IDAHO STATE WATER PLAN

ADOPTED BY THE

IDAHO WATER RESOURCE BOARD

JANUARY 1992

"There shall be constituted a Water Resource Agency, composed as the Legislature may now or hereafter prescribe, ... Additionally, the State Water Resource Agency shall have power to formulate and implement a state water plan for optimum development of water resources in the public interest. The Legislature of the State of Idaho shall have the authority to amend or reject the state water plan in a manner provided by law . . . ."

Idaho Constitution

State of Idaho

THE STATE WATER PLAN

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Idaho Water Resource Board

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Adopted January 1992
Statehouse
Boise, Idaho 83720

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BEFORE THE IDAHO WATER RESOURCE BOARD

IN THE MATTER OF UPDATING)
THE STATE WATER PLAN)
_____)

A RESOLUTION

WHEREAS, the Idaho Water Resource Board (the Board) has circulated proposed changes to the policies contained in the state water plan, and

WHEREAS, the Board has provided an opportunity for the public to comment on the proposed changes and to suggest others, and

WHEREAS, the Board has considered the hearing officer's report in this matter, has reviewed the record, and modified their proposed changes accordingly.

NOW, THEREFORE, BE IT RESOLVED that the Board adopts the attached changes to the policies of the state water plan, and directs that these changes be provided to the Idaho State Legislature for their consideration.

DATED this 30th day of January, 1992.

F. Dave Rydalch

F. DAVE RYDALCH, Chairman
Idaho Water Resource Board

ATTEST _____
GENE M. GRAY, Secretary

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THE WATER PLANNING PROGRAM

The Idaho State Water Plan was adopted by the Water Resource Board to guide the development, management, and use of the state's water and related lands. The plan recognizes past actions, addresses present conflicts and opportunities, and seeks to ensure that future water resource uses will complement and supplement state goals directed toward achieving a "quality of life" for the citizens of Idaho. The plan is a dynamic document, subject to change to reflect citizens desires and to be responsive to new opportunities and needs. According to statute, a formal review of this plan must take place at least every five years.

Constitutional Authority

The authority for the preparation of a State Water Plan is Article XV, Section 7 of the Idaho Constitution. This constitutional amendment was adopted in November 1964 following a state-wide referendum and provides that:

> There shall be constituted a Water Resource Agency, composed as the Legislature may now or hereafter prescribe, which shall have power to formulate and implement a state water plan for optimum development of water resources in the public interest; to construct and operate water projects; to issue bonds, without state obligation, to be repaid from revenues of projects; to generate and wholesale hydroelectric power at the site of production; to appropriate public waters as trustee for Agency projects; to acquire, transfer and encumber title to real property for water projects and to have control and administrative authority over state land required for water projects; all under such laws as may be prescribed by the Legislature.

Section 7 provides the basic guidance and authority to formulate a State Water Plan. Before the adoption of Section 7, Section 3 of the Idaho constitution provided for the appropriation and allocation of water during low water conditions. Although no legal confrontations have occurred, Section 7 probably tempers Section 3 in that future decisions must be in conformance with the State Water Plan. Section 3 provides that:

> The right to divert and appropriate the unappropriated waters of any natural stream to beneficial uses, shall never be denied, except that the state may regulate and limit the use thereof for power purposes.
>
> Priority of appropriation shall give the better right as between those using the water; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall (subject to such limitations as may be prescribed by law) have the preference over those claiming for any other purpose; and those using the water for agricultural purposes shall have preference over those using the same for manufacturing purposes. And in any organized mining district those using the water for mining purposes or milling purposes connected with mining have preference over those using the same for manufacturing or agriculture purposes.
>
> But the usage by such subsequent appropriators shall be subject to such provisions of law regulating the taking of private property for public and private use, as referred to in section 14 of article I of this Constitution.

Legislative Authority

Article XV, Section 7 of the Idaho Constitution called for the creation of a "Water Resource Agency" but did not establish the agency. In 1965, the 38th Legislature established the Water Resource Board, and directed that (as amended):

> The board shall, subject to legislative approval, progressively formulate, adopt and implement a comprehensive state water plan for conservation, development, management and optimum use of all unappropriated water resources and waterways of this state in the public interest. (Idaho Code 42-1734B)

To assist the Water Resource Board, the Legislature provided for the director of the Department of Water Resources:

> To perform administrative duties and such other functions as the Board may from time to time assign to the Director to enable the Board to carry out its powers and duties (Idaho Code 42-1805[6]).

Article XV, Section 7 was amended by the electorate during the general election of November 6, 1984. This modification provides that:

> The Legislature of the State of Idaho shall have the authority to amend or reject the state water plan in a manner provided by law. Thereafter any change in the state water plan shall be submitted to the Legislature of the State of Idaho upon the first day of a regular session following the change and the change shall become effective unless amended or rejected by law within sixty days of its submission to the Legislature.

Otters in the South Fork of the Payette River.

Since 1988 the Water Resource Board has been directed to prepare a comprehensive state water plan. The comprehensive water plan is to be prepared in stages and be made up of component plans prepared by the Board for such geographic areas as they may choose (Idaho Code 42-1734A[2]). As part of the comprehensive water planning process, the Board may designate selected waterways as protected rivers. Designations are based on a determination that the value of preserving a waterway for particular uses outweighs that of developing the waterway for other beneficial uses (Idaho Code 42-1734A[4]). The authority to protect "protected rivers" derives from the state's power to regulate activities within a streambed such as stream channel alterations, water diversions, the extraction of minerals or other commodities, and the construction of impoundments.

State Water Plan Formulation

Formulation of a State Water Plan is a dynamic process. Adoption of The State Water Plan - Part One, The Objectives, in 1974, and The State Water Plan - Part Two in 1976, provided an initial water policy. Implementing the policies in Part Two required the combined efforts of government agencies, the legislature, private concerns and the public. Consequently, the report delineated those areas where legislative action was required, identified the programs to be pursued by the Board and described the areas where cooperation of public and private interests was necessary. The State Water Plan has evolved into a continuing planning process directed toward the development, adoption and implementation of various policies, projects, and programs that develop, utilize, conserve, and protect the state's water supplies. The State Water Plan was updated and readopted in 1982 and 1986. Changes were made in 1985 to reconcile any differences created by the agreement entered into by the state and the Idaho Power Company concerning water rights at Swan Falls dam. The 1986 update involved both a reorganization of policies and a change in objectives.

As originally described in 1976, the State Water Plan was to consist of three parts. Part One contained the Objectives and Part Two the Policies. The

State Water Plan - Part Three was to consist of detailed technical and feasibility studies of small geographic areas or tributary basins. These studies were to be prepared within the framework of the policies established by the State Water Plan - Part Two. In 1988 the Legislature directed the Water Board to begin these kinds of study as components of the State Comprehensive Water Plan.

The basic steps followed in this planning process are:

1. A comprehensive public involvement program to determine public views and desires regarding resources problems, needs, and potentials;

2. An ongoing evaluation of the water and land resource base and an estimate of probable future conditions;

3. An evaluation of the effects of environmental quality and economic development programs and projects;

4. The preparation of alternative policies and proposed plans, including identification of beneficial and adverse effects;

5. Final adjustment of the policies based on public response and action taken by the Water Resource Board;

6. The adoption of the State Water Plan by the Idaho Water Resource Board as required by Article 15, Section 7 of the Idaho Constitution;

7. Review by the Idaho Legislature as provided by law.

This state water planning process includes an extensive public involvement program and the information received is used in formulating the State Water Plan. Information meetings and public hearings are held to answer questions the public might have concerning the planning process, various policies, and to solicit input and comments.

Farming the Palouse.

IDAHO'S WATER RESOURCES

There are five major stream systems in Idaho. They are the Snake, Bear, Spokane, Clark Fork-Pend Oreille, and Kootenai rivers. In this summary, the Spokane, Kootenai, and Clark Fork-Pend Oreille rivers are grouped under the heading Panhandle basins.

Snake River Basin

The Snake River is the largest river system in Idaho. Its drainage area encompasses approximately 87 percent of the state. The Snake River headwaters are in Wyoming on the western slope of the Continental Divide. Crossing Idaho's eastern border, it flows northwestward 59 miles through a canyon to Heise where it opens onto the Snake River Plain. From Heise to Milner, a distance of 219 river miles, the river is not deeply entrenched. Many diversions for irrigation are made in this reach.

At Milner, the river enters a deep canyon cut through lava and sedimentary beds and continues for 216 miles in a west and northwesterly direction. Near the Oregon border, the river emerges from the canyon and flows through a broad valley to Weiser, a distance of about 75 miles. Downstream from Weiser the river enters Hells Canyon and flows a distance of about 190 miles to Lewiston. It leaves Idaho at Lewiston, turning westward for 139 miles to its junction with the Columbia River near Pasco, Washington.

The largest tributaries of the Snake are the Salmon and the Clearwater rivers. Other important tributaries are the Henrys Fork, Wood, Boise, and Payette rivers. Basin areas outside Idaho that contribute substantially to the river's flow include the upper basin in Wyoming, the Owyhee, Malheur, Burnt, Powder, and Imnaha rivers in Oregon, and the Grand Ronde River in Washington. Small portions of the Snake River basin also lie in Utah and Nevada. Most of the streamflows of the Snake River basin originate from snowmelt in mountainous areas.

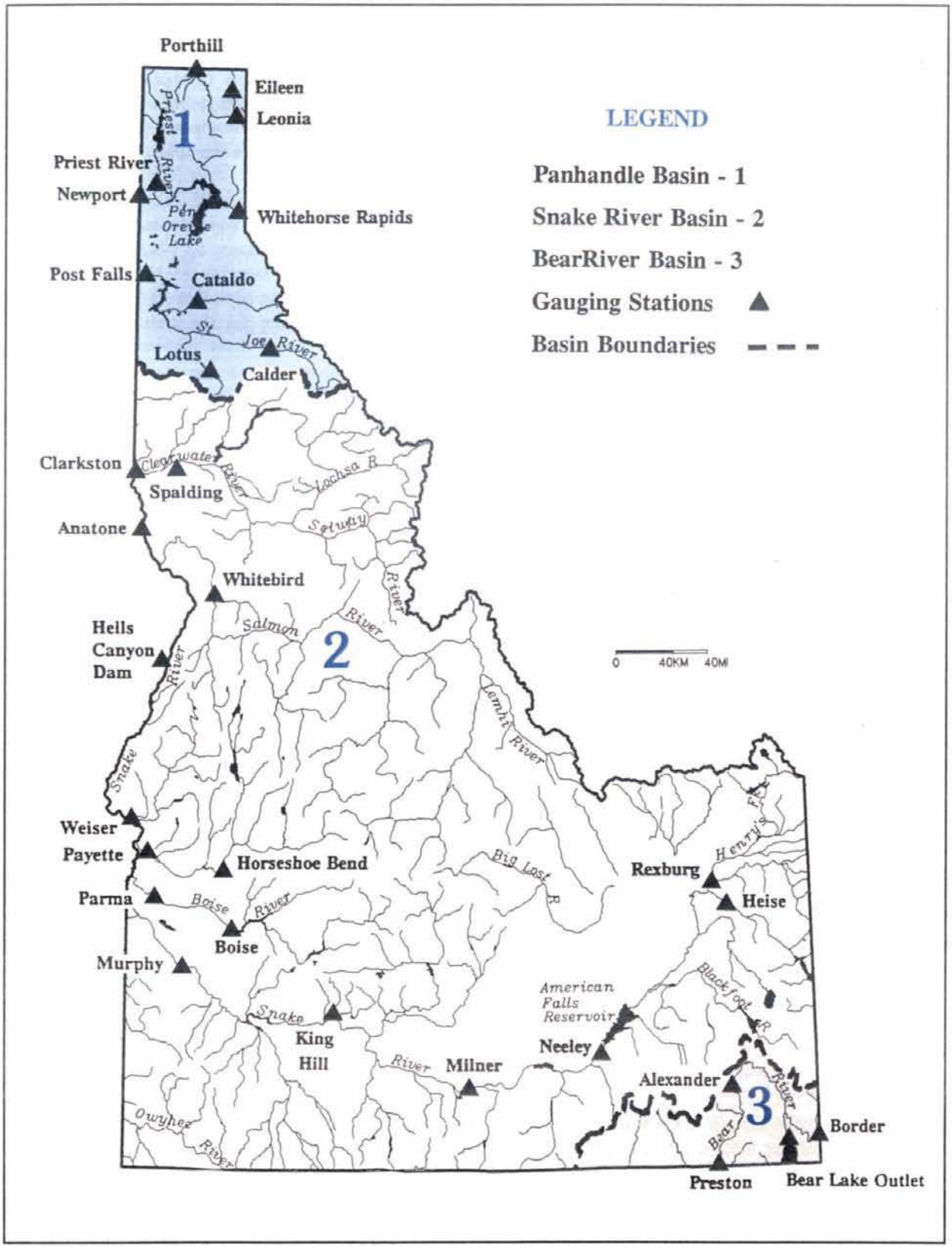
The average runoff in the Snake River below the Clearwater River where it leaves Idaho is about 36 million acre-feet per year. Approximately one-third of the flow leaving Idaho originates in the basin above Weiser. Another third comes from the Clearwater River basin. The Salmon River produces about one-fourth, with the remaining amount of approximately 10 percent coming from tributaries in Oregon and Washington and small streams in Idaho below Weiser. Average annual runoff under present conditions at principal gauging stations in the Snake River basin is shown in Table 1. The gauge locations are shown in Figure 1.

