Chapter 1
Purpose and Need

1.1 Introduction

The U.S. Bureau of Reclamation (Reclamation) has prepared this Environmental Assessment (EA) to evaluate the potential impacts associated with fish habitat improvement measures in four subbasins of the Mountain Snake Province of Idaho – the Lemhi, Upper Salmon, Middle Fork Clearwater and Little Salmon Subbasins (Figure 1.1-1). The Mountain Snake Province is an ecological unit that includes all rivers and tributaries that flow into the mainstem Clearwater River and Salmon River. This ecological unit is used as a planning unit for the Northwest Power Planning Council (NPPC) and other agency efforts to restore endangered anadromous salmonids. The Middle Fork Clearwater Subbasin is within the larger Clearwater River basin. The remaining three subbasins lie within the larger Salmon River subbasin.

The National Marine Fisheries Service (NMFS – recently changed to NOAA Fisheries) issued the Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp) on December 21, 2000. This document analyzed the effects of the FCRPS hydroelectric projects on Federally-listed threatened or endangered anadromous salmonids within the Columbia River Basin. NMFS concluded that the continued operations of the FCRPS would constitute jeopardy under the Endangered Species Act for 8 of the 12 listed ESUs, unless their Reasonable and Prudent Alternative (RPA) was implemented. A jeopardy decision means that the continued existence of listed species is at risk or there is risk of destruction or adverse modification of critical habitat. The RPA included 199 actions that must be implemented by Federal agencies, including Reclamation, to avoid a jeopardy decision. These actions specify measures that would benefit anadromous salmonids within the NMFS-designated Evolutionarily Significant Units (ESUs) for each listed species. An ESU is a distinctive group of Pacific salmon or steelhead. ESUs were listed by NMFS in Designated critical habitat: critical habitat for 19 ESUs of salmon (chinook, chum, and coho) and steelhead in Washington, Oregon, Idaho, and California, published in the Federal Register, Vol. 65, No. 32, February 2000, pages 7764-7785. Among Reclamation's responsibilities are actions for habitat improvements as off-site mitigation for the effects of the mainstem Columbia River dams.

The measures applicable to this EA are defined under RPA Action 149:

> *Reclamation shall initiate programs in three priority subbasins (identified in the Basinwide Recovery Strategy) per year over 5 years, in coordination with NMFS, U.S. Fish and Wildlife Service (USFWS), the states, and others, to address all flow, passage, and screening problems in each subbasin over 10 years…this action initiates immediate work in three such subbasins per year, beginning in the first year with the Lemhi, Upper John Day, and Methow subbasins. Subbasins to be addressed in subsequent years will be determined in the annual and 5-year implementation plans…At the end of 5 years, work will be underway in at least 15 subbasins.*

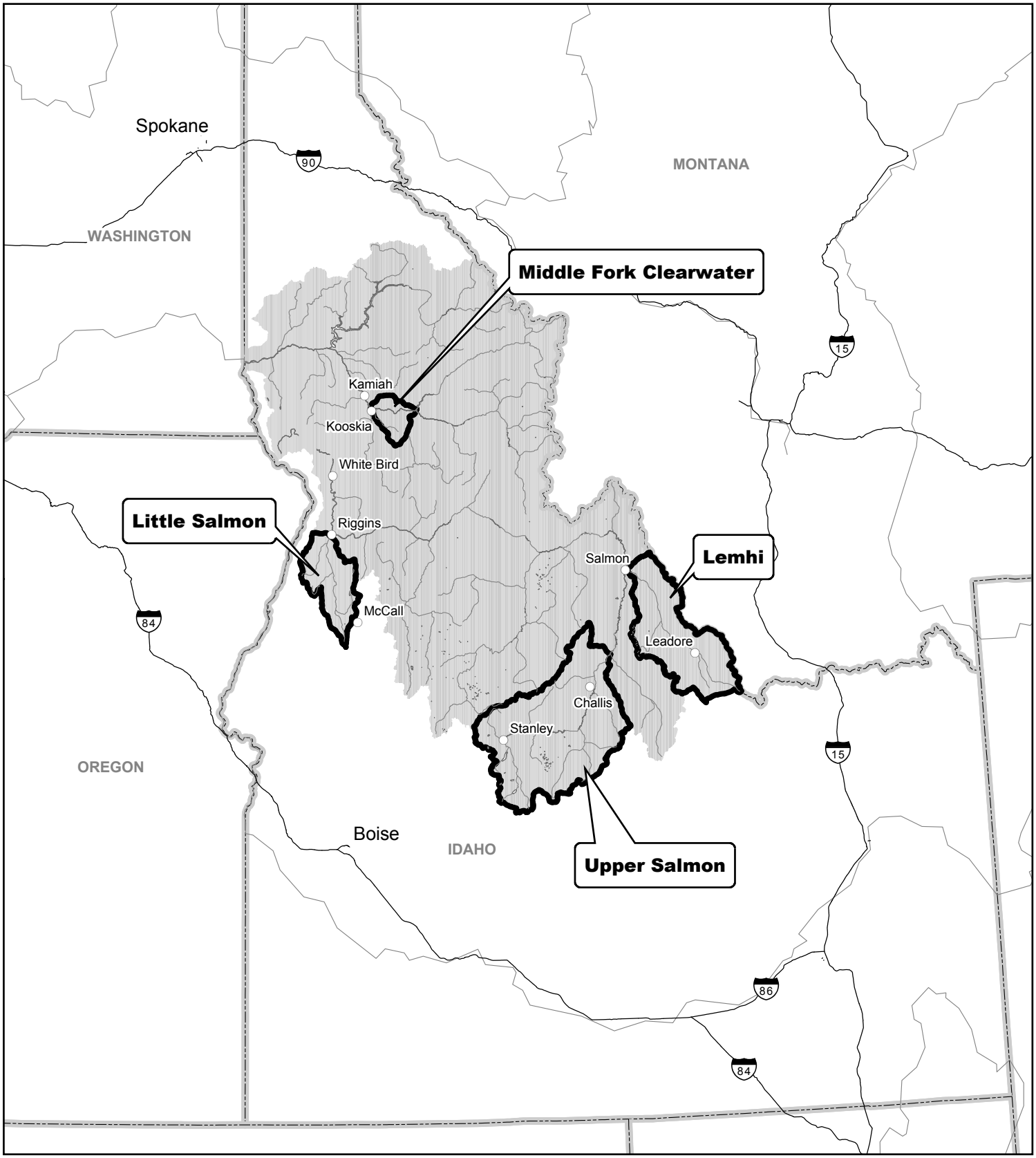
The objective of this action is to restore flows needed to avoid jeopardy to listed species, screen all diversions, and resolve all passage obstructions within each priority subbasin. Portions of Action 149 address the responsibilities of two other agencies – the Bonneville Power Administration (BPA) and the Army Corps of Engineers (Corps).

