

State and Local Government Agencies — SL

SL State and Local Government Agencies

SL 01 01

Spills to enhance salmon migration at downstream facilities would continue to be managed to comply with Washington total dissolved gas standards as modified to accommodate salmon recovery efforts.

Text was modified in chapter 4 section on water quality, pages 115 and 116, last paragraphs.

SL 01 02

Tools to evaluate the effects of increased drawdown on downstream temperatures in the Columbia River are not available at this time. See also response to SL 01 01.

SL 01 03

There are two things that affect power revenues; one is the difference in power rates at different times of year, and the other is the difference in spill requirements at different times of year. During the drawdown period (August), some projects are required to spill a percent of their flow; however, during the refill period, there is no spill requirement. As such, there is a change in the amount of water used to generate power.

SL 01 04

Banks Lake has no role to play in the TMDL for the Columbia River. The drawdown would affect only the timing of withdrawals for the Columbia Basin Project, not the total amount of water removed from the river. Since few impacts to water quality are foreseen based on the existing data, development of a model was beyond the scope needed for this evaluation. See also response to FA 02 02.

SL 01 05

This statement was deleted from the final EIS and new material is in its place. Although the fate of total dissolved gas in Banks Lake has not been studied, and is largely unknown, no dissolved gas is generated as a result of the proposed project. Further, the proposed September refill period for Banks Lake occurs when total dissolved gas levels in the Grand Coulee forebay are in compliance with state and tribal water quality standards. Potential effects on dissolved oxygen are unknown. Although temperature effects may tend to reduce dissolved oxygen levels, the lower pool levels would enhance wind mixing and associated reaeration.

SL 01 06

See response to SL 01 05.

SL 01 07

No specific data are available. However, the quantity of groundwater entering or exiting the Sun Lakes system during a 1-month drawdown of 10 feet would be minimal.

SL 01 08

With the exception of lands in Section 16, T.28 N. R. 30 E. and some additional State held lands under the water surface, all lands within the study area are federally held lands and not subject to State or local jurisdiction. Reclamation strives to accommodate the wishes of local governmental entities in relation to the decisions Reclamation makes on Reclamation held lands, but if there are conflicts between mandated uses of Federal lands and those local wishes, Reclamation will meet our obligations to Federal law and regulation. Past requests for review and permitting of facilities within state managed areas have been made by state agencies without agreement from Reclamation as to the need for such permits. Reclamation will modify the EIS to include the SMP for Douglas County.

As noted in your comment, federally funded activities on federal properties are exempt. Boat launch extension activities are federally funded and, therefore, exempt.

SL 01 09

Adverse impacts to riparian vegetation are not expected; the environmental consequences to vegetation are described in Chapter 4, Vegetation. Also, this EIS was not intended to address any enhancement of riparian vegetation.

SL 01 10

The RMP is scheduled for review and amendment in 2011 and no impacts from informal camping under this action have been identified. The informal camping activities are not expected to change as Reclamation does not anticipate that the portions of the reservoir bottom that will be exposed will be inviting to recreationists.

SL 01 11

Reclamation is responsible for mitigation of impacts on Federal lands and will work in cooperation with managing partners.

SL 01 12

The proposed action is a Federal action taking place on Federal property and, as such, is not subject to the Shoreline Management Act. However, cultural and historic resources are being evaluated for compliance with Federal law.

SL 01 13

There are three important littoral zone habitats identified in the DEIS that would be subject to drawdown impacts: shallow emergent vegetation; shallow

unvegetated flats; and the boulders, cobbles, and gravel. All of these shallow habitats are important for fish species in Banks Lake. Regarding the importance of unvegetated flats, page 3-16 of the DEIS states that the two key shallow unvegetated flats identified in the Banks Lake RMP are just south of the Million Dollar Mile North Boat Ramp and are used by smallmouth bass. The flats east of Barker Flats are used by largemouth bass, sunfish, and black crappie. These shallow unvegetated flats are not the result of “upper zone” drawdown. The characteristics of these flats are due to the clay substrate, the exposure to wave action, and the underlying gentle topography. The analysis of impacts focuses on the impacts to three important littoral zone habitats rather than dividing the impact area into an “upper zone” and a “lower zone.”

