COMPREHENSIVE STATE WATER PLAN
South Fork Snake River Basin

PLAN SUMMARY

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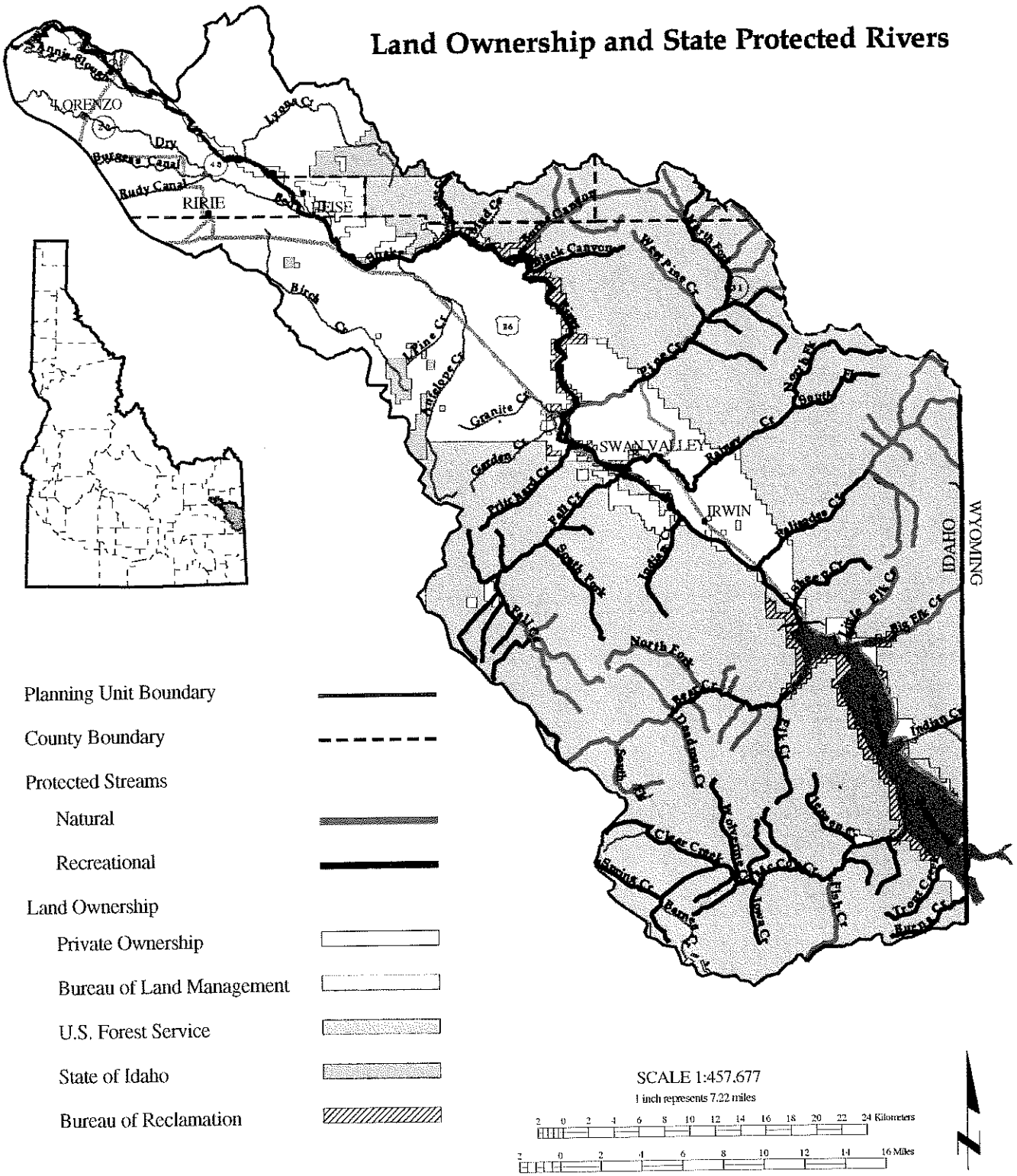
Figure 1

Land Ownership and State Protected Rivers



PLAN SUMMARY

The South Fork Snake River Basin encompasses all land draining into the South Fork Snake River from the Idaho-Wyoming state line to the confluence with the Henrys Fork (Figure 1). Technically the South Fork Snake River is not a fork, but the main stem of the Snake River as indicated on U.S. Geological Survey maps. The South Fork Snake is the name commonly used by many people and is used in the plan. The South Fork Snake River originates in Yellowstone National Park. The headwater tributaries originate in the Teton, Gros Ventre, and Salt River mountains located in Wyoming.

Water flow of the South Fork Snake River is regulated by Palisades and Jackson Lake dams. Jackson Lake is in Grand Teton National Park, Wyoming. The portion of Palisades Reservoir located in Idaho defines the upstream boundary of the Board's South Fork Snake River Basin. Storage and releases from Jackson and Palisades reservoirs are coordinated with operation of five other Snake River storage reservoirs located above Milner Dam. The Upper Snake River Reservoir System is operated as a unit by the U.S. Bureau of Reclamation (USBR). Water rights are under the administrative control of the Director of the Idaho Department of Water Resources (IDWR) through the watermaster of Water District 01. Water is stored and distributed according to the water right priorities that have been established for Snake River water. While there are water rights on many of the tributary streams, most of the tributaries in the basin do not have storage impoundments.

Agriculture is a predominant industry in the basin. Dryland and irrigated farming are practiced in the area. Agricultural products include winter wheat, rapeseed, spring barley, potatoes, and alfalfa. Dryland farming mainly occurs upstream of Heise on benches above the river. The most significant irrigation diversions from the river occur below the Heise gage.