The Basinwide Recovery Strategy referenced in the RPA language identified 16 priority subbasins as Reclamation responsibilities - four in Idaho, five in Washington, and seven in Oregon. Reclamation is required to begin work in at least three priority subbasins each year for 5 years until all priority subbasins have an ongoing habitat improvement program. The BiOp allows only 10 years in each subbasin to complete all flow, screening, and passage actions. Reclamation provided its proposed annual schedule to NMFS in a Draft 5-year Implementation Plan during the summer of 2001. The work in the first four subbasins began in the spring of fiscal year 2001.

Implementation of Action 149 is a Federal action and Reclamation is required to follow procedures of the National Environmental Policy Act (NEPA). To comply with NEPA, Reclamation has prepared this Environmental Assessment to address the potential impacts associated with implementation of Action 149. Because the specific locations and numbers of participants are not known, and the choice of specific measures cannot be determined at this time, the EA is prepared at a programmatic level. This Programmatic EA addresses the broad range of implementation measures proposed to comply with Action 149.

The scope of this Programmatic EA for Reclamation's implementation of Action 149 will be constrained by the following:

- Reclamation will be responsible for activities and actions that only occur within the stream.
- Reclamation will address issues/needs that have been caused by irrigation activities.
- Reclamation will address barrier removal, flows, and/or screening issues/needs.
- All actions will take place on non-public land.
- All work will be completed with willing participants.
- Reclamation will assume no operation, replacement, or maintenance responsibilities associated with construction or other programs developed as part of Action 149 implementation.
- Fish screens will meet NMFS and USFWS criteria.
- Flow issues will be addressed in accordance with State of Idaho water laws.
- Water acquisition will occur through water purchase or lease. Water purchase will be negotiated in a manner such that ownership of the water right is in the name of the legally recognized third party.



City
Subbasin Boundary
Mountain Snake Province
State Boundary
Stream
Highway

FIGURE 1.1-1
Location of Mountain Snake Province Subbasins

0 10 20 40 Miles

Source: USBR, 2001;
IDWR, ESRI, EDAW Inc, 2002.
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Back of Figure 1.1-1. Location of Snake River Subbasins.

1.2 Subbasin Locations and Setting

Four NMFS ESUs are covered under this EA, Snake River Steelhead, Snake River Fall Chinook, Snake River Spring/Summer Chinook, and Snake River Sockeye Salmon (Figures 1.1-2 – 1.1-5). Table 1.2-1 summarizes the distribution of the subbasins within the NMFS ESUs. It should be noted that a listed fish species may not actually occur within one of the subbasins even though it lies within the NMFS ESU. In some cases the ESU includes critical habitat designations but the fish species is not known to occur in the subbasin at present. Refer to Section 3.5 for details on fish distribution within each subbasin.

