

BIG PAYETTE LAKE  
MANAGEMENT PLAN & IMPLEMENTATION PROGRAM

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**Map - North Fork Payette River Water Quality Corridor**

**AN ACT**

**RELATING TO THE BIG PAYETTE LAKE MANAGEMENT PLAN:  
PROVIDING LEGISLATIVE ACCEPTANCE OF THE BIG PAYETTE LAKE  
MANAGEMENT PLAN.**

Be It Enacted by the Legislature of the State of Idaho.

**Section 1.** Pursuant to the requirements of Section 39-6611, Idaho Code, the Legislature of the State of Idaho does hereby accept the Lake Management Plan, as established by the Big Payette Lake Water Quality Council and as presented to the Legislature on January 12, 1998.

## **BIG PAYETTE LAKE MANAGEMENT PLAN**

**1. Introduction.** In enacting Chapter 66, Idaho code, BIG PAYETTE LAKE WATER QUALITY ACT, the Legislature found that “the waters of Big Payette Lake and its watershed are threatened with deterioration due to expanding residential development, greater public use and growing land use activities, that these pressures may endanger the drinkability, economic potential, fisheries, natural beauty, recreational use, swimability and wildlife values of the Lake...that natural lakes form an important basis of the state’s economy and that the increasing demand upon the lake waters of this state require coordinated state and local action to protect, preserve and improve the water quality of the lakes.”

The Legislature declared “that it is necessary to embark upon a program of water quality protection for the lake...” by creating a program “to protect, preserve and, where necessary, improve the water quality of the lake while accommodating private, public and commercial activities to the extent prudent and practicable.”

The Big Payette Lake Water Quality Council created by Chapter 66, Title 39, Idaho Code, has developed this Lake Management Plan in accordance with Chapter 66, Title 39, Idaho Code, and, in order to help assure that the Plan is implemented, the Council has developed a separate Plan Implementation Program which sets forth three water quality objectives for the Lake and a comprehensive set of recommendations.

Both the Lake Management Plan and the Plan Implementation Program rest upon the findings of the *Technical Report on the Water Quality of Big Payette Lake: An Integrated Watershed and Lake Assessment*, subtitled *The Eutrophication Potential of Big Payette Lake*, dated December 1997, prepared in accordance with Chapter 66, Title 39, Idaho Code, which Report indicates that the water quality of the Big Payette Lake has deteriorated and is at risk. There will be no quick fixes. Individual and collective action by everyone will be necessary to reduce nutrient loads.

Thousands of person days over a five year period, many volunteered, have been invested, first in the scientific study and analyses and then in the selection of recommended actions found in the Plan Implementation Program. A debt of gratitude is due the public servants of federal, state, county and city agencies and the many citizens who have willingly given their time to these efforts. Thanks are also due the many individuals and organizations that

have contributed over \$70,000 in private funds.

**2. Definition.** For the purposes of this Plan, “Lake” means the Big Payette Lake and its watershed, which shall include all tributaries and small lakes on those tributaries to the North Fork of the Payette River above Big Payette Lake. The term “Lake” shall also include all tributaries and small lakes on those tributaries that drain directly into Big Payette Lake before the dam on the North Fork of the Payette River as it leaves Big Payette Lake. However, the confirmation of beneficial uses as set forth in Paragraph 3 below only relates to the waters of Big Payette Lake.

**3. Identification of Uses.**

- a. Idaho Code, Section 67-4301, provides authority and direction to the Governor to appropriate in trust for the people of Idaho all the unappropriated waters of Big Payette Lake.
- b. The following beneficial uses for the waters of Big Payette Lake have been designated in the rules of the Idaho Department of Environmental Quality:
  - (1) Domestic water supply for the City of McCall and various residential and commercial facilities adjacent to Big Payette Lake;
  - (2) Agricultural use in the form of irrigation pursuant to appropriation by the Lake Reservoir Company, Inc., and its related entities and others in an amount adjudicated or appropriated pursuant to Idaho Law;
  - (3) Cold water biota in the form of viable communities of aquatic organisms that have growing temperatures below 18 degrees Celsius (18 degrees C);
  - (4) Salmonid spawning in the form of self-propagating populations of salmonid fishes;
  - (5) Recreation in the form of swimming, boating and other forms of recreation in and on Big Payette Lake; and
  - (6) Special resource water in order to preserve the outstanding and unique characteristics of Big Payette Lake.
- c. The acknowledgment of Idaho Code, Section 67-4301, and designation of uses by the Idaho Department of Environmental Quality in this section of the Plan are not intended to limit or otherwise affect any existing water rights as recognized by Idaho law.

**4. Incorporation of the Lake Management Plan and Plan Implementation Program.** The Department of Environmental Quality, and all other state agencies, shall incorporate this Lake Management Plan and the Plan Implementation Program in the administration of their programs in order to protect, preserve and improve water quality in the Lake.

## 5. Monitoring and Trend Analyses.

- a. Subject to the availability of funds, the program of water quality monitoring for Big Payette Lake and its watershed set forth in the *Technical Report* shall be implemented and updated as necessary to assess the effectiveness of nutrient-reduction actions designed to preserve and protect water quality in the Lake and to enhance understanding of the physical, chemical, and biological processes affecting water quality in Big Payette Lake.
- b. Subject to the availability of funds, annual trend analyses, factoring out extraordinary natural phenomenon, shall be prepared to measure the success or failure of current best management practices (BMPs), ordinances, rules, policies and other actions to achieve water quality objectives in the Plan Implementation Program. A Nutrient Load/Lake Response Model will also be utilized. Annual reports of the findings will be published and made available to the Legislature, Governor and the public.
- c. If trend analyses indicate that water quality in the Lake does not meet any two of the water quality objectives in the Plan Implementation Program for three consecutive years, federal, state and local governmental agencies are urged to evaluate their BMPs, ordinances, rules, policies and other actions against monitoring and trend results and make revisions as necessary.



# PLAN IMPLEMENTATION PROGRAM

## Chapter I

### 1.0 Foreword

The Big Payette Lake Water Quality Council urges you to become acquainted with the Lake Management Plan and this Plan Implementation Program which sets forth the many ways that we can protect and enhance the water quality of Big Payette Lake and its watershed. In the past we may have been guilty of believing that nature was infinitely resilient, that natural processes could heal man's worst abuses. Our study confirms there are limits to nature's capacity to rebound and that all of us do have an impact on water quality.

Read the Lake Management Plan and this Plan Implementation Program, beginning to end, and you will appreciate the totality of the initiatives the Council is recommending to protect water quality. In addition, you will find individual actions and changes in personal habits that will collectively make a decisive difference in our success.

Big Payette Lake is the heart of our community's values and competitive edge. It affords drinking water for thousands, water sports, swimming, camping, fishing and multiple attractions for tourists seeking a unique and pristine destination resort.

Our future is not fate but choice.

## Chapter II

### 2.0 Water Quality Objectives

Based upon the findings in the *Technical Report on the Water Quality of Big Payette Lake: An Integrated Watershed and Lake Assessment*, subtitled *The Eutrophication Potential of Big Payette Lake (Technical Report)*, the Council has set the following water quality objectives for Big Payette Lake:

**2.1 Dissolved Oxygen:** The dissolved oxygen objective shall include the hypolimnion of Big Payette Lake and shall be measured in the Lake's southwest basin at the following coordinates: 44 degrees 55 minutes 50 seconds North, 116 degrees 05 minutes 50 seconds West. Dissolved oxygen concentrations during June through September shall be equal to or greater than six milligrams per liter between the Lake surface and the 200 foot depth. Below the 200 foot depth and above three feet of the lakebed the overall average dissolved oxygen concentration from June through September shall be equal to or greater than three milligrams per liter.

**2.2 Total Phosphorus:** The median value of total phosphorus measured in the euphotic

zone from May through September of each calendar year shall not exceed six milligrams per cubic meter.

**2.3 Chlorophyll-a:** The median value of chlorophyll-a measured in the euphotic zone from May through September of each calendar year shall not exceed three milligrams per cubic meter.

**2.4 Authority Review:** The Council recommends that the following authorities implementing portions of the Plan Implementation Program assemble annually to discuss progress towards the Council's objectives:

- US Forest Service
- Idaho Department of Lands
- Idaho Department of Parks and Recreation
- Idaho Department of Fish and Game
- Idaho Department of Transportation
- Idaho Department of Water Resources
- Idaho Department of Environmental Quality
- City of McCall
- Valley County
- Lake Reservoir Company
- Payette Lake Water and Sewer Company

The date and location of this review will be established by the Department of Environmental Quality and should occur within thirty days after the completion of the annual report of the findings of the monitoring and trend analysis. The review shall be a duly noticed public meeting.

**2.5 Recommendations:** If monitoring and trend analyses indicate that water quality in the Lake does not meet any two of the above objectives for three consecutive years, the Council urges that the Idaho Board of Environmental Quality promulgate rules, as necessary, in conformance with Idaho Law to maintain and preserve the Lake's water quality.

It is further recommended that all state and local agencies with legal authority to establish and enforce best management practices (BMPs), rules, ordinances, policies and other actions for the protection and enhancement of water quality in the Lake shall establish, modify and enforce same consistent with the rules established by the Idaho Board of Environmental Quality.