The basin possesses many outstanding natural resource values. The South Fork Snake River is a nationally renowned trout fishery supporting two varieties of cutthroat trout and brown trout. The cottonwood riparian complex bordering the river is considered one of "the most extensive and highest quality" in Idaho (U. S. Department of Interior, Fish and Wildlife Service, 1980). The river corridor is also critical bald eagle habitat, supporting 37 percent of Idaho's nesting population and half of the state's production (U. S. Department of Interior, Bureau of Land Management and U. S. Department of Agriculture, Forest Service, 1991). Outstanding scenery, a quality fishery, and wildlife values provide diverse recreation opportunities.

Planning Process

The planning process encompassed six steps which are described below. Not all steps occurred in the order presented. Some occurred throughout the planning process and/or simultaneously with others.

1) ***Inventory of resource attributes*** - The resource attribute inventory is summarized in the *Basin Description* section of the South Fork Snake River Basin Plan. Resource information, figures, and statistics for this plan were obtained through literature review, field reconnaissance, contact with agency personnel, and citizen input. Maps of resource data were prepared at a scale of 1:24,000 or 1:100,000 using a geographic information system (GIS). Resource data were reviewed for accuracy by government agencies, a local advisory group, and interested public.

2) ***Identify local issues and concerns, and develop goals*** - Issues, concerns and goals related to water use help frame the scope of the South Fork Snake River Basin Plan. Issues and concerns were identified through meetings with the public, formation of a local citizens advisory group, and meetings with management agencies and local officials. Goals were developed at the advisory group meetings.

3) ***Assess current and potential water uses and constraints*** - An assessment of current and potential

water uses and constraints is contained in the South Fork Snake River Basin Plan. This information was obtained by review of water right files, pertinent literature, regulations and law, and discussion with agency personnel.

4) ***Assess and identify river segments with outstanding resource values*** - Waterways possessing outstanding fish and wildlife, recreation, scenic or geologic values are eligible for state designation as natural or recreational waterways (Idaho Code, Sec. 42-1731). Outstanding resources are indicated by 1) unique or rare features regionally or nationally, 2) significant public concern voiced for protection, and/or 3) legal protection or special agency management designation to protect important resource values. Specific criteria for defining outstanding fish and wildlife, recreation and scenic resources are described in the *Resource Evaluation* section of the South Fork Snake River Basin Plan.

5) ***Generate strategies*** - Strategies may be actions, recommendations or policies to respond to issues and concerns identified, and achieve the selected goals. They represent alternatives considered by the Board. The strategies considered for the South Fork Snake River Basin are listed in Appendix C of the plan.

6) ***Develop actions and recommendations*** - After considering alternatives and the public interest, actions and recommendations relative to improving, developing, and conserving water resources are proposed by the Board. Many actions and recommendations were the result of consensus achieved at local citizens advisory group meetings, and are described in the *Actions and Recommendations* section of the South Fork Snake River Basin Plan.

PUBLIC PARTICIPATION

Public involvement is an important part of the planning process. Input from local citizens is necessary in assessing viewpoints and conditions in the basin. Information meetings, agency coordination meetings, and local advisory group meetings provided opportunity for public critique and suggestions on the South Fork Snake River Basin Plan. In February and March 1995, public information meetings were conducted in Irwin, Victor, Ririe and Idaho Falls to inform the public about preparation of a South Fork Snake River Basin Plan, and to ask the public to identify issues and concerns.

In April 1995, the Board selected a seventeen member advisory group comprised of local citizens. The South Fork Snake Advisory Group (SFSAG) informed the Board and its staff of local concerns, reviewed information used in the development of the plan, and provided feedback and suggestions for the Board's consideration. Members represented local government, water-users, conservation groups, industry, land owners, recreationists and private citizens. The group met nine times over a period of a year. All advisory group meetings were advertised and open to the public. Newsletters were circulated to more than 200 individuals summarizing the development of the South Fork Snake River Basin Plan, notifying of advisory group meetings, and requesting comment on key pieces of information.

The Idaho Water Resource Board circulated a Draft Comprehensive State Water Plan for the South Fork Snake River Basin on October 11, 1996. Information meetings and hearings were scheduled in Ririe, Rexburg, Boise, Twin Falls and Idaho Falls in October and November 1996 to discuss and receive comment on the draft plan. Twenty people testified at public hearings and 69 written comments were received by the Board prior to the close of the comment period on December 10, 1996.

After considering the record, the Board revised the draft plan. The Board adopted the final plan in 1996. The South Fork Snake River Basin Plan was presented to the Idaho Legislature for its consideration as required by Section 42-1734B, Idaho Code. The Legislature ratified the plan in 1997. The South Fork Snake River Basin Plan is a component of the comprehensive State Water Plan of the Board.

Goals and Objectives

In adopting a comprehensive state water plan, the Board is guided by these criteria from the Idaho Code 42-1734A:

1. Existing rights, established duties, and the relative priorities of water established in the Idaho Constitution shall be protected and preserved.

2. Optimum economic development in the interest of and for the benefit of the state as a whole shall be achieved by integration and coordination of the use of water, the augmentation of existing supplies, and the protection of designated waterways for all beneficial purposes.

3. Adequate and safe water supplies for human consumption and maximum supplies for other beneficial uses shall be preserved and protected.
4. Minimum streamflow for aquatic life, recreation, aesthetics and water quality, and the protection and preservation of waterways shall be fostered and encouraged. Consideration shall be given to the development and protection of water recreation facilities.