Table 1.2-1. Distribution of the Lemhi, Upper Salmon, Middle Fork Clearwater and Little Salmon Subbasins within NMFS designated ESUs

ESU	Subbasin			
	Lemhi	**Upper Salmon**	**Middle Fork Clearwater**	**Little Salmon**
Snake River Steelhead	X	X	X	X
Snake River Fall Chinook			X	
Snake River Spring/Summer Chinook	X	X		X
Snake River Sockeye		X		

The following narrative provides a brief overview of the Lemhi, Upper Salmon, Middle Fork Clearwater, and Little Salmon Subbasins. Details on the presence of fish listed under the ESA can be found in Section 3.7, Threatened and Endangered Species. Details on the hydrology of the subbasins can be found in Section 3.3. See Figure 1.1-1 for a general orientation map of the Subbasins.

The Lemhi Subbasin extends along the Lemhi River (Hydrologic Unit [HU] 17060024) from its confluence with the Salmon River at the town of Salmon to the upper reaches of Eighteen Mile Creek at the continental divide at the Idaho/Montana border. The area is dominated by irrigated pasture in the valley, and the only other settlement is the town of Leadore near the Eighteen Mile Creek/Texas Creek confluence. Hayden Creek is another primary tributary to the Lemhi River in the subbasin.

The Upper Salmon Subbasin (HU1706021) extends upstream from the confluence of the Salmon and Lemhi Rivers, but excludes the Pahsimeroi River Basin.

The Middle Fork Clearwater subbasin (HU 17060304) extends from the mouth of the Middle Fork Clearwater near the town of Kooskia to the confluence with the Lochsa River. Clear Creek is the primary tributary to the Middle Fork Clearwater River. Highway 13 extends on a north-south axis just west of the subbasin, and Highway 12 traverses east-west in the northern half of the subbasin.

The Little Salmon Subbasin (HU 17060210) extends upstream from the confluence of the Little Salmon River and the mainstem Salmon River at the town of Riggins near the mouth of the Little Salmon River. The town of New Meadows is in the Southern part of the basin. Highway 95 traverses north-south through the subbasin. The Rapid River flows into the Little Salmon River just upstream of the town of Riggins.

1.3 Purpose and Need for Action

The purpose and need for this action is to improve migration, spawning, and rearing habitat for listed anadromous salmonids in the identified priority subbasins by working with willing partners on non-public lands, correcting passage, diversion screening, and instream flow problems as directed by RPA Action 149. The priority subbasins within the spring chinook, fall chinook, steelhead, and sockeye ESU's established by NMFS are the Lemhi, Upper Salmon, Little Salmon, and Middle Fork Clearwater subbasins (Figures 1.1-2 through 1.1-5). Reclamation will continue to participate in habitat improvement measures within the scope of Action 149 for the duration of the 10 year program in each subbasin unless all problems within the scope of this action are completed sooner.