Table 1. Average Annual Runoff of Major Rivers in the Snake River Basin at Selected Gauges (Base Period 1928-89), Adjusted to 1989 Levels of Development.

Gauge	Runoff (acre-feet)
Snake River near Heise	4,981,000
Henrys Fork near Rexburg	1,432,000
Snake River at Neeley	5,569,000
Snake River at Milner	2,484,000
Snake River at King Hill	7,976,000
Snake River near Murphy	8,109,000
Boise River near Parma	1,234,000
Payette River near Horseshoe Bend	2,334,000
Payette River near Payette	2,163,000
Snake River at Weiser	13,280,000
Snake River at Hells Canyon Dam	14,373,800
Salmon River at Whitebird	8,165,000
Snake River near Anatone	25,670,000
Clearwater River at Spalding	11,069,000
Snake River near Clarkston	36,857,000

The dramatic gain in Snake River flow between Milner and King Hill is largely the result of discharge from the Snake Plain aquifer in the Thousand Springs area. Average seasonal variations in the Snake River flow are illustrated by Figure 2. The flows at Heise shown in Figure 2. result from natural snowmelt modified by reservoir storage operations for summertime irrigation. At King Hill, the seasonal hydrograph is principally affected by the nearly constant discharge of ground water from the Snake Plain

Figure 1. Principal Gauging Stations



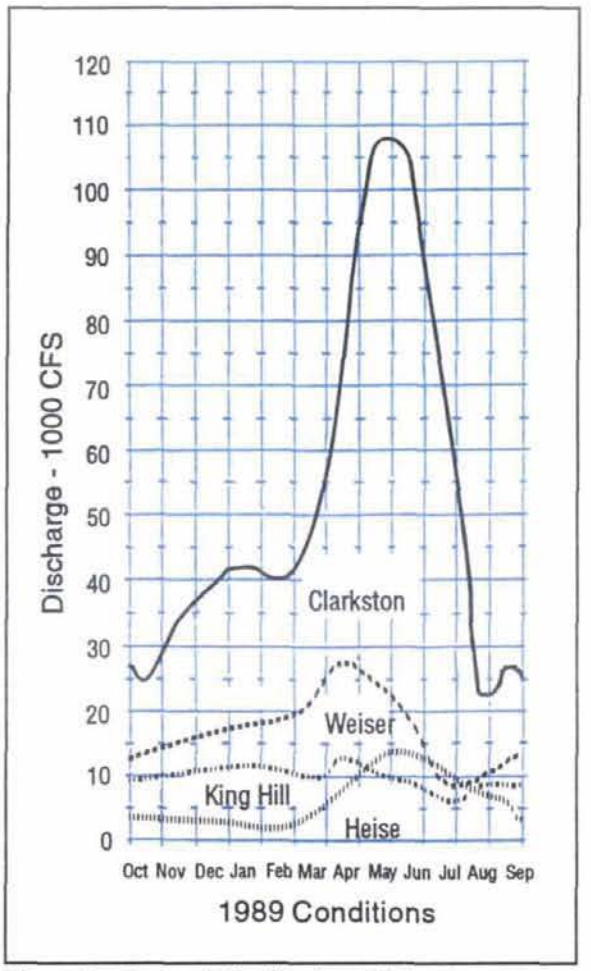


Figure 2. Seasonal distribution of long term average flows of the Snake River at four gauging stations based on 1989 conditions.

aquifer. It is also affected by the flows that pass Milner Dam in high runoff years. Flows at Weiser reflect the effects of storage, diversion, and ground-water management in the irrigated areas of the Snake River basin. At Clarkston, the hydrograph is dominated by runoff from the vast unregulated areas of the Salmon and Clearwater basins.

The Snake River basin is subject to wetter-than-normal and drier-than-normal periods of runoff. High and low runoff years in the Snake River basin are illustrated in Figure 3. The hydrographs illustrate the general sequence of wet and dry periods in the eastern portion of the basin at Heise, in the south-western portion at Twin Springs in the Boise River system, and in the northern portion of the basin at Whitebird on the Salmon River. These locations were selected because of their relatively long period of record. In each hydrograph the sequence of years of lowest runoff generally occurred between 1929 and 1942. This sequence was the most severe water-short period in the basin during the twentieth century. Using the record of the Columbia River at The Dalles, Oregon, the longest record of streamflow data in the Columbia basin, it appears probable that the period in the 1930s was the driest in the past 100 years.

Note: This plan was adopted by the Water Resource Board on January 3, 1992. Conditions in the Boise River drainage for the 1987 through 1992 period were drier than any other six-year sequence in the hydrologic record for the drainage. Reservoir contents in the Boise River reservoirs on June 30, 1992 were lower than historic or simulated contents for any June 30th in the record. Conditions in the Upper Snake reservoirs are nearly as bad. Simulations suggest that in most cases reservoir contents on June 30, 1934 would have been lower than 1992 when current conditions of development are applied to the streamflow record. For practical purposes, there will be little or no carryover storage at the end of the 1992 irrigation season.

A period of above normal runoff began in 1965 and continued through water-year 1976, although 1968 and 1973 were drier than average. Runoff in 1977 was the lowest of record at most gauges in the basin. Below normal flows generally occurred in the 1979 to 1981 period. Above normal conditions returned in the 1982-86 period. Drought conditions have persisted from 1987 through 1991.

Note: This plan was adopted by the Water Resource Board on January 3, 1992. Drought conditions have persisted through July of 1992.

The longest streamflow records available in the basin are similar to those shown in Figure 3. and have data generally for 60 years or less. During this period, major changes have occurred in water use and control. Irrigated agriculture has increased by some 3 million acres. Nearly all the major irrigation, power, and flood control reservoirs were constructed during this period. Ground-water recharge and discharge from the Snake Plain aquifer has been significantly changed, thereby modifying the flow pattern of the river. Because of these changes, historic records in themselves are often not useful to describe the water supply of a river because they do not reflect current conditions. For that reason

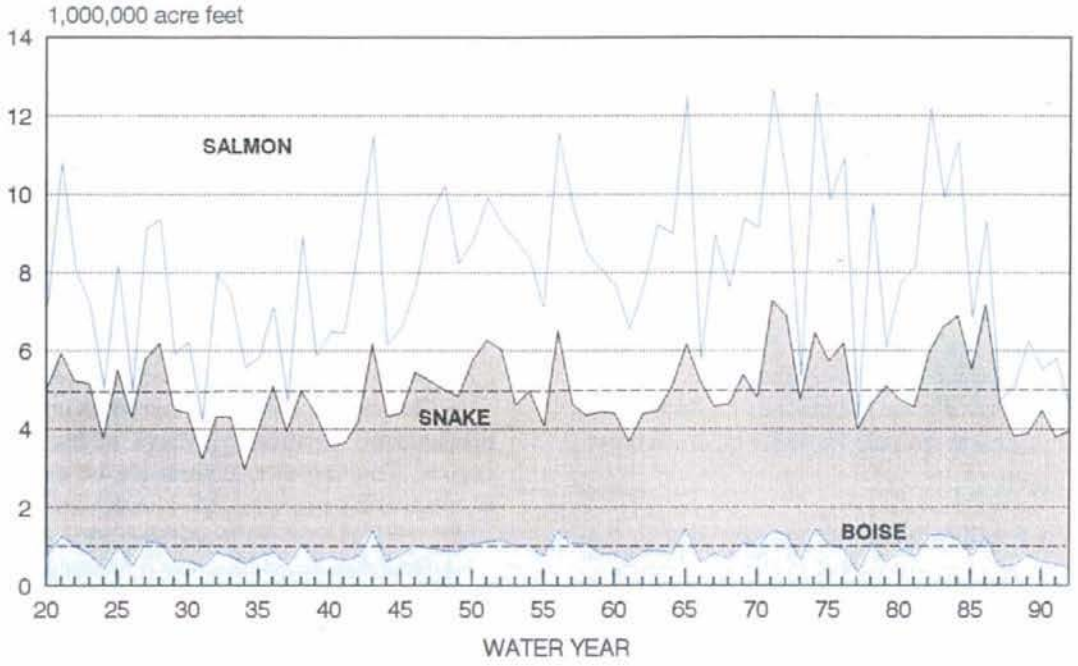


Figure 3. Annual runoff 1920-1992; Salmon River at Whitebird, Snake River near Heise, Boise River near Twin Springs.

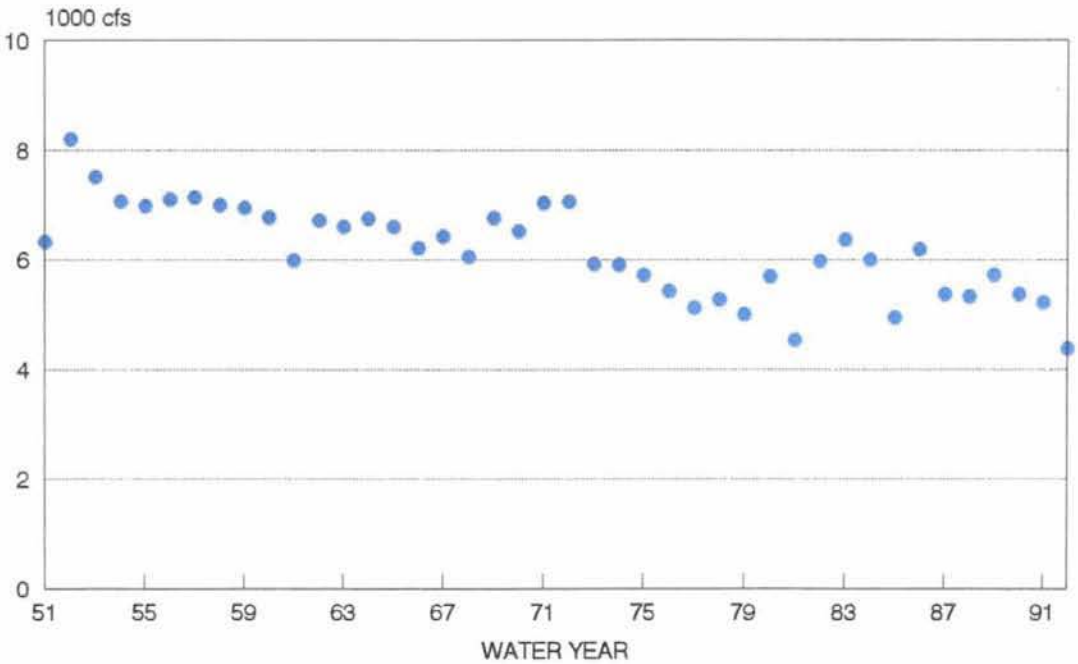


Figure 4. Annual minimum daily discharge; Snake River near Murphy 1951-1992.

hydrologic data often are calculated for a base period adjusted to some recent level of development.

The Snake River is intensively managed. Controls on the flows are imposed by a system of reservoirs and diversions. The reservoirs were constructed for one or more purposes, but irrigation use is involved in most of the Snake River system reservoirs.

Records of diversion are available for only a fraction of the irrigation and other uses of the Snake River basin. Ground-water withdrawal and consumption generally are not measured. Because of this, total water use can only be estimated by indirect methods.