These recommendations do not preclude the Idaho Board of Environmental Quality and other federal, state and local agencies from taking whatever other measures they deem prudent and necessary to protect water quality in Big Payette Lake and its watershed.

### **Chapter III**

### **3.0 Implementation Program Based Upon *Technical Report***

The *Technical Report* found that water quality in Big Payette Lake has deteriorated over the years as more and more nutrients from multiple sources have entered the Lake. The threat of Big Payette Lake's eutrophication derives from the cumulative effect of many nonpoint sources, most of which have been contributing nutrients for years. Nonpoint source pollution is the biggest threat to water quality because it exists in so many different and often difficult to pinpoint forms. Nonpoint source pollution is related to the way land around the Big Payette Lake and in the watershed is used and is often not recognized as a form of pollution. It increases wherever human activity occurs and each of us contributes to the problem.

While the implementation program makes several references to pertinent data and analyses in the *Technical Report*, additional recommendations have also been made because they have been determined by the Council to be actions that can be taken to help reduce the overall nutrient loads to Big Payette Lake. The Council believes that it will be actions and changes in behavior that, cumulatively taken, will bring about the overall reduction of nutrient loads that must be achieved over time. These recommendations are believed to be cost-effective and capable of producing the greatest benefits in terms of protecting and improving water quality.

## **Chapter IV**

### **4.0 Voluntary vs. Mandatory Action**

The Plan Implementation Program sets forth many recommended preventive actions which users of the Lake are urged to embrace voluntarily to protect water quality. A sage observed a human tendency when he wrote that public property, "encourages a fatal carelessness and destructiveness because it seems so limitless and because what is everybody's is nobody's responsibility". However, we believe that most of the people who use Big Payette Lake and its watershed also love the Lake and are sensitive enough to willingly adopt these recommendations. If we commit ourselves to all of the actions in this Plan, they will become by our own volition natural acts of stewardship. We must understand that what is good for each of us individually is also good for us all; self-interest is the common interest. It is the hope and belief of the Council that users of Big Payette Lake will see the benefits of this approach, and over time water quality trends will move in the desired direction.

On the other hand, if monitoring shows that water quality trends are moving away from our objectives, then all of these voluntary actions must be reassessed to determine which may have to become rules and regulations enforced by an appropriate authority. Examples could include:

1. Buffers Above High Water. The Plan Implementation Program recommends

a number of ways to significantly reduce nutrient loads reaching Big Payette Lake and its tributaries from lawns where artificial watering methods, fertilizers, herbicides and pesticides are utilized. If these recommendations are not successful in reducing these loads, then methods of enforcement will have to be considered. For example, appropriately sized, naturally vegetated buffer strips and, where advisable, retaining walls may be required between the Lake's high water mark and impervious surfaces and lawns near the Lake. Lake Sebago in Maine prescribes requirements for such buffer strips.

2. Lake Surface Restrictions. Marinas, docks and other floating platforms on the Lake's surface deprive the lakebed of light, which discourages the growth of healthy lakebed plant life. In addition, growth on the undersides of docks, marinas, other floating platforms and on the surfaces of pilings produce additional algae that die annually and sink to the bottom increasing the Lake's oxygen demand. (See Section 5.4 of the *Technical Report*). The Council recommends that a professional survey be performed of watercraft, marinas, docks and other floating platforms on Big Payette Lake to determine the Lake's carrying capacity for such man-made additions to the Lake's surface. This study should also evaluate the impact of hydrocarbon contaminants on the Lake. Such a study may suggest restrictions on the number, size and kind of marinas, docks, other floating platforms and watercraft that will be permitted on the Lake. For example, Lake Arrowhead in California took such action years ago.
3. Two-Cycle Engines. Scientific studies have proven that two-cycle engines emit high concentrations of pollutants into lakes and the atmosphere and contribute to the deterioration of water quality. The *Technical Report* evaluated the eutrophication potential of the Lake and did not monitor the impact of hydrocarbons on the Lake. The Council recommends that the DEQ assess the level and distribution of hydrocarbon contaminants in the Lake. Manufacturers have designed economical four-cycle engines that are now commercially available for watercraft. The Council recommends four-cycle engines to owners and buyers of jet skis and outboard motors.
4. Water Quality Governance. Governance of the water quality in Big Payette Lake is shared by the Idaho Department of Environmental Quality, Idaho Department of Lands, Idaho Department of Parks and Recreation, Idaho Department of Fish and Game, Idaho Department of Water Resources, Idaho Water Resources Board, Central District Health Department, Valley County, the City of McCall, U.S. Forest Service, Corps of Engineers, U.S. Coast Guard and the Lake Reservoir Company (the Big Payette Water Quality Council disbands two years after the Legislature approves the Lake Management Plan). The Council believes that while overlaps exist, each authority knows and exercises its accountability and authorities responsibly, no changes are recommended in these relationships at this time. However,

in the future as pressure on water quality intensifies, the Idaho Legislature may want to evaluate and realign these relationships to assure efficient, accountable actions and oversight.

## **Chapter V**

### **5.0 Forest Practices, Roads, Grazing and Mining**

#### **5.1 Scope**

The Best Management Practices (BMPs) set forth in this chapter are recommended for all lands in the watershed owned and/or managed by the Payette National Forest, State of Idaho, Valley County, corporations and private individuals. These BMPs cover timber harvesting, design, construction and maintenance of roads, grazing practices and mining practices.

#### **5.2 Best Management Practices (BMPs)**

The Idaho Forest Practices Act (FPA) rules are statewide minimum standards that have been approved as BMPs. During 1995, as part of the Antidegradation Stream Segment of Concern process, a Local Working Committee was formulated to review these BMPs and determine whether they were adequate to protect the beneficial uses. The Committee developed five additional site specific BMPs (SSBMPs) for the North Fork of the Payette River segments (not including areas draining directly into Big Payette Lake). The FPA rules and SSBMPs require mandatory compliance on all forest practice activities.

In 1997, during the preparation of the Lake Management Plan and Implementation Program for the Lake and its watershed, a Forest Practices and Roads Working Group was established to review all BMPs in light of the findings of the *Technical Report* prepared in response to the Big Payette Lake Water Quality Act. The Working Group has developed supplemental BMPs, which at this time are voluntary and unenforceable under the FPA. The Council recommends that these supplemental BMPs be considered in the Cumulative Watershed Effects (CWE) process as required by the FPA so that they may become enforceable as FPA rules.

The Council commends the Idaho Department of Lands and the Payette National Forest for the BMPs developed in the past and for their cooperation in developing the following supplementary BMPs to protect water quality.

Recognizing the multiple impacts of forest practices and road construction on water quality,

land managers are encouraged to perform above these BMPs where practicable. Additional requirements of current Federal Laws and U.S. Forest Service policy apply only to the Payette National Forest.

#### 5.2.1 Timber Harvesting \*

- a. The Class I stream protection zone means the area encompassed by a minimum slope distance of 100 feet on each side of the ordinary high water and no equipment is allowed within this zone.
- b. The Class II stream protection zone means the area encompassed by a minimum slope distance of 30 feet on each side of the ordinary high water and no equipment is allowed within this zone.
- c. All Class I and II stream protection zones will be identified on the ground by flagging or paint prior to a forest practice activity occurring.

#### 5.2.2 Road Maintenance \*

- a. All active and inactive roads will be annually inventoried by the respective landowner and drainage problems corrected before weather closure or October 31.
- b. Abandoned roads will be revegetated and any bridges or culverts removed upon completion of use. All abandoned roads will be inspected one year after reclamation and erosion problems corrected before weather closure or October 31.

(\* SSBMPs already in effect as a result of the antidegradation stream segment of concern process.)

#### 5.2.3. Riparian and Buffer Zones

Where conditions warrant in riparian and buffer zones along streams a Site Specific Riparian Management Prescription will be developed by the Department of Lands. The Payette National Forest will comply with Inland Native Fish Strategy (INFISH) standards, as they may be modified or replaced. A holistic approach similar to a Cumulative Watershed Effects (CWE) assessment is recommended where such factors as large organic debris, shading, temperature, fire damage and other salient circumstances call for special attention, action and, if necessary, management intervention.

#### 5.2.4 Stream Crossings

- a. Stream crossings will be installed with bottomless drainage structures wherever a required culvert size exceeds or equals 30 inches in diameter. Professionally designed and engineered crossings are encouraged to adequately pass anticipated runoff according to the drainage area serviced by the culvert crossing (see 5.2.9, Culvert Sizing).
- b. Stream crossing structures shall provide for fish passage where applicable. The structure shall not cause the stream to head-cut or to scour the channel below the structure.
- c. Road surface water should be drained outside of the crossing fill and into areas where sediment will be filtered before reaching the stream.
- d. Suitable rock or aggregate shall be placed on the road surface for a distance of no less than 50 feet on each side of the crossing.
- e. Sag curves over streams should be avoided. Where this is not possible other mitigation will be necessary.

#### 5.2.5 Grades

- a. All road grades should be kept at or under six percent to facilitate drainage. Where grades must exceed six percent special mitigation measures will be designed, implemented and maintained to prevent adverse effects on the watershed.