The normal September water surface elevations typically fluctuate from elevation 1565 feet to 1570 feet. The reservoir will be refilled to be within its normal operating levels by September 22.

A description of the various types of substrate is in the introductory paragraphs of chapter 3, Vegetation, Fish, and Wildlife.

Adverse impacts to riparian vegetation are not expected; thus, mitigation is not proposed.

SL 01 14

As used in the DEIS, the definition of aquatic emergent vegetation follows that used by the National Wetland Inventory of the U.S. Fish & Wildlife Service. Emergent vegetation is defined as erect rooted, herbaceous wetland plants excluding mosses and lichens. These are the plants that would be directly affected by reservoir drawdowns, and provide most of the substrate used by spawning and rearing fish. A more accurate term is “aquatic macrophyte.” Aquatic macrophytes by definition are the macroscopic (that is large enough to be seen with the unaided eye) forms of aquatic and wetlands plants found in the shorelines of lakes or slow-moving reaches of rivers.

There are four widely-recognized growth forms: emergent, submersed, floating-leaved, and free-floating. Emergent macrophytes are rooted in substrate with the tops of the plant extending into the air. Common emergent macrophytes include plants, such as reeds (*Phragmites*), bulrushes (*Scirpus* spp.); cattails (*Typha* spp) and spikerushes (*Eleocharis* spp). Submersed macrophytes grow completely submersed under the water and include such diverse species as pondweeds (*Potamogeton* spp) and Eurasian watermilfoil. Floating-leaved macrophytes are rooted to the lake bottom with leaves that float on the surface of the water. They generally occur in areas of a lake that do not dry out periodically. Typical species are waterlilies (*Nymphaea* spp), spatterdock (*Nuphar* spp), and watershield (*Brasenia*). Free-floating macrophytes are plants that float on or just under the water surface with their roots in the water and not in sediment. Duckweed (*Lemna* spp) typifies this growth form. The text of the document has been revised

to reflect the use of the more-encompassing term “aquatic macrophyte” in place of aquatic emergent vegetation.

SL 01 15

Resources monitoring is ongoing under an existing Resources Management Plan.

SL 01 16

The drawdown from water surface elevation 1570 feet to 1565 feet might affect cottonwoods, but the additional 5-foot drawdown from elevation 1565 feet to 1560 feet would not additionally affect cottonwood. The proposed action has no effect on cottonwood; however, as part of an overall plan to improve resources from ongoing operations, this resource will be reviewed.

Mitigation for cottonwood is not proposed as part of this action.

In addition, the agricultural lease at Steamboat Rock was reviewed during the Resource Management Plan process for Banks Lake; it was determined to be beneficial and a proper use of the area. There are no current plans to change that decision.

This action is outlined in the Banks Lake RMP and will take place in the future.

SL 02 01

On table 4.4, “State” was inadvertently substituted for “Federal.” This has been corrected in the text. The Chelan rockmat is a Federal species of concern, as well as State threatened species, and is the only State plant species that exists within the Banks Lake project area. It has been addressed in this DEIS. Other state special status plant species are outside the Banks Lake drawdown zone and are not addressed in this EIS.

SL 03 01

See response to CO 02 01.

SL 03 02

“Baseline” is not a term used in NEPA compliance documentation. NEPA analysis is based on future with and without the project.

The “No Action Alternative” is considered to be the action most likely to occur in the future without any action alternative being implemented. Since 1999, Banks Lake has been operated with an August drawdown for flow augmentation, limited to water surface elevation 1565 feet. This is the most likely operation to occur in the future.

In Appendix C, page 2, under Hydrologic Modeling, paragraph 5, it states the analysis is based on the assumption that Banks Lake is full on August 1. The

maximum impact is if the lake is at water surface elevation 1570 feet and it went to elevation 1565 feet.

