# **CHAPTER 1.0 OVERVIEW**

# 1.1 PURPOSE OF BA

This BA describes Reclamation's proposed hydrologic operations and maintenance activities for Federal Reclamation projects in the Deschutes River basin, including the Deschutes, Crooked River, and Wapinitia Projects (Figure 1-1). This document also analyzes the effects of these proposed actions on species listed under the ESA.

Reclamation is submitting this BA pursuant to Section 7(a)(2) of the ESA to the USFWS and the NMFS to ensure that the proposed action is not likely to jeopardize the continued existence of listed species. Under the relevant regulation, the "contents of a biological assessment are at the discretion of the Federal agency and will depend on the nature of the Federal action" [50 CFR § 402.12 (f)].

In addition, this BA also addresses potential effects on EFH as required under the Magnuson-Stevens Fishery Conservation and Management Act (as amended by the Sustainable Fisheries Act of 1996 [Public Law 104-267]) (see Chapter 9). The EFH is evaluated for the following Deschutes River basin salmon stocks:

- Spring Chinook salmon
- Summer/fall Chinook salmon
- Coho salmon

## 1.2 PROPOSED ACTION

Reclamation's proposed action is the continued operation and maintenance of Reclamation project facilities throughout the Deschutes River basin as described in Chapter 2. Subsequent consultations will be initiated if significant changes are anticipated in future project O&M procedures, additional listings of species occurs within the Deschutes River basin potentially affected by O&M activities, or other criteria described in 50 CFR 402.16 apply.

The Reclamation dam and reservoir system in the Deschutes River basin is operated to meet specific project authorized purposes such as irrigation water supply, flood control, fish and wildlife, recreation, and other functions. To accommodate the annual variation in water supply and demands, project operations are tailored to assure that public safety requirements are satisfied (including flood prevention) and that water delivery contractual

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obligations are met (irrigation). Irrigation operations and flood control management are generally considered to be primary operations and represent a priority in terms of how dams and reservoirs are operated. Irrigation water delivery and flood control procedures require continuous water management adjustments and include many system operating considerations. Nonetheless, other management decisions can be implemented by river and dam operators on a daily basis as long as authorizations and legal constraints are met.

# 1.3 ACTION AREA

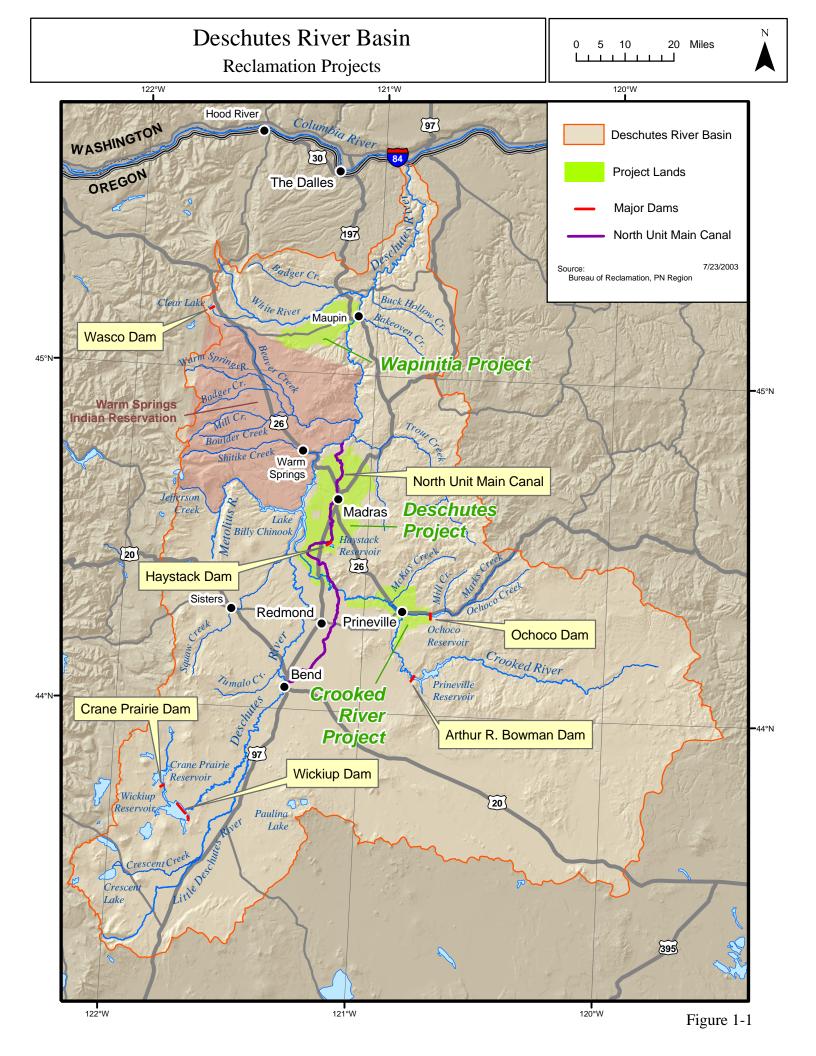
This BA covers specific river, tributary, and reservoir reaches in the Deschutes River basin from headwater reservoirs to the Deschutes River's confluence with the Columbia River. Two of the three Reclamation projects covered in this BA are located in the upper Deschutes basin above Lake Billy Chinook. The third irrigation project is located in the lower Deschutes basin. The frontispiece depicts the Deschutes River basin and the general location of Reclamation projects included in this ESA Section 7 consultation.