#### 5.2.6 Stabilization on New and Reconstructed Roads

- a. Road fills and cuts shall be stabilized to prevent sediment from entering streams. Stabilization may include any or all of the following: revegetating, compaction, filter windrows, bench cutting and end hauling.
- b. Surface erosion may be prevented by the addition of suitable rock, aggregate or other surface stabilizers.
- c. Stabilization work shall be completed before expected major storms but no later than October 31 of the year in which the road was constructed. Stabilization on roads will be kept current in accordance with agency contract specifications.

#### 5.2.7 Skid Trails

- a. Stabilization, particularly the installation of drainage structures on skid trails, should be kept current.
- b. Unstabilized areas should never exceed 60 acres of the operating harvest area.

## 5.2.8 Relief Drainage Structures

- a. Spacing shall be as follows:

<u>Road Grade</u>	<u>Spacing</u>
0-4%	Less than 300'
5-10%	Less than 100'
≥11%	Less than 50'

## 5.2.9 Culvert Sizing

Culverts shall be sized to pass the 100 year flow event. Calculation of the 100 year flow shall be accomplished by the following equation:  $Q_{100} = 76.9 A^{0.773}$

Where A = drainage area in square miles and  $Q_{100}$  = cubic feet per second

## 5.3 Mining Activities

Mining activities in the watershed of the Big Payette Lake could have adverse and undesirable impacts on water quality, therefore:

### 5.3.1 Payette National Forest

In connection with all mining activities the Payette National Forest shall enforce applicable statutes, policies and standards that relate to water quality management, including physical and chemical characteristics of surface and subsurface water during and after operation. Such enforcement should cover mineral exploration, development, production and reclamation.

### 5.3.2 Idaho Department of Lands

All endowment lands are open to mineral entry unless specifically excluded by the Land Board of the State of Idaho. Mining claims may be held for two years before conversion to a lease. Claims must also be converted to a lease before mechanized equipment is used or commercial production of commodities begins. In addition, before a lessee is allowed to operate, operation and reclamation plans must be approved by the Idaho Department of Lands. These plans will identify site-specific BMPs to protect water quality during the lease operating period and all reclamation activities. All leases will be bonded to assure compliance with lease terms and that acceptable reclamation is accomplished.

## 5.4 Grazing Practices



Grazing practices in the watershed of the Big Payette Lake could have adverse and undesirable impacts on water quality, therefore:

#### 5.4.1 Payette National Forest

In connection with all grazing activities, the Payette National Forest shall enforce applicable statutes, policies and standards that relate to water quality management. In particular, standards and guidelines contained in the Payette National Forest Land and Resource Management Plan designed to protect water quality shall be enforced including, but not necessarily limited to, protection of streambanks, riparian areas and the North Fork Payette River Water Quality Corridor. The Council recommends that grazing plans be prepared and annually reviewed for compliance with requirements to protect water quality.

#### 5.4.2 Idaho Department of Lands

In general, vacant endowment lands in the Big Payette Lake watershed are considered available for grazing purposes. Grazing of these lands will include management practices that will maintain the long-term productivity of the land. Management prescriptions will be implemented to protect or enhance water quality, timber and other resource values. These prescriptions may include temporary closures for reforestation or fire rehabilitation purposes. The Council recommends that grazing plans be prepared and annually reviewed for compliance with requirements to protect water quality.

Endowment lands in the North Fork of the Payette River Water Quality Corridor are not leased for grazing.

### 5.5 Mass Wasting Sites

As shown on Figure 4-27 in the *Technical Report*, a number of areas in the watershed have been designated in the Report as having “high hazard ratings for mass wasting”. The study found a low incidence of management-caused mass wasting land slides failures. While areas designated with high-hazard ratings for mass wasting should be avoided if possible, if new or rebuilt roads are to be constructed in such areas, the road locations, construction methods and maintenance best management practices should be carefully engineered to ensure that natural failures are not reactivated and prudent measures are taken to protect against the creation of future failures. Road design and construction practices in high-hazard areas should avoid making fills too large in steep terrain. Fills also need well designed and adequate drainage structures to assure the capacity to carry large quantities of runoff. Both cut and fill slope angles should be low enough to allow them to quickly revegetate and these slopes should not be increased by maintenance practices. Road cuts and surfaces identified as sources of excess sediment in the *Technical Report* will be given special priority in the design, construction, repair and maintenance of roads.

### 5.6 Access Management of Road Systems

The design, construction and maintenance of roads are major potential contributors of sediment and contaminants that wash into streams and eventually into Big Payette Lake. The fewer roads that are constructed, the fewer potential contaminants. Therefore, while it is recognized that many miles of roads already exist, the Idaho Department of Lands and the Payette National Forest are urged to engage in joint planning and action to hold road construction to the minimum level that is absolutely necessary to meet the missions and responsibilities of the two agencies. The Council recommends that the agencies meet regularly to discuss the future needs of each and then engage in collaborative strategic planning from which road requirements can be projected several years in advance of construction. Such coordinated and cooperative planning and action will serve the watershed by reducing the number of road miles constructed, ensuring that roads are constructed to applicable BMPs and minimizing the impacts of recreational activities.

## **5.7 Road Use Management**

Each authority shall manage its roads to protect against adverse impacts on water quality during wet seasons and inclement weather. Actions may include road closures until the risks to water quality adequately abate in the judgement of the implementing authority. Where appropriate, authorities will make every reasonable effort to coordinate actions where temporary or permanent closures are contemplated.

## **Chapter VI**

### **6.0 Stormwater Runoff Management**

#### **6.1 Scope**

Stormwater runoff is any drainage event resulting from precipitation, including snowmelt. As more of the watershed is developed with impermeable surfaces such as roads, driveways, roofs and parking lots, less water can soak into the ground and is forced to “runoff”. This increased water flow will have a greater force resulting in a greater ability to cause erosion.

The developed land in the Big Payette Lake watershed comprises a small percentage of the total land area, but is the source of 14 percent of the total phosphorus delivery to the Big Payette Lake. Developed lands are the second largest source of nitrogen in the watershed and accounted for 18 percent of the nitrogen loading through stormwater runoff. As additional developable land is turned into homes, businesses and roads, this runoff will increase. The sediment and organic material carried by this runoff is deposited mainly in the southwestern basin of the lake. It is this portion of the Lake that exhibits conditions of eutrophication. Nonpoint source impacts must be reduced to minimize the threat of accelerated eutrophication of the Lake.

While the focus of the *Technical Report* has been on the condition of Big Payette Lake, implementation of the recommendations may impact the water quality of Cascade Reservoir as well. As upstream neighbors, the residents and users of the Big Payette Lake

and its watershed need to be cognizant of the downstream impacts of their actions. Increased nutrients flowing into the Big Payette Lake may also impact Cascade Reservoir. The recommendations for stormwater runoff management and City of McCall stormwater management facilities can affect the quality of the North Fork of the Payette below Big Payette Lake and may have a direct impact on the improvement of the water quality of Cascade Reservoir.

## **6.2 New Commercial, Residential and Other Development**

### 6.2.1 Jurisdiction

The City of McCall is responsible for the regulation of building practices within the City limits. The City and the County jointly determine building practices within the Area of City Impact. The City administers building practices within the Area of City Impact.

### 6.2.2 Recommendations

The Council commends the Valley County Commissioners and the City of McCall for adopting the *Handbook of Valley County Stormwater Best Management Practices* on May 27, 1997. The Council commends the City of McCall and Valley County Commissioners for adopting City Ordinance 712 pertaining to drainage management on June 26, 1997 and July 14, 1997, respectively, and encourages its enforcement.

## **6.3 Existing Commercial, Residential and Other Development**

### 6.3.1 Scope

Existing commercial and residential buildings within the City of McCall and the area of City impact around the Lake.

### 6.3.2 Jurisdiction and Authority

Private property owners, lessees, the Idaho Department of Lands, the Idaho Department of Parks and Recreation, the Payette National Forest, the City of McCall Council and the Valley County Commissioners.

### 6.3.3 Recommendations

Existing commercial, residential and other development represent collectively a large backlog of erosion and runoff problems. Private property owners, lessees, the Idaho Department of Lands, the Idaho Department of Parks and Recreation, the Idaho State Department of Transportation, the Payette National Forest, the City of McCall and the Valley County Commissioners are urged to critically review and assess their properties as it relates to the control and abatement of stormwater runoff. Such assessments or audits can be made by referring to the *Handbook of Valley County Stormwater Best Management*

*Practices* and applicable McCall City ordinances. The Council recommends that parties seek the services of a professional engineer to perform these audits.

In addition, a Homestead Assessment System, Idaho Home \* A \* Syst Project, has been developed cooperatively by federal, state and county authorities concerned with keeping Idaho's water clean. To receive a free audit contact Home \* A \* Syst Project Coordinator, Idaho Association of Soil Conservation Districts, P.O. Box 2637, Boise, Idaho 83701.

Finally, the Council urges private property owners, lessees, Idaho Department of Lands, Idaho Department of Parks and Recreation, the Payette National Forest and the City of McCall to voluntarily implement the suggested actions developed through these audits. Excepting in extraordinary circumstances, the creation of impervious surfaces near the Lake or streams is discouraged.

## **6.4 Utility Service Installation and Maintenance**

### 6.4.1 Scope

Existing and future utility services such as electric, telephone, water, sewer and cable television within the City of McCall and the Area of City Impact.

### 6.4.2 Jurisdiction and Authority

Companies providing utility service and the City of McCall.