SL 03 03

Impact analysis in a NEPA document is primarily a forward looking assessment. Actions likely to occur under the No Action Alternative are projected. Anticipated changes in conditions (impacts) of the Action Alternative are compared to the changes in conditions (impacts) of the No Action Alternative. For this EIS, the No Action Alternative includes compliance with RPA Action 23, the 5-foot drawdown from water surface elevation 1570 feet to 1565 feet. Reclamation committed to that RPA action in its *Findings and Commitments Implementing December 2000 Biological Opinions for the Federal Columbia River Power System* (Reclamation 2001) (BiOp) and other related actions. Reclamation found that it was consistent with current Banks Lake operations because the reservoir had recently been operated within that range in August in years prior to issuance of the BiOp. It is also consistent with Reclamation's 1985 commitment to limit operations to that range for power purposes, to the extent practicable, in response to the Northwest Power Planning and Conservation Council's (formerly the Northwest Power Planning Council) Fish and Wildlife Program.

The No Action Alternative describes an operation that includes drawdown from the water surface elevation 1570 feet because this captured the full range of conditions that might occur in the event that no action is taken.

SL 03 04

New numbers for tables have been included.

When looking at total power cost benefits, you must include the cost for pumping. There is a difference in cost to pump in August vs. cost to pump in September. If you reduce the pumping in August from what it would have been and increase pumping in September from what it would have been, then you must reflect those impacts. See also response to SL 03 02.

SL 03 05

See response to FA 01 03. While individually not significant in the overall flow of the Columbia River, the contribution to flow by Banks Lake water, together with water from other sources, will improve flows and increase the probability of meeting flow objectives.

Total augmentation water is more than 5 MAF. The first half of August meets target flows at McNary Dam 42 percent of the time and the second half of August meets targets 12 percent of the time with augmentation water, compared to 0 percent of the time without augmentation.

The flow objectives at McNary Dam would not be met in any year during either August period without the combined summer flow augmentation. The additional 127,200 acre-feet from Banks Lake would comprise less than 6 percent, on average, of the combined flow augmentation provided in August from Libby, Hungry Horse, Grand Coulee, Dworshak, the upper 5 feet of Banks Lake, the upper Snake, and Brownlee reservoirs.

SL 03 06

See response to SL 03 05.

SL 03 07

See responses to SL 03 02 and SL 03 05.

SL 03 08

See response to CO 01 01.

See also response to FA 01 03.

SL 03 09

Banks Lake drawdown is part of a larger flow augmentation program that, according to NOAA Fisheries, would provide benefits to listed species.

See also response to FA 01 03 and SL 03 05.

SL 03 10

Information on the climate in Grant County in August and September has been added to the first page in Chapter 4 under Vegetation, Fish, and Wildlife.

Additional information has been provided throughout this section.

SL 03 11

The total number of littoral zone acres that would be exposed is 2,576. This change has been made in the document in the Vegetation section. The suggestion that large areas of Banks Lake are shallow in nature is not accurate. Figures 3.2 and 3.3 show the topographic map of Banks Lake which highlight the 10 ft. drawdown zone. It can clearly be seen that shallow areas exist in limited areas (described on page 3-3). Much of Banks Lake consists of very steep shorelines, particularly on the west side of the lake. The most important point to understand is the importance of the shallow littoral zones that do exist. These areas are important nursery areas to large number of fish species present in Banks Lake. The map has been corrected.

SL 03 12

Information on the climate in Grant County in August and September has been added to the first page in Chapter 4 under Vegetation, Fish, and Wildlife.

SL 03 13

The DEIS states “The growing season is nearing its end in August, therefore, decreasing adverse impacts that might occur if drawdown occurred earlier in the

growing season.” The growing season in Eastern Washington, as defined by the Western Regional Climate Center, occurs from April through September (WRCC 2002). Drawdowns would occur during the 5th month of a 6-month growing season. Reference to the growing season is to show that aquatic vegetation is well established by August. Young plants are vulnerable to adverse conditions caused by drawdowns. This is stated in the EIS in Chapter 3, Vegetation, Aquatic Macrophytes, third paragraph, “Small young plants are especially vulnerable to changing water levels that may place them in water too deep or muddy to allow for adequate light penetration or so shallow as to expose them to turbulence or desiccation or cover them with sediment.”