1.4 Scoping and Issues

1.4.1 Scoping

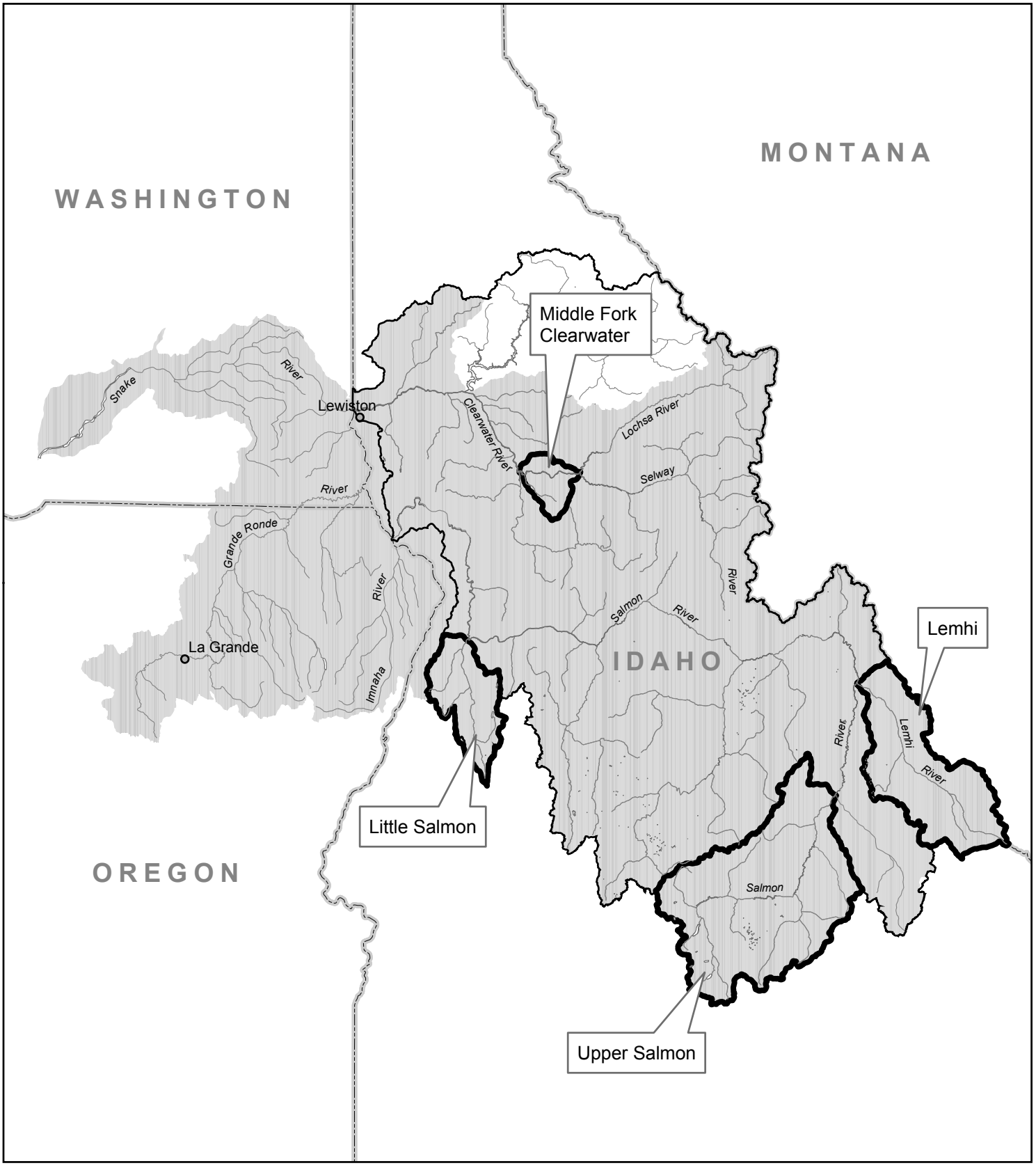
The following section describes the scoping process, summarizes the contacts made during this process, and provides a schedule of the NEPA process. Based on scoping and other contacts, a preliminary list of issues to be addressed is included.

NEPA requires that Federal agencies independently evaluate the environmental effects of their actions. Prior to this analysis, NEPA requires an early and open process for determining the scope of issues to be addressed and for identifying the significant issues to be addressed. In this case, the action to be addressed is Reclamation's proposed implementation of Action 149. This scoping process provides an opportunity for State, local, and other Federal agencies, tribes, interested organizations, and members of the public to provide input early in the NEPA process. The other purposes of the scoping process are to assist Reclamation to:

- Identify environmental and social issues associated with the Proposed Action that will be addressed in the EA;
- Determine the depth and breadth of needed analysis and significance of issues for the EA;
- Eliminate from detailed study issues and resources that do not require analysis; and
- Identify how the project would or would not contribute to cumulative impacts.

Reclamation provided letters declaring their intent to prepare a NEPA Programmatic EA for implementation of Action 149 to Federal, State, and local government agencies, businesses and organizations, Native American Tribal Governments, and local libraries. A copy of this letter and the distribution list is included in Appendix A.

Reclamation also conducted meetings with local entities. In April 2001, Reclamation established an Advance Team to assist in the first priority subbasins, including the Lemhi in Idaho. In May 2001, the Advance Team met with local organizations working in the Lemhi subbasins. Joe Spinazola, Subbasin ESA coordinator for Reclamation's Snake River Area Office, met with local groups and agencies in January and February 2002 to provide information on Reclamation's role related to the NMFS BiOp and to obtain input for the NEPA process. Meetings included:



Steelhead ESU
Subbasin Boundary
Mountain Snake Province
State Boundary
Stream
Town