### 6.4.3 Recommendations

Utility service provided in conjunction with new commercial, residential and other development will be governed by the provisions of the McCall City Ordinance 712 pertaining to drainage management.

The Council recommends that for the maintenance of existing utility systems and the extension of service to existing commercial, residential or other developments, the utility company follow the *Handbook of Valley County Stormwater Best Management Practices*.

## **6.5 Swimming Pools, Jacuzzis and Hot Tubs**

### 6.5.1 Background

Because of the presence of chemicals, other pollutants and higher water temperatures, waters from swimming pools, Jacuzzis and hot tubs pose a threat to the water quality and beneficial uses of the Lake where discharged directly into the Lake. Such waters can be used for irrigation.

#### 6.5.2 Jurisdiction

The City of McCall and the Valley County Commissioners.

#### 6.5.3 Recommendations

The potential for water quality damage by waters dumped from swimming pools, Jacuzzis and hot tubs into the Lake should be eliminated. The Council recommends that the City of McCall and Valley County review their current ordinances to determine if dumping of these waters is prohibited. Existing ordinances should be enforced. If the practice is not currently prohibited, new ordinances eliminating the practice should be passed and enforced.

### **6.6 Public and Private Roads and Driveways**

#### 6.6.1 Scope

Within the watershed are numerous paved and unpaved roads. State Highway 55, Warren Wagon Road and East Side Drive are the principal routes adjacent to Big Payette Lake. Other city roads, private roads and driveways exist within the nearshore zone. Runoff from these roads has a high probability of contact with the Lake. Exercising care in the construction and maintenance of these roadways will reduce unwanted sediment deposits in the Lake.

#### 6.6.2 City and County Road Practices

The County should take special care when work or snow removal is conducted on the portions of Warren Wagon Road and the East Side Drive that are directly adjacent to Big Payette Lake or are within the North Fork of the Payette River Water Quality corridor. The Council recommends that the County Commissioners instruct the Valley County Engineer to apply the BMPs contained in the *Handbook of Valley County Best Management Practices* in future operations. The Technical Review Committee created to update the *Handbook* should be directed to review the Idaho Department of Transportation's *Catalog of Storm Water Best Management Practices for Highway Construction and Maintenance* and determine additional appropriate BMPs related to water quality and recommend their inclusion in the *Handbook of Valley County Stormwater Best Management Practices*. Similarly, the City of McCall should instruct the City Public Works Director to follow the *Handbook of Valley County Stormwater Best Management Practices* in future road construction and maintenance activities.

#### 6.6.3 State Highway Road Practices

The Council recommends that the Idaho Transportation Board direct the Idaho Department of Transportation to follow practices that meet or exceed the *Handbook of Valley County Stormwater Best Management Practices* for construction or maintenance on State Highway 55 within the Big Payette Lake watershed.

The Council requests the Idaho Transportation Department to assist Valley County in the review of the *Catalog of Storm Water Best Management Practices for Highway Construction and Maintenance* by the County. Provide technical assistance when requested by the county, the city or individual citizens when determining and applying BMPs to roadway construction or maintenance.

#### 6.6.4 Private Roads and Driveways

The private roads and driveways in the City of McCall and the Area of City Impact hold the potential to deliver sediments to the Big Payette Lake. These roads are the responsibility of individuals and homeowners associations.

The adoption, by the City of McCall, of Ordinance 712 will provide management of runoff potential from new private roadways. Proper management of the existing roadways will be the responsibility of the owners, the State of Idaho and lessees. The Council recommends that individuals, the State of Idaho, lessees and homeowners associations undertake a review of their existing roads or driveways and develop a plan to modify or maintain the roadway to reduce the potential for direct runoff into the Lake. One source for this review is the *Handbook of Valley County Stormwater Best Management Practices*. Owners may also wish to use professional engineers to audit their roads and recommend future actions. On a voluntary basis, owners and associations are encouraged to provide their plans to the McCall City Engineer for review and comment. It is understood that owners and associations would undertake the changes based upon their financial capability and that completion of improvements may take several years. However, the success of these volunteer actions will be seen in the future monitoring of Big Payette Lake.

### 6.7 Stormwater Management Facilities

#### 6.7.1 Background

The *Technical Report* found that one source of contaminants in the Lake comes from the effluent from the city's storm drains. The *Technical Report* indicates that "Concentrations of TP (total phosphorous) and organic nitrogen from these drains were much greater, by comparison, than contributions from the burned Fall Creek watershed during a similar period. These storm drains were also a significant source of suspended solids and turbidity for the lake."

The City of McCall began to deal with stormwater management in 1991. Phase I of the Stormwater Master Plan identified 13 drainage basins. Phase II of the Stormwater Master

Plan began in the spring of 1997 with the budgeting of a study of one of the 13 basins. With assistance from the DEQ, through the Big Payette Water Quality Council and the Cascade Reservoir Coordinating Council, the studies were accelerated. Jointly, a \$65,000 project was approved to identify existing natural and man-made drainage features and problems in six of the 13 drainage basins within the city limits. In addition, an EPA §319 grant was obtained in 1996, through the DEQ, to design, construct and maintain a stormwater quality and quantity management facility. This project is valued at approximately \$66,000.

Independent of state and federal assistance, the City and its residents are moving toward resolving existing stormwater quality and quantity problems. For example, an individual business owner chose to install a grease and sand trap to control the quality of water leaving his site. The city has incorporated stormwater management facilities into two recent community projects. During the capital improvements project to the portion of East Lake Street near the marina, the city invested over \$21,000 in stormwater quality improvements. The McCall Urban Renewal Agency is contributing \$150,000 in stormwater control as part of the construction associated with the railroad right-of-way project.

#### 6.7.2 Recommendations

The Council recommends that the City establish a schedule to complete studies of the drainage and to complete professionally designed and constructed settling basins or other appropriate measures to substantially remove sediment and contaminants from the city's storm water drains. As part of this schedule of activities, the City should incorporate a monitoring program to evaluate the effectiveness of the retrofits.

The Council supports the City's current §319 request for funds and recommends support by the Southwest Basin Advisory Group (BAG) and the DEQ.

### **6.8 Lawns, Fertilizers and Property Maintenance**

#### 6.8.1 Background

To protect the water quality of Big Payette Lake, it is preferable to leave or establish indigenous grasses and plants that grow naturally and require little or no fertilizing or artificial watering. However, many property owners and lessees desire to establish lawns and plant non-native flora. In addition, a major golf course covers a significant acreage that drains through either surface or groundwater primarily into Shiner Creek and then into Big Payette Lake. The *Technical Report* found "relatively high concentrations of nutrients and bacterial pollutants in stormwater runoff from urban areas around the Lake--when compared to natural streams, concentrations of phosphorus in stormwater runoff were 10 to 100 times greater." Excessive watering of over-fertilized lawns returns to the Lake as surface or ground water laden with chemicals.

On the other hand, even non-native but healthy and vigorous vegetation properly

maintained and watered serves as a form of erosion control, holding back soils and sediments that might otherwise wash into the Lake or streams. Responsible soil preparation, planting, fertilizing and watering can help reduce erosion and minimize adverse impacts on water quality without depriving anyone of the ground cover they desire.

#### 6.8.2 Scope

All developed or developable lands within the City of McCall and the Area of City Impact that drain into Big Payette Lake.

#### 6.8.3 Jurisdiction and Authority

On new developments within the City of McCall and the Area of City Impact, the City of McCall will enforce its ordinances and the applicable sections of the *Handbook of Valley County Stormwater Best Management Practices*. On developed property that drains into the Lake, owners and lessees are responsible for the impacts of their practices on the Lake's water quality.

#### 6.8.4 Recommendations

Where non-native grasses and plants are established, fertilized and watered, there are many BMPs that can be employed to minimize adverse impacts on water quality. However, it may be necessary for some property owners to lower their expectations of how lush, dense and green their lawns and flowerbeds will be. The Council recommends that the City of McCall enforce its ordinances on development within the City and Area of City Impact. In addition, on developed property the Council recommends that property owners and lessees voluntarily adopt and employ the following BMPs and appropriate sections from the *Handbook of Valley County Stormwater Best Management Practices*. Property owners and lessees are encouraged to consult with professional landscape companies familiar with the area.

#### 6.8.5 Fertilizers, Insecticides and Herbicides

Use of fertilizer is usually necessary to achieve early and complete establishment of plants when revegetating or landscaping. Fertilizer overuse is very harmful. Fertilizer management is the careful application of fertilizers in order to prevent any excess from reaching the surface and ground waters of the Big Payette Lake Watershed. Criteria to be evaluated in Fertilizer Management include: 1) kind of fertilizer; 2) form of fertilizer; 3) rate of application; 4) timing; and 5) type of vegetation. The use of insecticides and herbicides is discouraged.

##### *Kind of Fertilizer*

There are three kinds of fertilizers commonly used: conventional or fast release; slow or controlled release; and organic materials. Because they release their nutrients rapidly, the use of conventional, fast release fertilizers is discouraged unless applied in small quantities over time. The Council recommends that fertilizers with low or no phosphate be utilized



and that the nitrogen be water soluble. Slow or controlled release fertilizers with low ratios of phosphate are preferred. Initially these fertilizers may cost more per sack, but their real costs in terms of long term value derived are less than cheaper, conventional fertilizers. Organic fertilizers with low phosphate contents are also preferred. They, too, have slow release characteristics and are initially more costly but achieve superior results over time and release fewer contaminants to surface and ground water.