5. Watershed conservation practices consistent with sound engineering and economic principles shall be encouraged.

Specific goals and objectives for the South Fork Snake River Basin Plan reflect current local issues, current and future uses of water, and the natural resources of the basin. The top ranking issues identified by the public led to identification of a list of wants and needs, or desired outcomes, for the South Fork Snake River Basin. The South Fork Snake Advisory Group reviewed the desired outcomes at the March 1996 meeting, and developed a list of goals for each of the eleven issue categories. Goals are general statements about the outcome or desired future for the basin. Specific goals for the basin include:

Water Quality

1. Protect water quality of the South Fork Snake and all tributaries.

2. Accumulate data to allow monitoring and verification of water quality impacts.

3. Monitor and manage activities in the river corridor potentially impacting water quality to minimize pollution.

4. Minimize soil erosion.

5. Maintain or improve water in a biologically beneficial condition.

Fisheries

6. Maintain or improve the health of the cutthroat fishery.

7. Prevent over harvest of the fishery.

Riparian Management

8. Maintain or improve the health of the riparian area.

Wildlife

9. Maintain or improve wildlife habitat.

10. Recognize the value of waterfowl, wildlife and birds of prey.

11. Maintain or improve basin ecological integrity.

Recreation

12. Maintain or improve the quality of the outdoor recreation experience.

13. Maintain or improve the quality of the fishing experience.

14. Improve safety at the Big Feeder for boaters.

Development & Growth

15. Minimize or prevent adverse effects from development along the river corridor, particularly the canyon.

16. Protect private property rights.

17. Encourage citizens to be involved in the development or revision of county land use plans.

Agency Management

18. Management decisions should use the best available science.

19. Improve coordination among agencies, private landowners and the public in managing resources in the South Fork Snake River Basin.

Water Allocation

20. Work toward cooperation between all water users.

21. Look at ways to allow greater flexibility in allocating water to different uses and address the changing demands for water in the basin and state while respecting existing rights.

22. Identify areas where instream flows are appropriate.

Operation of Palisades

23. Balance flows and timing from Palisades Reservoir to meet the needs of irrigators, flood management, power generation, private property owners, fisheries, wildlife, cottonwood regeneration, and recreation.

Irrigation

24. Encourage irrigation efficiency.

Flood Management

25. Address future flood management in the South Fork Snake River Basin

Actions and Recommendations

Actions and recommendations of the Board are consistent with the Idaho Code, private property rights, local and state management plans, and recognize public consensus achieved at South Fork Snake Advisory Group meetings conducted April, May and June, 1996. These actions and recommendations reflect the desires of local citizens of the basin and in the region. All local, state, and federal agencies are encouraged to administer their activities to help achieve the actions and recommendations contained in the Comprehensive State Water Plan for the South Fork Snake River Basin.

ACTIONS

The South Fork Snake Plan comprised a review and analysis of the present and future needs and opportunities for fifteen resource categories[1] specified by the Idaho Legislature. A need was identified to provide for state protected river designation to protect current values for Idaho and to preclude federal designation.

State River Protection Designations

A comprehensive state water plan may designate waterways as "natural" or "recreational." As defined by the Idaho Code, a recreational or natural river is "a waterway which possesses outstanding fish and wildlife, recreation, geologic or aesthetic values" [Idaho Code 42-1731 (7) and (9)]. Natural rivers are free of substantial man-made development in the waterway, and the riparian area is largely undeveloped. Recreational rivers may include man-made development in the waterway or the riparian area.

The Idaho Water Resource Board considers the impacts of protected river designations on the social, economic and environmental livelihood of the region, and determines the value of preserving the outstanding waterways of the South Fork Snake River Basin with their current beneficial uses outweighs the value of further development at this time. The Board believes state protected river designations are preferable to federal protection, and are in the best interest of the residents of Idaho. Federal protection limits the flexibility of planning for the reach, and removes the option of amending the designation by action of the Idaho Water Resource Board and Idaho Legislature. Federal agencies are encouraged to manage lands to compliment the state protection designations.

To protect the public interest, current resource use, and the multiple-use character of the basin, the Board designates river/stream reaches as natural or recreational as indicated. The Board recognizes that no action using their comprehensive state water planning authorities can interfere with vested rights,

[1] Resource categories include navigation; power development; energy conservation; fish and wildlife; recreational opportunities; irrigation; flood control; water supply; timber; mining; livestock watering; scenic values; natural or cultural features; domestic, municipal, commercial, and industrial water uses; and other aspects of environmental or economic development [Idaho Code 42-1734A(3)] .

or the repair, replacement, or continued operation of existing facilities and works. Figure 1 shows the stream reaches with state protection designations.

Natural Rivers

The Board designates the stream reaches listed below as "natural."

Fish Creek (5.2 miles[2]): Headwaters to confluence with McCoy Creek

Big Elk Creek (4.5 miles): Idaho-Wyoming state line to 100 yards upstream of the Big Elk Creek trail head

Little Elk Creek (3.5 miles): Headwaters to confluence with Spring Run Canyon

Bear Creek and perennial tributaries (36.1 miles): Bear Creek from area where Skyline Road (Forest Road 077) no longer parallels the creek (located in T.2 S., R. 43 E., NE 1/4 of Section 20) downstream to Deadman Creek confluence, and the following perennial tributaries:

- South Fork Bear Creek: headwaters to mouth
- Deadman Creek: headwaters to mouth
- Chaparral Hollow: headwaters to mouth
- Warm Springs Creek: headwaters to mouth
- North Fork Bear Creek: headwaters to mouth
- Small Creek: headwaters to mouth
- Poison Creek: headwaters to mouth
- Currant Creek: headwaters to mouth
- Muddy Creek: headwaters to mouth

Palisades Creek and perennial tributaries (29.7 miles): Headwaters to junction with Forest Trail 099, and the following perennial tributaries:

- North Fork Palisades Creek: headwaters to mouth
- East Fork Palisades Creek: Idaho-Wyoming state line to mouth
- Corral Creek: Idaho-Wyoming state line to mouth
- Lost Spring Canyon: headwaters to mouth
- Dead Man Canyon: headwaters to mouth
- Little Dry Canyon: headwaters to mouth
- Dry Canyon: headwaters to mouth, including Upper Palisades Lake
- Water Fall Canyon: headwaters to confluence with Dry Canyon