The 4.5 million acres of irrigated land in the Snake River basin deplete the river flow by nearly 7 million acre-feet per year. Twenty-five percent of this is withdrawn as ground water. Irrigation diversions have their primary effect on the river during the summer months.

The 1976 State Water Plan set minimum flows near Murphy (3300 cfs) and at Weiser (4750 cfs). The Murphy minimum was raised to 3900 cfs (April through October) and 5600 cfs (November through March) because of the Swan Falls agreement. Since the 1950's, there has been a general downward trend in the annual flow of the Snake River near Murphy. This is illustrated by Figure 4. Causes of the declining flow include the large pumped diversions from the river between Hagerman and the Murphy gauge, and diminishing discharge from Thousand Springs caused by changes in irrigation practices on the Snake River plain.

At Weiser, the minimum flow was not met on two days in 1977 because of large diversions from the Snake River and very low outflows from the Boise and Payette basins. Minimum annual flows at Weiser do not exhibit a downward trend like those near Murphy because the outflows from the Boise and Payette rivers are usually large when Snake River diversions are near their maximums. However, the 1977 events demonstrate that low flows can occur in dry years.

Note: This plan was adopted by the Water Resource Board on January 3, 1992. Summertime flows in 1992 at the Weiser gauge were below the established minimum on two occasions totaling three days. The Department of Water Resources issued orders curtailing water use by appropriators junior to the 1976 date establishing a minimum flow at Weiser.

Bear River Basin

The Idaho portion of the Bear River basin is located in the southeast corner of the state. Elevations range from 4400 feet in the valley to over 9000 feet. About one-half of the area is mountainous and lies above 6000 feet.

The major valley and mountain ranges trend north-south. Tributary valleys intersect at right angles. Tributary stream gradients are steep, whereas main valley gradients are comparatively gentle.

The entire Bear River basin drainage comprises 7474 square miles and includes portions of three states: Utah (3255 square miles), Idaho (2704 square miles), and Wyoming (1515 square miles). Although the State Water Plan covers only that portion of the Bear River basin in Idaho, it is necessary to understand important characteristics of other parts of the basin.

The Bear River begins on the northern flank of the Uinta Mountains in Utah. Confined generally to a mountain valley, it flows northerly into Wyoming. Near the community of Evanston, the river flows into Utah again, returns to Wyoming, and then flows into Idaho. In Idaho, the Bear River is diverted into Mud Lake and Bear Lake. From Bear Lake, the river flows northwesterly toward the community of Soda Springs, where it turns southerly toward the Great Salt Lake. In Franklin county, Idaho, below the Oneida Narrows, the river meanders broadly in the ancestral Lake Bonneville bottomlands before leaving Idaho. After a circuitous journey of 440 miles and five crossings of state lines, the Bear River terminates in the Great Salt Lake.

Bear Lake is the most striking physical feature in the basin. The blue-green waters of this large, deep lake extend about equally into Idaho and Utah. Once isolated from all but flood flows of the Bear River, the lake is connected to the river by a canal.

As with other major streams in Idaho, most of the streamflow in the Bear River is the result of snowmelt in the higher portions of the watershed. Only a portion of the flow comes from lands in

Idaho. The river enters Idaho near the community of Border, Wyoming where it has drained an area of 2500 square miles and has an average annual (1927-1990) flow of 291,500 acre-feet. Bear Lake, the largest lake in the basin and an important offstream storage site, receives water from the Bear River via two canals diverting at Stewart Dam near Dingle, Idaho. The capacity of these canals is large enough that even high flow can be diverted. Water from these canals first enters Mud Lake, then Bear Lake. Water levels in Bear Lake are controlled by a dike between Mud and Bear lakes. Release of the top three feet of Bear Lake water (elevation 5,923.65 to 5,920.65) is made by gravity. The Lifton pumping plant is used to draw Bear Lake below the outlet level (from elevation 5,920.65 to 5,902.00).

Present usable capacity of the lake is 1,421,000 acre-feet. Bear Lake is operated by Utah Power and Light Company to generate power and maintain an assured water supply to meet irrigation water commitments to Utah-Idaho Sugar Company in Utah.

Also, the lake is, in effect, operated for flood control, as fall and winter releases are made to insure flood space for snowmelt runoff.

Below Stewart Dam the Bear River flows through a series of power generation facilities owned by Utah Power and Light Company. Average annual runoff at principal gauging stations in the Bear River basin is shown in Table 2. Location of these gauges is shown on Figure 1.

Table 2. Estimated Average Annual Runoff of the Bear River (1927-1990, 1990 level of development).

Station	Runoff (acre-feet)
Bear River at Border	291,500
Bear Lake Outlet	306,100
Bear River at Alexander	533,800
Bear River near Preston	598,000

Bear Lake.

Major Idaho tributaries of the Bear River are the Thomas Fork, Cub River and the Malad River. Although the Bear River increases in flow at successive downstream locations, irrigation diversions reduce these increases significantly.

Monthly flows at the gauging stations are influenced to varying degrees by reservoir regulations, irrigation diversions and return flows. The Bear River at Border is regulated by upstream storage, and is depleted by irrigation diversions in Wyoming and Utah. The Thomas Fork and the Malad River exhibit monthly flows typical of unregulated streams. Peak runoff occurs during the snowmelt season and then declines throughout the summer months. Bear Lake regulation allows snowmelt runoff to be stored for use during periods of peak irrigation and power demand. The peak monthly lake outflow occurs during July, with August averaging only slightly less. The monthly regime of lows in the reach below Preston shows the effects of unregulated tributary inflow and substantial irrigation diversions. This results in high flows in May and June and very low flows in July, August, and September.

The Bear River system, like other river basins, is subject to variations in runoff due to seasonal and annual precipitation. Dry periods can reduce water available for irrigation on headwater streams with little or no storage. Long periods of low precipitation can deplete storage in Bear Lake.

Annual runoff for two locations on the Bear River under present conditions is shown in Figure 5. The period 1931 through 1945 represents one of below average streamflow. Runoff during the period 1966-76 was generally above normal but 1977 was extremely dry. Variable conditions occurred in the following two years, but these were generally also below normal. In 1980 through 1985 streamflows again exceeded the long-term average.

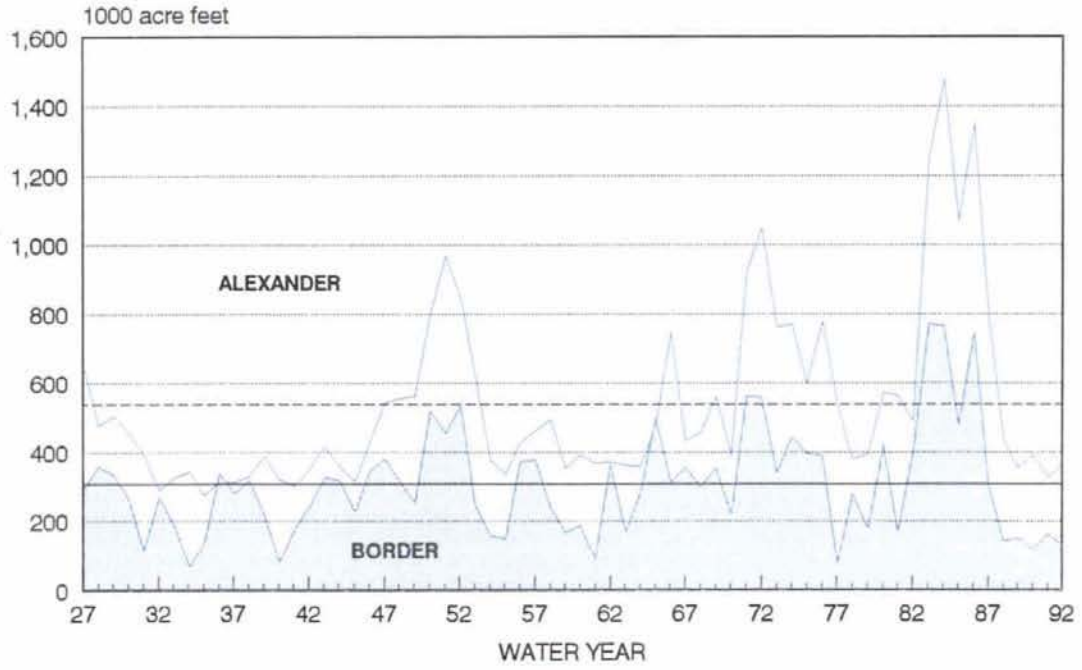


Figure 5. Annual runoff; Bear River at Border, Bear River at Alexander.

Panhandle Basins

Streamflow in much of the Panhandle is largely the result of runoff conditions in upstream Montana and British Columbia. The Kootenai River derives most of its flow from both these areas, whereas the Clark Fork drains a large portion of western Montana. The third major Panhandle river, the Spokane, originates entirely within Idaho. Average annual runoff at principal gauging stations is shown in Table 3. The gauge locations are shown on Figure 1.

Table 3. Average Annual Runoff of Major Rivers in the Panhandle Basins through Water Year 1990.

Station	Runoff (acre-feet)	Years of Record
Kootenai River at Leonia	10,034,000	62
Moyie river at Eastport	502,800	61
Kootenai River at Porthill	11,450,000	62
Clark Fork at Whitehorse Rapids	16,050,000	62
Priest River near Priest River	1,200,000	62
Pend Oreille River at Newport	18,610,000	76
St. Joe River at Calder	1,701,000	71
St. Maries River near Santa	252,900	25
Spokane river near Post Falls	4,509,000	78

The Kootenai enters Idaho from Montana at Leonia and discharges about 10.1 million acre-feet per year (13,900 cfs) into British Columbia at Porthill. It gains an average of about 2000 cfs in Idaho, including approximately 700 cfs from the Canadian portion of the Moyie River. The average flow of the Moyie near its mouth is about 900 cfs.

The Clark Fork, largest of the Panhandle rivers, enters Idaho at Cabinet Gorge and leaves the state at Newport, Washington, where it is called the Pend Oreille River. Average annual runoff at Newport is 18.8 million acre-feet per year (26,000 cfs). The average gain in Idaho is about 3600 cfs. Principal Idaho tributaries are the Pack River and Priest River. The Clark Fork flows through Idaho's largest lake, Lake Pend Oreille. Lake levels have been controlled by Albeni Falls Dam near Newport since 1952.

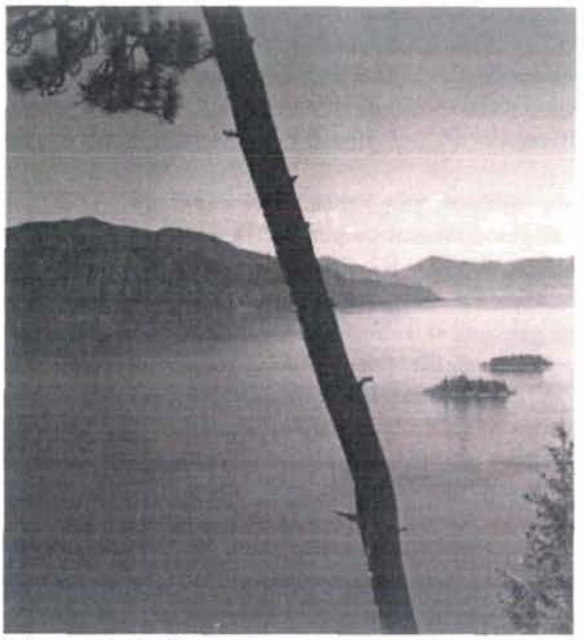
The average annual flow of the Spokane River at Post Falls is about 4.5 million acre-feet (6200 cfs). Two tributaries, the Coeur d'Alene and the St. Joe, join at Lake Coeur d'Alene to form the Spokane River.

Rivers in the Panhandle are managed for power and flood control purposes. There are no reservoirs on the Kootenai River in Idaho, but the Libby Project in Montana effectively controls flows through Idaho. Regulation at Libby will control all but about one percent of the future floods originating from the Kootenai River. The river flow regime is also considerably modified through the year. While flood flows are reduced to the channel capacity, there is a longer period of high flows as power and flood control releases are made from late summer through the winter.

The Clark Fork is regulated by Hungry Horse Reservoir, Flathead Lake, and many small reservoirs in Montana. Seasonal regulation by those reservoirs results in greater fall and winter flows entering Idaho than would otherwise be the case. Daily fluctuations are also imposed on the river by power operations at the Noxon Rapids Dam in Montana and at Cabinet Gorge Dam in Idaho.