### *Form of Fertilizer*

Commercial fertilizers come in three forms: powder, granular or encapsulated granules and liquid. Powdered fertilizers are the conventional or fast release type. They are more difficult to apply at a consistent rate and uniform cover. Use of the powdered form is discouraged because it is susceptible to rapid surface runoff. The recommended form of fertilizer is the granular or encapsulated granular which may be of the fast release or slow release type. For slow release, each granule is encapsulated to control its dissolving rate. This form provides a uniform surface cover at a more easily controlled application rate but is susceptible to surface runoff if over-applied or over-watered. The liquid form is most readily available to plants. It can be absorbed through leaves or through the root system. This form is easily over-applied. It is the most difficult form for the homeowner to apply uniformly and at the proper rate; therefore, it is not recommended.

### *Timing and Rate of Application*

Except where damaged, lawns tend to emerge in a healthy state immediately after the snow melts off. Thatching of lawns in the spring promotes growth by allowing water and air to penetrate to promote growth with less fertilizer. When used, fertilizer should be applied after the ground is no longer saturated and rains abate. Generally, fertilizers should be broadcast at a rate of about three pounds per 1000 square feet (see manufacturers recommendations). Annual maintenance applications of fertilizers, preferably twice, should be made when loss of vigor or slow growth indicates a possible nutrient deficiency. Much of the soil surrounding the Lake is acidic. Lime is often applied as required to raise the pH level and adjust the acidity.

### *Type of Vegetation*

Native grasses and plants are recommended. When non-native grasses and plants are used, property owners and lessees are encouraged to consult with their suppliers to learn of new varieties that produce quality lawns and plants while requiring less fertilization and watering. Because native grasses and plants do not quickly re-establish themselves following construction or repairs, it is recommended that such areas be replanted quickly with a combination of shrubs, trees, grasses and wildflowers to regenerate a healthy and stable ground cover.

### *Watering or Irrigation*

The use of irrigation will improve the growth, survival and establishment of plant material during the first growing season. Thereafter, watering should be conducted as needed and not restricted to specific quantities or schedules. The frequency and quantity of watering is a function of species, site conditions and precipitation. Property owners and lessees are discouraged from watering on a set schedule, irrespective of natural rainfall.

An average sandy loam soil should have one to one and one-half inches of water applied per watering during the summer. The soil should be moist six to eight inches deep. When the top two to three inches become dry, another irrigation is required. This form of watering management encourages greater root development, which means healthier plants. Excessive watering leaches nutrients into the ground water, or causes surface erosion that contaminates the Lake or its tributaries. A two inch mowing height is recommended because low heights require more frequent mowings, can damage the grass and require more frequent sprinkling.

Additional information on lawn care, watering and fertilizers may be obtained from the University of Idaho Extension Service in Cascade. The following bulletins are available from the Extension Service:

- CIS 888 Weed Control on Lawns
- CIS 911 Northern Idaho Lawns
- CIS 963 Best Management Practices for Phosphorous Management to Protect Surface Water
- Bulletin 565 Establishing and Maintaining Lawns

### *Buffer Strips, Revetments and Bulkheads*

Property owners and lessees may deem it advisable to establish fertilizer setbacks, buffer strips, revetments, or bulkheads to protect against sediments and nutrients reaching the Lake or a stream. Buffer strips are areas from the high water mark roughly 20 feet back into the property within which are planted indigenous grasses and plants that do not require fertilizers and artificial watering. Fertilizer set backs are encouraged where lawns extend to the high water mark. Where this occurs fertilizer applications should be held about 15 feet back from the high water mark to prevent pellets from reaching the Lake or a stream; special care is required when using cyclone spreaders. These retaining structures are constructed to hold or prevent erosion of the soil and to provide protection from wave action. The design of a retaining structure must provide a method to disperse wave action and not adversely impact adjacent property.

## **6.9 Identification of Land Types**

The Council recommends that the City of McCall, Valley County, Idaho Department of Lands and DEQ review the developable lands within the watershed using mapping and soils information to show relative sensitivity. This tool will aid the City and developers in future land use application preparation and review.

## **Chapter VII**

### **7.0 Docks, Marinas, Watercraft and Commercial Use of the Lake**

#### **7.1 Scope**

Docks and dock facilities on Big Payette Lake contribute greatly to the enjoyment of the lake environment. However, as indicated in Chapter 5.4 of the *Technical Report*, docks can also contribute to the degradation of the lake's water quality. Docks shade the water beneath them. This shading can reduce the native water vegetation and allow the introduction of weed species. Paints and other preservatives applied on docks over the water enter the water and increase the pollutant load. Docks themselves provide growth areas for biological material that when it dies adds to the biomass in the lake. To minimize the impact of docks, 1) the area of docks and artificial surfaces should be minimal to serve only primary and essential functions; 2) and docks and artificial surfaces should be permitted only where an existing private or public need can be clearly documented.

#### **7.2 Authorities**

The Idaho Department of Lands has the principal responsibility for management of Lake encroachment activities on Big Payette Lake that occur below the high-water mark of the Lake. It reviews proposed encroachments and issues any related State Leases or permits. In carrying out this management responsibility, it acts as a coordinating agency for review of such proposals. It solicits comment from other agencies and governments with responsibilities for activities on or adjacent to the Lake. These agencies are the Army Corps of Engineers, the Coast Guard, the State Agencies of Fish and Game and the Department of Environmental Quality, the Department of Water Resources, Valley County and the City of McCall. Prior to action by Lands, these agencies are provided 30 days to review and comment on the proposed action. The City of McCall has the authority to determine the requirements applicable to commercial, residential and industrial activity within the city limits of the City and the Area of City Impact.

#### **7.3 Commercial and Public Marinas**

The Council recommends the City of McCall enact specific ordinances to establish the minimum requirements for the city approval of the construction and operation of commercial and public marinas. The ordinance should contain the requirements that any proposed new commercial or public marina or proposed expansion of an existing commercial or public marina of more than five slips complete and submit a development plan, described below and meet specific design standards as part of the city's approval process.

### 7.3.1 Development Plan

A development plan will include an assessment of projected use levels and type of marina (i.e. what uses are intended or projected: permanent slips, transient use, rental use, etc.). The development plan will also cover, among other items, the proposed actions to meet design standards for pumpout facilities, oil and gasoline management, spill response and containment and plans for inspection for Eurasian Milfoil or other exotic plants carried on boats.

### 7.3.2 Design Standards

Design standards would apply to new commercial or public marinas with more than five slips. The standards would also apply to expansion of current commercial or public marinas when the expansion adds five or more slips. The design standards would include the following requirements:

- Public restrooms, fueling facilities, a chemical fire retardant distribution system and trash receptacles must be provided.
- Watercraft fueling facilities must have emergency and standard shut-off systems.
- Marinas shall be equipped with state-of-the-art pumpout facilities connected to the appropriate sewer system for the transfer and disposal of sewage from marine sanitation devices.
- Parking facilities must be adequate for the marina and be designed and constructed consistent with applicable City code.
- Marina surface areas should be minimal to serve only primary and essential functions.
- Prohibition of elevated coverings, such as canvas tarps and wood or metal structures over marinas, private docks and boat slips.

### 7.3.3 Family Docks and Floating Homes

The State Department of Lands has the responsibility for the review and approval of docks and marinas on the Lake itself. The Department has regulations concerning family docks and floating homes. The Department should upgrade the regulations to 1) prohibit floating homes, 2) establish sizing criteria for the size of docks, 3) require removal or repair of worn or damaged docks, and 4) establish an abbreviated process that provides pre-approval of a replacement dock if the dock is replaced consistent with the current applicable rules and regulations. The Council has requested that the Department review and update the current rules promulgated under the Lake Protection Act.

## 7.4 Treatment of Docks

The Council supports actions that meet or exceed the current DEQ Policy Memorandum

PM97-1, February 3, 1997, on approved treatments for docks. This policy directs that:

- Wood products used in, over or around water, treated via the pressure-treating process, as described by the American Wood Preservers Association, should use only those preservative chemicals registered for specific use by the U.S. Environmental Protection Agency.
- The installation of new materials as part of the maintenance of existing structures shall use materials produced using *Best Management Practices (BMPs) for the Use of Treated Wood in Aquatic Environments*.

Because of their toxic content, no oils, stains or paints of any kind are approved for application over the Lake. Plastic products such as indoor-outdoor carpet may be used as a surface cover. Untreated wood and other natural non-toxic materials are preferred.

## **7.5 Boat Wastewater**

### 7.5.1 Scope

Applies to all watercraft on Big Payette Lake or a tributary thereof.

### 7.5.2 Jurisdiction and Authority

Idaho Department of Environmental Quality and any Idaho Peace Officer and authorized special deputy will enforce the following law:

The Marine Sewage Disposal Act, Title 67, Chapter 75 Idaho Code states:

Chapter 7501. LEGISLATIVE INTENT. The legislature finds that the waters of Idaho streams, rivers and lakes are threatened with pollution from the discharge of marine sewage and other wastes; that it is necessary to provide a uniform system for control and treatment of such marine sewage, gray water and other wastes; and that violators should be penalized.

