

# THE WATER PLANNING PROGRAM

The Idaho Comprehensive State Water Plan (“State Water Plan” or “Plan”) was adopted by the Idaho Water Resource Board (“Board”) to guide the development, management, and use of the state's water and related resources. The wise use and management of the state’s water is critical to the state’s economy and to the welfare of its citizens. The Plan seeks to ensure that through cooperation, conservation, and good management, future conflicts will be minimized and the optimum use of the state’s water resources will benefit the citizens of Idaho.

## **Constitutional Authority**

Article XV, section 7 of the Idaho Constitution provides the authority for the preparation of a Comprehensive State Water Plan. This constitutional amendment was adopted in November 1964 following a statewide referendum and states:

*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.*

Article XV, section 3 of the Idaho Constitution provides for the appropriation and allocation of water. 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 provided for the creation of a "Water Resource Agency" but did not establish the agency. In 1965, the 38th Legislature established the Idaho

Water Resource Board, and directed that (as amended):

*The Idaho Water Resource 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 section 42-1734A(1).

To assist the Board, the Legislature provided for the director of the Department of Water Resources (“Department”):

*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 section 42-1805(6).

Article XV, section 7 was amended by the electorate during the general election of November 6, 1984. This amendment 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.*

Legislation in 1988 provided for the development of a “comprehensive state water plan.” Each comprehensive basin or water body plan is prepared within the policies of and becomes a component of Idaho’s Plan.

Chapter 17 of title 42, Idaho Code, was amended in 1988. In part, the amendments renamed the Plan as the Comprehensive State Water Plan Part A. Plans developed for specific geographic areas became components of the Comprehensive State Water Plan Part B.

*The board may develop a comprehensive state water plan in stages based upon waterways, river basins, drainage areas, river reaches, ground-water aquifers, or other geographic considerations.*

Idaho Code section 42-1734A(2).

*As part of the comprehensive state water plan, the board may designate selected waterways as protected rivers as provided in this chapter.*

Idaho Code section 42-1734A(1).

The authority to designate "protected rivers" derives from the state's power to regulate activities within a stream bed including stream channel alterations, water diversions, the extraction of minerals or other commodities, and the construction of impoundments.

## Idaho Water Resource Board Programs

Pursuant to its constitutional and statutory authorities, the Board:

1. Formulates, adopts, and implements the State Water Plan, River Basin Plans, and Comprehensive Aquifer Management Plans.
2. Designates natural and protected rivers and files applications for and holds minimum stream flow water rights.
3. Provides financial assistance for water development and conservation projects in the form of revenue bonds, loans, and grants.
4. Establishes programs that address specific water resource issues at the direction of the Idaho Legislature.
5. Adopts rules governing:
  - \* Well Construction
  - \* Well Driller Licensing
  - \* Construction and Use of Injection Wells
  - \* Drilling for Geothermal Resources
  - \* Mine Tailings Impoundment Structures
  - \* Safety of Dams
  - \* Stream Channel Alteration

The Department administers these programs.

6. Hears appeals challenging the Department's administrative decisions pursuant to programs administered under the Board's administrative rules.
7. Administers the Idaho Water Supply Bank.
8. At the request of the Governor, appears on behalf of and represents the state in proceedings, negotiations, or hearings involving the federal government, Indian tribes, or other states.
9. Files applications and obtains permits to appropriate, store, or use unappropriated waters, and acquires water rights subject to the provisions of applicable law.
10. Investigates, undertakes, and promotes water resource projects deemed to be in the public interest.
11. Cooperates and enters into contracts with federal, state, and local governmental agencies and private entities for water studies, planning, research, and activities.
12. Studies water pollution and advises the Idaho State Board of Environmental Quality regarding the establishment of water quality criteria in the context of the optimum development of the state's water resources.

13. Formulates and recommends legislation for water resource conservation, development, and utilization.

### **Comprehensive State Water Plan Formulation**

Formulation of the 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 state water policy. Implementing the policies in Part Two required the combined efforts of government agencies, the legislature, private concerns and the public. Consequently, the Plan delineated those areas where legislative action was required, identified the programs to be implemented by the Board, and described programs requiring the cooperation of public and private interests. The Plan was revised and re-adopted in 1982, 1985, 1986, 1992, and 1996. The Plan continues to evolve and provides a framework for the adoption and implementation of policies, programs, and projects that develop, utilize, conserve, and protect the state's water supplies.

