

Chapter 1

Purpose of and Need for Action

In December 2000, the National Marine Fisheries Service (NMFS—now the National Oceanic and Atmospheric Administration [NOAA] Fisheries) issued a Biological Opinion (BiOp) for operations of the Federal Columbia River Power System (FCRPS) <http://www.nwr.noaa.gov/1hydroweb/hydroweb/docs/Final/2000Biop.html> (NMFS 2000). The BiOp included a Reasonable and Prudent Alternative (RPA), of which Action 31 advised the Bureau of Reclamation (Reclamation) to “assess the likely environmental effects of operation of Banks Lake up to 10 feet down from full pool during August.”

This final environmental impact statement (EIS) analyzes the lowering of the August water surface elevation of Banks Lake. Under current historical August operations, the reservoir may be lowered from its maximum water surface elevation of 1570 feet to a minimum water surface elevation of 1565 feet. Reclamation is evaluating a change to the historic August operations of lowering Banks Lake water surface elevation to 1560 feet annually.

This EIS is prepared in compliance with the National Environmental Policy Act (NEPA), the Council on Environmental Quality (CEQ) regulations, and the Endangered Species Act of 1973, as amended (ESA). A Notice of Intent (NOI) to prepare an EIS was published in the Federal Register on April 25, 2001.

Purpose and Need

The purpose of the action is to enhance the probability of meeting flow objectives in the Columbia River at McNary Dam by altering the August drawdown of Banks Lake from water surface elevation 1565 feet to water surface elevation 1560 feet annually. The action would enhance flows during the juvenile out-migration of ESA-listed salmonid stocks (specifically Snake River fall chinook salmon) during August. This analysis complies with Action 31 of the Reasonable and Prudent Alternative of the Federal Columbia River Power System Biological Opinion, issued by the National Marine Fisheries Service (now National Oceanic and Atmospheric Administration [NOAA] Fisheries) on December 21, 2000.

The need is to provide increased flows in the Columbia River for ESA-listed salmonid stocks by modifying Banks Lake's operations.

Decisions to be Made

Reclamation must decide whether or not to implement the action. The preferred alternative is the No Action Alternative. A final decision will be made and documented as a Record of Decision no sooner than 30 days after EPA issues its notice that the EIS is available for review.

Scope

This EIS describes and analyzes the impacts of an additional 5-foot drawdown of water surface elevation in Banks Lake in August as requested in the NMFS BiOp. The study area includes Banks Lake and its surrounding areas.

Except for the Low Water year scenario which starts around July 22, the period of the EIS analysis extends each year from August 1 through September 22. Specifically, the proposed drawdown to water surface elevation 1560 feet may extend from August 1 to August 31, while the refill to water surface elevation 1565 feet would begin on September 1 and generally be completed by September 10. Refill to elevation 1570 feet would usually be complete by September 22. This analysis, and subsequent decision, is not intended to influence or change the normal authorized operation at Banks Lake.

Scoping Process and Issues

The scoping process for the EIS began officially in April 2001 when the Federal Register notice of intent to prepare an EIS was published. Reclamation held a public meeting in May 2001 in Coulee City, Washington. A more detailed description of the scoping process can be found in Chapter 5, Consultation and Coordination, and in appendix B, Scoping Summary Report (Reclamation, 2001).

The issues identified during this process were considered throughout the discussion of the affected environment and environmental consequences. They are:

- Lake elevations, instream flows, and water quality
- Irrigation deliveries
- Fish and wildlife
- Threatened and endangered species
- Recreation
- Public safety—roads, boating, and fire hazards
- Cultural resources
- Economics, particularly for local economy and power

Some of the issues expressed during the scoping process are outside the scope of this EIS. These relate to stopping salmon fishing, a drawdown of Lake Roosevelt, water monitoring, fish stocking, and justification for additional water.

Permits Required for Implementation

Reclamation would not be required to obtain any permits to implement the action. Implementation of either of the alternatives is within Reclamation's current authorization.

General Description of the Area

Banks Lake, one of the principal reservoirs of the Columbia Basin Project (CBP), lies primarily within Grant County, but portions of the western shoreline extends into Douglas County. It occupies the floor of the upper Grand Coulee between the towns of Grand Coulee and Coulee City in central Washington.

Banks Lake is a reregulating reservoir, which was created by damming the Grand Coulee with two dams. The northern end of Banks Lake is enclosed by North Dam, which is a 1,450-foot long earth-filled dam 145 feet high. The southern end of Banks Lake is defined by Dry Falls Dam, with a crest length of 9,800 feet and 123 feet high. Banks Lake is 27 miles long and has a surface area of about 27,400 acres at full pool. U.S. Highway 2 crosses the crest of Dry Falls Dam. The active capacity of Banks Lake is 715,000 acre feet; total capacity is 1 million acre-feet of water at the reservoir's full pool elevation of 1570 feet.

