintenance of the Deschutes River Basin Projects and Effects on Essential Fish Habitat under the Magnuson-Stevens Act*. January 13, 2004. Pacific Northwest Region, Boise, Idaho.

Reclamation submitted its BA on September 30, 2003. NMFS notified Reclamation in an October 29, 2003, letter that it did not concur with the determinations in the BA. Subsequent discussions with NMFS involved, among other things, stream habitat data that were not considered in the BA. Reclamation reviewed this information, conducted additional analyses, and submitted supplemental information to NMFS on January 16, 2004.

NMFS Biological Opinion and Incidental Take Statement

NMFS submitted a Biological Opinion (Opinion) to Reclamation on February 17, 2005. NMFS concluded that Reclamation's proposed actions were not likely to jeopardize the continued existence of the MCR steelhead ESU. However, based on a comparison of a modeled with and hypothetical without project operations scenarios, NMFS postulated that Reclamation's proposed actions would adversely affect MCR steelhead by reducing edge rearing habitat in the lower Deschutes River (from below the Pelton-Round Butte Project to the Deschutes River mouth) from October through May, with the greatest effect occurring in October and November. NMFS hypothesized that this effect will reduce the potential

Table 1. Reclamation Major Storage and Off-stream Diversion Facilities Included in the Proposed Actions.

| Project | Storage Facilities | Major Diversion Facilities |
|----------------|---|--|
| Crooked River | Arthur Bowman Dam and Prineville Reservoir | Crooked River Diversion Dam and Feeder Canal |
| Deschutes | Crane Prairie Dam and Reservoir Wickiup Dam and Reservoir Haystack Dam and Equalizing Reservoir | North Unit Headworks and Main Canal |
| Wapinitia | Wasco Dam and Clear Lake | |

for juvenile survival and production. A summary of its conclusions is contained at page 56 of the Opinion.

In accordance with Section 7 of the ESA, NMFS included an incidental take statement at page 57 in the Opinion, containing non-discretionary RPMs and T&Cs to minimize incidental take to the MCR steelhead ESU. Consistent with section 7(a)(1), the NMFS also suggested voluntary conservation recommendations for this ESU at pages 56 and 57 of the Opinion.

Reclamation notified NMFS that RPM 1 and associated T&Cs were outside Reclamation's authority to implement. After further discussion with Reclamation, NMFS amended RPM 1 and T&C 1 in an August 30, 2005, letter. The amendment encompassed a rewording of the RPM and T&C to clarify the intent and to clearly tie it to Reclamation's project operations.

MSA Consultation

Concurrent with the Section 7 ESA consultation, NMFS addressed MSA requirements with respect to effects to EFH for Chinook salmon and coho salmon¹. NMFS determined that the habitat requirements for these species are the same as MCR steelhead. Therefore, NMFS used the analysis for MCR steelhead to support its conclusion that the proposed actions would adversely affect EFH for the species by reducing access to complex edge rearing habitat, particularly during the months of October and November, in the Deschutes River below the Pelton-Round Butte Project.

Hydrologic effects were also hypothesized to occur from reduced flows in the Crooked and Deschutes River reaches upstream (above the Pelton-Round Butte Project) in the spring and summer, reducing juvenile rearing habitat and adult spawning and holding habitat. The "reduction" is hypothetical, being based on a comparison of a modeled with and without project operations scenarios. NMFS noted that Chinook salmon cannot currently access these reaches of designated EFH. NMFS proposed T&Cs 1 and 2.a. in the incidental take statement as conservation recommendations to avoid, mitigate, or offset the adverse effects to EFH.

Findings and Commitments

Based upon information contained in Reclamation's BA, the NMFS's Opinion, and other relevant materials considered in the consultation, Reclamation concludes that its proposed actions are not likely to jeopardize the continued existence of any ESA-listed species. Reclamation will implement its proposed actions in accordance with all applicable laws.

¹ Reclamation noted in its September 2003 BA that coho salmon (*Oncorhynchus kisutch*) did not historically and do not currently occur in the Deschutes River basin.