FIGURE 1.1-2
Snake River Basin Steelhead ESU

0 10 20 40 Miles

Source: USBR, 2001;
IDWR, ESRI, EDAW Inc, 2002.
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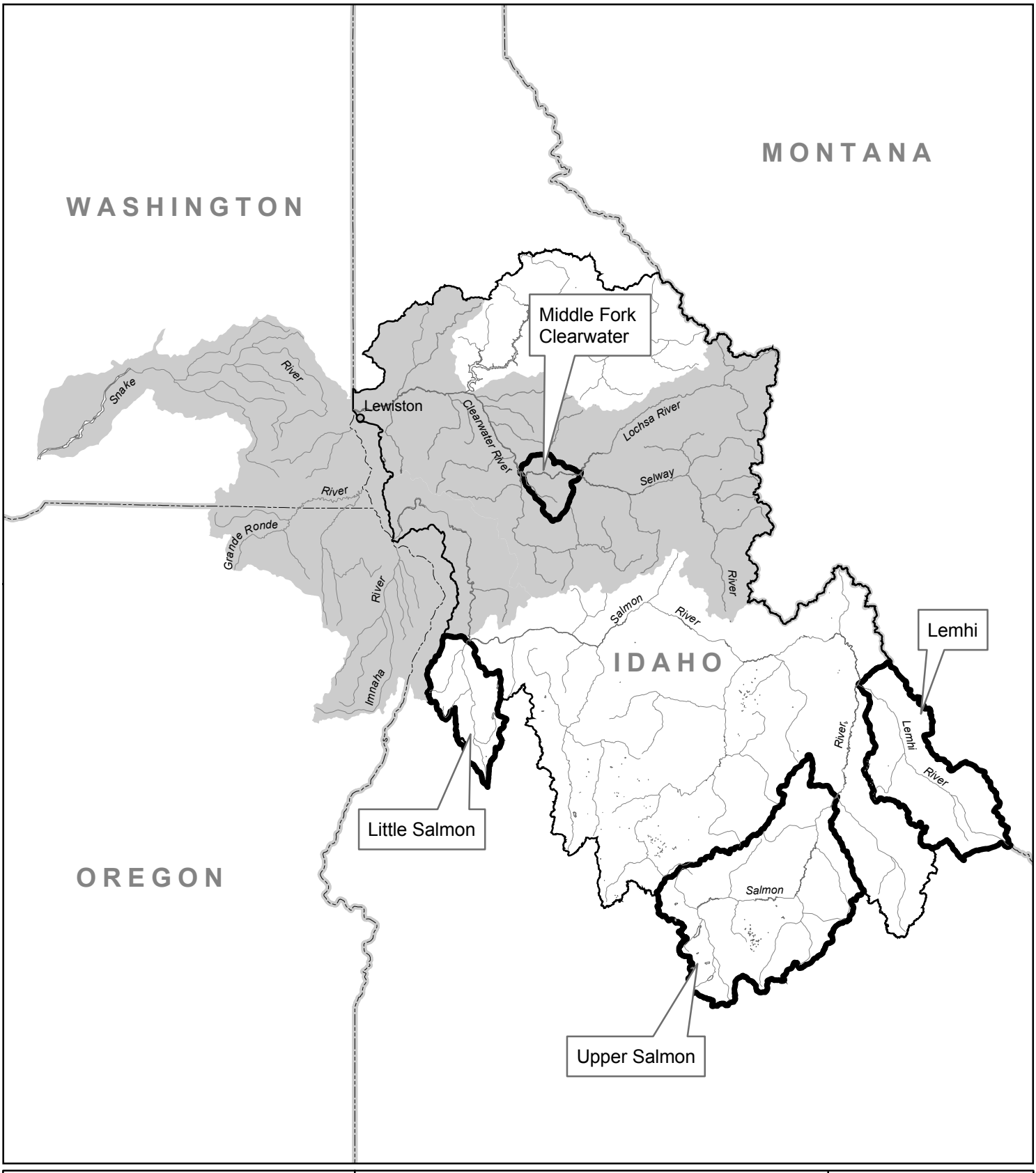
Back of Figure 1.1-2. Snake River Basin Steelhead ESU.



Fall Chinook ESU
Subbasin Boundary
Mountain Snake Province
State Boundary
Stream
Town