### **PLANNING PROCESS**

The planning process encompasses five steps:

1. A comprehensive public involvement program to determine public views and interests regarding resource problems, needs, and opportunities as they relate to water use and management;
2. An ongoing evaluation of the state's water resources and uses and estimation of the future availability and demands on the resource;
3. A comprehensive evaluation of the effects resulting from the development and protection of the state's water resources;
4. Adoption of the Plan by the Board as required by article XV, section 7 of the Idaho Constitution; and
5. Approval by the Idaho Legislature as provided by law.

Public involvement is an essential part of the planning process. Scoping meetings, comment periods, and formal hearings provide opportunity for public input during plan development. After adoption and approval, public comment on the effectiveness of the Plan is encouraged.

# COMPREHENSIVE STATE WATER PLAN

The State Water Plan represents the state's position on water development, allocation, and conservation. Accommodating Idaho's growing and changing water needs and the increasing demands on both surface and ground water presents an important challenge. The Plan seeks to meet that challenge through the allocation of the state's water resources under the prior appropriation doctrine, as established by law, the establishment of policies on water development and conservation, and the implementation of projects designed to address water supply needs for all beneficial uses.

## Objectives

The following objectives of the State Water Plan are formulated for the conservation, development, management and optimum use of all unappropriated water resources and waterways of this state in the public interest [Idaho Code section 42-1734A].

1. **Water Management** - Encourage the quantification of water supplies, water uses and water demands for all water rights within the state. Encourage integrated, coordinated, and adaptable water resource management and the prudent stewardship of water resources.
2. **Public Interest** - Ensure that the needs and interests of the public are appropriately considered in decisions involving the water resources of the state.
3. **Economic Development** - Encourage and support economic development through the optimum use of water resources, in accordance with the prior appropriation doctrine as established by law. Promote the integration and coordination of the use of water, the augmentation of existing supplies, and the protection of designated waterways for all beneficial purposes. [Idaho Code Section 42-1734A(1)(b)].
4. **Energy** – Further discussion needed.
5. **Water Quality** - Maintain, and where possible enhance water quality and water-related habitats. Study and examine the quality of rivers, streams, lakes and ground water [Idaho Code section 42-1734(15)].
6. **Fish and Wildlife, Recreation and Aesthetics** - Ensure that due consideration is given to the needs of fish, wildlife, and recreation in managing the water resources of the state. Where appropriate, initiate state protection of waterways or water bodies with outstanding fish and wildlife, recreation, geologic or aesthetic values.
7. **Public Safety** - Encourage programs ensuring that life and property within the state are not threatened by the management or use of our water resources.

## Policies

A main goal of this document is to help water managers, planners, and users formulate management strategies and policies needed to meet growing and changing water-use needs. The Board adopts the following policies for the conservation, development, management and optimum use of all the unappropriated water resources and waterways of this state in the public interest [Idaho Code section 42-1734A].

### 1. Optimum Use

It is in the public interest to establish policies, initiatives, and programs that lead to optimum use of the water resources of the state. Water is essential to the vitality and prosperity of the state. All the waters of the state, when flowing in their natural channels, including the waters of all natural springs and lakes within the boundaries of the state are the property of the state (Idaho Code § 42-101). The state, through the Department, supervises the appropriation and allocation of the right to use the state waters for beneficial purposes.

### 1A - STATE SOVEREIGNTY

**All waters, whether surface or ground water, are owned by the state as public property and the state asserts its sovereign right to regulate all waters within the state of Idaho for the benefit of its citizens. Thus, the state opposes any attempt by the federal government or other states, or any other entity to usurp the state's control over Idaho's water resources.**

#### **Discussion:**

The 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 affecting the state's waters should be coordinated by the Board to ensure the state retains its sovereign right to control its water resources. Idaho Code § 42-1734B(4). The State Water Plan shall be submitted to the Federal Energy Regulatory Commission, the Pacific Northwest Electric Power and Conservation Planning Council, and other federal agencies as appropriate. Idaho Code § 42-1734C.