Lake Pend Oreille is regulated by Albeni Falls Dam as part of the Columbia River system for downstream power and flood control. The normal summer level is at elevation 2062.5. Beginning in September, the lake is drafted at a nearly uniform rate to reach elevation 2060 by the end of October. This procedure minimizes lake shoreline erosion. A continuing draft may be made until December for system power purposes if needed. Normally, the lake is at winter flood control level by December 1. Between then and spring, the lake is held at a nearly constant level. When springtime flood inflows occur, the spillway is opened allowing free flow. The lake then rises as it would without a dam. As the flood recedes, the lake is allowed to return to the normal summer level.

Priest Lake is controlled by a small dam originally constructed in 1950 and rebuilt in 1978. This structure is used during the summer to hold the lake at a nearly constant level, about three feet above the natural lake summer level. Following the recreation



Lake Pend Oreille.

season, the stored water is released for downstream power. The dam is operated by Washington Water Power Company under an agreement with the Idaho Department of Water Resources, owner of the dam.

The presence of an outlet control has produced a pronounced shift in outflows from July through November. The July and August outflows have been reduced by approximately 40 percent, and September outflows by about 30 percent. The October and November discharges have been increased by about 250 percent due to evacuation of storage. Discharges during the remainder of the year are relatively unaffected.

Lake Coeur d'Alene is controlled by Post Falls Dam on the Spokane River nine miles downstream from the lake outlet. Post Falls Dam is operated by Washington Water Power Company for power generation on site and at several other plants in Washington. The normal summer level of the lake is elevation 2128. Beginning in September, it is drafted three to five feet for power generation purposes. This lowering of the lake elevation also provides winter flood protection for lake shoreline properties and downstream points. Winter lake levels are variable because of inflow fluctuations. Following spring runoff, lake levels decline to elevation 2128, the gates are closed and the dam is operated to hold the lake at that level through the summer.

Ground Water

Approximately 88 percent of the people in Idaho use ground water for domestic purposes, yet only three percent of the ground water withdrawn goes for these purposes. Irrigated agriculture uses roughly 65 percent of the ground water withdrawn in an average year.

Water levels fluctuate as a function of withdrawal and recharge. A study by the U.S. Geological Survey compared water levels in 361 wells for the period 1971-1982. Net water-level decline occurred in 75 percent of these wells. Definite trends could be established in 266 wells. Of these, 66 percent showed downward trends. Declines of more than five feet for the period occurred mostly in the southern part of the state, and to a large degree were in or near the eight areas designated by the Department of Water Resources as Critical Ground Water Areas or the seven areas designated as Ground Water Management Areas (Figure 6). Precipitation in much of Idaho was above normal from 1983 to 1986. Some recovery of ground-water levels occurred. Near drought conditions have existed from 1987 through 1991. Ground-water levels are continuing a general decline.

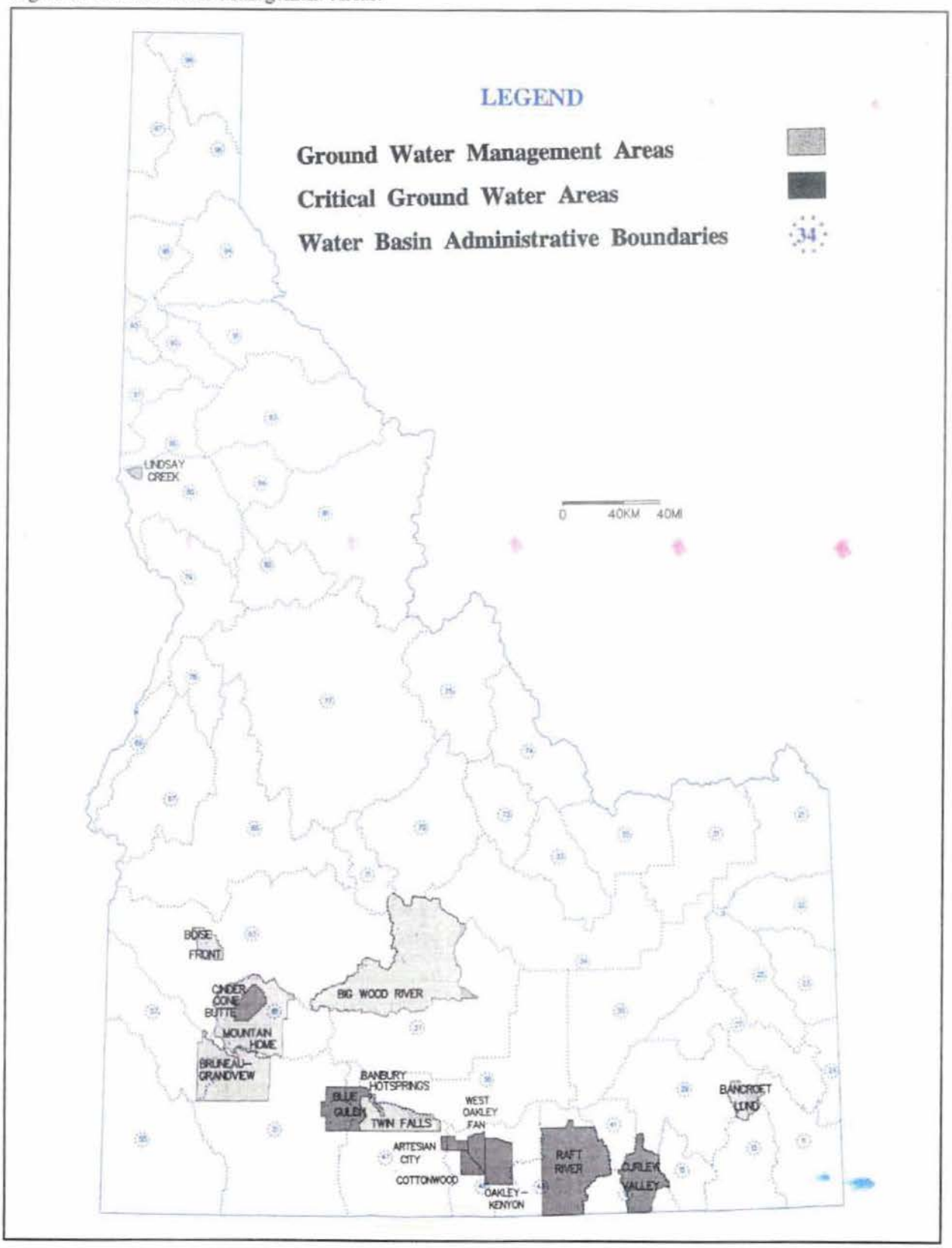
Endangered Species

Idaho has a number of plant and animal species whose existence is threatened by man's manipulation of the environment. Idaho's anadromous fish have received the most recent attention, but creatures such as the Bruneau snail, Wood River sculpin and Banbury Springs limpet may have local impacts as consequential as those associated with saving the salmon.

The Idaho Department of Parks and Recreation has the responsibility to maintain a list of native wildflowers in need of protection (Idaho Code 18-3913). The Idaho Department of Fish and Game is charged with the preservation and protection of all wildlife in the state (Idaho Code 36-103). The department maintains lists of threatened or endangered wildlife, protected nongame species, and species of special concern.

The U.S. Fish and Wildlife Service administers the Endangered Species Act. The act provides

Figure 6. Ground Water Management Areas.



federal protection for listed species and mandates the development and implementation of recovery plans for each listed species.

Most Idahoans have adjusted to the idea of special consideration for the bald eagle and the gray wolf. The listing of the Snake River sockeye as endangered and of the spring/summer and fall chinook as threatened may be more difficult to deal with. The continued survival of these salmon species will likely be expensive in terms of its impact on the citizens of the Pacific northwest.

The recovery plan for the salmon has not been adopted (August 1, 1992). Possible measures being considered include: the release of large volumes of water to flush juvenile salmon to the sea, reservoir drawdowns to speed juveniles to the sea, habitat improvements to increase the number of naturally-spawned juveniles, and the screening of diversion works to keep juveniles in the rivers.

The eventual recovery plan will likely impact the price of electricity in the region, operations of the ports along the Columbia and Snake River, Indian and commercial fishing, and water available for consumptive uses in the Snake River drainage.

If species such as the Bruneau snail or Wood River sculpin are listed as federal endangered or threatened species, existing diversions including ground-water pumping could be curtailed. The U.S. Fish and Wildlife Service and other federal agencies can not consider costs in their efforts to protect listed species. The federal guideline is protection at any cost.

Population

While not typically considered a natural resource, population is an indicator of the state's economy and will play a role in Idaho's future economic growth. While Idaho has ample water for a significantly expanded population, a combination of population growth and new water consumptive industry could lead to local dislocations with water consumption shifting from traditional uses to new municipal and industrial markets.

Idaho's population has shown continued, albeit erratic growth. With 1,006,749 residents during the 1990 census period, Idaho remains one of the least densely populated of the 50 states. Table 4 suggests that even major population increases would not create unreasonable population densities within the state.

The distribution of population between urban and rural areas is an indicator of the state of Idaho's economy and of which economic sectors are dominant in its economic base. In terms of the impact on water use, the relative size of the urban and rural populations probably will be more important than actual population. Sometime during the 1960s, Idaho changed from a state where most of its citizens lived in a rural setting, to a state of primarily urban dwellers (Table 5). The 1990 census identified only 44,869 people living on farms and ranches in the state. A person's environment affects how they think and how they act. Idaho will increasingly concern itself with urban oriented issues and favor urban values over rural ones.

Table 4. Population densities per square mile using 1990 estimated populations.

Japan	844
United Kingdom	601
France	252
Germany	221
California	191
United States	68
Pacific Northwest (OR, WA, ID)	35
Idaho (entire state)	12
Idaho (private and Indian lands)	40

Table 5. Urban and Rural Population in Idaho (Idaho Blue Book; 1990 Census)

	Urban	Percent	Rural	Percent
1950	252,549	42.9	336,088	57.1
1960	317,097	47.5	350,094	52.5
1970	385,434	54.1	327,133	45.9
1980	509,805	54.0	434,233	46.0
1990	578,376	57.4	428,373	42.6

STATE WATER PLAN

Objectives

1. **Public interest:** The objective of the Water Resource Board is to encourage and promote use of the state's water resources to meet the needs and wishes of the public.

2. **Economic development:** The objective of the Water Resource Board is to encourage and support water projects that promote economic development in the state.

3. **Environmental quality:** The objective of the Water Resource Board is to maintain, and where possible enhance, environmental quality.

4. **Public safety:** The objective of the Water Resource Board is to encourage and promote programs that will assure life and property within the state are not threatened by the use of our water resources.

5. **Fish, wildlife, and recreation:** The objective of the Water Resource Board is to assure that equal consideration is given to the needs of fish, wildlife, and recreation in any project or program involving the water resources of the state.

6. **Agriculture and aquaculture:** The objective of the Water Resource Board is to encourage orderly and efficient growth in food and fiber production within the state.

7. **Quantification of rights:** The objective of the Water Resource Board is the quantification of all water rights within the state including those rights claimed by the federal government and the Indian tribes.

Winter along the Big Wood River.

• *Water Use Group*

POLICY 1A - STATE SOVEREIGNTY

It is the policy of Idaho that the state has sovereignty over decisions affecting the development and use of its water resources, and that the state opposes any attempt by the federal government, its management agencies, any other state, or any other entity to usurp the state's role in these areas.

The Idaho Water Resource Board is responsible for the formulation of state water policy through the State Water Plan. The state's position on existing and proposed federal policies and actions should be coordinated by the Water Board to ensure the state retains its traditional right to control the water resources of the state.

POLICY 1B - PUBLIC INTEREST

It is the policy of Idaho that approval of applications to appropriate the waters of the state shall be subject to the requirement that the use is in the public interest as set forth in the State Water Plan and by state law.

Having been adopted as being in the public interest, the State Water Plan shall be considered when establishing the public interest for water allocations. Idaho Code 42-203C specifies additional criteria that must be considered when reallocating hydropower water rights held in trust by the state. In all instances, state law and the public trust,including public interest, as interpreted by the courts must be satisfied.

POLICY 1C - BENEFICIAL USE OF WATER

It is the policy of Idaho that certain nonconsumptive water uses be considered as beneficial uses.