Unforeseen power emergencies, safety considerations, emergency/critical maintenance, and natural disasters can occur and may require modifications in operations at Reclamation projects. Reclamation will coordinate any foreseeable planned deviations in operations with the NMFS and other affected parties.

Reclamation continues to differ with NMFS with respect to its determination of take to MCR steelhead. The Opinion has not demonstrated how Reclamation's proposed actions, operations 50 and 75 miles upstream of the privately operated Pelton-Round Butte Project, will at any time during the future result in actual harm or harassment to MCR steelhead located downstream. The effects that NMFS has identified entail an assumption about the edge rearing habitat that might hypothetically exist if Reclamation were to discontinue its project operations. However, NMFS has failed to show that the edge habitat that will exist under the proposed actions, which is the same habitat that exists presently, will result in harm or injury to juvenile fish or the ESU. Further, the quantity of edge habitat that NMFS has determined will be reduced in a 100-mile reach of the lower Deschutes River was extrapolated using stream habitat data available for only 7.8-miles of this reach (below Pelton-Round Butte and above Trout Creek). See Opinion at page 53.

The minimum stream flow targets required by RPM 1 to minimize the incidental take attributed by NMFS (and disputed by Reclamation) to Reclamation's proposed actions were met in all but 26 days for the October 1 to November 15 period in four of the years during the 1969 through 2005 period. Reclamation believes that the current flow conditions and the future flow conditions expected with the proposed actions already minimize incidental take (as NMFS has defined it) to the extent practicable. Further, other upstream activities, such as non-Federal irrigation storage and diversions, municipal and industrial diversions and groundwater uses, and private hydropower operations also affect stream flows. The Pelton-Round Butte Project directly controls flows and influences the river reach where the listed fish occur. Any future water development actions, such as issuance of additional surface or groundwater rights by the State, could further reduce stream flows. Thus the RPM imposed on Reclamation by NMFS to maintain a minimum stream flow goes well beyond minimizing take from Reclamation's proposed actions; it attempts to make Reclamation responsible for mitigating current and future non-Federal water development and associated flow effects that are not part of or interrelated or interdependent with Reclamation's proposed actions.

Reclamation will implement the RPMs and T&Cs identified in the incidental take statement. However, we believe these requirements would have been more appropriately identified as conservation recommendations given that NMFS has failed to demonstrate in its analysis that actual harm or harassment to listed species will occur.

Reasonable and Prudent Measures and Terms and Conditions

The NMFS has postulated that Reclamation's proposed actions will result in incidental take in the form of harm or harassment. Because NMFS cannot quantify take in terms of number of

fish, it has used habitat as a surrogate to quantify take. NMFS has estimated the extent of take to be a reduction of up to 1,230,231 square feet of edge rearing habitat in October and up to 2,048,629 square feet in November due to reduced stream flows in the 100-mile reach of the lower Deschutes River below the Pelton-Round Butte Project. The reduced flows were determined by comparing modeled with and hypothetical without project operations scenarios.

To minimize the incidental take anticipated to the MCR steelhead ESU, the incidental take statement contains two RPMs (page 58 and 59 in the Opinion):

1. *Minimize incidental take by continuing its authorized irrigation and flood control releases from Bowman Dam to meet a downstream minimum flow target on a weekly basis² of 1,200 cfs at the gage on the Crooked River below Opal Springs near Culver from October 1 through November 15.*
2. *Provide monitoring and reporting as necessary to ensure that the allowed amount and extent of take is not exceeded, and that the impact of the take is minimized as intended by this Opinion.*

Reclamation will, consistent with its authorities, jurisdiction, and funding, implement the RPMs and associated T&Cs to comply with the incidental take statement and will remain consistent with the section 7 ESA regulations at 40 CFR § 402.14(i)(2) that implementation will not “alter the basic design, location, scope, duration, or timing of the action and may involve only minor changes.” Reclamation will provide an annual report to ensure that it does not exceed the amount and extent of take hypothesized and defined in the incidental take statement.

To implement these RPMs, the NMFS has issued two T&Cs (at pages 58 and 59 in the Opinion and amended by an August 30, 2005, letter), which are restated here along with Reclamation’s determination of how it will proceed.