It is in the state's interest to establish cooperative agreements and partnerships with other states and the federal government to address water resource and management issues in a manner that benefits the citizens of Idaho.

#### **Implementation Strategies:**

- Take legal action when necessary to protect the state's sovereignty over its water resources.
- Implement and maintain cooperative water resource agreements and partnerships with neighboring states and the federal government.
- Work with the office of the Governor, state agencies, and the legislature to ensure the development and implementation of a unified state position on water resource issues.

**Milestones:**

- Partnerships established with neighboring states, federal agencies, and state agencies to better anticipate and plan for water resource conflicts that may occur.
- Protocols established ensuring coordination of state's position on water resource issues.

**1B - BENEFICIAL USE OF WATER**

**The concept of beneficial use must necessarily evolve with changing conditions.**

**Discussion:**

Except for the constitutionally protected beneficial uses, the concept of what constitutes a beneficial use of water evolves over time based upon societal needs. For example, use of water for the protection of fish and wildlife habitat, aquatic life, recreation, aesthetics, municipalities, navigation, water quality, and managed ground water recharge are recognized as beneficial uses.

**Implementation Strategies:**

- Review existing state policies and programs to ensure that traditional and emerging water use needs are recognized as beneficial uses of water.
- Establish or participate in local and regional advisory groups to formulate recommendations regarding traditional and emerging water use needs and priorities.

**Milestones:**

- Policies and rules revised to accommodate emerging water use needs.
- Reports submitted on advisory group recommendations.
- Statutory and/or regulatory changes made to accommodate emerging beneficial uses of water.

**1C - TRANSFERABILITY OF USE**

**Changes in the nature of use of a water right should be allowed to meet emerging needs and to provide for the optimum use of water.**

**Discussion:**

The demand for water increases every year while the volume of unappropriated water within the state continually decreases and many basins are at or near full appropriation. Allowing for transferability of water rights provides flexibility in water allocation to meet changing conditions. Idaho Code sections 42-108 and 42-222 provide for changes in place of diversion, place of use, and period of use, while also providing for the protection of other water users, the agricultural base of a region, and the local public interest.

**Implementation Strategies:**

- Review Department policies and procedures and revise as necessary to implement a more efficient water right transfer process.

- Review existing statutes and regulations and propose revisions to establish a more efficient water right transfer process.
- Identify the additional personnel and resources needed and secure adequate funding to implement a more efficient water right transfer process.

**Milestones:**

- Number of transfers processed.

**Recommendations:**

- Revise chapter 15, title 42, Idaho Code to authorize the Board to apply for a change in the nature of use of a water right purchased by the Board or acquired through donation, where the Board has determined that the change is in the best interest of the state.

**1D - CONJUNCTIVE ADMINISTRATION AND MANAGEMENT**

**Where evidence of hydraulic connection exists between ground and surface waters, including spring flow, they are to be managed and administered conjunctively to ensure a sustainable water supply, in accordance with the prior appropriation doctrine as established by law.**

**Discussion:**

Nearly all ground water aquifers in the state discharge to or are recharged by bodies of surface water. Surface water seeps through streambeds, lake beds, channel banks, and irrigation delivery systems to aquifers. Aquifers, in turn, serve as underground reservoirs, and can stabilize stream and spring discharge during dry periods. Irrigation practices, ground water pumping, and climate variability impact the available supply of ground and surface water and effect changes in regional water budgets. This can result in insufficient water supplies to satisfy beneficial uses and increased administrative curtailment, conflict among water users, and litigation.

The goal of conjunctive administration and management of ground and surface water is to protect the holders of prior water rights while allowing for the optimum development and use of the state's water resources. Idaho Code § 42-226 allows for the full economic development of the state's underground water resources. Thus, all beneficial uses, including interdependent spring and surface water uses, should be considered in evaluating the full economic development potential of an aquifer.

Quantification and monitoring of the hydraulic relationship between ground water and surface water, including spring flow, is required to allow for optimal utilization of the ground water supply and to ensure the protection of established senior rights in accordance with the prior appropriation doctrine as established by Idaho law. Sufficient quantification and monitoring is also necessary for the development of plans and projects designed to effect a change in a region's water budget.

