

5 OUTSTANDING RESOURCE EVALUATIONS

In the development of comprehensive state water plans, the water-related resources of a basin are evaluated for outstanding values. The evaluation processes and results for the Little Salmon River basin are described in this section. Evaluations are used to examine streams or stream segments for protection by the Idaho Water Resource Board. These processes and results were reviewed by the citizens advisory group during formation of the plan's first draft.

5.1 Biological Resources

The River Biological Screening Procedure is a process to identify outstanding fish and wildlife values of a waterway. The procedure uses a number of different stream assessment methodologies, including the EPA's Rapid Bioassessment Protocols, the DEQ's Beneficial Use Reconnaissance Procedure, and the Idaho Department of Fish and Game's StreamNet.

The process involves two steps: 1) Aquatic and Riparian Assessment, which is an initial evaluation of twenty biological attributes; and 2) Crucial Species and Habitat Inventory, a final evaluation of the basin's unique species and habitats.

5.1.1 Aquatic and Riparian Assessment

Biological data were collected from various sources, including the Idaho Department of Fish and Game, the Payette and Nez Perce National Forests, the Bureau of Land Management, and several specific research studies described in the *Fish and Wildlife* section of Chapter 4. The data were compiled for twenty biological attributes on each waterway evaluated. These attributes were divided into four components for ease of collecting and organizing the data:

- **Habitat – aquatic:** physical conditions and water quality associated with the waterway
- **Habitat – riparian:** physical conditions and vegetation community

characteristics

- **Species – aquatic:** plant and animal species associated with the waterway
- **Species – riparian:** plant and animal species in the riparian corridor

Based on available data, each waterway was evaluated for “positive” attributes. An attribute was considered positive if the data were available, and the data indicated that the characteristic contributed positively to the quality of the aquatic or riparian habitat.

5.1.2 Crucial Species and Habitats Inventory

Any biological feature considered by biologists to be regionally, nationally, or globally unique, such as bull trout focal habitat, is considered biologically outstanding. In the Little Salmon River basin, these species and habitats include:

- **Bull trout spawning/early rearing:** According to the most recent, bull trout (*Salvelinus confluentus*) persist only in the lower reaches of the Little Salmon River basin below the Falls at river mile 24.7 (U.S. Bureau of Land Management 2000). Bull trout are listed as a federally threatened species. The Rapid River and Boulder Creek are documented tributary streams that are considered of high importance for bull trout spawning and early rearing (Clearwater Basin Bull Trout Technical Advisory Team 1998). The Little Salmon River is used for subadult and adult rearing and as a migration corridor. The Hard/Hazard Creek complex is considered of medium importance for bull trout because of important production of forage fish.
- **Snake River spring/summer chinook salmon (*Oncorhynchus tshawytsch*):** Listed as a threatened species under the federal Endangered Species Act in 1992; the Little Salmon River and some tributaries provide travelways and spawning and rearing habitat for the

chinook. The majority of quality habitat is associated with the larger tributaries, such as the Rapid River and Boulder, Hazard, and Hard Creeks. The Little Salmon River provides limited spawning habitat because of the large size substrate, but the river does provide summer and winter rearing habitat (U.S. Bureau of Land Management 1993).

- **Steelhead trout (*Onchorhynchus mykiss*):** Listed as threatened under the Endangered Species Act in 1997; the Rapid River has the only truly wild population in the basin, but populations are declining. In addition to the sites on the Rapid River, the Idaho Department of Fish and Game monitoring sites are located on the Little Salmon River, Boulder Creek, and Hazard Creek. Local historic accounts recall steelhead being “thick” in Shingle Creek (Vogelsong 2001).
- **Pony Creek Research Natural Area:** Pony Creek Research Natural Area is located on the eastern edge of the Seven Devils Mountains and incorporates a small tributary to Boulder Creek (U.S. Forest Service 1992). The Research Natural Area is biologically unique for several reasons: 1) it is a transition zone between the vegetation of northern

Idaho with its coastal affinities and the drier interior vegetation of southern Idaho; 2) it encompasses a diversity of habitat types (4,408 feet elevational gradient within the Research Natural Area); 3) it contains populations of a rare terrestrial plant species, puzzling halimolobos (*Halimolobos perplexa* var. *perplexa*); and 4) a rare aquatic insect, the caddis fly (*Farula* sp.), previously unrecorded in Idaho, was collected in Pony Creek and is also likely found in the adjacent Squirrel Creek.