1. *To implement RPM 1 (downstream minimum stream flow target), Reclamation shall continue its authorized irrigation and flood control releases from Bowman Dam on the Crooked River to meet a downstream minimum flow target on a weekly basis of 1,200 cfs at the gage on the Crooked River below Opal Springs near Culver from October 1st through November 15th. However it is not necessary to meet this requirement under any of the following circumstances:*
 - a. *When the Bowman Dam release is 215 cfs or greater for irrigation or flood control (even if the downstream minimum flow target is not being met), or;*
 - b. *When maintenance of Bowman or related structures is required, for routine periodic or human health and safety reasons, which necessitates very low or zero flow below Bowman Dam, or;*

² Calculated as a 7-day moving average, beginning with the October 1 to 7 period.

c. When a downstream search and rescue effort requires reduction in release from Bowman Dam.

Reclamation's operational objectives and proposed actions at Bowman Dam and Prineville Reservoir are consistent with the intent and requirements of RPM 1 and T&C 1. The requirement recognizes that Reclamation's release of water at the Crooked River Project is limited to the authorized project purposes of flood control and irrigation.

In October and November, Reclamation releases water from Bowman Dam to meet irrigation demands and/or flood control space requirements. Storage in Prineville Reservoir is currently not authorized for instream flow benefits. Reclamation intends to manage releases from Bowman Dam so that the minimum stream flow targets are achieved consistent with Reclamation's authority and in a manner that does not interfere with its legal and contractual obligations to deliver irrigation storage water, refill contracted space, and meet flood control objectives.

Reclamation will monitor stream flow at the Opal Springs gage using its HYDROMET system. Reclamation has established an "alarm" that notifies the Pacific Northwest Regional office's River and Reservoir Operations Group when flows are dropping below 1200 cfs. If flow conditions trigger the alarm, Reclamation will work with Ochoco Irrigation District to adjust releases at Bowman Dam consistent with the RPM and T&C. Reclamation will notify NMFS in writing when it needs to temporarily stop releases from Bowman Dam for routine maintenance and inspection activities.

2. To implement the RPM 2 (monitoring), Reclamation shall submit an annual monitoring report by January 31 of each year. Each monitoring report will include the following information:

- a. Monitor the level of incidental take by reporting minimum stream flows on a weekly basis for October and November at the gage on the Deschutes River near Culver and the gage on the Crooked River below Opal Springs near Culver. The extent of incidental take will not be exceeded as long as the combined minimum stream flow on a weekly basis at these gages is 1680 cfs.*
- b. Submit a copy of the annual report to the Oregon State Habitat Office of NMFS.*

Reclamation will provide an annual report to the NMFS no later than January 31 of each year. The report will include a hydrograph of the combined streamflows on the Deschutes and Crooked Rivers for the October 1 through November 15 period and a hydrograph of flows on the Crooked River at the Opal Springs gage for the same period. Activities completed during the previous calendar year implementing any conservation recommendations will also be reported.

Conservation Recommendations

The NMFS Opinion contains discretionary conservation recommendations for the MCR steelhead ESU. Reclamation is amenable to implementing conservation recommendations that are within its existing authorities and to the extent funding and staffing can be made available. Reclamation will periodically notify the NMFS of the status of its activities with respect to these conservation recommendations. Attachment A addresses the specific conservation recommendations and Reclamation's capability and intent in implementing them.

MSA and EFH Conservation Recommendations

Section 305(b)(4)(A) of the MSA requires Federal agencies to consult with NMFS on activities that may adversely affect EFH. At pages 60 and 61 of the Opinion, NMFS concluded that the proposed actions would adversely affect EFH for Chinook and coho salmon. Pursuant to Section 305(b)(4)(A) of the MSA, NMFS provided EFH conservation recommendations at page 61 that are identical to T&Cs 1 and 2.a. in the incidental take statement.

Since coho salmon are not considered native to the Deschutes River basin, and do not occur there now, Reclamation disagrees with the adverse effect determination for coho salmon EFH. However, Reclamation intends to implement the EFH conservation recommendations since they are the same as the T&Cs contained in the incidental take statement. We described these implementation activities above.