There are opportunities to establish long-term programs for proactively managing water supply and demand to address declining aquifer levels. Idaho Code § 42-1734A(2) authorizes the Board to develop aquifer management plans as part of the State Water Plan. The first Comprehensive Aquifer Management Plan ("CAMP") in the state was developed for the Eastern Snake River

Plain Aquifer (“ESPA CAMP”). The ESPA CAMP was adopted by the Board and approved by the legislature in 2009. The ESPA CAMP sets forth actions designed to stabilize and improve spring flows, aquifer levels, and river flows across the Eastern Snake River Plain. The ESPA CAMP uses a phased approach to achieve a designated water budget change through a mix of management actions, including but not limited to, aquifer recharge, ground-to-surface water conversions, and demand reduction strategies. The Board is responsible for implementation of the Plan with the assistance of an advisory committee made up of representatives of all stakeholders who depend on a reliable supply of water for a range of beneficial uses.

Idaho Code § 42-1779 established the Statewide Comprehensive Aquifer Planning and Management Program in 2008, which is designed to provide the Board and the Department with the necessary information to develop aquifer management plans throughout the state. The program will be implemented in three phases. First, technical information describing the relationship between surface and ground water in a designated basin will be compiled. Second, the Board, with the assistance of an advisory committee, will develop a plan based on an assessment of current and projected water uses and constraints, to address water supply and demand issues specific to each basin. Finally, the Board will be responsible for implementing the plan to obtain sustainable water supplies and optimum use of the basin’s resources. The planning was initiated in 2008 and will be completed for the following basins as funding allows: Treasure Valley, SVRP, Palouse, Big Wood, Mountain Home, Bear River, Teton, Big Lost, Portneuf, and Blackfoot.

**Implementation Strategies: Quantification and Management:**

Continue to quantify the hydraulic relationship between ground water supplies, surface water supplies, and spring flows in designated river basins.

- Develop prioritized list of basins where additional technical information is needed to assess ground and surface water interaction.
- Develop enhanced technical tools for evaluating the interaction between surface and ground water resources for use in planning and to facilitate administration.
- Increase measurement and monitoring of spring flow and promote cooperative efforts to better quantify spring flow hydraulics.
- On a continuing basis, assess conditions and trends of ground water levels in primary aquifers to estimate the rate of future aquifer recharge and withdrawal under various climatic regimes.
- Procure funding for studies.

**Milestones:**

Number of studies initiated and completed to quantify ground water/surface water relationships. Increased effectiveness of technical tools used to evaluate the hydraulic relationship between ground water and surface water and other water supply data.

**Implementation Strategies: Development and Implementation of Comprehensive Aquifer Management Plans:**

- Facilitate the development and implementation of CAMPs for selected basins that establish goals, objectives, and implementation strategies to maximize available water supply.

**Milestones:**

- Number of basins with completed Comprehensive Aquifer Management Plans.
- Number of basins where CAMPs are being implemented.

## **1E -WATER SUPPLY BANK**

**The sale or lease of water is critical to the efficient management and optimal use of the state's water resources. Thus, use of the state's Water Supply Bank should be expanded to meet traditional and emerging needs for water.**

### **Discussion:**

As the state approaches the time when there is little or no unappropriated water, the Water Supply Bank, established by Idaho Code § 42-1761, provides an efficient mechanism for the sale or lease of water from natural flow and storage. The purpose of the Water Supply Bank is to obtain the highest duty of water, provide a source of adequate water supplies to benefit new and supplemental water users, and provide a source of funding for improving water use facilities and efficiencies. By aggregating water available for lease, rental pools operating under the authority of the Water Supply Bank can supply the water needs of many users. It is important, however, to establish limitations on the use of the Water Supply Bank to avoid injury to other water right holders and significant adverse impacts on local economies.

The Board has adopted rules and regulations governing the sale or lease of water through the Water Supply Bank. Pursuant to state law, the Board has authorized local entities to operate storage and natural flow rental pools in numerous water districts. The Shoshone-Bannock Tribes are also authorized by the state to operate a storage water rental pool.

The scope of existing and future water use needs requires the Board to take a leadership role in the development of flexible water banking systems that will ensure the optimum use of the state's water resources. Through the establishment of policy and rulemaking, the Water Supply Bank should provide efficient mechanisms that facilitate water use responsive to traditional and emerging needs for water.