This policy affirms the Water Resource Board's position that "beneficial use" includes, but is not limited to, water required for the protection of fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, navigation, and water quality as well as the traditional uses for agriculture, manufacturing, mining, hydropower, and human consumption.

The Idaho Constitution provides: "Priority of appropriations shall give the better right as between those using the water; but when the waters of any natural stream are not sufficient for the service of all those desiring the use of the same, those using the water for domestic purposes shall (subject to such limitations as may be prescribed by law) have the preference over those claiming for any other purpose; and those using the water for agricultural purposes shall have preference over those using the same for manufacturing purposes. And in any organized mining district those using the water for mining

Bruneau River Canyon.

purposes or milling purposes connected with mining, shall have preference over those using the same for manufacturing or agricultural purposes. But the usage by such subsequent appropriators shall be subject to such provisions of law regulating the taking of private property for public and private use, as referred to in section 14 of article I of this Constitution."

POLICY 1D - POLLUTION CONTROL

It is the policy of Idaho that the use of water to dilute pollution is not a substitute for adequate treatment.

Existing state and federal water quality programs should be sufficient to protect the current high water quality associated with streams within the state. In most cases, allocation of water for instream flow use should be directed towards meeting fish, wildlife, and recreational needs and not to the dilution of pollution.

Instream flows to minimize the effects of pollution will be considered by the Water Resource Board on a case by case basis. The Water Resource Board supports efforts to obtain storage rights for water quality maintenance in reservoirs and stream reaches below impoundments.

POLICY 1E - NATURE OF USE

It is the policy of Idaho that changes in the nature of use of a water right be allowed if other water rights are not injured.

The demand for water increases every year while the volume of unappropriated water within the state continually decreases. Many new uses will depend upon the transfer of existing water rights from one use to another. The Idaho Code provides for changes in place of diversion, place of use, period of use, and nature of use. Provision is made to protect other water users, the agricultural base of an area, and the public interest. In some instances, it is in the public interest to allow changes from consumptive uses to instream flow purposes. In order to encourage such changes, the priority date of the consumptive use should be retained for the instream purpose.

POLICY 1F - GROUND AND SURFACE WATER CONNECTION

It is the policy of Idaho that where evidence of hydrologic connection exists between ground and surface water, they be managed as a single resource.

Nearly all ground-water aquifers in the state naturally discharge to or are recharged by a surface body of water. The approval of new water-use applications and the development of management plans for the water resources of the state must recognize this relationship. The Ground Water Quality Plan recognizes the hydrologic connection between ground and surface water and emphasizes that management must maintain all existing and projected beneficial uses of both resources.

Stream reaches are classed as gaining or losing depending on the local interaction between ground and surface water. In some areas pumping ground water from wells will reduce the amount of water flowing in a stream. During periods of high stream flow significant aquifer recharge can occur. When water is diverted from a stream for irrigation purposes conveyance and deep percolation losses are major factors in aquifer recharge.

The Big Wood and Big Lost rivers are streams where this kind of management is necessary. Implementation of the Swan Falls Agreement has identified a large area on the Snake River Plain Aquifer which is tributary to the Snake River between Milner Dam and the Murphy gauge. Ground water in this area is considered trust water for purposes of the agreement and is managed in conjunction with the river.

POLICY 1G - WITHDRAWAL OF GROUND WATER

It is the policy of Idaho that pumped depletions in an aquifer should not exceed the anticipated rate of future recharge to that aquifer.

Many of the citizens of Idaho depend on ground water for drinking water. Approximately 30 percent of Idaho's irrigated acreage uses ground water. Overuse of ground water leading to aquifer depletion could cause economic and social problems nearly anywhere in the state.

There are many areas within the state where withdrawal/recharge imbalance of the ground-water resource has already occurred. If existing laws were strictly enforced many wells would have to be abandoned. In order to protect, insofar as possible, existing ground-water rights and to provide for future development the state should seek to correct withdrawal/recharge imbalances in an orderly fashion, attempting to minimize negative impacts on the citizenry.

The existing statutory authorities giving the director of the Department of Water Resources the power to designate areas as either Ground Water Management Areas or Critical Ground Water Areas provide the logical first step in arresting excessive withdrawals from an aquifer. Designation as a critical ground water area should automatically engender an adjudication of the area.

There are rare instances where an aquifer is recharged so slowly that almost any water use causes depletion. Idaho Code 42 - 1734A(2) provides that the Idaho Water Resource Board can develop aquifer plans as part of the State Comprehensive Water Plan. After such detailed planning consideration, continued depletion may be the management strategy.

POLICY 1H - GROUND-WATER QUALITY

It is the policy of Idaho that ground water be protected against unreasonable contamination or deterioration in quality, thereby maintaining the suitability of such waters for appropriate beneficial uses.

It is essential that the quality of Idaho's ground-water resources be protected. Ground-water standards should be adopted and legislation enacted which establish specific standards and authorities to accomplish this goal. The legislation should designate a single state management agency as called for in Policy 4A of the State Water Plan.

Local units of government and special use districts should be provided with more authority to deal with ground-water protection issues. A monitoring program in a cooperative effort with appropriate federal agencies should be established for ground-water quality protection programs.

The Water Resource Board supports the efforts of the Ground Water Quality Council to develop a ground-water quality plan. The existing statewide ambient ground-water monitoring network and information distribution program is under the authority of the Department of Water Resources. Regional and local monitoring networks are under the authority of the Division of Environmental Quality of the Department of Health and Welfare.

POLICY 1I - WATER RESOURCES RESEARCH PROGRAM

It is the policy of Idaho to encourage and develop research on important water resource topics to implement the objectives of the State Water Plan.

While water programs in Idaho can incorporate information from research in other states, more research dealing with specific problems in Idaho are needed. Topics that need immediate attention are those which:

- investigate methods for encouraging more efficient use of water,
- determine optimum monitoring programs for key areas of ground water use,
- investigate the relationship between ground and surface water
- investigate the number and range of species that are threatened or endangered, and
- identify techniques to improve long range planning.

POLICY 1J - MONITOR RADIOACTIVE WASTE DISPOSAL

It is the policy of Idaho to maintain a state program to monitor and regulate radioactive waste disposal at the Idaho National Engineering Laboratory, and other areas as may be designated.

The federal program for radioactive monitoring at the Idaho National Engineering Laboratory (INEL) is conducted by the U.S. Department of Energy and the U.S. Geological Survey. In their comprehensive monitoring program, radioactivity released from INEL operations is measured in air, water and soil at both on-site and off-site locations. Radioactivity in some agricultural products from the INEL area also

is measured. An annual report on radioactivity monitoring results is prepared and an assessment of the radiological impact from nuclear operations is made of the region surrounding the INEL.

Notwithstanding the quality of the federal radiation monitoring program, the Water Board urges that the state maintain an independent program for sampling, analysis, and data interpretation. The Idaho National Engineering Laboratory overlies portions of the Snake River Plain Aquifer and every precaution must be taken to preserve the quality of the aquifer.

• *Conservation Group*

POLICY 2A - INSTREAM FLOWS

It is the policy of Idaho that when it is in the public interest the Water Resource Board should seek to appropriate waters in the state for instream flow purposes.

Instream flows are essential for the protection of fish and wildlife habitat, aquatic life, recreation, aesthetic beauty, transportation and navigation values, and water quality. Many of these uses have direct effects on the economy while others represent elements of the public trust and Idaho's valued environment. Idaho Code, Title 42, Chapter 15 provides the authority and spells out procedures for the Water Board to appropriate water for minimum streamflows. Instream flows may also result from a change in nature of use.

POLICY 2B - STATE NATURAL AND RECREATIONAL RIVER SYSTEM

It is the policy of Idaho that a state protected river system be maintained to meet the desires of the citizens of Idaho. The system should provide for the protection of the unique features that exist on various rivers within the state, and should provide the necessary authority and funding for the state to

Drift boat on the Salmon River near Riggins.

protect such rivers and related lands for recreational, scenic, and natural values while still allowing the widest possible opportunity for use by private interests.

In recent years, Idahoans have expressed a desire to retain some rivers or river reaches in a free-flowing condition. The first stream reaches to be put in the Idaho Protected Rivers System were approved by the Idaho Legislature in 1991. Several Idaho streams have been designated as federal wild and scenic rivers, while others are being considered for federal designation. A state system can be more responsive to the needs and desires of Idahoans.

POLICY 2C - ANADROMOUS FISH

It is the policy of Idaho to preserve and enhance the state's anadromous fishery resource.

Idaho's once numerous anadromous fisheries have been severely depleted. The present condition of salmon and steelhead runs is the result of many environmental insults. The chief factor has been the adverse effect of the region's many hydroelectric facilities, both as barriers to upstream migration and as major contributors to the loss of juvenile downstream migrants. Another significant factor has been the degradation of spawning and rearing habitat by irrigation, water diversion, by sedimentation from logging and mining operations, and by riparian degradation. Upstream migration is also impacted by poorly designed culverts and other stream channel alterations.

Restoration of the anadromous fishery is a regional concern. The downstream commercial, recreational and Indian fisheries depend in large degree on fish runs reaching Idaho streams and hatcheries. The state as an entity and its various agencies should cooperate with the federal government, the Northwest Power Planning Council, and downstream entities in efforts to enhance the Columbia Basin's anadromous fishery resource.

The listing of the Snake River sockeye and the proposed listing of spring, summer, and fall chinook salmon as federal threatened or endangered species could lead to radical changes in water management in the Columbia and Snake River basins. The state should play an active role in structuring recovery plans for these species, including the identification of additional storage sites in the Snake River Basin. Improved downstream passage at federal dams on the lower Snake River is key to species survival. The Idaho Water Resource Board supports the efforts of the governor to improve fish passage in the Snake and Columbia Rivers by changes in the operation of the hydropower system, structural modifications, and reservoir drawdowns.

POLICY 2D - WHITE STURGEON

It is the policy of Idaho that white sturgeon habitat in the Snake and Kootenai Rivers be protected.

White sturgeon, the largest freshwater fish in North America and a state Species of Special Concern, require free-flowing water. Dam construction has had the immediate effect of blocking sturgeon spawning migration and isolating some populations. Water quality improvements may be necessary to insure sturgeon survival. Studies by the Idaho Fish and Game Department indicate actively reproducing sturgeon populations between Bliss Dam and C.J. Strike Reservoir as well as below Swan Falls Dam on the Snake River. The Kootenai River sturgeon may no longer be self-sustaining. Additional impoundments in these river reaches will reduce or eliminate these remnant sturgeon populations. Instream flow studies should be undertaken to determine flow rates necessary for species survival.

POLICY 2E - WATERSHEDS

It is the policy of Idaho to encourage land-use practices which protect the quality and quantity of the water resource.

The quality of surface and ground water as well as the quantity and timing of runoff depend in large degree on land-use practices on the watersheds of the state. Regulatory and management agencies at all levels, local, state, or federal, must insure that their programs adequately consider the problem of soil erosion and deposition.

Problems exist where irrigated agriculture is practiced on marginal or erodible land. Soil erosion is also a critical concern on the Idaho Palouse where irrigation is not common. Forest land normally

produces very little sediment, but it can produce very large amounts when disturbed by logging, road construction, residential development or other similar activities. Proper forest management as per the Idaho Forest Practices Act (Title 38, Chapter 13) will reduce the amount of sediment leaving forested areas. Greater use of the authorities contained in the law relating to Watershed Improvement Districts (Title 42, Chapter 37) would reduce sediment production on affected watersheds.

Fishing on the lower Rapid River.

POLICY 2F - WATER CONSERVATION

It is the policy of Idaho to conserve water, and to enforce reasonable restrictions based on the careful management and use, without wastage, of water as may reasonably be required to satisfy the conditions of a water right. Water conservation will be a major element of all river basin plans developed by the Water Resource Board.

The primary objectives of this conservation effort are to increase the supply of water during drought periods, increase stream flows, and to provide additional sources of water to support anadromous fish migration. Conservation planning should address such things as water storage and delivery systems, irrigation techniques, industrial processes, water recycling, artificial recharge, and other practices as may be appropriate.

• *Protection Group*

POLICY 3A - RIPARIAN PROTECTION

It is the policy of Idaho that riparian lands within the state be preserved for the enjoyment of all the citizens of the state.

The vegetation and wildlife associated with the rivers and streams in the state should be protected for the pleasure they provide to the people of the state. The Local Planning Act of 1975, as amended, puts land-use control at the local government level.