Fall Creek and perennial tributaries (13.1 miles): Fall Creek from its headwaters to confluence with Trap Creek, and the following perennial tributaries:

- East Fork Fall Creek : headwaters to mouth
- Willow Springs Creek: headwaters to mouth

Pine Creek and perennial tributaries (2.8 miles): Pine Creek 100 yards downstream of power line crossing (located in T. 2 N., R. 43 E., Section 15) to confluence with South Fork Snake River

North Fork Pine Creek and perennial tributaries (15.0 miles): North Fork Pine Creek from its headwaters to confluence with Elk Flat Fork, and the following perennial tributaries:

- Elk Flat Fork: headwaters to mouth
- Holter Creek: headwaters to mouth
- Red Creek: headwaters to mouth
- Corral Creek: headwaters to mouth

West Pine Creek (5.2 miles): Headwaters, including unnamed headwater tributaries to 100 yards upstream of West Pine Girls Camp (located in T. 3 N., R. 44 E., NW 1/4 of Section 29)

Burns Creek and perennial tributaries (17.3 miles): Burns Creek from its headwaters (and including unnamed headwater tributaries) to the Burns Canyon trail head, and the following perennial tributaries:

- Beartrap Canyon: headwaters to mouth
- Little Burns Canyon: headwaters to mouth
- Jensen Creek: headwaters to mouth
- Hell Hole Canyon: headwaters to mouth

Recreational Rivers

The Board designates the following river/streams as "recreational":

South Fork Snake River (63.9 miles): Palisades Dam to confluence with Henrys Fork

Burns Creek (*tributary to reservoir*) (4.7 miles): Headwaters to Idaho-Wyoming state line

[2]Mileage was calculated with a geographic information system using hydrography at a scale of 1:100,000.

Trout Creek (4.6 miles): Headwaters, including all unnamed headwater tributaries, to confluence with Palisades Reservoir

McCoy Creek and perennial tributaries (62.9 miles): McCoy Creek from its headwaters to back waters of Palisades Reservoir, and the following perennial tributaries:

- Spring Creek: headwaters to mouth
- City Creek: headwaters to mouth
- Clear Creek: headwaters to mouth
- Camp Creek: headwaters to mouth
- Wolverine Creek: headwaters to mouth
- Miners Delight Creek: headwaters to mouth
- Kirk Creek: headwaters to mouth
- Iowa Creek: headwaters to mouth
- Box Canyon Creek: headwaters to mouth
- Hell Creek: headwaters to mouth
- Jensen Creek: headwaters to mouth
- Bitters Creek: headwaters to mouth

Indian Creek *(tributary to reservoir)* (1.8 miles): Idaho-Wyoming state line to Smith Canyon

Big Elk Creek (0.4 miles): One-hundred yards upstream of Big Elk Creek trail head to backwaters of Palisades Reservoir

Little Elk Creek (1.1 miles): Confluence with Spring Run Canyon to the backwaters of Palisades Reservoir

Bear Creek and perennial tributary (16.4 miles): Headwaters to point where Skyline Road (Forest Road 077) no longer parallels the creek (located in T.2 S., R. 43 E., NE 1/4 of Section 20), and from Deadman Creek confluence to backwaters of Palisades Reservoir, and the following perennial tributary:

- Elk Creek: headwaters to mouth

Sheep Creek (5.4 miles): Headwaters to confluence with South Fork Snake River

Palisades Creek (8.2 miles): Junction with Forest Trail 099 to confluence with South Fork Snake River

Indian Creek (*tributary to main stem*)(5.9 miles): Headwaters to confluence with South Fork Snake River

Fall Creek and perennial tributaries (39.3 miles): Confluence with Trap Creek to mouth, and the following perennial tributaries:

- Beaver Creek: headwaters to mouth
- Trap Creek: headwaters to mouth
- Haskin Creek: headwaters to mouth
- Camp Creek: headwaters to mouth
- Gibson Creek: headwaters to mouth
- Blacktail Creek: headwaters to mouth
- South Fork Fall Creek: headwaters to mouth
- Currant Hollow: headwaters to mouth

Rainey Creek and perennial tributaries (25.1 miles): Headwaters to confluence with South Fork Snake River, and the following perennial tributaries:

- North Fork Rainey Creek: headwaters to mouth
- South Fork Rainey Creek: headwaters to mouth

Pritchard Creek (6.5 miles): Headwaters to confluence with South Fork Snake River

Pine Creek and perennial tributaries (21.6 miles): Headwaters to 100 yards downstream of power line crossing (located in T. 2 N., R. 43 E., Section 15), and the following perennial tributaries:

- Tie Canyon: headwaters to mouth
- Poison Creek: headwaters to mouth
- West Pine Creek: one-hundred yards upstream of West Pine Girls Camp to mouth
- Mike Spencer Canyon: headwaters to mouth

North Pine Creek and perennial tributary (8.1 miles): Elk Flat Fork confluence to mouth, and the following perennial tributary:

- Lookingglass Creek: headwaters to mouth

Black Canyon (9.1 miles): Headwaters to confluence with South Fork Snake River

Warm Springs (0.2 miles): Source to confluence with South Fork Snake River

Burns Creek (0.6 miles): Burns Canyon trail head to confluence with South Fork Snake River

Wolverine Creek (3.4 miles): Headwaters to confluence with South Fork Snake River

Cress Creek (0.1 miles): Source to confluence with Sunnydell Canal

Pursuant to Idaho Code 42-1734A(6), the following activities are prohibited within the stream channel or below the highwater mark on the reaches designated a "natural" river:

- construction or expansion of dams or impoundments,
- construction of hydropower projects,
- construction of water diversion works,
- dredge or placer mining,
- alterations of the stream bed, and
- mineral or sand and gravel extraction within the stream bed.