Evaluation of ESA-listed species for this BA focuses on the aquatic and terrestrial environments that may be influenced by the O&M of Reclamation water storage and diversion facilities

In December 1999, Reclamation, the BPA, and the Corps (the action agencies) submitted a BA to NMFS and USFWS that covered updated FCRPS operations, including the hydrological effects to the Columbia River from O&M of several Reclamation irrigation projects. The Deschutes River basin projects are included in the FCRPS consultation. Consequently, the flow impacts of the Deschutes River basin projects are factored into the FCRPS consultations.

# 1.4 SUMMARY OF THE SECTION 7 ESA CONSULTATION PROCESS

Reclamation began this Section 7 ESA consultation in February 2000 by requesting a listing of threatened and endangered species from the NMFS and USFWS. Reclamation later requested an updated ESA list in February 2001 and again in June 2002. Throughout this process Reclamation has met and communicated with NMFS and USFWS, as well as irrigation districts, the Tribes, and numerous Federal and state agencies (including the USFS, BLM, USGS, ODFW, ODEQ, and OWRD), to seek input and review information. A preliminary draft BA was distributed for review and comment to NMFS, USFWS, and the irrigation districts in July 2001. The proposed action was reevaluated and revised, resulting in revision of the preliminary draft BA.



The following summarizes the timeline and contacts made between Reclamation, NMFS, and USFWS leading up to the development of this current final BA (September 2003). This September 2003 BA supercedes the July 2001 preliminary draft BA.

August 22, 2001	Written comments on preliminary draft BA received from NMFS.
October 3, 2001	Written comments on preliminary draft BA received from USFWS.
October 23, 2001	Meeting with NMFS and USFWS to discuss comments on preliminary draft BA.
January 25, 2002	Conference call with USFWS to discuss status of ESA consultation and proposed action description.
March 18, 2002	Meeting with USFWS to discuss status of ESA consultation.
July 23, 2002	Meeting with NMFS and USFWS to describe the proposed action and operations at the three Deschutes River basin projects: Deschutes, Crooked River, and Wapinitia Projects.
September 10, 2002	Meeting with NMFS and USFWS to discuss draft environmental baseline sections.
October 22, 2002	Reclamation and USFWS meeting with CTWSRO to discuss ESA consultation.
November 19, 2002	Meeting with NMFS and USFWS to discuss draft proposed action chapter and modeled hydrologic effects analysis.
January 8, 2003	Conference call with NMFS and USFWS to further discuss the draft proposed action chapter and the modeled hydrologic effects analysis.
February 6, 2003	Conference call with NMFS and USFWS to discuss ESA consultation status.
February 26, 2003	Written comments on draft proposed action and hydrologic effects analysis received from USFWS.
June 16, 2003	Reclamation response to USFWS written comments on draft proposed action and hydrologic effects analysis sent to USFWS.

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### 1.4.1 Previous ESA Consultations

Reclamation has consulted under Section 7 of ESA for various projects, programs, activities, and funding assistance in the Deschutes River basin that may have had direct or indirect effects on listed threatened and endangered species and their critical habitats, as applicable (Table 1-1). These projects have included:

- Safety of dams construction activities
- Habitat enhancement projects
- Resource management plans
- Water conservation demonstration projects
- Geological investigations

These actions, as implemented, are part of the environmental baseline for this consultation in the project area. A few Section 7 consultations have also been documented in environmental assessments (EA) or categorical exclusion checklists where there were either no effects or no adverse effects on listed species. Table 1-1 is a partial list of Section 7 ESA consultations that have occurred since 1991.

Table 1-1. Partial List of Previous ESA Section 7 Consultations for Reclamation Actions in the Deschutes River Basin

Project Name and (Document)	Listed Species	Consultation Results	Service's Determination
Upper Deschutes River Basin Water Conservation Project (Informal Consultation 1991)	Bald Eagle Peregrine Falcon	No Effect	Informal Consultation - no written response
Arthur R. Bowman Safety of Dams Program, Crooked River Project (BA 1991)	Bald Eagle	No Effect	USFWS March 1, 1991 – Concurrence
Prineville Reservoir Resource Management Plan, Crooked River Project (BA 1992)	Bald Eagle Peregrine Falcon	No Effect	USFWS March 10, 1992 - Concurrence
Ochoco Safety of Dams Program, Crooked River Project (BA 1993)	Bald Eagle	No Effect	No response
On-farm Water Conservation Demonstration Project in Upper Deschutes Basin (Informal Consultation 1993)	Bald Eagle Peregrine Falcon	No Effect	Informal Consultation - no written response
Deschutes River Basin Water Conservation Demonstration Project (Informal Consultation 1996)	Bald Eagle Peregrine Falcon	No Effect	Informal Consultation - no written response
Geological Investigation at Wickiup Dam (BE 1998)	Bald Eagle	No Effect	Informal Consultation - no written response