SL 03 14

The vegetation analysis shows species by species which are likely to be able to tolerate drought (that is, desiccation caused by drawdown) and which are likely to be intolerant of drought and, hence, may be adversely impacted by the desiccation caused by drawdown. The most abundant species in the Banks Lake littoral zones are reed canarygrass and Baltic rush, both of which are drought tolerant. The vegetation sections in chapters 3 and 4 have been expanded to more clearly show the drought tolerances of the dominant species present at Banks Lake. Tables 4-1 and 4-2 summarize the impacts to most species.

SL 03 15

Some submergent vegetation will die, but the amount would not cause low dissolved oxygen levels. Soils high in clay content or high in organic matter retain moisture longer. Much of the aquatic vegetation is drought tolerant and much of the soils present in shallow bays and shorelines that support aquatic vegetation are composed of clays and or organic matter that retain groundwater and, hence, keep roots moist. Reclamation does not anticipate massive die-offs of vegetation for short-term drawdowns.

Information has been added to the introductory vegetation, fish, and wildlife sections and to the surface water quality section to clarify the impacts.

SL 03 16

Additional aquatic macrophyte species are included in the document to provide a clearer understanding of likely drawdown impacts. Tables 3-1 in the Affected Environment and table 4-1 in the Environmental Consequences sections have been slightly revised to increase clarity.

SL 03 17

Information has been added on the distribution, abundance, and species composition of riparian vegetation. Tables 3-1 in the Affected Environment and table 4-1 in the Environmental Consequences sections have been slightly revised to increase clarity.

SL 03 18

The impacts of changes in riparian vegetation to raptors and neotropical migrant songbirds are included in the Wildlife section of chapter 4. Analysis of impacts to the bald eagle has been expanded to include impacts of changes in riparian vegetation.

SL 03 19

Soils are described in Chapter 3 of the EIS and by reference in the Grant and Douglas Soil Surveys. Any adverse impacts to soils are described in chapter 4.

SL 03 20

The analysis focused on incremental effects and the impacts of the Action Alternative compared to impacts under the No Action Alternative. Those effects are discussed in chapter 4. See also the response to SL 03 03.

SL 03 21

The impact assessment is a multi-dimensional discussion, incorporating the analysis of three indicators:

1. Quality and quantity of spawning and nursery habitat in shallow emergent vegetation; shallow unvegetated flats; and boulders, cobble and gravel
2. Ability of juvenile fish to withstand predation pressure during drawdown
3. Quality and quantity of the aquatic food base (benthic invertebrates and primary productivity; i.e., zooplankton)

These discussions are found in chapters 3 and 4 in the Fish sections.

SL 03 22

The Lower Granite Reservoir, a U.S. Corps of Engineers dam, was drawn down 33 feet at a rate of 2 feet per day in March of 1992. This drawdown stranded more than an estimated 15,000 fish, primarily juveniles comprised mostly of brown bullhead and crappie. Largemouth bass were thought to be the most seriously affected, due to the susceptibility of adults to stranding in the limited, off-channel spawning habitats in Lower Granite Reservoir (Schuck, 1992). Immediate impacts occurred to species inhabiting backwaters and embayments including bluegill, pumpkinseed, warmouth, green sunfish, largemouth bass, white crappie, black crappie, brown bullhead, yellow bullhead, black bullhead, tadpole madtom, and common carp. Large numbers of crayfish were also killed as the benthos (lake bottom) was exposed, adversely affecting largemouth bass, smallmouth bass, channel catfish, and other resident fish that prey on crayfish.

In analyzing the impacts of reservoir drawdowns, resulting from the proposed removal of the dams in the Snake River, the USACE (2002) states that a critical factor in determining potential short-term effects on resident fish is the seasonal

timing of dam removal. Most resident fish are spring and early summer spawners. Drawdowns (in this case due to dam removal) that occur during late summer, fall, winter, and very early spring would likely result in a lower overall impact due to water level declines and high turbidity because spawning, growth, and feeding by resident fish are minimal during most of this period. The USACE also indicates that the drawdown would place predators and prey in closer proximity, potentially enhancing feeding.