Activities prohibited on "natural" rivers are also prohibited on "recreational" rivers in the South Fork Snake River Basin with the following exceptions.

- Alteration of the streambed necessary to keep the South Fork Snake River within its historical meander below Heise, or other similar activities necessary to fulfill the flood management responsibilities of Flood Control District No. 1 are allowed in the reach from Grassy Banks (one mile above Heise gage) to the confluence with the Henrys Fork. Such activities must comply with the Stream Channel Protection Act and the rules adopted to implement the act.

- Alteration of the stream bed for installation of fisheries enhancement structures is allowed on the following reaches designated recreational: Bear Creek, Big Elk Creek, Fall Creek, North Fork Pine Creek, Palisades Creek, Pine Creek, Pritchard Creek, and Rainey Creek. Alterations of the stream bed must comply with the Idaho Stream Channel Alterations Rules and Minimum Standards.

- Stream channel alterations are allowed for public agencies to reconstruct or realign recreation trails to prevent resource damage on the following reaches designated recreational: Cress Creek, Bear Creek, Trap Creek, South Fork Fall Creek, Palisades Creek, North Fork Pine Creek, and Rainey Creek. Alterations of the stream bed must comply with the Idaho Stream Channel Alterations Rules and Minimum Standards.

- Stream channel alterations are allowed for public agencies to reconstruct or construct new livestock bridges to prevent resource damage on the following reaches designated recreational: Bear Creek, South Fork Fall Creek, Lookingglass Creek and North Fork Pine Creek. Alterations of the stream bed must comply with the Idaho Stream Channel Alterations Rules and Minimum Standards.

- Stream channel alterations are allowed for temporary roads for vegetation management on Burns Creek (tributary to Palisades Reservoir). Alterations of the stream bed must comply with the Idaho Stream Channel Alterations Rules and Minimum Standards.

- Stream channel alterations for recreational dredge mining may continue on McCoy Creek from the headwaters to Fish Creek confluence, and on the following perennial tributaries: City Creek, Camp Creek, Miners Delight Creek and Iowa Creek. This activity is allowed as regulated by the Caribou National Forest through a Special Use Permit issued according to the guidelines established in the "Environmental Assessment for Small Placer Mining Operations in the Caribou Basin Area" (Record of Decision issued December 12, 1994), and with a Stream Channel Alteration Permit from the Idaho Department of Water Resources. Temporary diversions for the purposes of sluicing are allowed, but must obtain a Temporary Approval of Water Appropriation from the Idaho Department of Water Resources.

- Construction of boat ramps and docks may be allowed on the South Fork Snake River with Board and other regulatory agency approval for the reaches between Palisades Dam to Pine Creek confluence and Black Canyon to Henrys Fork confluence. Alterations of the stream bed must comply with the Idaho Stream Channel Alterations Rules and Regulations and Minimum Standards. This exemption does not apply to the reach between Pine Creek confluence to Black Canyon.

Prohibitions for natural or recreational designations do not interfere with activities necessary to maintain and improve existing utilities, roadways, managed stream access facilities, diversion works, and for the maintenance of private property. State designation does not change or infringe upon existing water rights or other vested property rights. It does not restrict the expansion or maintenance of existing uses.

A recreational designation for the South Fork Snake River is not intended to prevent a water user from cleaning, maintaining, or replacing an existing water diversion structure. A water user may remove obstructions from the stream channel such as gravel bars, if the obstructions interfere with the delivery or use of water under any existing water right.

Minimum Streamflows

It is the policy of Idaho that the Idaho Water Resource Board should seek to appropriate waters in the state for instream flow purposes when it is in the public interest. Idaho Code, Title 42, Chapter 15 provides the authority and spells out procedures for the Board to appropriate water for minimum streamflows. A minimum streamflow is a quantity of water, or lake level, required to protect fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, navigation, transportation or water quality in the public interest. By law, a minimum streamflow is not an ideal flow, but the minimum necessary to achieve the objectives. The water right is held by the Board and is junior to all earlier water rights. It is not a guaranteed minimum flow, but is only achieved after senior water rights are fulfilled.

In order for the Board to acquire a minimum streamflow, a process separate from the development of a comprehensive state water plan must occur. Studies to determine the quantity and timing of the minimum streamflow will need to be conducted. The Director of the Idaho Department of Water Resources determines whether the minimum stream flow right is granted in accordance with Title 42, Chapter 15 of the Idaho Code. Legislative review of minimum stream flow rights granted by the IDWR is required.

To protect fisheries values, minimum streamflow studies to identify critical reaches have been recommended for several important cutthroat spawning tributaries and for kokanee habitat on Big Elk Creek. These include the following tributaries:

- Bear Creek
- Big Elk Creek
- Burns Creek
- Fall Creek
- Palisades Creek
- Pine Creek

Idaho Code requires specific data to support an application for a minimum streamflow. The Board currently does not have the data required by the Code to pursue minimum streamflows on the recommended streams. The Board recommends that the Idaho Department of Fish and Game (IDFG), in cooperation with the Bureau of Land Management (BLM) and the Forest Service, conduct studies to quantify flows and acquire other necessary information to process minimum streamflow applications for the above-mentioned streams within the next five years. If the appropriate information is available and indicates a minimum streamflow is warranted, the Board will take action.

Amendments to the Idaho State Water Plan

The *Idaho State Water Plan* contains a policy which provides for protection of potential reservoir sites from significant land use change, and lists sites to reserve within Idaho (IWRB, 1992). The Lynn Crandall site on the South Fork Snake River near the Burns Canyon confluence was one of the sites identified (IWRB, 1992). Information received at public meetings and recommendations from the South Fork Snake Advisory Group asked for removal of Lynn Crandall as a potential reservoir site in the *Idaho State Water Plan*. Some input was received supporting continued consideration of the site as a future storage site.