FIGURE 1.1-3
Snake River Basin
Fall Chinook Salmon ESU

0 10 20 40 Miles

Source: USBR, 2001;
IDWR, ESRI, EDAW Inc, 2002.
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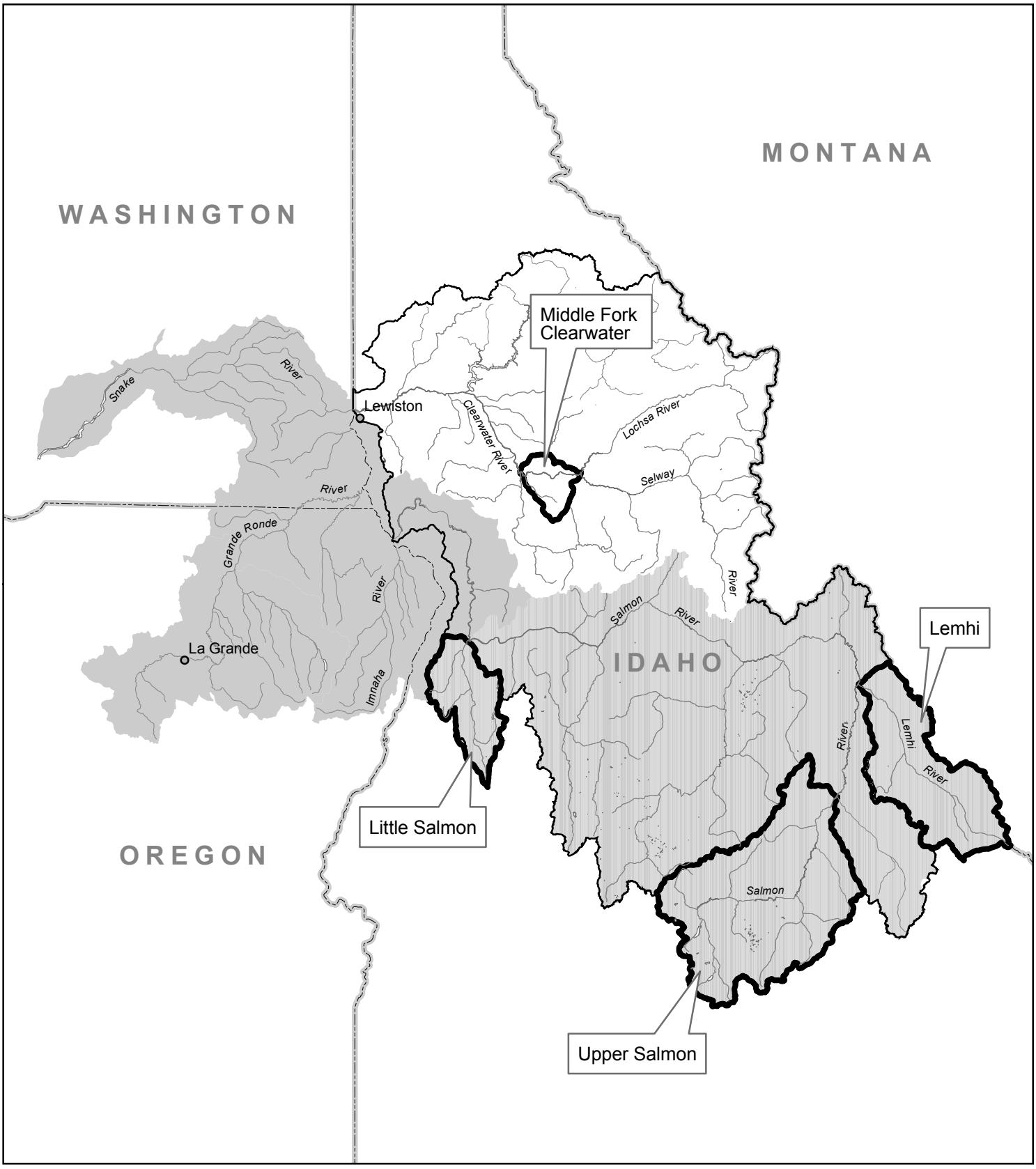

Spring/Summer Chinook ESU
Subbasin Boundary
Mountain Snake Province
State Boundary
Stream
Town

FIGURE 1.1-4
Snake River Basin
Spring/Summer Chinook Salmon ESU

0 10 20 40 Miles

Source: USBR, 2001;
IDWR, ESRI, EDAW Inc, 2002.
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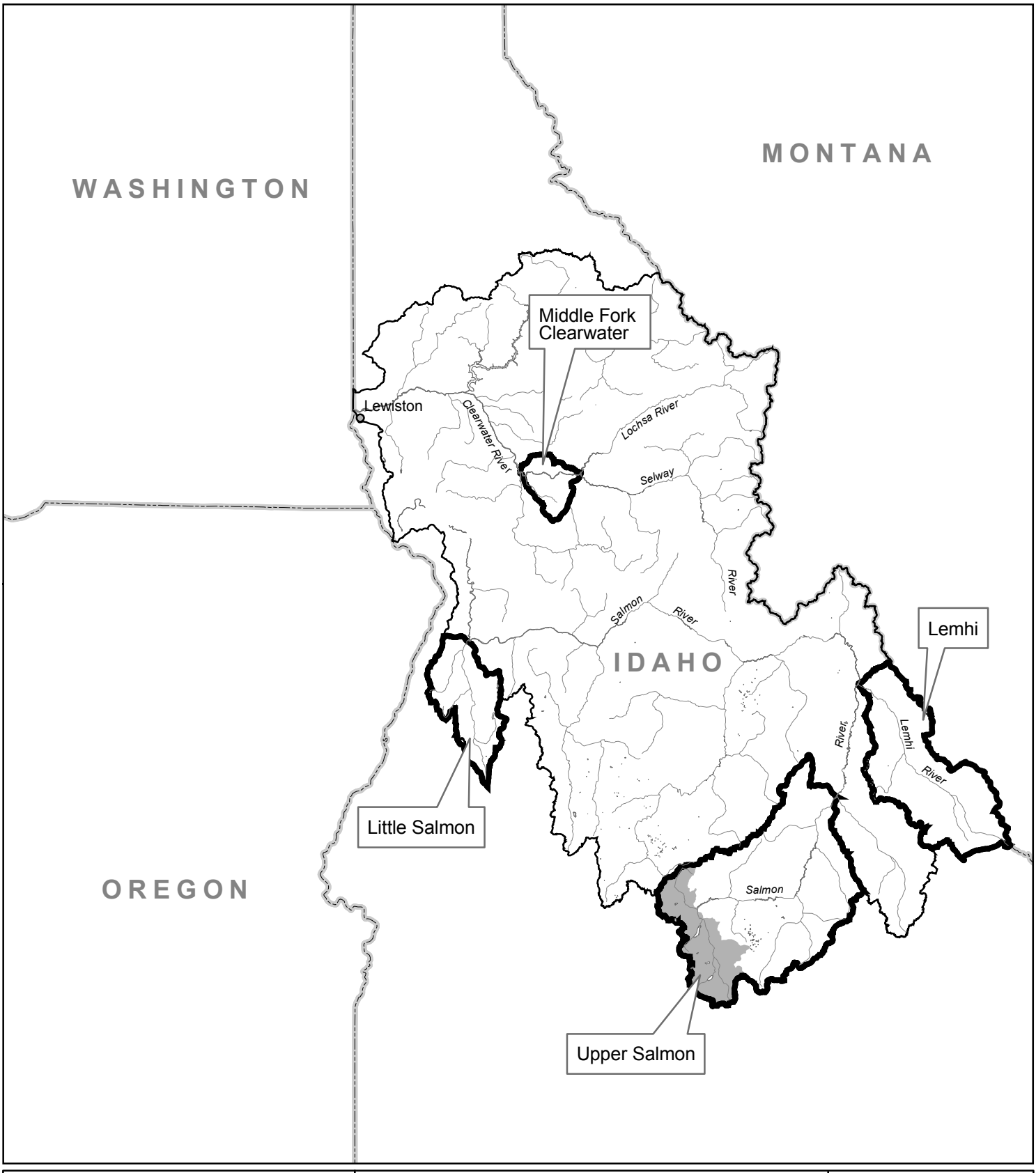