### **Implementation Strategies:**

- Review existing statutes, rules, and Water Supply Bank procedures to determine what revisions are needed to meet current and future water use needs.
- Propose statutory, regulatory, and procedural changes that provide the Board authority and flexibility to establish local rental pools adapted to the local area.
- Establish natural flow and storage rental pools in basins where local water users have identified the need for local rental pools.
- Develop a public information and education program to promote use of the water supply bank.

### **Milestones:**

- Increased use of Water Supply Bank.
- New storage and natural flow rental pools established.
- Efficient mechanisms in place that facilitate the optimum use of water.

## **1F - INTERSTATE AQUIFERS**

**Cooperative arrangements with neighboring states to develop, manage, and protect shared aquifers can help avoid conflict and optimize utilization of the resource.**

### **Discussion:**

The growing demand for water supplies increases competition between states with shared aquifers. Cooperative arrangements to jointly develop, manage, and protect shared aquifers is necessary to avoid conflict, optimize utilization, and achieve water security. Cooperative agreements provide a mechanism for the exchange of information on modeling, data collection, and analysis. Cooperative arrangements, unlike more formal interstate compacts, allow for more flexibility in addressing the range of issues related to the management of shared ground water aquifers.

### **Implementation Strategies:**

- Establish cooperative agreements with neighboring states to gather data and implement studies to assess ground water conditions and trends.
- Develop and implement procedural framework for ongoing coordination with neighboring states.

### **Milestones:**

- Agreements approved by Idaho and neighboring states.
- Ongoing coordination meetings and problem-solving strategies implemented.
- Cooperative technical studies completed.

### **Recommendations:**

- Continue on-going coordination efforts and pursue new opportunities for collaboration with neighboring states.

## **1G – QUANTIFICATION OF WATER RESOURCES AND WATER MEASUREMENT**

**The water resources of the state should be quantified and their uses should be measured.**

### **Discussion:**

Pursuant to Idaho Code section 42-1805, it is the duty of the Director to maintain an inventory of the state's water resources. The measurement of water availability and use is necessary to administer and regulate existing water uses and to promote optimal water resource planning and management.

Chapters 6 and 7, title 42, Idaho Code, provide for water use measurement and reporting throughout the state. Improved tools and methods are available for data collection, monitoring, and reporting. For example, electronic data recording equipment and transfer of data through radio and satellite systems are more efficient and less expensive than methods requiring on-site

observation and measurement. These new instruments and methodologies provide transparency and instantaneous access to data, improve calibration of models used for administration and planning, and educate the public about water use by region and throughout the state.

**Implementation Strategies:**

- Evaluate existing data collection facilities and instruments that can be converted to electronic data collection systems for the measurement of surface and ground water.
- Assess adequacy of existing measurement network and formulate plan for improving data collection and reporting.

**Milestones:**

- Increased number of automated data collection devices.
- Number of adequacy assessments completed.
- Number of improved measurement and reporting strategies implemented.

**Recommendations:**

- Identify opportunities for collaboration with state, federal, and local agencies to develop and fund data collection.

**1H - WATER QUALITY**

**The citizens of Idaho will be best served by a cooperative effort involving public and private entities to assure that the state's surface and ground water sources meet state water quality standards and maintain designated beneficial uses.**

**Discussion:**

It is essential that the quality of Idaho's water resources be protected for public safety and economic stability and growth. The Idaho Department of Environmental Quality (IDEQ) is the lead state agency for protecting water quality. IDEQ's Surface Water Program measures and assesses the levels of pollutants in surface waters. Pursuant to the Ground Water Quality Plan, adopted by the Legislature in 1992, the Department of Water Resources administers a statewide ambient ground water quality monitoring network and the Environmental Data Management System. The system collects, and makes available to the public, data obtained from ground water monitoring networks across the state.

When water quality fails to meet state standards, IDEQ works with communities, industry, agricultural interests, and other stakeholders to develop water quality improvement plans. These plans outline actions needed to restore impaired water bodies so that they support designated uses. Where the quality of surface and ground water depends on land and water-use practices within a watershed, water users, land managers, and local units of government are working together to implement best management practices and other strategies that reduce nutrient loading, bacterial contamination, and soil erosion and deposition.