Banks Lake Operations

The water supply for Banks Lake is stored behind Grand Coulee Dam in Franklin D. Roosevelt (FDR) Lake (also known as Lake Roosevelt). Water from FDR Lake is pumped into the Feeder Canal at the North Dam, which then flows into Banks Lake. The Feeder Canal has a capacity of 16,000 cubic feet per second (cfs), a base width of 80 feet, and a depth of 20 feet at full pool.

The Grand Coulee pump-generating plant consists of 12 units. Six of the units are pumps, each rated at 65,000 horsepower and have a capacity to pump 1,600 cubic feet per second (cfs) at a 292- to 310-foot head. The other six units are pump-generators that pump water to Banks Lake and can generate power when water from Banks Lake flows back to FDR Lake. These six units are capable of generating 300 megawatts (MW) of power at full capacity. The six pump-generators are rated between 67,500 and 70,000 horsepower and can pump between 1,600 and 1,700 cfs.

The Banks Lake water surface elevation normally fluctuates approximately 3 to 5 feet from full pool, with the highest water levels typically in June and the lowest levels in

November. The reservoir may occasionally be drafted significantly lower for special operations or maintenance activities.

From 1992 through 1999, the Banks Lake water surface elevation has fluctuated from about water surface elevation 1570 feet to 1545 feet. The lowest water surface elevation was reached in late 1994 and early 1995 when the reservoir was sharply lowered to perform maintenance on constructed facilities and to reduce an infestation of Eurasian milfoil in the reservoir area. In September 1993, the water surface elevation of Banks Lake was lowered to about water surface elevation 1565 feet for maintenance of canal gates. Operational recommendations by Columbia River managers in April 1995 and August 1998 left Banks Lake near water surface elevation 1565 feet for short (i.e., month-long) periods. Except for these periods, the water surface elevation of Banks Lake fluctuated in a narrow range from about water surface elevation 1570 feet to elevation 1568 feet between 1992 and 1999. Since 2000, Banks Lake has drafted to elevation 1565 feet every August.

Since its construction in the early 1950s, Banks Lake has been operated and maintained for the storage and delivery of irrigation water drawn from the Columbia River to CBP lands. At Dry Falls Dam (on the southern end of the lake), water is delivered to the Main Canal in two ways: (1) through a low-head powerplant operated by the Grand Coulee Project Hydroelectric Authority (GCPHA), a municipal entity, or (2) through an outlet works, where access to the outlet works for fish is limited by a barrier net that was installed and maintained by GCPHA. The Main Canal has a capacity of 10,000 cfs, and water can be delivered at that rate until Banks Lake water surface lowers to reach elevation 1537 feet. From the Main Canal, water flows south from Banks Lake to the northern portion of the CBP's irrigable area. Reclamation operates the lake within established constraints on water surface elevation to meet contractual obligations, ensure public safety, and protect property. Reclamation considers other resource needs when feasible within existing operational constraints.

Approximately 670,000 acres are irrigated in the CBP. Up to 67 different crops are grown, with alfalfa, potatoes, apples, and vegetables being major contributors to more than a half billion dollars of crop value each year. Reclamation currently diverts about 2.6 million acre-feet of water from the Columbia River for delivery to irrigators within the CBP. Reclamation utilizes a water right from the State of Washington, which the United States holds in trust for the irrigators.

Setting

The watershed is limited to a relatively small area immediately surrounding the reservoir. Most streams draining to the reservoir are intermittent. The natural drainage basin, including the lake surface area is about 278 square miles in size. Gently rolling terrain is typical throughout the basin. The lands surrounding the reservoir support a rich vegetative mosaic of shrub-steppe, mesic shrub, upland forest, and riparian/wetland communities, many of which the Washington Department of Fish and Wildlife (WDFW) has identified as "priority habitats." The

area supports a variety of wildlife. The riparian habitats along perennial streams and shorelines provide important winter roosting areas for many bird species, including the bald eagle. The islands at the southern end of the reservoir provide habitat for colonial nesting birds and waterfowl. Important waterfowl breeding areas include Devil's Punch Bowl, Osborn Bay, and the wetlands and waters located at the south end of Steamboat Rock peninsula and below Dry Falls Dam.

The steep basalt and rhyolite cliffs of the Grand Coulee encompass the lake and limit human access and activity in the area, particularly on the reservoir's west side. State Route 155 is the primary travel corridor along the reservoir's eastern shore between Coulee City at the south end of the lake and Electric City/Grand Coulee at the lake's north end. The Banks Lake area is also served by local city and county roads. Some shoreline areas are primarily accessed via the reservoir's primitive road network. These roads are generally unmaintained, two-track dirt roads that often require the use of high-clearance four-wheel drive vehicles. Other shoreline areas can only be accessed by boat.