Greenbelts, such as those being developed in Boise and Caldwell, are systems of open or park lands located along a river or stream. In rural areas most types of agriculture afford a pastoral image and should be encouraged providing some buffer zone exists to protect the stream bank. Historic sites and scenic view points should also be protected.

Wetlands are an important component of riparian areas. The Water Resource Board urges that the state take an active role in wetlands protection. The federal government has established a strong regulatory position in this area. In so far as possible, the state should assume responsibility for wetlands management and protection.

POLICY 3B - LAKE AND RESERVOIR SURFACE MANAGEMENT

It is the policy of Idaho that surface management plans be developed for lakes and reservoirs in the state.

Comprehensive plans and management guidelines should be prepared concerning surface uses of Idaho's lakes and reservoirs relative to the conservation, development, and protection of these resources. These guidelines should define appropriate uses of lakes and the portions of lakes wherein certain uses can be conducted. Size of motors and boats allowed, allowable speed, prohibition of motors or houseboats, scheduling of log tows, and regulating the time at which various uses may be conducted are basic considerations.

The Water Resource Board supports the implementation of the Clean Lakes Act passed by the Idaho Legislature in 1989 (Chapter 64, Title 39,Idaho Code). The law provides for the creation of regional councils empowered to develop lake management plans. It further provides for technical advisory groups to support the council in its planning efforts. Where federal or private entities have regulatory control over water bodies, these entities should cooperate with the state in the development of their management plans.

POLICY 3C - PROTECTION OF LAKE AND RESERVOIR SHORELANDS

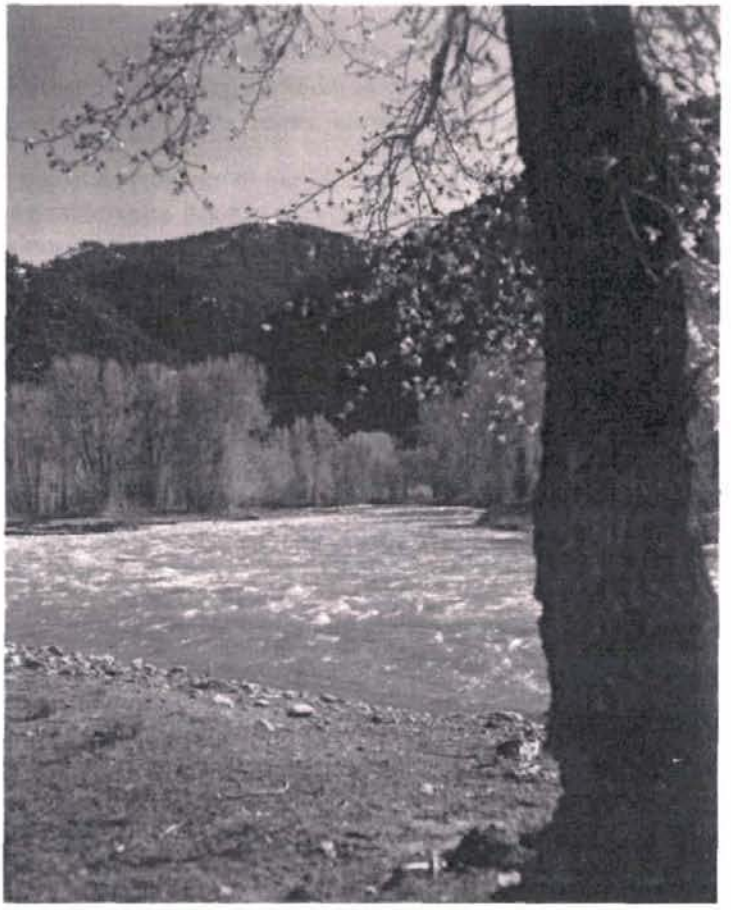
It is the policy of Idaho that local units of government prepare comprehensive plans and adopt zoning standards for the management of lake and reservoir shorelands to protect water resources and their uses.

Lake and reservoir shorelands are being subjected to increased use throughout much of the state. Often when land-use abuse occurs, the resulting eroded material, or other pollutant, ends up in the lake or reservoir.

POLICY 3D - REHABILITATION OF ABANDONED LAND AND WATER PROJECTS

It is the policy of Idaho that the costs and benefits of rehabilitation of abandoned land and water projects be evaluated where such areas currently or potentially affect the yield or quality of the state's watersheds, streams, or stream channels.

In years past, mining companies, government agencies, and the general public tolerated a neglect of environmental quality as a cost of economic gain. Many early water and land development projects were built and later abandoned. Some of these projects have deteriorated to the extent that public safety and water resource values are threatened.



Big Wood River.

Where liability cannot be established, it is appropriate for the state to take action where the remedial costs are less than the potential damages to the water resources of the state. In instances where public safety may be threatened, the state should take remedial action.

POLICY 3E - TAILINGS PONDS

It is the policy of Idaho that the construction, operation, and maintenance of mine waste tailings ponds be regulated by the state.

Chapter 17, Title 42, Idaho Code makes the regulation of mine waste tailings ponds a function of the Idaho Department of Water Resources. The health and safety of the citizens of the state and quality of the state's water resources in many areas depends on the proper construction, operation and maintenance of mine waste tailings ponds. Chapter 1, Title 39, Idaho Code provides general water quality authorities to the Idaho Department of Health and Welfare.

POLICY 3F - ADEQUACY OF FLOOD CONTROL LEVEES

It is the policy of Idaho that the construction and maintenance of flood control levees be regulated by the state.

The only standards applicable to the construction of flood control levees in Idaho are in the Rules and Regulations governing Stream Channel Alterations. These standards apply only when all or part of the levee will be located below the mean high water mark.

Flood control levees are maintained by local entities. There are no maintenance regulations so the degree of maintenance varies with the capability and diligence of the responsible organization. This situation creates a potential hazard in that levees may deteriorate to the point of being unsafe.

Legislation should be passed requiring all new flood control levees to be built to standards promulgated by the Department of Water Resources. The Department should also be authorized to develop maintenance criteria for flood control levees and to insure compliance with these criteria through an inspection program.

POLICY 3G - SAFETY MEASURES PROGRAM

It is the policy of Idaho that a program should be established to assist local units of government in repairing and installing safety structures on or near canals, rivers, lakes, and reservoirs. The program should be established as a cost-sharing cooperative program.

Each year, numerous fatal accidents occur in the state's water because of the lack of preventive safety measures. Accidents are not confined to one area of the state nor one segment of the economy but are scattered throughout the state. Most Idaho cities are built on a water course and subsequently are plagued by hazardous canals, rivers, or shorelands. Fencing, signing, debris removal, covering and other structures should be installed to provide for human safety.

Local units of government should be encouraged to conduct annual public awareness campaigns to educate the public on the dangers and hazardous nature of water bodies in their areas. This public awareness campaign could also include boating safety and an expanded learn to swim program.

POLICY 3H - FLOOD PRONE AREAS

It is the policy of Idaho to encourage reliance on management rather than structural alternatives in reducing or preventing flood damages, and that the National Flood Insurance Program be adopted statewide.

This program requires that local units of government zone and control flood prone areas in order to be eligible for most federal assistance. Floodplain maps prepared for the Federal Emergency Management Agency are available through the Idaho Department of Water Resources.

No structure can be built that will insure 100 percent protection, but by providing sufficient space in the flood plain to accommodate flood waters damage can be limited.

• *Management/Development Group*

POLICY 4A - WATER QUANTITY AND QUALITY

It is the policy of Idaho that the administration of state programs for water allocation and the regulation of water quality be consolidated in one agency.

Planning and administration of water quantity and water quality are presently divided between two state agencies even though they are two directly interrelated properties of the same resource. The Department of Water Resources is primarily responsible for programs relating to water quantity, and the Department of Health and Welfare is responsible for protecting the quality of the state's water.

Combining water quantity and water quality programs should neither increase nor reduce the goals of either program. It should, however, reduce confusion and improve service to the public.

POLICY 4B - WATER SUPPLY BANK

It is the policy of Idaho that the sale or lease of water is critical to the efficient management of the state's water resources. Use of the Water Supply Bank created by Idaho Code 42-1761 shall be encouraged.

As the state approaches the situation where little or no water is available for new appropriations, the Water Supply Bank affords the most efficient mechanism for the sale or lease of water. By aggregating water available for lease, rental pools operating under the authority of the water supply bank can supply the water needs of many potential users. The Water Resource Board has adopted rules and regulations governing the sale or lease of water through the Water Supply Bank. The Water Resource Board has authorized local entities to manage rental pools in Water Districts 01, 63,and 65. The Shoshone-Bannock of Fort Hall are another entity authorized, pursuant to state law, to operate a rental pool.

POLICY 4C - FEDERAL RESERVOIRS WATER ALLOCATION

It is the policy of Idaho that an agreement should be established with federal agencies to allow review by the Idaho Water Resource Board of any proposed allocation of water in excess of 500 acre-feet annually from federal reservoirs.

The Idaho Water Resource Board would be guided in such a review by the conformance of the proposed allocation with the State Water Plan. Such actions are necessary if the State Water Plan is to be implemented in a coordinated manner. This policy would not encroach upon the authority of the federal agencies to operate the facilities according to congressional authorization, but would help to ensure that their actions occur with state review and concurrence. This procedure has been followed informally in the past, but should be formalized to avoid misunderstanding and identify the basis of such review for the interested public.

POLICY 4D - PROTECTION OF POTENTIAL RESERVOIR SITES

It is the policy of Idaho that potential reservoir sites be protected from significant land use change.

Future economic development and population growth will bring additional demands on Idaho's water resources. In future years reservoir construction may play an important role in managing the water resources of the state. While recognizing the rights of existing land owners, improvements and new development within potential reservoir sites which could increase reservoir costs significantly should be discouraged. The Department of Water Resources should keep a current list of potential reservoir sites which should be protected by the state. See Table 6.

In addition, the Idaho Water Resource Board urges the State of Wyoming to protect the Thomas Fork and Smiths Fork reservoir sites located in that state. Both of these sites could provide valuable upstream storage on Bear River which would provide water for additional irrigation and development in Idaho and for water quality improvement in Bear Lake.

Table 6. Potential Reservoir Sites

	Potential Reservoir	Stream
Upper Snake	Lynn Crandall	Snake River
	Teton	Teton River
	Medicine Lodge	Medicine Lodge
	Birch Creek	Birch Creek
	Boulder Flats	Big Wood River
Southwest Idaho	Grindstone	Snake River (off-stream)
	Sailor Creek	Snake River (off-stream)
	Gold Fork	Gold Fork Payette River
	Twin Springs	Boise River
	Lost Valley (enlargement)	Lost Valley Creek
	Galloway	Weiser River
	Monday Gulch	Little Weiser River
	Goodrich	Weiser River
	Tamarack	Weiser River
Salmon River Basin	Challis	Challis Creek
Bear River Basin	Caribou	Bear River
	Oneida Narrows	Bear River
	Plymouth	Malad River
	Rocky Point	Bear River

POLICY 4E - HYDROPOWER SITING

It is the policy of Idaho that a state siting process be established for hydropower development to ensure that the public interest is recognized.

There is increasing interest on the part of governmental entities and private investors in increasing the capacity of existing hydropower plants and the construction of new facilities. The Federal Energy Regulatory Commission and the Idaho Public Utilities Commission have varying regulatory authorities over new and existing hydropower facilities. Neither agency considers the optimum use of the state's water resources in its regulatory processes.

The Idaho Water Resource Board is charged with the responsibility for planning for the optimum development of the water resources of the state through policies and water allocations which reflect the public interest. The Water Board should adopt criteria for new hydropower development to ensure that the wishes of the citizens of the state are met while providing for orderly use of the state's water resources.