The public expressed concerns about impacts to the cutthroat fishery, wildlife, recreation and scenic values with construction of the Lynn Crandall project. The resource inventory and evaluation described in the plan document outstanding fish and wildlife, recreation and scenic values for this reach of the South Fork Snake River.

The Board was revising the *Idaho State Water Plan* simultaneous to preparing the South Fork

Snake Plan. Based on input received during public participation for the South Fork Snake Plan, and weighing the environmental and social values impacted by construction of Lynn Crandall, the Board removed Lynn Crandall as a potential reservoir site from the *1996 Idaho State Water Plan*. Additionally, the Board requests the U. S. Bureau of Reclamation (USBR) to relinquish land withdrawals reserved for the project site. The USBR filed a water right application for storage for the Lynn Crandall Project with IDWR having a 1969 priority date. No action has been taken to pursue a permit or license. The Board requests that the USBR withdraw this application.

RECOMMENDATIONS

The Board does not have the authority or funding to implement many of the recommendations contained in the Comprehensive State Water Plan. However, the Board does have the authority to establish water policy for the state, planning for the improvement, development and conservation of water resources. These plans are also submitted to the Idaho Legislature for review and ratification. The plan for the South Fork Snake River Basin was developed with significant input and participation by citizens and agencies. The Board requests the agencies and organizations referenced implement the recommendations contained in the plan, and state agencies "exercise their duties in a manner consistent with the comprehensive state water plan" [Idaho Code 42-1734B (4)]. Federal agencies are encouraged to manage their lands in a manner consistent with the recommendations contained in the plan.

Northwest Power Planning Council (NWPPC) Protected Area Designations

The Board has designated the rivers listed on pages 5 and 6, and shown in Figure 1 as state protected rivers. The Board recommends that NWPPC actions be in accordance with these designations.

Operation of Palisades Reservoir

Discussion at advisory group meetings regarding instream flows below Palisades Dam did not result in consensus with final recommendations forwarded to the Board. However, many suggestions and ideas were presented that merit further exploration.

Much of the discussion about releases at Palisades Dam indicate a need for all water interests to gather collectively and discuss their concerns. The Board believes this approach would benefit water interests in the South Fork Snake River Basin. The Board recommends that the U. S. Bureau of Reclamation work cooperatively and meet at least semiannually (before and after the irrigation season) with all water interests in a facilitated forum to exchange information and ideas about releases from the Upper Snake System (including Palisades Dam). A watershed council could be the ideal forum to facilitate these meetings. Semiannual meetings would provide a means for all water interests to talk to each other and understand others' concerns. Water interests would have an opportunity to collectively evaluate options for water resource management within legal, administrative and operating constraints to maximize benefits for all interests.

The USBR's Snake River Resource Review Project provides an outstanding opportunity to model different management scenarios for the Upper Snake System. The project will develop a decision support system helping managers to analyze different operation alternatives for the Snake System above Brownlee Reservoir. The Board supports the cooperative efforts of the Idaho Department of Water Resources and the USBR to develop an improved river management decision-making system for the Upper Snake. The Board encourages an analysis of the potential risks associated with filling the Upper Snake System reservoirs under various release scenarios at Palisades Dam, including winter flows for fishery maintenance.

Snake Plain Aquifer Recharge

The Snake Plain Aquifer provides an opportunity to store water for beneficial use. The Board makes use of water in the basin as part of the recharge program. To efficiently manage the state's water, a technically sound, hydrologic-based aquifer recharge plan needs to be prepared. The plan needs to establish clear objectives for the recharge program, determine locations and timing to apply recharge water to maximize recharge objectives, and determine consistency with conjunctive management

policies. As part of this effort, some of the constraints associated with winter water savings should be reexamined.

Wild and Scenic River System

The Forest Service and BLM have found the South Fork Snake River and other waterways in the basin eligible for further study as potential federal wild and scenic rivers. Because of the comprehensive scope of state water planning, the Board encourages the BLM and Forest Service to work within the state water planning process rather than pursuing federal protection of waters within Idaho. State water planning provides a means of ensuring coordinated water planning with federal and state governments. Additionally, the Board requests that the Forest Service and BLM manage lands in a manner compatible with state protection designations.

Land Development in the Basin

Issues and concerns associated with land development pressures in the basin frequently were mentioned during public meetings. Although a priority issue, the advisory group did not have an opportunity to work towards agreement on recommendations for this issue topic. The Board believes that maintenance of the outstanding resource values inventoried in the South Fork Snake River Basin is largely dependent on the direction and character of future development. Counties and local communities have the most influence over the future character of the basin through their planning and zoning decisions.

The Board supports the efforts of county commissioners, community officials and planning departments to work closely with the public when making decisions about land use development in the South Fork Snake River Basin. Formation of a watershed council with active participation by local government may improve communication further, and help identify local concerns and goals to achieve the future landscape setting and community desired by local citizens. The Board encourages the communities of Swan Valley and Irwin to work cooperatively in coordinating planning activities with each other and Bonneville County.

Cooperative agreements for watershed protection need to be established between developers, farmers, and land managers in the basin, to insure that the impending changes to the South Fork Snake River Basin do not have adverse consequences for the water quality and the biological communities. Increased urbanization, soil types and the hydrologic conditions of the basin indicate conventional septic systems will not be adequate. The Board recommends that counties investigate options for financing and constructing sewage systems in the Swan Valley, Conant Valley and Irwin areas to prevent pollution of ground and surface water.

