

**US DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE**

***RECORD OF DECISION***

**MOUNTAIN LAKES FISHERY MANAGEMENT PLAN  
FINAL ENVIRONMENTAL IMPACT STATEMENT**

**North Cascades National Park Service Complex**

**INTRODUCTION**

The Department of the Interior, National Park Service (NPS), has prepared this Record of Decision (ROD) for the *Final Mountain Lakes Fishery Management Plan and Environmental Impact Statement* (Plan/Final EIS) for North Cascades National Park, Ross Lake National Recreation Area, and Lake Chelan National Recreation Area (collectively administered as the “North Cascades Complex”). This ROD includes a statement of the decision made (the Selected Action), synopses of other alternatives considered, the basis for the decision, a description of the environmentally preferred alternative, a discussion of why the Selected Action will not cause impairment of resources or values, a listing of measures to minimize environmental harm, and an overview of public and agency involvement in the decision-making process.

The entire North Cascades Complex makes up the geographical study area for this Plan/Final EIS; however, the focus of this ROD is the 91 naturally fishless mountain lakes that have documented stocking records, including those where no stocking records exist but where observations or harvest of fish have been documented.

The purpose of the Mountain Lakes Fishery Management Plan is to guide cooperative fishery management actions by the NPS and Washington Department of Fish and Wildlife in order to:

- Conserve native biological integrity;

- Provide a spectrum of recreational opportunities and visitor experiences, including sport fishing; and
- Resolve the long-standing debate and conflicts over fish stocking in the naturally fishless mountain lakes in the North Cascades Complex.

The Plan/FEIS applies the results of long-term research into the ecological effects of fish stocking as directed in 1986 by the Director of the National Park Service, and in 1987 by the Assistant Secretary of the Interior for Fish and Wildlife and Parks. It also satisfies the terms of a 1991 Consent Decree between the North Cascades Conservation Council and the National Park Service. The Consent Decree required the NPS to conduct an environmental impact analysis of fish stocking upon completion of ecological research.

## **BACKGROUND**

All of the 245 natural mountain lakes in the present day boundaries of the North Cascades Complex were historically barren of fish. In the late 1800s settlers began stocking the lakes with various species of nonnative trout for food and recreation. By the 20th century, fish stocking had become a routine practice. In 1933, the Washington Department of Game (now Washington Department of Fish and Wildlife; “WDFW”) assumed responsibility for stocking mountain lakes throughout the state to create and maintain a recreational fishery. WDFW worked cooperatively with the U.S. Forest Service on fish and wildlife management, including fish stocking, on U.S. Forest Service lands within the present day boundaries of the North Cascades Complex.

After North Cascades National Park Service Complex was established in 1968 (Public Law 90-544), a conflict over fish stocking in North Cascades National Park emerged between the NPS and WDFW. The conflict was driven in part by a state versus federal jurisdictional dispute over fish and wildlife management authority, and by fundamental policy differences: NPS policies prohibited stocking in order to protect native ecosystems; WDFW policies encouraged stocking to enhance fishing opportunities. Early attempts by the NPS to phase out stocking in the national park portion of the North Cascades Complex were abandoned in the face of strong objections by the State of Washington.

The NPS in the mid-1980's renewed its attempts to eliminate stocking of mountain lakes, and this action rekindled the dispute between the NPS and the State of Washington. The dispute was temporarily settled by former National Park Service Director William Mott, who in 1986 issued a policy variance that authorized stocking to continue, but only in lakes that had been previously stocked. The policy variance also directed the park superintendent to conduct ecological research to provide an informed basis for management of fish stocking in the future. The policy variance, however, did not settle the disagreement between the NPS and WDFW, and the dispute over fish stocking intensified.