Sockeye Salmon ESU
Subbasin Boundary
Mountain Snake Province
State Boundary
Stream
Town selection

FIGURE 1.1-5
Snake River Basin Sockeye Salmon ESU

0 10 20 40 Miles

Source: USBR, 2001;
IDWR, ESRI, EDAW Inc, 2002.
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Back of Figure 1.1-5. Snake River Basin Sockeye Salmon ESU

- Upper Salmon River Subbasin Watershed Project Technical Advisory Committee (includes Lemhi subbasin) on January 23, 2002.
- Clearwater Focus Watershed Policy Advisory Committee on January 30, 2002.
- Little Salmon River Subbasin, agencies and local entities (there is no organized subbasin group) on February, 12, 2002.

In addition to meeting with these local groups, Reclamation has initiated meetings with NMFS, USFWS, and other agencies to describe the programmatic nature of the EA and discuss issues regarding ESA consultation. Representatives from these agencies met on February 20, 2002, and April 18, 2002, to develop standard protocols and best management practices for construction related to flow, screens and barrier projects. Additional information concerning formal and informal consultation with NMFS and USFWS is presented in Section 4.1.1 of this report.

Primary elements of the public involvement plan include the scoping process and public review of the Draft EA. For each subbasin, elements of the public involvement and responses received during scoping are summarized in Chapter 4.

1.4.2 Issues

The following items represent both site-specific and cumulative resource issues identified in Reclamation's scoping document for this Programmatic EA. These issues were identified as a result of meetings and communications with stakeholders and analysis by Reclamation and staff.

- Air Quality and Climate
  - Short-term effects from construction projects.
- Noise
  - Short-term effects from construction projects.
- Hydrology and Water Quality
  - Need for increased surface water flows for salmon.
  - Need for reduced water temperature in streams.
  - Short-term water quality effects during construction projects.
- Vegetation and Wetlands
  - Short-term effects from disturbance during construction.
- Fish
  - Need to reduce blockages of upstream and downstream migrants.
  - Need to reduce mortality from lack of fish screens, inadequate fish screens, and irrigation intake structures.
  - Need for increased fish access to spawning and rearing habitat, and production from improved flows.
  - Short-term effects during construction projects.

- Wildlife
  - Need to enhance habitat for aquatic and semi-aquatic species with increased streamflow.
  - Short-term effects on local wildlife during construction.
- Threatened and Endangered Species
  - Need to enhance habitat for listed anadromous salmonids and bull trout.
  - Need to increase fish access and production with improved flows.
  - Need to decrease mortality with improved screens and irrigation intake structures.
  - Short-term effects on aquatic species related to changes in water quality during construction projects.
  - Potential mortality of ESA-listed fish during construction.
- Recreation
  - Long-term increases in salmon production may lead to increased fishing opportunities.
  - Short-term restrictions on recreation use in immediate vicinity of construction projects.
- Aesthetics
  - Short-term noise during construction.
  - Potential visual impact of new structures in or adjacent to river.
- Cultural Resources
  - Potential for disturbing cultural resource sites during construction.
  - Indian Trust Assets.
  - Long-term benefit to anadromous salmon with cultural significance for Native American Tribes.
  - Sacred Sites and Traditional Cultural Properties – Potential disturbance of known sites
- Socioeconomics
  - Potential short term economic benefits from construction.
  - Potential benefit to local landowner of improved water collection facility.
  - Potential long term benefit of operational stability owing to conformance with ESA requirements.
- Land Use
  - Need for consistency with local, State, and Federal comprehensive plans.
- Environmental Justice
  - Review potential for disproportionate effects.