5.1.3 Results

Both components of the evaluation were considered to determine if a waterway possessed outstanding biological values. Waterways with outstanding biological values fulfill the following criteria: at least 50 percent (and at least five data points) of the available aquatic and riparian data were positive, *and/or* crucial species and habitats were present. Table 10 summarizes the assessment for the waterways evaluated in the Little Salmon River basin. All waterways evaluated, except the Little Salmon River from its headwaters to Round Valley Creek, were found to be biologically outstanding.

Table 10. Outstanding biological waterways.

Waterway Reach	Aquatic and Riparian Assessment ¹	Crucial Species and Habitats
Boulder Creek (headwaters to forest boundary)	13/16	Bull trout spawning/rearing Chinook salmon spawning/rearing
Bull Horn Creek (headwaters to Boulder Creek)	9/13	Bull trout spawning/rearing
Cold Springs Creek (headwaters to Boulder Creek)	10/13	Bull trout spawning/rearing
Pony Creek (headwaters to Boulder Creek)	7/9	Bull trout spawning/rearing; Pony Creek RNA ²
Squirrel Creek (headwaters to Boulder Creek)	5/9	Bull trout spawning/rearing
Star Creek (headwaters to Boulder Creek)	8/12	Bull trout spawning/rearing
Hard Creek (headwaters to forest boundary)	10/13	Bull trout spawning/rearing
Hazard Creek (headwaters to forest boundary)	9/11	Bull trout spawning/rearing Chinook salmon spawning/rearing

Table 10. Outstanding biological waterways – continued from previous page.

Waterway Reach	Aquatic and Riparian Assessment ¹	Crucial Species and Habitats
Little Salmon River (Round Valley Creek to Salmon River) ³	8/15	Bull trout rearing Chinook salmon spawning/rearing Steelhead spawning/rearing
Rapid River (headwaters to hatchery)	14/15	Bull trout spawning/rearing Chinook salmon spawning/rearing Steelhead trout spawning/rearing
Rapid River (Hatchery to Little Salmon River)	7/12	Chinook salmon spawning/rearing Steelhead trout spawning/rearing
Fry Pan Creek (headwaters to Rapid River)	8/11	Bull trout spawning/rearing
Paradise Creek (headwaters to Rapid River)	8/11	Bull trout spawning/rearing
Trail Creek (headwaters to Rapid River)	9/11	Bull trout spawning/rearing Snake
West Fork Rapid River (Barrier Falls to Rapid River)	9/11	Bull trout spawning/rearing

¹Total positive attributes/total attributes (data) available

²RNA= Research Natural Area

³Largely used as thoroughfare with little suitable spawning habitat (partly due to recent flood damage)

5.2 Recreation Resources

The recreation evaluation focused on recreational opportunities occurring within river or stream corridors and lakes. The evaluation entailed an analysis of recreational diversity and the importance of recreational opportunities in individual waterways. Specific recreational features are summarized in evaluation forms.

The final recreation evaluation class for each waterway was based on a combined assessment of diversity and importance.

Recreational diversity is a measure of the variety of opportunities available in a waterway corridor. Three criteria were assessed to arrive at a diversity value:

- land-based and water-based recreation opportunities
- natural features, and
- level of access

Land-based activities include camping, hiking, or hunting. Water-based recreation includes fishing, swimming, and boating. Land-based and water-based recreation

activities occurring within the river corridor were identified through review of agency documents and maps describing recreation facilities, and communications with various agencies and user groups.

Natural features were identified which enhance recreation opportunities or experiences. These include description of water characteristics influencing the type of boating activity possible, a summary of the aesthetic values of the waterway, and identification of special wildlife habitat characteristics that provide increased opportunities for wildlife observation or other wildlife-related recreation.

Level of access was described to provide information regarding the types of recreational activities possible, potential use volume, and opportunities for primitive or isolated versus a more developed recreation experience.