Chapter 7503. DEFINITIONS. As used in this chapter:

(4) "Discharge" includes but is not limited to, any spillage, leaking, pumping, emitting, emptying or dumping.

(5) "Other Wastes" include, but are not limited to, garbage, refuse, wood debris, oil, tar, and other "pollutants" as defined in the federal water pollution control act, as amended.

(9) "Sewage" means human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes.

#### Chapter 7505. PROHIBITION AGAINST DISCHARGE OF SEWAGE AND OTHER WASTES.

1. Except as provided by federal law, no person shall discharge or otherwise dispose of any sewage or other wastes from any vessel into or upon the waters of this state.
2. When a vessel with an installed device is in an area where the discharge of sewage is prohibited, the device must be sealed to prevent overboard discharge.

#### 7.5.3 Penalties

Violations currently constitute a misdemeanor and carry a minimum fine of \$100.00, a maximum fine of \$300.00 and not more than six months in jail or both.

### **7.6 Pumpout and Dump Stations**

#### 7.6.1 Scope

A pumpout and dump facility consists of the platform and equipment needed to pump or otherwise receive and transfer contents of vessel holding tanks into a sewage retention and/or disposal system (preferably one connected directly to a sewer line) approved by the permitting organization(s).

In addition to being a violation of law (see 7.5 Boat Wastewater), it is damaging to the Lake for any watercraft owner or operator to dump black and gray water into the waters of the Lake. It is also incumbent upon authorities to make adequate and reliable pumpout and dump stations available and convenient for watercraft owners and operators. In 1997 only one pumpout and dump station exists on the Lake, located at the marina operated by May Hardware. Thanks to permission granted by the owners of this private marina, their pumpout and dump station can be used by the public. It, together with pumpout and dump stations located off the Lake at Ponderosa State Park and the McCall/KOA Campground, can be used until additional pumpout and dump stations can be provided on the Lake.

#### 7.6.2 Jurisdiction and Authority

Valley County Commissioners, City of McCall Council and Idaho Department of Lands.

#### 7.6.3 Recommendations

The Council recommends that the City of McCall provide a pumpout and dump station before the end of 1998 on a City dock located in the vicinity of the two City boat launching and loading ramps just south of the Sports Marina. This pumpout and dump station shall meet the requirements and specification of applicable Idaho law or the U.S. Coast Guard,

whichever is higher. A fresh water pressure line and hose must be provided to flush out boat holding tanks. The pumpout and dump station will be connected to the city's sewer system, and the City of McCall will maintain the facility. It is recommended that the design, engineering, specifications and policies for the facility be completed by qualified professionals during 1997 so that the project can be bid and constructed in 1998. Three potential sources of funds exist for such capital investments: the Valley County Waterways fund administered by the Valley County Waterways Committee, which derives its moneys from the sale of boat licenses in Valley County; the Waterways Improvement Fund administered by the Idaho Department of Parks and Recreation which receives moneys from the sale of gasoline in the state; and, the Clean Vessel Act Grant Program of the United States Department of Interior, Fish and Wildlife Service. The Big Payette Lake Water Quality Council will assist in securing the necessary matching funds. The project is estimated to cost between \$35,000 and \$50,000. The City of McCall initiated this action in June of 1997.

With installation of the pumpout and dump station, the Council recommends that the Valley County Commissioners establish an ordinance requiring that watercraft on the Lake with installed marine toilets, sinks and showers be equipped with holding tanks that can hold all wastewater generated both black and gray. These holding tanks are to be sealed against discharge into the Lake and can be discharged at the approved dump stations on or off the Lake. The County should direct marine deputies to inspect for broken seals and wastewater discharges during their routine safety inspections and to cite violations.

#### 7.6.4 Other Marinas

The Council recommends that when it grants permits for a new or expanded marina the Idaho Department of Lands require that state-of-the-art (not less than U.S. Coast Guard specifications) pumpout and dump facilities be provided and maintained by the owner or other appropriate authority. Currently two potential marinas are planned: an expansion of the marina at or near the Shore Lodge by M Resorts, Inc., and a new marina purportedly to be constructed just north of the Sports Marina. It is recommended that each of these marinas provide state-of-the-art pumpout and dump services to the public at no charge. Public and private marinas are eligible to participate in the Clean Vessel Act Grant Program of the U.S. Department of Interior, Fish and Wildlife Service (see 7.6.3).

### 7.7 Commercial Use of the Lake

The Council recommends that the Idaho Department of Lands, City of McCall and Valley County cooperate in establishing, at the earliest possible date, criteria for protecting water quality, methods and authorities for enforcement and a system for granting a license or permit for all commercial activities on the Lake.

The Council recommends that any proposed commercial activity on the Lake submit a comprehensive plan as part of the license requirements, including any potential impacts on water quality and proven means by which these adverse impacts are prevented, to the City

of McCall, Valley County Board of Commissioners, Idaho Department of Lands, the Department of Environmental Quality and the Central District Health Department. Prior to approval of a proposed commercial activity these organizations should reach a determination that the proposed activity poses minimal risk to the water quality of the Lake.

## **Chapter VIII**

### **8.0 North Fork Payette River Water Quality Corridor (Corridor)**

#### **8.1 Scope**

Within lands administered by the State of Idaho:

- All lands currently within the boundaries of the Ponderosa State Park.
- Lands administered by the Department of Lands bounded on the west by Warren Wagon Road and that portion of Section 26 west of Warren Wagon Road bounded by Copet and Fisher Creeks as determined by the Idaho Department of Lands and the Idaho Department of Parks and Recreation. East of Warren Wagon Road the corridor includes portions of SWSE Sec 14, W2E2 Sec 26, E2W2 and W2W2 Sec 35, all in Township 20N Range 3E and portions of E2W2 and W2W2 Sec 2 in Township 19N Range 3E. (See attached map.)
- The corridor includes the property located in Section 14, T19N, R3E, said property is bordered by Section 31 to the North and Section 23 to the South with Payette Lake shoreline being its western border and Eastside Drive its eastern border.

Within lands administered by the Payette National Forest:

A corridor on both sides of the North Fork of the Payette River to the north of the Forest Service and State lands in Section 14, T20N, R3E. The corridor is located within the following sections: 1, 2, 11, 14, T20N, R3E; 4, 8, 17, 18, 19, 30, 31, T21N, R4E. (See attached map.)

#### **8.2 Background**

This corridor is selected for special protection because of its proximity to the main channel of the North Fork of the Payette River. Because it is adjacent to the Lake and connects to the corridor, the strip of land located along the northeast shore as defined in 8.1 is also subject to this Chapter. The instream and near-water environments of the North Fork of the Payette River are critically important to protecting the water quality of the Lake. The



instream segment of the watershed, defined as that area between ordinary high water lines, has the obvious values of primary and secondary production of periphyton, insects and fish.

The instream component is in direct contact with the water and is the mechanism for delivery of both beneficial and deleterious materials to the Lake. As indicated in the *Technical Report*, the North Fork of the Payette River is the source of approximately 58 percent of the phosphorus and 80 percent of the nitrogen that is delivered to Big Payette Lake. The study also indicates that the development of lands in direct contact with the Lake increases the input of nitrogen, phosphorus and sediments. Commercial or residential development in the corridor would have a highly adverse impact on the water quality of the Lake. Recreational use of the corridor is increasing. Much of the public's attraction to the area comes from their ability to access both the Lake and the North Fork of the Payette River above the Lake. Within the corridor, the management of recreation to minimize water quality impacts calls for special measures.

### **8.3 Jurisdiction**

The Idaho Department of Parks and Recreation, the Idaho Department of Lands, Valley County and the Payette National Forest have the principal responsibility to manage these lands and the Warren Wagon Road right-of-way. The Council recommends these agencies undertake long term plans to manage the lands within the designated corridor so that permanent commercial or residential development in the corridor is prohibited and public recreational access is maintained, but managed to minimize impacts on the water quality of the North Fork of the Payette River.

### **8.4 Recommendations**

#### **8.4.1 State of Idaho Management of the Water Quality Corridor**

The lands administered by the Idaho Department of Lands located in the river corridor of the North Fork of the Payette River have an increasing level of recreational use. Much of the land is restricted from timber activities due to the closeness to the river and the riparian zone. The Council recommends that the Idaho Department of Lands enter into an agreement with the Idaho Department of Parks and Recreation to complete an acquisition of the designated river corridor lands by the Idaho Department of Parks and Recreation. Further, the Council recommends that, as an interim step, the Department of Lands, the Department of Parks and Recreation and the Department of Fish and Game enter into a Memorandum of Understanding (MOU) that transfers management responsibility for the river corridor lands to the Idaho Department of Parks and Recreation. With the completion of this MOU, the Idaho Department of Parks and Recreation should develop and implement a management plan for the corridor that employs BMPs to minimize the impact of recreational activity on the water quality of the corridor. Implementation of said management plan will be subject to funding. These BMPs should also cover winter recreational uses of the corridor.

#### **8.4.2 Payette National Forest Management of the Water Quality Corridor**

The Council recommends that the Payette National Forest manage the Water Quality Corridor lands to meet or exceed the current INFISH management standards and guidelines.