Reporting

As noted above for RPM 2, Reclamation will provide an annual report to the NMFS no later than January 31 of each year. The report will also describe the status of any work completed relative to conservation recommendations.

Reinitiation of Consultation

Reinitiation of consultation is governed by regulations set forth at 50 CFR § 402.16 and is required based on the following criteria:

- (a) If the amount or extent of taking specified in the incidental take statement is exceeded;
- (b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered;
- (c) If the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion; or

(d) If a new species is listed or critical habitat designated that may be affected by the identified action.

Reclamation will comply with these requirements of the law.

NMFS designated critical habitat for MCR steelhead in the Deschutes River basin on September 2, 2005, effective January 2, 2006 (70 FR 52630, Federal Register No. 170). Reclamation will review this recent designation to determine if its proposed actions will have potential effects on the principal constituent elements (PCEs). Reclamation will notify NMFS of its conclusions and, depending on the conclusions of this assessment, will determine if reconsultation is required.

Approval

Reclamation has reviewed the consultation record including Reclamation's September 2003 BA; the NMFS February 2005 Opinion, incidental take statement and August 2005 Amendment to the incidental take statement; and other relevant materials considered in this consultation. Reclamation is committed to implementing the RPMs and associated T&Cs contained in the incidental take statement and Amendment. Reclamation has determined that these actions will meet Reclamation's responsibilities under the ESA and will not result in jeopardy to the MCR steelhead ESU. Reclamation will proceed with implementation of its proposed actions consistent with the findings and commitments identified in the preceding sections.

Signed: _____



Date: _____

Feb 17, 2006

Ronald J. Eggers
Lower Columbia Area Manager
U.S. Bureau of Reclamation

I concur:

Signed: _____

Date: _____

J. William McDonald
Regional Director
U.S. Bureau of Reclamation

ATTACHMENT A

Table A-1. Conservation Recommendations (pages 56-57 in the Opinion).

| Conservation Recommendations | Reclamation Response |
|---|---|
| <p>1. Reclamation should coordinate with Central Oregon Irrigation District, North Unit Irrigation District, Arnold Irrigation District, Ochoco Irrigation District, and Juniper Flats District Improvement Company to plan and implement water conservation measures.</p> | <p>Reclamation is actively involved in numerous water conservation efforts throughout the basin and actively supports and participates in the Deschutes River Conservancy's (DRC) activities, including serving as one of the Directors. Reclamation currently has the authority for water conservation projects through its Water Conservation Field Services program and through grants issued to the DRC. We will report on these activities in our annual report.</p> |
| <p>2. Reclamation should permanently allocate a portion of uncontracted volume of Prineville Reservoir for fisheries benefits.</p> | <p>Allocating uncontracted space in Prineville Reservoir for fisheries benefits requires Congressional reauthorization of the Crooked River Project, and then reallocation of the uncontracted space and amendments to Project water rights to implement.</p> |
| <p>3. Reclamation should actively participate in planning efforts to reestablish spawning populations of anadromous fish throughout the Deschutes Basin upstream of the Pelton/Round Butte Project. Reclamation should assist efforts to provide fish passage through the Pelton/Round Butte Project's dams and reservoirs and, in anticipation of future passage, begin restoring anadromous fish habitat in upstream areas.</p> | <p>We will actively participate in efforts to reestablish spawning populations of anadromous fish in the Deschutes River basin when funding and staff resources allow. Reclamation, through funding of the DRC, has completed several projects in the lower Crooked River and McKay Creek (tributary to the lower Crooked River) that involved stream channel restoration, fish passage, bank stabilization, fish habitat improvements, and riparian zone enhancements in anticipation of anadromous fish reintroduction. Over two miles of stream have been restored. The DRC has annually implemented an annual water leasing program that supplements summer flows in both the lower Crooked and Deschutes Rivers upstream of Billy Chinook.</p> <p>Future activities associated with the Water 2025 Challenge Grant and Water Conservation Programs, described in conservation recommendation 1 previously, will also result in benefits that may assist efforts to reintroduce anadromous fish in the basin.</p> |