Project Name and (Document)	Listed Species	Consultation Results	Service's Determination
Wasco Safety of Dams Program, Wapinitia Project (BA 1999)	Bald Eagle Peregrine Falcon N. Spotted Owl	No Adverse Effect	USFWS April 15, 1999 – Concurrence
Bend Feed Canal Pipeline Replacement, Tumalo Irrigation District (EA 2000)	Bald Eagle Bull Trout	No Effect	No response
Juniper Flats No-Till – DRC* (Informal Consultation 2000)	Steelhead	No Effect	NMFS Feb. 8, 2000 - Concurrence
Macks Canyon – DRC* (Informal Consultation 2000)	Steelhead	No Adverse Effect	NMFS Feb, 24, 2000 - Concurrence
Ten Mile Creek Riparian Fencing – DRC* (Informal Consultation 2000)	Steelhead Bald Eagle	No Adverse Effect No Effect	NMFS May 30, 2000 – Concurrence
Trout Creek Infiltration Gallery - DRC (BA 2000)*	Steelhead Bald Eagle	No Adverse Effect	NMFS June 9, 2000 – Concurrence USFWS - informal response – Concurrence
Rhode Infiltration Gallery - DRC (Informal Consultation 10/00)*	Steelhead	No Adverse Effect	NMFS - informal response – Concurrence
NUID Supplemental Irrigation Water, Crooked River Project (Informal Consultation 2001)	Steelhead Bald Eagle Bull Trout	No Adverse Effect	NMFS - informal response – Concurrence USFWS – no record of response
Higgins Creek – DRC (Informal Consultation 2001)*	Steelhead EFH	No Effect No Effect	No response
Wickiup Safety of Dams Modification, Deschutes Project (EA/BA 2000)	Bald Eagle Canada Lynx Oregon Spotted Frog, a candidate species	No Adverse Effect Adverse Effect, mitigation provided	USFWS August 4, 2000 - Concurrence
Prineville Reservoir Resource Management Plan, Crooked River Project (EA/BA 2003)	Bald Eagle Canada Lynx Oregon Spotted Frog, a candidate species	No Adverse Effect No Effect No Effect	USFWS May 5, 2003 - Concurrence

<sup>\*</sup> Project partially funded by Reclamation.

**BA** = Biological Assessment; **BE** = Biological Evaluation; **EA** = Environmental Assessment; **DRC** = Deschutes Resources Conservancy

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#### 1.4.2 Future Consultations

It is likely that Reclamation will continue to evaluate, seek funding for, and implement projects, programs, and activities within the Deschutes River basin similar to those displayed in Table 1-1. Reclamation will continue to pursue those actions that will meet contractual obligations, water management goals, and facility O&M needs in the Deschutes River basin.

As specific actions are identified, Reclamation will continue to comply as required with the consultation requirements of Section 7 of ESA.

## 1.5 ESA-LISTED SPECIES EVALUATED IN THIS BA

This ESA consultation determines the effects of the proposed action on species listed as threatened or endangered under the ESA. NMFS and USFWS most recently provided lists of ESA listed, proposed, and candidate species and species of concern by return letters dated July 3, 2002 and June 28, 2003 (see Appendix A). The lists contain species that are potentially present in the action area or potentially affected by Reclamation water operations in the Deschutes River basin. ESA-listed species evaluated in this BA include:

- Bald eagle, a threatened species
- Bull trout, a threatened species
- Middle Columbia River steelhead, a threatened species
- Canada lynx, a threatened species
- Northern spotted owl, a threatened species

### 1.6 ARRANGEMENT OF THIS BA

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The arrangement of this BA starts with an overview and proceeds with a discussion of the proposed action, description of the environmental baseline, analysis of the effects of Reclamation actions, and an appendix of information. The focus of each chapter is summarized below:

- Chapter 1 provides background and sets the stage for the ESA Section 7 consultation.
- Chapter 2 describes the proposed action, which is continuing current ongoing O&M of Federal Reclamation project facilities in the Deschutes River basin.
- Chapter 3 discusses the existing and historic hydrologic conditions and a general history of irrigation development in the Deschutes River basin.

- Chapter 4 provides information on ESA-listed species potentially affected by the proposed action.
- Chapter 5 provides information on the environmental baseline, including past and present impacts of all Federal, state, or private actions and other human activities in the action area to ESA-listed species.
- Chapter 6 discusses the effects of the proposed action on the various ESA-listed species and any designated habitat.
- Chapter 7 discusses the cumulative effects of future non-Federal, state, or private activities that are reasonably certain to occur within the action area.
- Chapter 8 provides a summary of the proposed action effects including a determination for each species.
- Chapter 9 is Reclamation's evaluation of the proposed action effects on essential fish habitat.
- Chapter 10 is a list of literature cited.