Reclamation lands in the study area are managed by the Washington State Parks and Recreation Commission (SPRC) and the WDFW under agreements signed in 2003. These agreements were successors to a lease with Washington State for management that was signed in 1952. On the lands managed by each agency, they are primarily responsible for leasing or permitting activities to third parties. Specific areas of the reservoir are managed by Reclamation, and concession or third party agreements are developed and administered by Reclamation. The SPRC is primarily responsible for public activities in the Steamboat Rock area, including the Northrup Canyon Natural Area which is outside the study area.

The Washington Department of Natural Resources (WDNR) maintains jurisdiction over school endowment lands and administers Sunbanks Resort on Banks Lake. Grant County provides law enforcement services in the study area. To ensure proper operation and protection of the reservoir, Reclamation maintains primary jurisdiction over developments in the Reclamation Zone, which includes North Dam, Dry Falls Dam, and their appurtenant works.

Other Related Actions and Activities

Reclamation, WDFW, and SPRC are currently involved in several related projects and activities that could affect future resource conditions and management decisions at Banks Lake. Similarly, other agencies are also involved in a range of activities that may have a bearing on Banks Lake resource conditions and management.

The following provides a brief description of each of these projects. For each project, mitigation measures and best management practices are expected to be employed to reduce adverse effects and to comply with Federal, State, and local laws and regulations.

Environmental Assessment—Banks Lake Resources Management Plan

Reclamation prepared an environmental assessment (EA) for the proposed Banks Lake Resources Management Plan (RMP). On March 23, 2001, the Acting Regional Director of Reclamation's Pacific Northwest Region approved a finding of no significant impact (FONSI) for the Preferred Alternative evaluated in the EA.

The FONSI described an alternative that balanced natural resource conservation with limited recreational development and reflected the management agencies and the public's long-term vision for Banks Lake. The selected alternative included development of recreation areas and "designated" dispersed camping areas to accommodate demand for recreation facilities and sites, and to direct use to specific areas environmentally suited for public use.

The Banks Lake RMP was completed in the summer of 2001 and is being implemented.

Federal Columbia River Power System Operations Biological Opinion

The National Marine Fisheries Service prepared a Biological Opinion concerning the operations of the Federal hydropower facilities in the Columbia and Snake River basins (NMFS 2000). Reclamation has prepared this EIS to meet Action 31 of the RPA for that BiOp.

Grant County Comprehensive Plan

The Grant County Comprehensive Plan was adopted in September 1999 pursuant to the Washington State Growth Management Act. The updated Plan addresses land use, critical areas and resource lands, housing, transportation, capital facilities, and utilities within county boundaries. Specific to the "Open Space and Recreation" designation that encompasses the RMP study area, the Growth Management Act goal for these lands encourages the retention of open space, the development of recreational opportunities, the conservation of fish and wildlife habitat, and access to natural resource lands and water.

Steamboat Rock Bald Eagle Nest Territory Management Plan

In 1991, the SPRC and WDFW cooperatively developed and adopted the conservation measures described in the Steamboat Rock Bald Eagle Nest Territory Management Plan. The purpose of the management plan is "to create site-specific management procedures that maintain a productive eagle nest territory and integrate the management interests and goals of the land managers" (WDFW 1991). The emphasis of the plan is to preserve nesting, roosting, and foraging habitats in the Steamboat Rock bald eagle nesting territory at Banks Lake.

Castle Rock Natural Area Preserve Management Plan

The 680-acre Castle Rock Natural Area Preserve lies adjacent to the study area in Northrup Canyon and is part of the Steamboat Rock State Park Recreation Area administered by the SPRC. In 1989, the SPRC and WDNR jointly prepared the Draft Castle Rock Natural Area Preserve Management Plan to protect natural features of scientific or educational significance. Although never formally adopted, the 1989 plan outlines the policies and management guidelines under which the Preserve is managed.

Grant County Shorelines Management Master Program

Banks Lake is listed as a shoreline of statewide significance in the Grant County Shorelines Management Master Program (Washington Administrative Code (WAC) State Rule 173-20-290).

Douglas County Comprehensive Plan

This Comprehensive Plan was adopted in 1995. Douglas County lands adjacent to the study area are designated for dryland agriculture.

Spokane Resource Management Plan

In 1987, the Spokane District of the Bureau of Land Management (BLM) prepared the Spokane RMP to more effectively manage public lands in the District. Approximately 40 BLM scattered tracts are located within 2 miles of the Banks Lake study area.

Groundwater Management Area

In 1998, under recommendation of the Washington State Interagency Ground Water Committee (WSIGWC), a groundwater management area was established that encompasses Grant, Adams, and Franklin Counties. The State, in cooperation with the county health districts, monitors nitrate levels in public water supplies, including those at Banks Lake.

Columbia Basin Wildlife Area Management Plan

As part of the WDFW's public holdings, the Columbia Basin Wildlife Area (CBWA) incorporates many scattered tracts of land developed as a result of Reclamation's CBP. In 1997, the plan was drafted to provide guidance for the management of these tracts. While Banks Lake is one of the 16 management units within the CBWA, no specific wildlife management proposals or activities have yet been developed for the Banks Lake unit.