## **8.5 Site Specific BMPs for Proposed Recreation Sites**

The increased interest in the watershed for recreation activities places a requirement on the two principal land managers, the State Department of Parks and Recreation and the Payette National Forest, to determine and implement management strategies that protect the water quality of the Big Payette Lake watershed while allowing the many recreational uses we desire.

### **8.5.1 State Lands**

The Idaho Department of Parks and Recreation is committed and has taken action to improve the water quality of the Lake. For example, at the North Beach Section of Ponderosa State Park, the Department began in 1993 to make modifications to reduce impacts on the water quality of the Lake. The beach access has been managed for day use, and camping on the beach is prohibited. Toilet facilities have been provided. The Council commends the Department for this commitment.

For proposed recreation site development on properties managed by the Idaho Department of Parks and Recreation, with regard to water quality, Ponderosa State Park currently follows the guidelines, statutes, ordinances and recommendations of the following regulatory agencies: Army Corps of Engineers, Idaho Department of Water Resources, Department of Environmental Quality, Idaho Forest Practices Act, Valley County Central District Health, Soil Conservation Service, the Idaho Department of Lands and the City of McCall.

For Recreation development projects within the corridor the Council recommends the following BMPs:

- a. Parking areas. Storm water retention through on-site surface, wet retention pond and sand infiltration methods. Site placement to eliminate loss of wetlands.
- b. Vault toilet and other facilities. 100 feet setback from public well, or surface water, two feet high above water table from bottom of watertight vault. Where no facilities are available campers must possess and utilize a portable toilet.
- c. Public well. 200 feet - 500 feet distance from surface water influence (subject to state engineer recommendations).
- d. Campsites/Trails. Placement subject to inventory of resources and riparian zones. Incorporate erosion control methods for pedestrian access to surface water. Incorporate Stream Segment BMPs adopted for mechanical exclusion from stream protection zones. (See Section 5.2).
- e. Road construction. Follow the Best Management Practices described in Sections 5.2 and 6.6.

f. Docks. Follow industry standard recommendations for exposure of manufactured treatment of wood products. Follow DEQ Policy Memorandum 97-1. Placement subject to presence of native vegetation to minimize square footage surface coverage of littoral zone.

g. Boat ramps. Incorporate petroleum spill containment into design specifications. Engineer to alleviate erosion/deposition of adjacent shorelines due to wind and current action of surface water.

## 8.5.2 Payette National Forest

In connection with all recreation activities, the Payette National Forest shall enforce applicable statutes, and policies and standards that are related to water quality management. In particular, standards and guidelines contained in the Payette National Forest Land and Resource Management Plan and the *Trail Construction and Maintenance Notebook* designed to protect water quality shall be enforced including but not necessarily limited to protection of streambanks, riparian areas and the North Fork of the Payette River corridor.

## 8.6 Regulation of Impacts to the Streambed in the North Fork of the Payette River Water Quality Corridor

The Council recommends that the Payette National Forest, the Idaho Department of Lands and the Idaho Department of Parks and Recreation establish area closures for motorized vehicle use within the defined corridor. This would include prohibition of driving within the streambed. These agencies should establish agreement with the appropriate law enforcement organizations for enforcement of the area closures. Motorized snow equipment and boats are currently allowed within the corridor. Valley County has established a “no wake zone” in the corridor and the Council urges the County to enforce the regulation.

Other activities can also impact and damage the streambed of the corridor. The Council recommends that the Idaho Department of Lands, the Payette National Forest, the Idaho Department of Parks and Recreation and the Valley County Commissioners review their current authorities and regulations regarding protection of the corridor streambed. These authorities and regulations should be applied to the fullest extent. The Idaho Department of Water Resources is currently updating the Comprehensive State Water Plan for the Payette River Basin. The Council recommends that the Water Resources Board, as part of the update, consider the North Fork of the Payette River from its entrance into the Lake to the headwaters as a State Protected River Segment.

## 8.7 Minimum Streamflows in the Water Quality Corridor

### 8.7.1 Background

The *Technical Report* finds that the North Fork of the Payette River between Big Payette Lake and Upper Payette Lake is an important waterway providing habitat for trout and spawning sites for kokanee. The viability of this waterway for fish is affected by the flow of water in the river.

#### 8.7.2 Jurisdiction

The Lake Reservoir Company holds the storage rights to about 3,000 acre feet in Upper Payette Lake. This water is utilized for irrigation downstream near the towns of Emmett and Payette.

Releases by the Lake Reservoir Company of storage water affects streamflows in the North Fork of the Payette River between Upper Payette Lake and Big Payette Lake.

#### 8.7.3 Recommendations

The Council supports the finding of the *Technical Report* that a minimum discharge of 35 cubic feet per second (cfs) from Upper Payette Lake will provide 60 cfs at the USGS gauging station below Fisher Creek from July 1 through September 7. This flow will contribute to the maintenance of fisheries resources in this portion of the North Fork of the Payette River. It will also enhance water quality in the Lake by influencing temperature.

We recommend that the Lake Reservoir Company consider this minimum release from Upper Payette Lake in the management of their reservoir storage, realizing that the availability of water for this flow is subject to annual water supplies, irrigation demand and the possible consequences to other uses downstream.

The Council recommends that the Idaho Water Resources Board establish a Stream Resource Minimum flow as described in Section 4.7 of the *Technical Report*.

## Chapter IX

### 9.0 State Lands On or Adjacent to the Northeast Shoreline of Big Payette Lake.

#### 9.1 Background

At the present time, lands adjacent to the northeast portion of the Lake administered by the Idaho Department of Lands are designated by the Department for commercial timber and

economic development. The Council anticipates that those lands designated for commercial timber will be harvested using the BMPs in Chapter 5. The development and use of the lands designated for commercial development will have an impact on the future water quality of the Lake.

## **9.2 Jurisdiction**

The Idaho Department of Lands has the principal responsibility to manage these lands. The lands identified for economic development within the Area of City Impact would be developed under the ordinances of the City of McCall.

## **9.3 Recommendations**

Not all of the lands designated for economic development are currently within the McCall Area of City Impact. To facilitate consistent application of water quality protection measures, the Council recommends that the boundaries of the Area of City Impact be modified to include all of the state administered lands designated for economic development.

The State-administered lands between East Side Drive and the shore of the Lake, not currently identified for inclusion in the corridor, are of special interest to the Council. The Council recommends that the Idaho Department of Lands enter into discussions with the City of McCall, Valley County, the Idaho Department of Parks and Recreation and the Payette National Forest concerning the future use and disposition of the State-administered lands between East Side Drive and the Lake shore. The Idaho Departments of Parks and Recreation and Lands should determine if the MOU recommended for the North Fork Payette River Water Quality Corridor should be extended to include recreation management of any portions of these State lands.

## **Chapter X**

### **10.0 Stewardship Ethics**

The recreation uses of the watershed can have an impact on the water quality of the Lake. The Council recommends that users of the Lake and watershed voluntarily adopt the following stewardship ethics. Upon the adoption of the plan, these stewardship ethics will be prepared in various brochures for distribution. These brochures would build on the information provided in the *User Guide to Lake Protection* issued by the Council in 1995.

#### **10.1 Water Activities**

Water activities include fishing, water skiing, general recreation, water camping and boating (motorized and nonmotorized).

- To prevent the spread of noxious aquatic weeds always remove plant material from the boat, motor and trailer before launching your boat and after pulling out of the water.
- Obey “no wake” zones and other boating regulations that pertain to Payette Lake. Reduce speeds in shallow areas to prevent stirring up bottom sediments and to prevent shorelines from eroding.
- Never discharge your toilet blackwater or graywater into the Lake. Remember, you and your friends drink this Lake water. Places to pump out holding tanks include:
  - May Hardware Marina, 306 Lake Street
  - Ponderosa State Park
  - McCall Campground, Krahn Lane
- Always dispose of garbage properly. Don’t throw it in the Lake.
- Use caution when refueling and do not spill gas or oil into the Lake. Also, do not directly pump bilge water into the Lake without using an absorbent pad to clean up the oil or gas in the water. Every responsible boater should carry these absorbent pads. These pads will soak up gas and oil but not water. After use, these pads can be disposed of in any landfill or can be incinerated. They are available at most marinas or where boats are sold.
- Always keep boat engines tuned properly and use appropriate fuel.
- You are discouraged from cleaning your boat in the water. Do not use detergents or soaps. Use only non-toxic, phosphate-free, biodegradable or weak acetic acid (vinegar) cleaners. When possible clean the boat out of the water, a safe distance from the Lake. Do not use engine cleaners, waxes, paints or paint thinners on your watercraft in the Lake. These products pollute the water we drink.
- Never leave fishing gear in or along waterways. It can kill wildlife. Do not leave fish remains in lakes or streams.
- Four-cycle engines on the Lake are encouraged, two-cycle engines are discouraged.

#### 10.1.1 Land Activities That Affect Water Quality

Land activities include motorcycles, ATV’s, 4-WD Motor Vehicles, Cars and RV camping, horses and pack animals, pets, hiking, backpacking and bicycling.

##### *Motor Vehicles and Mountain Bikes*

- Travel only on trails, roads, or land areas that are open to vehicles or other forms of travel. Honor trail or road closures, both seasonal and permanent.
- Make sure the trail you plan to use is available for your type of vehicle. Wide vehicles on narrow trails can damage both the trail and your vehicle.