Based on the experience of the USACE for the March 1992 experimental drawdown of Little Goose and Lower Granite dams; and based on the Corps' analysis of potential drawdown impacts to Snake River reservoir from dam removal, a number of conclusions relative to the 10 foot drawdown proposed for Banks Lake can be made:

- Adverse impacts occur to fish species that occupy backwaters and embayments when drawdowns occur during spring. However, such adverse impacts are reduced when drawdowns occur during late summer, fall, and winter. Adverse impacts due to drawdowns are discussed in detail in the Banks Lake EIS in chapter 4 in the sections on Vegetation, Fish, and Wildlife.
- Rapid drawdowns can strand fish in shallow habitats, such as mitigation ponds, flood gulches cut off by railroad berms and backwaters, particularly given the extremely rapid drawdowns (2 feet per day) that occurred during March of 1992. Potential stranding in Banks Lake was not addressed for two reasons: the rate of drawdown would be 0.5 feet per day, a greatly reduced rate compared to the Corps' drawdown rate allowing fish to move into deeper water; and there are no flooded gulches or mitigation ponds that would cause fish to become trapped and stranded.
- Drawdowns adversely affect benthic invertebrates (i.e. crayfish). Adverse impacts to benthic invertebrates were discussed on pages 4-12 and 4-13 of the Banks Lake DEIS.

SL 03 23

Reclamation believes that the evaluation of alternatives as presented in the draft EIS fairly describes the potential actions that would meet the purpose and need. Reclamation acknowledges that there are other potential sources of water or other ways of supporting flows in the Columbia River, but RPA 31 specifically requires Reclamation to evaluate the impacts to Banks Lake of the drawdown from water surface elevation 1565 feet to 1560 feet. Under NEPA, the range of alternatives to be considered are those that relate to the purpose and need of the project, which in this case is to comply with Action 31 of the BiOp. Reclamation looked at four scenarios on how the drawdown might occur but limited the analysis to 10 feet maximum drawdown because that is the level described in the BiOp.

SL 03 24

The action agency is responsible for defining the purpose and need of their project. It is narrowly defined because it evaluates impacts of one of 199 actions contained in the BiOp. Reclamation reviewed and accepted the BiOp with our Findings of Commitment. Most of the actions in the BiOp had either already been evaluated under the System Operations Review EIS, or did not require additional environmental analysis. Since Action 31 directed Reclamation to study the impacts of up to a 10 foot draw down, Reclamation decided to use the NEPA process to ensure public involvement. See also responses to SL 03 23 and ID 02 02.

SL 03 25

RPA Action 31 requested that Reclamation “assess the likely environmental effects of operating Banks Lake up to 10 feet down from full pool during August.” In its *Findings and Commitments Implementing December 2000 Biological Opinions for the Federal Columbia River Power System* (Reclamation 2001), Reclamation concluded that RPA Action 31 was reasonable and prudent and that it was within the agency’s authority to conduct the requested assessment. Reclamation also determined that, following appropriate environmental compliance actions, if determined to be warranted, it could also implement the 10-foot drawdown.

It is Reclamation’s responsibility to determine the purpose and need of the proposed action. The identified purpose and need as identified in the EIS is “to enhance the probability of meeting flow objectives in the Columbia River at McNary Dam during the juvenile out-migration of ESA-listed salmonid stocks (specifically Snake River fall chinook salmon) by altering the August drawdown of Banks Lake from water surface elevation 1565 feet down to elevation 1560 feet.” The commenter has indicated that Reclamation has an obligation to independently assess the RPA actions included in the BO; and this NEPA process provides for the assessment of RPA Action 31. The alternative scenarios identified in the EIS are examples of how the operations could vary within the identified Action Alternative and are those that would allow Reclamation to meet the identified purpose and need.

SL 04 01

Comment noted.

SL 05 01

See response to CO 01 02.

SL 05 02

A discussion about mosquitoes has been added to the “Social, Health, and Safety Environment” section in chapters 3 and 4.

SL 05 03

Additional analysis of impacts on the bald eagle has been added.

Impacts to the Pygmy rabbit are discussed in chapter 4 under the Threatened, Endangered, and Special Status Species section.

Hydraulic continuity is discussed in chapters 3 and 4 in the Groundwater Quality sections.