The use of water flow to dilute pollution is not a substitute for adequate water quality treatment. Instead, the allocation of water for instream flow use should be directed toward meeting fish, wildlife, and recreational needs and not to the dilution of pollution. It is through the collaborative efforts of the Board, IDEQ, other state agencies, municipalities, water users, land

managers, and other stakeholders that projects should be implemented to protect and improve the water quality of the state's surface and ground water.

**Implementation Strategies:**

- Coordination and integration of monitoring programs with public and private entities.
- Ongoing analysis of statewide water quality monitoring program to identify need for modifications.
- Participate with IDEQ and other state agencies to integrate water management programs and policies.
- Ongoing monitoring of baseline conditions and trends.

**Recommendations**

- Formulate strategy to collaborate with agencies that have water quality authorities and to establish enhanced linkage of water quality and quantity programs.

**II - AQUIFER RECHARGE**

**Aquifer recharge should be promoted and encouraged, pursuant to state law.**

**Discussion:**

Managed aquifer recharge:

Under certain conditions, managed recharge projects may be implemented to enhance spring flows, provide mitigation for junior ground water depletions, or help maintain desirable aquifer levels. In addition, there may be opportunities to optimize existing water supplies by changing the timing and availability of water supplies to meet demand. Managed recharge may also be used as a strategy for enhancing stream flows and as an adaptive mechanism for minimizing the impacts of variability in climatic conditions.

Incidental aquifer recharge:

The Legislature has recognized that incidental ground water recharge benefits may be obtained from the diversion and use of water for various beneficial uses and that incidental recharge of aquifers occurring as a result of water diversion and use that does not exceed the vested water right of water right holders is in the public interest. Idaho Code § 42-234(5).

The Board should take a leadership role in supporting and developing basin and site-specific managed recharge projects that further water conservation and increase water available for beneficial use. Monitoring and evaluation of recharge projects is essential to document benefits and effects and to address questions concerning effects on ground-water quality. Projects involving the diversion of natural flow water appropriated pursuant to Idaho Code § 42-234, for a managed recharge project in excess of the ten thousand (10,000) acre-feet on an average annual basis must be submitted to the Board for approval prior to construction.

**Implementation Strategies:**

- Develop protocol for the development and implementation of managed recharge projects.
- Cooperate with public and private entities to evaluate managed recharge projects.
- Identify and propose changes to statutes, rules and policies that are consistent with the development and implementation of managed recharge projects.

- Coordinate managed recharge programs with other state and federal agencies for efficient oversight.
- Identify river basins where the use of managed recharge projects should be evaluated as a potential strategy for addressing increased demand on water supplies.

**1J - WATER SUPPLY ENHANCEMENT**

**Water development will continue to play an important role in meeting Idaho’s future water needs.**

**Discussion:**

Future economic development, population growth, and evolving priorities will bring additional demands on Idaho’s water resources, and water development will continue to play an important role in the state’s future. The construction of new reservoirs, enlargement of existing reservoirs, and development of off-stream storage sites could increase water supplies necessary to meet increased demand. These strategies are also important for flood management, hydropower generation, and recreation use.

Engineering, economic, legal, political, and environmental issues associated with water development projects affect decisions concerning the construction of reservoir facilities. In addition, changes in climate conditions will likely be an important factor in determining the costs and benefits of additional storage facilities. As required by Idaho Code section 42-1736B(c), the Board maintains an inventory of potential storage sites that are set forth in Table 1.

**Table 1. Reservoir Sites with Apparent High Potential for Development**

<b>Potential Reservoir</b>	<b>Stream</b>	<b>Reservoir Capacity</b>	<b>Potential Purpose</b>
<i>Upper Snake</i> Minidoka (enlargement)	Snake River	50,000 AF	Irrigation, Power, Flood Control, Flow Augmentation, Recharge, Recreation
Teton (or alternative)	Teton River	300,000 AF	Irrigation, Power, Flood Control, Flow Augmentation, Recreation
<i>Southwest Idaho</i> Twin Springs (or alternative)	Boise River	400,000 AF	Irrigation, Power, Flood Control, Flow Augmentation, Recreation
Lost Valley (enlargement)	Lost Valley Creek	20,000 AF (increase)	Irrigation, Recreation
Galloway	Weiser River	900,000 AF	Irrigation, Power, Flood Control, Flow Augmentation, Recreation
<i>Bear</i> Caribou	Bear River	48,000 AF	Irrigation, Power, Flood Control, Recreation