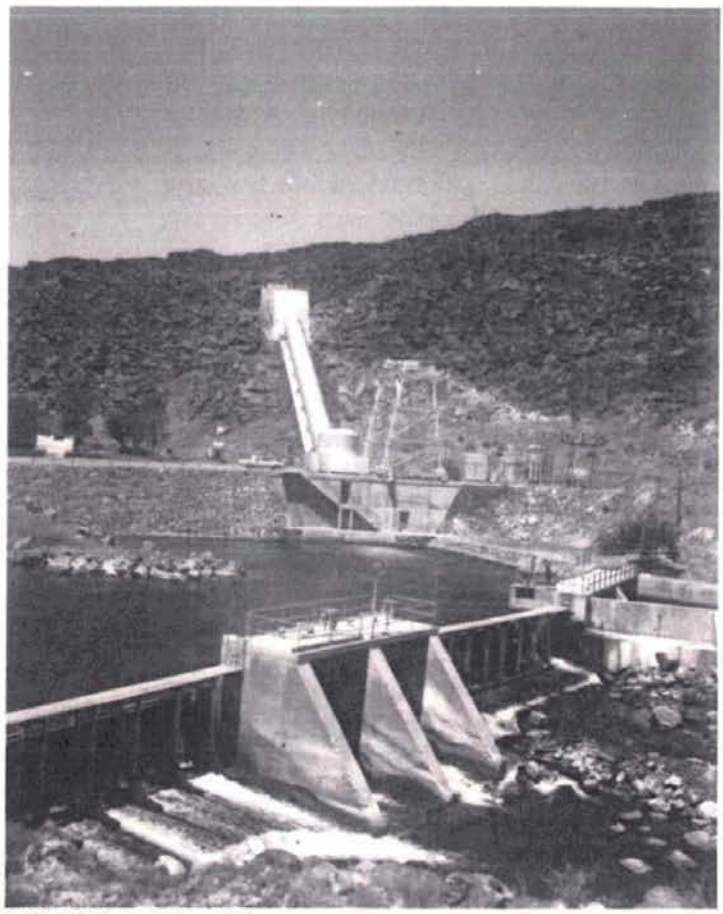
As a general policy, the Idaho Water Resource Board believes that energy conservation and efficiency improvements are the most desirable methods to provide for additional power requirements. Recognizing the future need for new generating capacity, the Board prefers that new hydropower resources be developed at existing hydropower project sites. New structures or projects should be carefully evaluated to insure that the benefits to the state outweigh any negative consequences associated with the proposed development.

POLICY 4F - CONSERVANCY DISTRICTS

It is the policy of Idaho that where practical, the total water needs of a geographic area be satisfied by a legal entity having the authority and responsibility to address all water needs in a comprehensive manner.

Under present law the boundaries of irrigation districts, recharge districts, drainage districts, and flood control districts need not coincide. Since coordinated planning is rarely undertaken, the possibility exists for good faith actions to have adverse impacts or be at cross purposes with the aims of other management entities.

A water conservancy district should have the authority to own and operate storage, diversion, and delivery systems to provide the total water needs of large geographic parts of the state (e.g., river basins, single or multi-county areas). It should have authority to levy taxes on all property benefitted by a program or project, and to bond and contract for project construction. Water could be supplied for irrigation, domestic, municipal, industrial, recreation, and other purposes. Such districts could also sponsor ground-water recharge projects, distributing the costs over the affected area. They could also integrate the use of the surface and ground-water resources of a river basin for more efficient use of the total resource.



Malad River Power Plant.

POLICY 4G - ENERGY PLAN

It is the policy of Idaho that the State Energy Plan set forth policies for energy use and development in the state and that the plan be updated at least every five years.

The Idaho State Energy Plan was finalized in February 1982. It was adopted by the Water Resource Board on June 3, 1983, as being the effective implementation of Policy 13 of the original State Water Plan which called for the formulation of a state energy plan.

No provisions were made for updating the plan. For the plan to be effective, the policies it contains must reflect current thinking on energy issues.

POLICY 4H - FUNDING PROGRAM

It is the policy of Idaho that state funds be available to supplement private and federal moneys in the development, preservation, conservation, and restoration of the water and related land resources of the state.

The Revolving Development Fund, the Energy Development Study Fund, the Water Management Account, and the Conservation and Development Trust Account are mechanisms for partially achieving

the goals of this policy. The funds or accounts rely on the appropriation of moneys from the state's general fund. They have not been funded with sufficient moneys to have a highly visible impact on the land and water resources of the state.

The language creating the above funds and accounts should be amended. In almost every case it is overly restrictive, providing for the expenditure of moneys on development only. Money should be made available for projects that would conserve, preserve, or restore the water resources of the state and their related lands.

POLICY 4I - PLANNING PROGRAM

It is the policy of Idaho that water management plans be prepared for the individual river basins.

The policies in the State Water Plan which address water use in the Snake River, Panhandle and the Bear River basins establish guidelines for water use. Water management plans should be prepared for each of the three basins, and where necessary, areas within a basin to evaluate the specific interrelationship between ground and surface water and provide for the orderly development of the state's water resources.

The existence of a comprehensive plan for improving, developing, or conserving a water-way frequently is an important factor in federal management agency decisions. By developing such plans the state assures that the state's interests will be considered.

POLICY 4J - COOPERATE WITH INDIAN TRIBES

It is the policy of Idaho to negotiate and cooperate with the Indian Tribes in the identification of their reserved water rights.

Any realistic effort to manage the water resources of the state requires that water for Indian and non-Indian uses be integrated. Water delivery can only be assured if all rights are identified and prioritized.

The successful negotiations concluded with the Shoshone-Bannock over the Fort Hall water rights serves as an example of a negotiated settlement.

POLICY 4K - DETERMINATION OF FEDERAL RESERVED RIGHTS

It is the policy of Idaho to quantify all federal reserved water rights within the state through negotiations and to plan for the protection of existing state water rights through resource management and project development.

There are federal reserved water rights in Idaho that must be identified and quantified to make it possible to plan for continued use of existing water rights and future uses found to be in the public interest. As a part of each effort to identify and quantify federal reserved water rights the protection of existing water rights must be considered and a management plan or development plan for that protection developed.

POLICY 4L - COORDINATED USE

It is the policy of Idaho that when public interest criteria are met, optimum beneficial use of a water resource shall be encouraged. Optimum beneficial use shall be achieved through the integration and coordination of use of water and by augmentation of existing supplies.

A criterion the Idaho Water Resource Board must use in formulating water policy (Idaho Code 42-1734(b)(2)) is that, if in the interest of the state, optimum beneficial use shall be achieved by the integration and coordination of water use and by the augmentation of existing supplies. The integration and coordination of use of water, while recognizing existing water rights, will frequently require the exchange of water between right holders in order to make use of the most efficient points or sources of diversion. The Department of Water Resources should use this criterion in the water allocation process.

• *River Basins Group*

POLICY 5A - SNAKE RIVER BASIN

It is the policy of Idaho that the Swan Falls agreement between the state and Idaho Power Company establishes the framework for water management in the basin. Central to the agreement is the assumption that the Snake River is fully appropriated upstream from Swan Falls Dam except for trust water held by the state and occasional flood waters. The state recognizes that the exercise of water rights above Milner Dam has and may reduce flow at the dam to zero. Minimum average daily flows at the Murphy gauging station shall meet or exceed 3,900 cfs from April 1 to October 31 and 5,600 cfs from November 1 to March 31. The average daily flow measured at the Weiser gauge shall not be less than 4,750 cfs. A minimum average daily flow of 5,000 cfs at Johnson's Bar shall be maintained and an average daily flow of 13,000 cfs shall be maintained at Lime Point (river mile 172) a minimum of 95 percent of the time. Lower flows may be permitted at Lime Point during the months of July, August, and September, during which time the operation of Idaho Power's Hells Canyon dams shall be in the best interest of power and navigation as determined by the Corps of Engineers and Idaho Power Company.

The minimum flows established for the Snake River at the Murphy and Weiser gauging stations are management and permitting constraints; they further insure that the state will be able to assure an adequate hydropower resource base and better protect other values recognized by the state, such as fish propagation, recreation, and aesthetic interests, all of which would be adversely impacted by an inadequate stream flow. The zero flow at Milner Dam is not a target or goal to be achieved, and may not necessarily be desirable. It is rather, a recognition of the current condition in which zero flow passes Milner Dam during certain periods of time. The state should seek to acquire water whenever it becomes available in order to mitigate the impacts of low flow below the dam.

River flows downstream from that point to Swan Falls Dam consist almost entirely of ground-water discharge during portions of low-water years. The Snake River Plain aquifer which provides this water must therefore be managed as an integral part of the river system.

Aquaculture facility along the Snake River near Buhl, Idaho.

The minimum flows established for Johnson's Bar and Lime Point are contained in the original Federal Power Commission license for the Hells Canyon hydropower complex. By adopting these flows, the Idaho Water Resource Board recognizes the importance of minimum flows to downstream uses and makes their maintenance a matter of state water policy. The Water Resource Board recognizes that the license requirements relate to the provision of water for navigation and power, and not to other instream uses. The Board realizes that the state has no authority to require releases of stored water by the power com-

pany, but believes the license conditions serve the public interest. When the Hells Canyon hydropower complex is relicensed, the Water Board will reevaluate the public interest. Article 43 of the power license provides that:

> "The project shall be operated in the interest of navigation to maintain 13,000 cfs flow in the Snake River at Lime Point (river mile 172) a minimum of 95 percent of the time, when determined by the Chief of Engineers to be necessary for navigation. Regulated flows of less than 13,000 cfs will be limited to the months of July, August, and September, during which time operation of the project would be in the best interest of power and navigation as mutually agreed to by the Licensee and the Corps' of Engineers. The minimum flow during periods of low flow or normal minimum plant operations will be 5,000 cfs at Johnson's Bar..."

Snake River flows above the hydropower right at any Idaho Power facility are considered unappropriated and therefore are not held in trust by the state. This distinction is further addressed in Policy 5B.

POLICY 5B - SNAKE RIVER TRUST WATER

It is the policy of Idaho that water held in trust by the state pursuant to Idaho Code 42-203B be reallocated to new uses in accordance with the criteria established by Idaho Code 42-203A and 42-203C.

The agreement between the state of Idaho and Idaho Power Company dated October 25, 1984 provides that Idaho Power's claimed water right of 8,400 cubic feet per second (cfs) at the Swan Falls Dam may be reduced to either 3,900 cfs or 5,600 cfs during set periods of the year. The claimed water right of 8,400 cfs is deemed appropriated and the amount above the minimum flow established in Policy 5A up to the 8,400 cfs is held in trust by the state. The trust water area is defined by Rule 1,5. in the Idaho Department of Water Resources' Rules and Regulations for Water Appropriation. The agreement further provides that Idaho Power's claimed water rights at facilities upstream from Swan Falls shall be considered satisfied when the company receives the minimum flow specified in Policy 5A at the Murphy gauging station. The 8,400 cfs claim of the power company has not historically been available during summer months.

The 8,400 cfs claimed right at Swan Falls is reduced by the agreement to that flow available after satisfying all applications or claims that demonstrate water was beneficially used prior to Oct. 1, 1984, even if such uses would violate the minimum flows established in Policy 5A. Any remaining water above these minimum flows may be reallocated to new uses by the state providing such use satisfies existing Idaho law. The criteria in Idaho Code 42-203C supplement Policy 1B of the Water Plan which urges that conformance with the State Water Plan be considered evidence of the public interest. The Idaho Water Resource Board recognizes that the specific criteria for defining public interest established by Idaho Code 42-203C are to be used in addition to the criteria set forth in Policy 1B for the reallocation of hydropower rights. Exempted from the public interest criteria in Idaho Code 42-203C are permitted uses for which beneficial use prior to July 1, 1985 can be proved.

POLICY 5C - SNAKE RIVER DCMI (Domestic, Commercial, Municipal, and Industrial)

It is the policy of Idaho that 150 cfs of the water held in trust by the state above Swan Falls Dam pursuant to Policy 5B be reallocated to meet future DCMI consumptive uses in accordance with state law.

While most DCMI uses are nonconsumptive or only partially consumptive, future growth in Idaho's population and commercial and industrial expansion will require an assured supply of water.

A continuous flow of 150 cfs provides approximately 108,600 acre-feet of water per year. This volume of water is assigned to consumptive uses within the basin for domestic, commercial, municipal, and other industrial purposes. Industrial purposes include processing, manufacturing, research and development, and cooling.

Adequate records should be kept and reviewed so that this reallocation can be modified as necessary. increases in the DCMI allocation, if necessary, will reduce the amount of water available for agricultural uses. The allocation will be reviewed as part of every Water Plan update.

POLICY 5D - SNAKE RIVER AGRICULTURE

It is the policy of Idaho that appropriated water held in trust by the state pursuant to Policy 5B, less the amount of water necessary to provide for present and future DCMI uses as set forth in Policy 5C, shall be available for reallocation to meet new and supplemental irrigation requirements which conform to Idaho Code 42-203A, 203B, 203C, and 203D.