Recreational importance was determined through review of four criteria:

- features or recreation opportunities unique or rare regionally or in the state
- public concern for the recreational

values of the waterway (determined by public comment and geographic draw of visitors)

- use volume based on recreational survey data and agency consultation, and
- special designations and/or agency recreation management objectives

Waterways with *outstanding* recreational values:

- provide significant recreation opportunities encompassing a great diversity of activities (greater than 12)
- provide a unique or rare experience within the region or basin, and/or
- receive significant or the highest use

Waterways with *high* recreational values:

- receive high use
- provide a high diversity of recreation opportunities (10 to 12 activities), and/or
- provide an important recreation experience, but typical for the region

Waterways with *moderate to low* designations:

- provide recreational opportunities

typical in the region

- receive moderate to low use, and/or
- have moderate to low recreation diversity (less than 10 activities)

Table 11 summarizes the results of the recreation evaluation for waterways in the Little Salmon River basin. The evaluation focused on the Little Salmon River corridor and major tributaries. Not described in this list is a waterway that includes a cave unique to the northwest. Because this cave is so unique and presents a dangerous hazard to untrained explorers, by agreement the exact location of this cave is not described in any public documents.

5.3 Scenic Resources

The identification of waterways possessing outstanding aesthetic and other values was accomplished by reviewing the visual resource inventories completed for national forest lands. Inventories were conducted during the development of land and resource management plans, with the Payette National Forest visual inventory completed about 1982 (Arp 1998), and the Nez Perce National Forest inventory completed in 1986 (Snodgrass 1999). Forest Service data were not available for many of the private lands in the basin. To address this data gap, the IDWR conducted an independent

Table 11. Outstanding recreation waterways.

Reach	Evaluation Results
Little Salmon River (Round Valley Creek to mouth)	Unique chinook salmon and steelhead angling opportunities
Goose Creek (headwaters to Little Goose Creek)	Significant diversity of recreation opportunities
Brundage Reservoir	One of 16 lakes in Idaho managed for a quality or trophy trout angling experience
Hazard Creek (headwaters to mouth)	Significant diversity of recreation opportunities
Lake Serene	One of 16 lakes in Idaho managed for a quality or trophy trout angling experience
Rapid River (headwater to National Recreation Area boundary)	Unroaded recreational setting contained in a National Recreation Area.
West Fork Rapid River (headwaters to mouth)	Unroaded recreational setting contained in a National Recreation Area.

assessment of scenic values for the Little Salmon River corridor, using criteria similar to the Forest Service surveys.

Landscape characteristics typical for the region or the physiographic province establish the framework for assessing scenic values. Landscape elements in the Little Salmon River basin were evaluated relative to features typical for the Northern Rocky Mountain and Columbia Intermontane physiographic provinces. These landscape character types have common visual features for landform, rock formations, water forms and vegetation patterns. Character types are further categorized into subtypes to distinguish landscape settings at a more appropriate scale for assessing scenic values.

The U.S. Forest Service Visual Management System outlines criteria for deriving a variety class category for each landscape subtype (U.S. Forest Service 1974). Variety classes rate scenic quality, determined by evaluating the degree of variety, contrast, harmony or distinctiveness of various landscape components. In determining variety class categories, all landscapes are considered to have some scenic value, but landscapes with greater diversity of features and harmonious composition have a higher potential scenic value. Three variety class ratings are used to identify the degree of scenic value:

- ***Class A / Distinctive***: Landscapes where features of landforms, vegetation patterns, water forms, and rock formations are distinctive, unusual or outstanding in quality; or landscapes typical for the character type, but are outstanding in quality, and/or are known nationally for scenic importance.
- ***Class B / Common***: Landscapes where features contain variety in form, line, color, and texture; or combinations that tend to be typical or common to the character type.
- ***Class C / Minimal***: Landscapes where features have little or minimal variety in form, line, color, or texture.

Waterways with *outstanding* scenic values are those within landscape settings rated as Variety Class A. These waterways are listed in Appendix E.

The results of the three evaluations (biological, recreation, and scenic) are shown in Figure 25. The Idaho Water Resource Board used these evaluations to determine stream reaches for consideration for state protection designations. The Board's protection designations are listed and described in Section 2.2 of this plan.