1.5 Related Actions and Activities

A number of watershed groups, agencies, Native American Tribes, and citizen groups are actively pursuing salmon restoration efforts in the four subbasins. The level of activity and organization vary by subbasin. The following narrative summarizes actions and activities related to Reclamation's implementation of Action 149 for each of the four subbasins addressed in this EA.

In the Lemhi Subbasin, current efforts to improve instream conditions and remove barriers to salmon migration have been initiated and coordinated by IDFG, Upper Salmon Basin Watershed Project (USBWP, which includes the Lemhi, Upper Salmon, and Pahsimeroi Subbasins), the Lemhi Soil and Water Conservation District, and the Shoshone-Bannock Tribes of the Fort Hall Reservation. IDFG primarily works on screen and headgate projects and contributes to monitoring efforts and reconnecting tributaries to the mainstem Lemhi. The USBWP works through a committee and coordinates projects that range from push-up dam removal to riparian fencing, among other fish enhancements. Other partners in the subbasin with research, monitoring, and evaluation responsibilities include Idaho Department of Water Resources, U.S. Geological Survey (USGS), the Bureau of Land Management (BLM), the U.S. Forest Service (USFS), and the Idaho Department of Environmental Quality (IDEQ).

For the Upper Salmon Subbasin, many of the same entities mentioned in reference to the Lemhi Subbasin above are active. IDFG, as in the Lemhi Subbasin, is responsible for screening issues and works on monitoring efforts and reconnecting tributaries. Funding sources are similar to those described in the Lemhi Subbasin. The Custer County Soil and Water District (rather than the Lemhi) is active in the Upper Salmon restoration efforts. A comprehensive State Water Plan was recently completed for the Little Salmon River Subbasin (IDWR 2002).

The Clearwater Subbasin was selected by former Governor Phil Batt as a candidate for designation as a Focus Watershed Program under the NPPC's Columbia River Basin Fish and Wildlife Plan in 1996. The NPPC accepted the selection and recommended that BPA fund the program. The Clearwater River Focus Program is coordinated between the Idaho Soil Conservation Commission and the Nez Perce Tribe through the Tribal Fisheries-Watershed Division. Efforts concentrate on fish and wildlife habitat protection, enhancement, and restoration within the Clearwater Subbasin. No programs have been proposed to date in the Middle fork Clearwater Subbasin.

The Clearwater Policy Advisory Committee provides management and technical assistance from agencies and organizations to establish restoration priorities in the subbasin. Members of the advisory committee include IDEQ, Potlatch Cooperation, Idaho Association of Counties, IDFG, Idaho Association of Soil Conservation Districts, Nez Perce Tribe, USFWS, NMFS, USFS, and Idaho Department of Lands.

There is no organized watershed group in the Little Salmon Subbasin. The Idaho County and Adams County Soil and Water Conservation districts are likely to be active participants in Reclamation efforts to implement Action 149 in the Little Salmon Subbasin. The Little Salmon Watershed Alliance, Inc., a non-profit corporation, was organized in 1997 and is comprised of residents of the subbasin. The Alliance was instrumental in having the Idaho Water Board evaluate the Little Salmon as a State Recreation River. This group may provide valuable input to Reclamation's process.

The Bonneville Power Administration (BPA) is in the process of developing a comprehensive policy to guide the implementation and funding of its fish and wildlife mitigation and recovery efforts related to the FCRPS. BPA has prepared a Draft Environmental Impact Statement (DOE/EIS-0312, June 2001) to examine the possible environmental consequences of its decision to implement and fund a Policy Direction for fish and wildlife mitigation and recovery efforts in the Pacific Northwest.

BPA has also adopted a set of prescriptions that apply to BPA-funded watershed management projects. BPA has adopted this set of prescriptions to standardize the planning and implementation of individual watershed management programs and projects. This decision is based on consideration of potential environmental impacts evaluated in BPA's Watershed Management Program Final EIS (DOE/EIS-0265) published July 8, 1997. Based on past experience, BPA expects that future fish mitigation and watershed conservation and rehabilitation actions with potential environmental effects would include in-channel modifications and fish habitat improvement structures, riparian restoration, and other vegetation treatment techniques, agricultural management techniques for crop irritation, animal facilitates, and grazing; road management techniques; mining reclamation; and similar watershed conservation actions.