This policy allows for new and supplemental agricultural development through the reallocation of water held in trust by the state. The 1982 State Water Plan allocated water for a minimum level of new irrigation development of 850,000 acres plus supplemental water for 225,000 acres by the year 2020 over that which existed in 1975. This policy rescinds the 1982 allocations since there are no acres specified in that the type, location, and amount of use is unknown as is the effect of the evaluation called for in Policy 5B prior to reallocation.

During the eight-year period from 1975 to 1983, about 140,000 acres of new development occurred within the basin. While the amount of new acreage varied significantly from year to year, the average was approximately 17,500 acres. Data are not available to estimate the number of acres that received supplemental water during this period.

Idaho Code Section 42-203C limits the rate of new development in the basin above Murphy gauging state to 80,000 acres in any four year period. Therefore, the maximum development to the year 2020 above Murphy gauging station assuming no water supply constraint is 700,000 acres. Criteria placed on the reallocation of hydropower rights, limits on the rate of new development, plus the requirement that approval of new storage projects that divert water between November 1 and April 1 from the Snake River between Milner Dam and Murphy gauging station must mitigate the impact of diversions on hydropower generation (Policy 5I), will undoubtedly limit development to less than 700,000 acres.

POLICY 5E - SNAKE RIVER HYDROPOWER

It is the policy of Idaho that hydropower use be recognized as a beneficial use of water, and that depletion of flows below the minimum average daily flows set forth in Policy 5A is not in the public interest.

The 1982 State Water Plan allocated 170,000 acre-feet for consumptive use in cooling thermal power plants. By establishing a minimum daily flow of 3,300 cfs at Murphy and 4,750 cfs at Weiser, stabilized flows were guaranteed for hydropower generation. The minimum daily flows for hydropower generation are now increased as stated in Policy 5A. In addition, this policy specifically recognizes hydropower generation as a beneficial use of water and acknowledges the public interest in maintaining the minimum river flow at key points. Any water

Shoshone Falls on the Snake River.

depletion for thermal power generation would now come from the block of water allocated to DCMI uses.

POLICY 5F - SNAKE RIVER NAVIGATION

It is the policy of Idaho that water sufficient for commercial and recreational navigation is provided by the minimum flows established for the Snake River.

Commercial navigation en route to Lewiston via the Columbia River and Lower Snake River can be accommodated with the flows leaving Idaho in the Snake River at Lewiston. Above Lewiston, commercial and recreational navigation should be accommodated within the protected flows on the Snake River and tributary streams.

POLICY 5G - SNAKE RIVER AQUACULTURE

It is the policy of Idaho that water necessary to process aquaculture products be included as a component of DCMI as provided in Policy 5C. The minimum flows established for the Murphy gauging station should provide an adequate water supply for aquaculture. It must be recognized that while existing water rights are protected, it may be necessary to construct different diversion facilities than presently exist.

Aquaculture can expand when and where water supplies are available and where such uses do not conflict with other beneficial uses. It is recognized, however, that future management and development of the Snake River Plain Aquifer may reduce the present flow of springs tributary to the Snake River, necessitating changes in diversion facilities.

POLICY 5H - SNAKE RIVER NEW SURFACE STORAGE

It is the policy of Idaho that applications for large surface storage projects upstream from the Murphy gauge be approved when it is determined that those projects are needed to meet new uses after consideration of then existing public interest criteria. Approval of new storage projects that would divert water from the main stem of the Snake River between Milner and the Murphy gauging station during the period November 1 to March 31 should be coupled with provisions that mitigate the impact such depletions would have on the generation of hydropower.

This policy addresses the approval of new surface storage in the basin, but does not apply to already approved projects. A study of all existing social, legal and economic constraints on allocation and use of water in existing storage facilities will be made to determine whether new storage projects are needed. An attempt will be made to modify those constraints that are found to prevent reasonably full use of existing storage. Such study shall not delay applications for new storage projects. In addition, permits for these new projects may be issued during the study period, if they are found to be in the public interest. Public interest as used within this policy does not include the provisions of Section 42-203C, Idaho Code.

"Large surface storage projects" are those which have the potential for significantly impacting existing uses. Projects for which approval is required under Section 42-1737, Idaho Code, would be such projects. Smaller projects could also have significant impacts, but stock water ponds and waste water repumping ponds would not be included, for example.

New storage projects that would divert water from the Snake River between the Milner and Murphy gauging stations during the November 1 to April 1 period are subject to the requirement that the impact such depletions have on hydropower generation is mitigated. Mitigate is defined as causing to become less harsh or hostile, and is used here rather than compensate which connotes equivalence. Methodology will be developed by the Water Resource Board for use in calculating impacts on hydropower generation.

POLICY 5I - SNAKE RIVER STORED WATER FOR MANAGEMENT

It is the policy of Idaho that reservoir storage be acquired in the name of the Idaho Water Resource Board to provide management flexibility in assuring the minimum flows designated for the Snake River.

The Idaho Department of Water Resources is expected to allocate the unappropriated waters and the power rights held in trust by the state in such a manner as to assure minimum flows at designated key points on the Snake River. The impacts of groundwater use within the basin on the timing of aquifer discharge to the rivers is such that at some time stored surface water may be necessary to maintain the designated minimum flows.

At this time there is little or no unallocated reservoir storage within the basin which could be acquired by the state. The state should act to acquire any available reservoir storage in order to provide flexibility for management decisions and provide assurance that the established minimum flows can be maintained. Until such time as these waters are needed for management purposes, they shall be credited to the Water Supply Bank and funds obtained from their lease or sale shall accrue to the Water Management Account. The Board should have priority in acquiring water from the Water Bank, if necessary, to meet the minimum flows established by the Swan Falls Agreement.

POLICY 5J - WATER QUALITY OF THE SNAKE RIVER PLAIN AQUIFER

It is the policy of Idaho that the state should develop and administer a program to protect the quality of the water in the Snake River Plain Aquifer.

The Snake River Plain Aquifer, consisting of basalt and interflow sediments, is a major source of irrigation and drinking water for some 200,000 Idaho residents. The permeability of the aquifer is principally a function of the density of fractures within the basalt. Very little pollution attenuation occurs when water flows through fractures in basalt, and the soil cover over much of the Snake Plain Aquifer is thin to nonexistent. For these reasons, the Eastern Snake Plain Aquifer was designated a sole-source aquifer by the Environmental Protection Agency in the fall of 1991.

Because of the importance of this aquifer to the economy of Idaho, the state should take an active role in protecting the quality of water in the aquifer. As a first step, the Department of Health and Welfare has published a Snake Plain Management Strategy. The adoption of the Ground Water Quality Plan will provide additional protection mechanisms to preserve the quality of ground water in the Snake River Plain Aquifer. Legislation should be adopted to protect the quality of the water in the aquifer.

POLICY 5K - SNAKE RIVER COMPONENTS OF COMPREHENSIVE PLAN

It is the policy of Idaho to implement the provisions of the South Fork of the Boise River Subbasin and the Payette River Reaches components of the Comprehensive State Water Plan.

In 1991 the Idaho Legislature approved the Water Resource Board's comprehensive plans for the South Fork of the Boise River Basin and for portions of the Payette River. These plans contain state protected river designations and recommendations concerning other aspects of water use. As an approved plan, the positions and policies contained therein are the state's official position an water use in the affected areas.

POLICY 6A - BEAR RIVER BASIN

It is the policy of Idaho that water use and management in the Bear River Basin conform to the allocations set forth in the Bear River Compact (Idaho Code 42-3402).

The Bear River Compact has been in effect since 1958, and water allocations for the entire basin were adopted in 1978. The compact must be reviewed at intervals of less than twenty years and may be amended during the review process. The goal of Idaho's representatives on the commission should be to seek as much of the unconsumed flow entering the Great Salt Lake as possible for Idaho while negotiating in good faith with the other states.

POLICY 6B - BEAR LAKE

It is the policy of Idaho to protect and whenever possible improve the quality of the water in Bear Lake.

The Bear River Compact specifies how Bear Lake water shall be used for irrigation and hydropower generation, but does not address the issue of

water quality. Concern has developed that eutrophication is being accelerated by operational practices at the lake. In addition to its aesthetic and fishery values, as a major tourist attraction the lake with continued good quality water is an economic resource of steadily increasing value. Money spent to improve water quality is money invested in the economic future of the region and the state. Storage projects above the lake at Rocky Point and Smiths Fork could improve the water quality of the lake.

POLICY 6C - BEAR RIVER ADDITIONAL PROJECTS

It is the policy of Idaho to encourage additional projects for the development of the water resources of the basin without regard to state boundaries.

In order to obtain the maximum beneficial use of water within the basin it may be necessary to ignore state boundaries, providing that water rights generated by such projects comply with the basic allocations of the compact. The compact provides for a signatory state to construct storage facilities in another state. Headwater storage such as that proposed on the Smiths Fork in Wyoming and at Rocky Point in Idaho might improve water quality in Bear Lake and have a positive impact on water levels in the Great Salt Lake -- reasons for Utah and Idaho to consider constructing storage in Wyoming. The state of Idaho should participate with Wyoming and Utah in determining the feasibility of the Smiths Fork Reservoir project to provide for additional irrigation and other uses in Idaho.

POLICY 7A - PANHANDLE BASINS

It is the policy of Idaho that the ground and surface waters of the Idaho Panhandle be managed to preserve the environmental quality of the region. Some increase in consumptive use must occur to provide for population expansion and economic development.

While appearing water rich in comparison to the rest of the state, the water resources of the Idaho Panhandle are finite, and in some areas are fully utilized. Water is the key to the continued economic development in the region. The Water Board places a high priority on maintaining the quality of the water resource base.

POLICY 7B - PANHANDLE AGRICULTURAL WATER

It is the policy of Idaho that additional water be made available for irrigated agriculture in the Panhandle. A combined net depletion of 200 cfs appears prudent at this time.

An original objective of the State Water Plan was to seek an orderly growth of agricultural production at a rate sufficient to maintain the state's 1974 share of the national and international market. Agriculture is the major industry of the state, and Idaho provides an important share of the nation's food production. The Water Board believes there is general support by the people of the state for an orderly increase in agricultural production, and wishes to insure the availability of water for this purpose.

POLICY 7C - PANHANDLE DCMI (Domestic, Commercial, Municipal, and Industrial)

It is the policy of Idaho to provide water for new domestic, commercial, municipal and industrial uses. A depletion of 14 cfs is allocated for these purposes.

The population of the Panhandle Basins is projected to increase by approximately 16 percent by the year 2010 (Population and Employment Forecast, State of Idaho 1985-2010, June 1985). Based on current water-use data for the region, an allocation of 14 cfs for consumptive purposes should be sufficient for many years beyond 2010. Any water depletion for thermal power generation would come from this DCMI reserve. This allocation will be reviewed as part of every Water Plan update.

POLICY 7D - PANHANDLE NAVIGATION

It is the policy of Idaho that water sufficient for commercial and recreational navigation be maintained in the streams and lakes of the Idaho Panhandle.

Water for navigation is not a significant problem at this time. If such appropriation appeared necessary, the minimum stream flow program can be used to appropriate water to provide a minimum flow or lake level for the protection of navigation and trans-

portation. Navigation interests are further protected in that all new water appropriations must be in the public interest and an adverse effect on navigation would rarely be in the public interest.

POLICY 7E - PANHANDLE FISH, WILDLIFE, AND RECREATION

It is the policy of Idaho to provide sufficient water to meet the minimum requirements for aquatic life, fish and wildlife, and to provide for recreation in the Panhandle Basins.

The minimum stream flow program provides the Idaho Water Resource Board with the authorities necessary to appropriate water for the purposes of this policy. Several streams in the Panhandle Basins have been examined for inclusion in the Water Board's minimum flow program. As water consumption increases in the region, the minimum stream flow program will become increasingly important in the water rights picture of the Panhandle Basins.

POLICY 7F - PANHANDLE COMPONENTS OF COMPREHENSIVE PLAN

It is the policy of Idaho to implement the provisions of the Priest River Basin component of the Comprehensive State Water Plan.

In 1991 the Idaho Legislature approved the Water Resource Board's plan for the Priest River Basin. The plan contains state protected river designations as well as recommendations concerning minimum stream flows and other aspects of water use. As an approved plan, the positions and policies contained therein are the state's official position on water use in the basin.