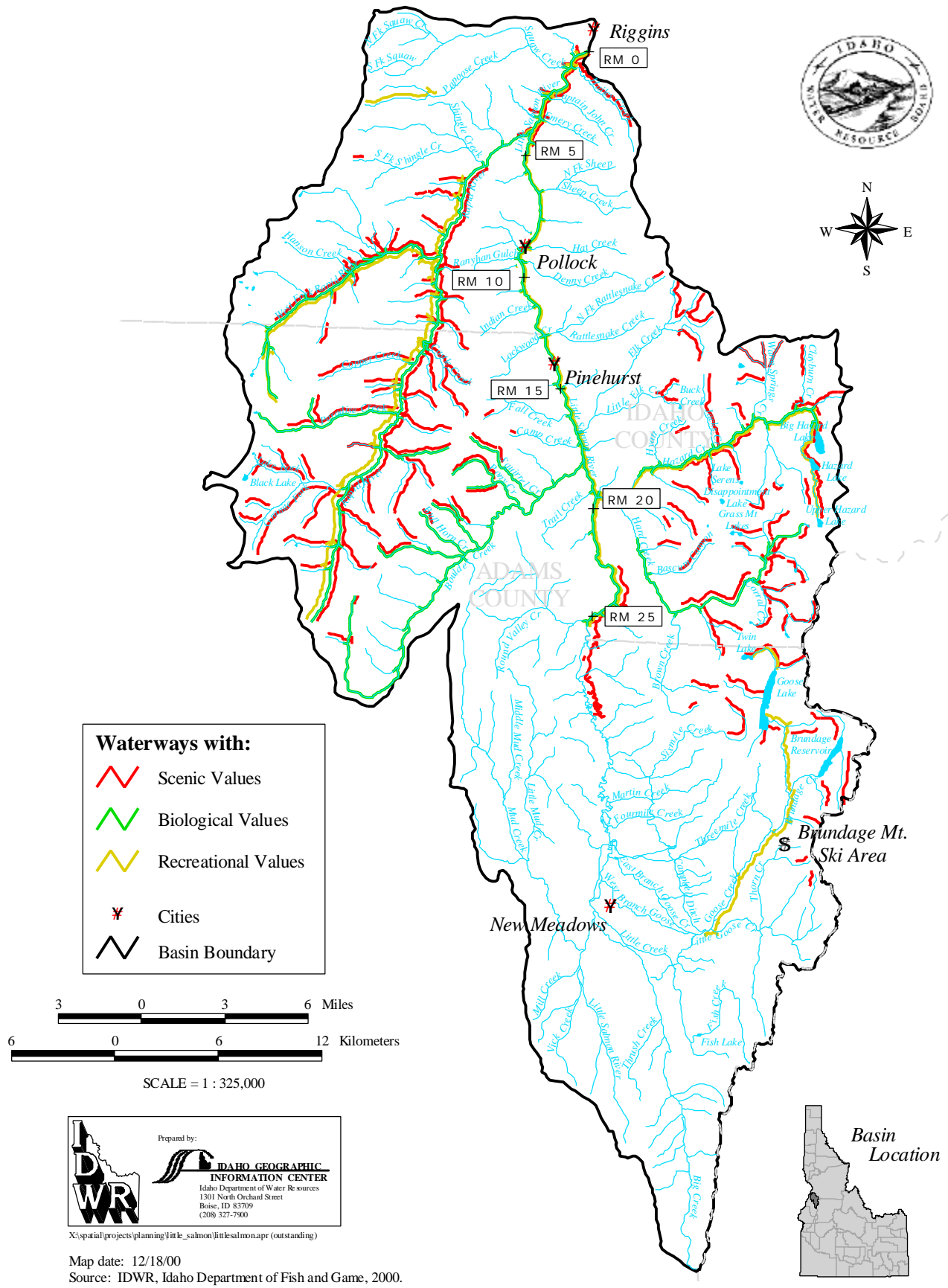


Figure 25. Map depicting waterways in the Little Salmon River basin with outstanding values (Sources: various - refer to text for explanation).