It is recommended that authorities closely monitor permitting and installation of septic systems to ensure protection of the water quality of the South Fork Snake River and its tributaries. Site planning should consider the soil assimilative capacity in selecting lot sizes. Careful review and establishment of stringent guidelines by county officials and Health District VII personnel for implementation of sewage systems should continue. The IDWR and Health District should continue to coordinate installation and permitting of septic systems and wells to protect ground water in the basin.

Flood Management

As the basin sees an increase in population and development, potential impacts from flooding will increase. The counties and communities in the basin participate in the National Flood Insurance Program (NFIP). Participation has resulted in adoption of floodplain ordinances which outline land use measures to minimize flood damage. The Board encourages these entities to continue their participation in the NFIP so that risks from flooding can be minimized, and land owners have the opportunity to purchase flood insurance. The Board encourages the counties and communities to continue to take responsibility for monitoring development in the floodplain to ensure floodplain ordinances are followed, and development does not increase potential flood damage.

Flood control operations of Palisades Dam are guided by flood control rule curves with a flood stage flow of 24,500 cubic feet per second (cfs) (Beus, 1996). Flows in excess of 25,000 cfs at Heise have occurred on four occasions since construction of Palisades Dam (1957). The Board recommends development should not encroach into

the area inundated by these flows to minimize flood damage.

The levees below Heise were constructed to provide protection for 100-year flood events. Deposition in the South Fork Snake River channel has, and will continue, to decrease the effectiveness of these levees to contain flows of 30,000 cfs (the 100-year flood event). Sustained high velocity flows may erode levees and increase flooding risks. Major river channel shifts could impinge the levees in this reach. Currently levee maintenance by Flood Control District No.1 has consisted of riprap repairs. Current values of lands adjacent to the levees are not high enough to justify significant investments for maintenance of the levee system. However, future development may increase land values and require more expensive options. The counties are encouraged to manage lands adjacent to the levees so that land values do not require expensive flood control measures. The Board recommends that the U.S. Corps of Engineers conduct a study to identify appropriate and cost-effective flood management options to address the issue of deposition in the river channel.

Management of Recreation Resources

The demands on recreation resources in the South Fork Snake River Basin have increased significantly in the past five years. These demands are the result of the outstanding recreation opportunities available on the South Fork Snake River and the growing regional and local populations. The budgets of agencies responsible for managing recreation opportunities in the basin are not keeping pace with the demand, and many have experienced reduced budgets in recent years. In order to maintain the quality of the recreation experience and protect associated resources contributing to the experience, sufficient funding must be procured.

The Omnibus Consolidated Rescissions and Appropriation Act of 1996 provides authority for the BLM and Forest Service to manage recreation fee demonstration projects. The program would allow collection of fees, and return 100 percent of the revenues for the operation, maintenance, improvement and expansion of projects at the site of collection. The Board encourages the BLM and Forest Service, in cooperation with state and county recreation management agencies, to explore the option of collecting fees for facilities along the South Fork Snake River corridor under this program. Revenues should be used to help offset the cost of operations, maintenance and enforcement in the river corridor, and protect outstanding resource values identified in the South Fork Snake River Plan.

South Fork Snake River Basin Planning Boundaries

Public comment has identified some tributaries to the Salt River that would best be evaluated as part of the South Fork Snake River Basin. Adequate evaluation of these tributaries has not occurred as part of the Board's comprehensive state water planning process for the current effort. During the next review or revision to the South Fork Snake River Basin Comprehensive State Water Plan, the Idaho Water Resource Board will expand the planning basin boundaries to include tributaries to the Salt River originating in Idaho. The tributaries include: Jackknife Creek, Tincup Creek, Stump Creek, Tygee Creek, Crow Creek, Jack Creek and their tributaries.

Additional Recommendations

The following recommendations were generated during South Fork Snake Advisory Group meetings conducted in April, May and June 1996. The recommendations that follow reflect strategies that received support during group discussions at advisory group meetings. The Board adopts these recommendations as part of the Comprehensive State Water Plan for the South Fork Snake River Basin.

Water Quality

1. Agencies and property owners are encouraged to use appropriate best management practices (BMPs) for all land uses. Soil conservation districts can encourage implementation of BMPs to minimize soil erosion appropriate to farming and grazing operation and needs.

2. Local soil conservation districts are requested to seek funding and identify additional drainages that could benefit from the State Agricultural Water Quality Program, promoting voluntary participation and local decision-making.

3. Soil conservation districts are asked to review the Conservation Reserve Program (CRP) to identify additional incentives for farmers to reduce erosion.

4. Land management agencies are encouraged to increase education and enforcement to reduce erosion from off-road vehicle use.

5. The Division of Environmental Quality (DEQ) and Idaho Department of Fish and Game (IDFG) are encouraged to work to maintain or improve water quality in a condition suitable for the preservation of healthy populations of the native cutthroat trout.

6. DEQ and the Health District VII are encouraged to study the impacts of possible pollution from septic tank discharge in the South Fork Snake River Basin. This would include determining appropriate housing densities and sanitation technologies given soil types and other relevant factors.

7. BLM and Forest Service requirements to pack out human waste in the canyon section of the South Fork Snake River should continue.

8. The soil and water conservation districts, landowners and a watershed council are encouraged to work together to retain Conservation Reserve Program (CRP) lands in grass cover after contracts expire, or determine other feasible alternatives.

9. Agencies collecting water quality data, including DEQ, IDWR, U. S. Geological Survey (USGS), IDFG, and universities, are encouraged to develop a common database to allow sharing of information between agencies.

10. The Board supports citizen involvement in the formulation of water quality monitoring plans and reporting by DEQ and the Health District. These data should be reported regularly.

11. DEQ is encouraged to implement an appropriate water quality monitoring program to ensure that adverse water quality trends are detected in a timely manner.

12. The Idaho Department of Agriculture and canal companies are encouraged to educate people about the potential effects to downstream users of dumping into canals and other waterways.