- Avoid sensitive areas in early spring and fall. Rain and snow typically saturate the ground making soil surfaces soft. Improper vehicle use can cause damage to the vegetation and ground surface.
- Stay on designated roadways and trails so that new scars are not established. Especially sensitive areas susceptible to scarring are streambanks, lakeshores and meadows. Cross streams only at fords where the road intersects the stream. Traveling in a stream channel is unacceptable and causes damage to aquatic life.
- Minimize erosion by not using muddy trails or short-cutting switchbacks.
- Try not to skid. If you can't descend a steep trail without skidding, walk it down.

### *Waste Disposal and Campsites*

- If restrooms or latrines are available USE THEM. When not available use the shallow burial method:
  - Dig a hole eight inches deep and then cover your waste.
  - Hole should be at least 200 feet from lakes, streams, trails and camping areas.
- Do not put any garbage in campgrounds toilets. This includes diapers.
- If garbage facilities are not available, pack out all toilet paper, tampons and pads.
- Because they create large amounts of waste recreational vehicles (RVs) should be equipped with waste holding tanks for both gray water (waste water) and black water (human waste). Dump stations are located at:

Ponderosa State Park  
McCall Campground, Krahn Lane

- Camp in developed campgrounds or well back from streams and lakes.

### *Washing Dishes, Bathing and Animals*

- Follow posted instructions in campgrounds.
- Properly dispose of all food scraps; either put in trash can or pack out. Do not leave in sink or scatter in campground.
- Use only washbasins designated for washing dishes. Avoid using bathroom sinks.
- If "gray water" disposal sites are available, strain food particles from water and dispose of the water in drains.
- Dispose of dishwashing water in dry places at least 200 feet from lakes and streams and away from campsites.
- Don't rinse dishes in streams or lakes.
- Do not bathe in lakes or streams. Pick an untraveled area and bathe at least

200 feet away from water.

- Keep animals on trails and away from waterways unless crossing streams.
- Control waste from horses, mules, llamas and goats.
  - Keep (bed or secure) animals at least 200 feet from streams, lake shores, trails, meadows and camping areas.
  - Break up and scatter animal wastes when leaving.

### 10.1.2 Homesite Care

Homesite care includes handling of docks, retaining walls, geese, snow removal and chemicals.

- Refrain from feeding the geese. It artificially concentrates geese in areas of high human use and increases nutrients in sensitive areas.
- Keep site disturbances to a minimum when working near the Lake, especially when removing natural vegetation and exposing bare soil. Try to leave as much of the naturally occurring vegetation along the lakeshore, streams and tributaries to Big Payette Lake.
- Plant deep-rooted, woody vegetation native to the lakeshore when possible. Also, try to preserve the natural topography and drainage when working near the Lake.  
Seed and mulch bare soil as soon as possible after disturbing it. Install sediment structures such as straw bales down slope from disturbance.
- Use fertilizers, herbicides and pesticides sparingly, and possibly in small, multiple applications on your garden and lawn. When possible, use slow-release fertilizer, or manure. Avoid using herbicides and pesticides altogether near the Lake.
- Minimize shoreline alteration as much as possible. Leave existing rocks and vegetation in place along the shoreline. When appropriate add large rocks to the shoreline as a barrier for erosion control.
- Prevent surface runoff entering directly into the Lake and streams. Do not allow water to run straight from the roadways or parking areas into the Lake or streams. Divert the flow into grassy ditches or settling ponds.
- Store hazardous materials, household chemicals, fuels and oils in a safe, contained area located a safe distance from the Lake or streams. Use detergents, soaps, shampoos, paint thinner, cleaning aids, gasoline, oil, grease, antifreeze, brake or transmission fluid, etc., a safe distance from the Lake or streams.
- Clean up after your pet and keep pet wastes out of the Lake and streams.
- Keep leaves, branches or any organic matter out of the Lake or streams. Build bonfires or trash fires well above the high-water line.
- Wash cars and boats a safe distance from the Lake and assure that associated runoff does not enter the Lake. Do not use soaps containing phosphates.



## *Docks*

- Wood preservatives, paint or stains must not be used on your dock or any structure within the high-water line. Keep docks clean of waste and trash.
- Dredging or filling below high water line is undesirable and in most cases prohibited.
- Minimize dock area. Docks shade native aquatic plants in the Lake and reduce their growth allowing non-native species the opportunity to thrive.
- Wood products used in, over or around water, treated via the pressure treating process, as described by the American Wood Preservers Association, should use only those preservative chemicals registered for specific uses by the U.S. EPA. Untreated wood and other natural materials are encouraged.
- Remove and replace old dock materials.

### 10.1.3 Winter Sports

Winter sports includes skiing, snowmobiling, snowshoeing and ice fishing.

- For winter activities, remember that anything deposited on the snow can move with the spring flows into the streams and lakes.
- If toilet facilities are available use them. Even if it means shoveling snow to get the door open.
- If possible dig down to dirt and use a “cathole”.
- In deep snow, bury waste just below the surface.
- For proper disposal, pack waste out with a plastic bag. Some authorities consider this the best means of waste disposal in winter.
- Burn used toilet paper with a match, lighter or pack it out.
- Do not leave fish remains in the Lake.

## **Chapter XI**

### **11.0 Education, Instruction and Implementation**

When the Big Payette Lake Water Quality Act was adopted by the Legislature in 1993, a provision was made for the Council to remain in existence for two years after the Legislature adopts the Lake Management Plan in order to assist in implementing the Plan through education and instruction. At the end of two years the Council goes out of

existence, and the responsibility to modify as necessary and continue implementing the Plan falls to the responsible agencies. During the two year period before it disbands, and utilizing private funds, the Council will:

1. Print an updated USER GUIDE to Lake Protection that incorporates the Stewardship Ethics and other pertinent information in the Plan Implementation Programs. Agencies and businesses that serve the public will be supplied with these updated USER GUIDES.
2. Prepare and print educational and informational pamphlets, brochures, etc., for targeted activities where certain behavior and action is recommended in the Plan Implementation Programs; e.g., lawn and plant maintenance for property owners and lessees; pumpout and dump station locations and operation for watercraft owners; etc.
3. Prepare and place informational signs as appropriate.
4. Undertake such other education programs for special interests and the public in general to obtain voluntary action to protect and enhance Big Payette Lake's water quality.

## **Chapter XII**

### **12.0 Noxious Aquatic Weeds (Eurasian Watermilfoil)**

#### **12.1 Scope**

Big Payette Lake, Upper Payette Lake and those portions of the North Fork of the Payette River within the watershed of Big Payette Lake.

#### **12.2 Jurisdictions and Authorities**

Valley County, the City of McCall, Idaho Department of Lands, Payette National Forest and private property owners fronting on Big Payette Lake.

#### **12.3 Discovery of Eurasian Watermilfoil (EMF)**

In the fall of 1996 EMF was found in two locations along the south shore of the west arm of Big Payette Lake. Three samples were taken from the Lake during 1997 and sent to the University of California, Davis, where DNA tests were conducted. Results of these tests have been inconclusive as to whether the samples were Northern Milfoil, native to the lake, or Eurasian Milfoil, which is the noxious weed we fear. In the spring of 1997 Valley County officially designated EMF as a noxious weed. It spreads rapidly, is very difficult to control

and impossible to completely eradicate; one fragment can produce a million new plants in one year. EMF is introduced into lakes when fragments gathered in infected water bodies adhere to boats, trailers and fishing gear used in Big Payette Lake and Upper Payette Lake. Watercraft owners must heed the warning signs posted in the spring of 1997 at all boat loading and unloading ramps on Big Payette Lake and Upper Payette Lake. This noxious weed, if not controlled, has been known to severely restrict boating and swimming. As it dies in the fall, sinks to the bottom of the Lake and decomposes, it adds to the productivity of the Lake which adversely impact water quality. EMF is not native to this area and is easily confused with Northern Milfoil, which is native to the Lake and harmless. To report sightings and receive more information contact the Valley County Weed Superintendent, P.O. Box 737, Cascade, Idaho 83611, telephone 208-382-3128.

## **12.4 Recommendations**

The Council recommends that the jurisdictions and authorities noted above conduct a survey of the extent of EMF in Big Payette Lake and Upper Payette Lake (if any) and then develop a strategy and plan to control this noxious weed. The Council discourages the use of herbicides because of our reliance upon Big Payette Lake as a source for domestic water supplies.

## **Chapter XIII**

### **13.0 Agricultural Water/Lake Regulation**

Reference Chapter II, Section 2.5, in the *Technical Report on Water Quality of Big Payette Lake: An Integrated Watershed and Lake Assessment* subtitled the *Eutrophication Potential of Big Payette Lake*. At the request of the Big Payette Lake Water Quality Council in 1996, the U.S. Geological Survey prepared a historical hydrograph titled, "Payette Lake - Historical Hydrograph of Mean Daily Lake Surface Elevation for Period of Record to 95 WY". This hydrograph represents an historical average of how the Lake Reservoir Company has managed its affairs in accordance with the Agreement executed in November of 1924. The Council commends the Lake Reservoir Company and urges it to continue managing the water level of Big Payette Lake in accordance with that agreement.

## **APPENDIX**

1. Map - North Fork Payette River Water Quality Corridor