SL 05 04

See response to CO 01 02. Reclamation's evaluation indicated that some local businesses may be affected, but overall, impacts to the economy were not widespread.

SL 05 05

See response to SL 03 05.

SL 05 06

See response to CO 01 02. See also response to CO 01 01.

SL 05 07

Comment noted.

SL 05 08

See response to CO 01 01.

SL 05 09

See response to SL 03 23.

SL 05 10

See response to CO 02 04.

SL 06 01

See response to CO 01 02. See also response to CO 02 01.

SL 06 02

Reclamation considered other alternatives but the action alternative as described in the EIS is the only way to meet the goals of RPA Action 31 for supplying additional water for flows during the month of August by drawing down Banks Lake an additional 5 feet to water surface elevation 1560 feet. Reclamation has committed to pursue modification of boat ramps, therefore, keeping most recreation facilities available for public use.

SL 07 01

See response to CO 01 02.

SL 07 02

See response to CO 01 02.

SL 07 03

The cultural components identified are evaluated under socio-economic and environmental justice impacts sections.

SL 07 04

See response to CO 01 02.

SL 07 05

See response to CO 01 02.

SL 07 06

As stated in CO 01 02, Reclamation would mitigate by working on facilities on Federal lands. Sun Banks Resort is on State land.

SL 07 07

The relationship between visitation levels and spending levels appears to be complex and the variables do not appear to be directly correlated. The relationship between Banks Lake water surface elevations and visitation and spending is more complex, and the data provided are insufficient to define that relationship or demonstrate a causal relationship between reservoir drawdown and subsequent spending and visitation.

There are many social and economic factors affecting tourism spending; for example, available vacation time, availability of substitutes, disposable income, individual preferences, travel costs, etc.

SL 07 08

See response to CO 01 02.

SL 07 09

See response to CO 01 02.

SL 07 10

See response to SL 01 09.

SL 07 11

Reclamation committed to pursue mitigation for these impacts as identified in the Environmental Commitments. Also, see response to CO 01 02.

SL 07 12

See response to SL 01 09.

SL 07 13

See response to SL 01 09.

SL 07 14

See response to SL 01 09.

SL 07 15

See responses to CO 01 02. Reclamation's evaluation indicated that some local businesses may be affected, but overall, impacts to the economy were not widespread.

SL 07 16

See responses to CO 01 02 and SL 07 05. Some minority and low income individuals could be adversely affected.

SL 07 17

See response to CO 01 02.

SL 07 18

Comment noted.

SL 07 19

See responses to CO 01 02. Access to the lake will not be eliminated.

SL 07 20

Comment noted. See response to CO 02 01.

SL 07 21

See response to CO 01 02.

SL 07 22

See response to SL 01 09.

SL 07 23

See response to SL 05 02.

SL 07 24

See responses to CO 01 02 and SL 07 15. Some minority and low income individuals could be adversely affected.

SL 07 25

The impacts to visual quality are described under "Visual Quality" in chapter 4.

SL 07 26

See response to SL 05 02.
See also response to CO 01 02.

SL 07 27

See response to SL 05 03.

SL 07 28

Reclamation is not aware of any aquifers that are dependent on Banks Lake.

SL 07 29

See responses CO 01 02 and SL 05 04.

SL 07 30

See response to SL 03 05.

SL 07 31

See response to CO 02 04.

SL 08 01

See response to SL 05 02.

SL 09 01

See response to CO 01 02.

SL 09 02

See response to CO 01 02.

SL 10 01

See response to SL 03 05.

SL 10 02

Operations target daily flows at McNary, as well as monthly averages. Reclamation does not look at meeting hourly flow targets for BiOp purposes. Analyzing impacts by one-half month is sufficient.

SL 10 03

Comment noted.

SL 11 01

Comment noted.

SL 11 02

See response to SL 05 02.

SL 12 01

Comment noted.

SL 12 02

Comment noted.

SL 12 03

See response to CO 01 02.

SL 12 04

See response to SL 05 02.

SL 13 01

See response to CO 02 01. See also responses to SL 05 02, CO 01 01, and CO 01 02.