**Implementation Strategies:**

- Concentrate assessment and evaluation of potential storage facilities on projects with the highest potential for development. Major considerations in defining high-potential projects are: cost per unit of storage, extent of public support, environmental considerations, the adequacy of existing information and studies, extent and availability of funding sources for evaluation and assessment, and the expected benefits that would accrue from the construction and operation of the facility.
- Review inventory of projects annually to maintain list of high priority project sites.
- Initiate feasibility/construction design studies for sites determined to be high priority. Identify potential project partners.
- Identify potential funding sources for project evaluation and construction.

**Milestones:**

- Complete annual review of potential storage site list and revise as appropriate.
- By 2010, initiate studies of Teton, Galloway, Minidoka, and Twin Springs sites.
- Initiate construction of additional storage facility for approximately 600 thousand acre-feet by 2025.

**Recommendations:**

- Conduct ongoing review of criteria for listing of potential storage sites and revise inventory consistent with criteria.
- Develop partnerships with private entities, local governments, and federal agencies to evaluate, design, and construct water storage projects.

**1K – WEATHER MODIFICATION**

**Weather modification offers the possibility of augmenting water supplies.**

**Discussion:**

Weather modification, primarily cloud seeding, has been practiced in Idaho and across the western states for many years. Increasing challenges, including a changing climate and growing population, magnify pressures on a variable water supply. While the potential water supply contribution from weather modification remains unknown, additional investigation should be conducted and pilot projects implemented to determine where and under what circumstances weather modification is a feasible strategy for increasing water supplies. The Board's initial cloud-seeding feasibility study in the Upper Snake River Basin was completed in 2008 and estimated an increase in volume of approximately 149 KAF. The Idaho Power Company's cloud-seeding program was initiated in 2003. The Company reports that the program resulted in an estimated 10% increase in precipitation, or approximately 100 thousand acre-feet of increased runoff during March to July.

Weather modification has the potential to raise significant legal issues including the state's authority over weather modification activities outside state boundaries, definitions regarding the source of water derived from cloud seeding, and intergovernmental conflicts concerning the effect of weather modification projects on public lands. Addressing these issues through legislation, rulemaking, and interstate agreements will help avoid future conflicts and litigation.

**Implementation Strategies:**

- Support the continued evaluation of existing weather modification projects.
- Develop criteria for the development and implementation of additional projects.
- Collect baseline data and continue effectiveness research.

**Milestones:**

- Number of existing and new weather modification projects.
- Increase in annual runoff resulting from weather modification projects.
- Increase in baseline data and extent of research on effectiveness.

**Recommendations:**

- Consider legal issues related to weather modification.
- Ensure that state-funded projects are scientifically sound and include robust monitoring and evaluation component.
- Investigate permitting requirements related to weather modification projects in other states, consider regulatory framework most consistent with Idaho law, and propose permitting program.

**1L – HYDROPOWER.**

**Appropriation of water for hydropower purposes shall be subordinated to all subsequent upstream beneficial uses.**

The relationship of hydropower water rights to upstream consumptive uses was the subject of an ongoing debate from statehood until 1985, when the Idaho Legislature enacted Idaho Code § 42-203B to resolve the debate. Pursuant to article XV, § 3, the Legislature determined that it was in the public interest to specifically implement the state's power to regulate and limit the use of water for power purposes. Section 42-203B directs that hydropower water rights in excess of state-established minimum stream flows are subordinated to future depletionary beneficial uses.

In order to effectuate section 42-203B, all applications, permits and licenses for use of water for hydropower production shall be subordinated to future depletionary beneficial uses.

**Implementation Strategies:**

- Ensure that all future applications, permits and licenses for use of water for hydropower purposes contain a subordination clause.
- Establish minimum stream flows to protect base flows for existing hydropower users.
- Define, through agreements with the holders of existing hydropower water rights, the relationship between such rights and existing and future depletionary water rights.

**Milestones:**

- Execution of subordination agreements and/or implementation of minimum stream flows for existing hydropower facilities.