13. DEQ, the Health District, and counties are encouraged to explore feasible options for counties in the basin to finance sewage systems for water quality protection.

14. Idaho Department of Agriculture is encouraged to educate pesticide users that any rinsing, dumping or spilling of pesticides into waterways is prohibited and can adversely impact water quality.

Fisheries

1. To safeguard against over harvest in the future while providing for increasing recreational demand, the Board supports IDFG efforts to continue focusing on trout habitat maintenance, and increasing overall habitat quality and quantity. If over harvest occurs, Idaho Department of Fish and Game is encouraged to develop more restrictive regulations.

2. IDFG is encouraged to continue working with other land management agencies and land owners to increase spawning habitat by protecting spawning tributaries and screening tributary diversions.

3. The Board recommends the Natural Resource Conservation Service (NRCS), IDFG and Trout Unlimited initiate further planning and evaluation of the Rainey-Palisades Creek irrigation project to determine if other alternatives are available to improve irrigation efficiency and fish passage. These entities should also explore cooperative funding options.

Riparian Management

1. Land management agencies are encouraged to educate the community about the importance of cottonwood regeneration.

2. The Board recommends the Legislature pass legislation to allow tax incentives for leaving riparian areas undeveloped, or improving riparian habitat and badly eroded areas.

3. Control noxious weeds through use of biological control by encouraging and supporting continued efforts by the South Fork Biological Weed Control Committee.

4. Recommend state and federal agencies, and local governments work cooperatively to identify options to preserve and enhance the cottonwood forest.

Options to consider include fencing high use areas on the main stem or tributaries, beaver control, or creative land zoning.

5. The BLM, Forest Service and IDFG are encouraged to investigate the feasibility and expense of planting cottonwoods.

6. A cooperative study involving state and federal agencies investigating the feasibility of using flood flows to help promote cottonwood regeneration is recommended. Determine the most plausible flows that will not significantly impact property. Determine other beneficial and adverse impacts that would occur with these flows.

Wildlife

1. Encourage BLM, Forest Service, U.S. Fish and Wildlife Service and/or IDFG to install posters at boat put-ins to warn people about disturbing or harassing birds (especially bald eagles) and other wildlife.

2. The IDFG is encouraged to work cooperatively with USBR regarding releases to ensure Canada geese nesting success.

3. Organization by IDFG of an annual volunteer effort for regular maintenance of goose nesting boxes is recommended.

Recreation

1. Idaho Department of Parks and Recreation, county sheriffs, and boating organizations are requested to encourage, educate and promote proper boating etiquette on the South Fork Snake River. This could involve implementation of a program to help various recreation users resolve conflicts and learn to respect each other.

2. Legislation is needed allowing the Idaho Outfitters and Guides Licensing Board to issue larger fines to ensure strict enforcement of outfitter and guide regulations. Legislation should allow confiscation of property, in addition to monetary fines, for individuals who illegally practice outfitting.

3. The Board supports establishing a Memorandum of Understanding (MOU) between the Idaho Department of Fish and Game, Idaho Outfitters and Guides Licensing Board, U. S. Forest Service, Bureau of Land Management, and Bonneville County to coordinate efforts to enforce regulations for the outfitting and guiding industry and recreational activities on the South Fork Snake.

Agency Management

1. Concerned citizens are encouraged to establish a watershed council for the South Fork Snake River Basin to help coordinate management agencies' and local officials' activities and ensure that citizens' concerns are accommodated in the decisions. Membership and participation should be broad-based, including all interest groups and agencies.

Use the watershed council as a forum to:

- Establish agreements in cooperation with landowners along the river to protect water quality.
- Coordinate with landowners and agencies to resolve conflicts.
- Educate homeowners about the sources of pollution harmful to aquatic life, i.e., lawn chemicals, septic tank discharge, automotive and household fluids, and siltation.
- Educate landowners about the opportunity to obtain loans and grants from the Soil and Water Conservation Districts (through the Idaho Soil Conservation Commission) for range and riparian improvements.

2. The watershed council should explore funding opportunities to support council activities, including the availability of mitigation monies from the Bonneville Power Administration.

Water Allocation

1. Agencies and organizations desiring instream flows, such as IDFG and Trout Unlimited, are encouraged to explore ways to secure these flows. Options to consider might include buying reservoir storage space, purchasing from the water bank, and/or working with irrigators to identify minimum flows in the river.

Operation of Palisades Project

1. If possible within operating constraints, the USBR is encouraged to release water early enough from Palisades and Jackson dams with the goal of maintaining flows less than 18,000 cfs during July to enhance recreation.

2. Wildlife agencies and organizations are encouraged to work with irrigators and the USBR on any compromises to achieve flow rates to better balance wildlife needs.

3. The USBR is requested to establish ramping rate protocols for Palisades Dam that can be accommodated in the constraints of the system.

4. The USBR is encouraged to manage releases from the Upper Snake projects to integrate flows needed for fisheries, recreation, wildlife and riparian habitat, in addition to irrigation and flood control objectives

Irrigation

1. The IDWR is encouraged to quantify how improved efficiency effects aquifer recharge and water levels at wells and springs.

2. The watermaster and canal companies are encouraged to investigate options for improving voice messaging and posting messages over the weekend to Water District One to improve efficiency in managing water.

Flood Management

1. A study to address the high water table and flooding concerns in Ririe and surrounding areas is recommended.

2. Flood Control District No. 1 should maintain existing dikes/levees/riprap for property currently protected. Do not allow expansion of dikes/levees/riprap to make additional land available for development.

3. The counties are encouraged to discourage building in the floodplain.

4. The counties are encouraged to restrict development adjacent to the South Fork Snake River corridor that would infringe upon the U.S. Bureau of Reclamation's ability to release flood stage flows of 24,500 cfs from Palisades Dam.

References

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