In 1987, William Horn, Assistant Secretary of the Interior, Fish and Wildlife and Parks intervened to settle the dispute. The Assistant Secretary negotiated an agreement between the NPS and WDFW that authorized fish stocking to continue in certain lakes. The agreement also stipulated that the results of research into the ecological impacts of stocking would be used to “support development of a publicly reviewed recreational fishery management plan.” That following year the NPS and WDFW formalized the agreement negotiated by the Assistant Secretary. The agreement, referred to as a “Supplemental Agreement” to a 1985 Memorandum of Understanding (MOU) between the NPS and WDFW, established an interim list of 40 lakes in North Cascades National Park that the WDFW would manage for recreational fishing as part of its high lakes fishery management program. The Supplemental Agreement also helped to initiate formally a long-term research study through Oregon State University and the USGS Biological Resources Division to understand the ecological effects of fish stocking.

In 1988, the Washington Park's Wilderness Act (Public Law 100-668) was signed into law. Title II of the Act designated approximately 634,000 acres of the North Cascades Complex (94%) as the Stephen Mather Wilderness Area. Ninety out of the 91 naturally fishless mountain lakes that are the focus of this record of decision are within the Stephen Mather Wilderness.

The North Cascades Conservation Council (N3C) in 1989 sued the NPS in regard to various management plans for Lake Chelan National Recreation Area. The lawsuit claimed the NPS had failed to comply with the National Environmental Policy Act by not adequately assessing the long-term effects of various management actions. The NPS and N3C settled the lawsuit in a

1991 Consent Decree. One element of the Consent Decree stipulated that upon completion of the ecological research into the impacts of fish stocking, the NPS would “conduct a [National Environmental Policy Act] review of the fish stocking of naturally fish-free lakes.”

In 2002, Oregon State University and the USGS Biological Resources Division completed their long-term research into the ecological effects of fish stocking, and in January 2003 the NPS began preparation of a Mountain Lakes Fishery Management Plan/Environmental Impact Statement.

The Final Plan/EIS fulfills the research-informed policy mandates issued in 1986 by the Director of the National Park Service, and the adaptive management intent of the Supplemental Agreement between the NPS and WDFW negotiated in 1987 by the Assistant Secretary of the Interior for Fish and Wildlife and Parks. The Final Plan/EIS also fulfills the directive of the 1991 Consent Decree between the NPS and the North Cascades Conservation Council. Moreover, the Final Plan/EIS meets the minimum requirement for administration of the Stephen Mather Wilderness Area in accordance with the Wilderness Act of 1964 and the Washington Parks Wilderness Act of 1988.

## **DECISION (SELECTED ACTION)**

The NPS will implement Management Alternative B, the Preferred Alternative as identified and analyzed in the Final Plan/EIS, and described fully in Chapter II of the *Final Mountain Lakes Fishery Management Plan and Environmental Impact Statement* released in July 2008. There are no changes or modifications incorporated herein. The specific management action for each of the 91 lakes governed by the Selected Action is provided in Appendix A, Tables I and II.

The mountain lakes will be managed according to the following general criteria:

- A lake that is fishless today will remain fishless in the future.
- Reproducing populations of fish that have achieved high densities will be removed from all lakes where feasible. Following removal, the biological conditions of the lakes will be monitored for recovery of native species that may have been affected by fish. Monitoring

results will be used to decide whether or not some lakes will be stocked with low densities of nonreproducing fish.

- Lakes that provide high-quality breeding and rearing habitat for amphibians and are located within the range of long-toed salamanders, will be returned to a fishless condition, or low densities of nonreproducing fish will be allowed to remain if no other management criteria apply.
- Research indicates that certain lakes have complex habitat conditions, such as extensive shallow areas and woody debris, which allow amphibian populations to persist in spite of fish predation or competition. Where a lake has a long history of stocking and salamanders are known to exist sympatrically (i.e. together in the same area; for example, Coon Lake), nonreproducing fish may continue to be stocked at low densities.
- Certain lakes will be managed to remain fishless due to unique biological or geophysical features including (a) the presence of a species of conservation concern; (b) large, deep lakes in fishless conditions (such lakes are underrepresented in the North Cascades Complex); (c) geologically unique lakes; and (d) geographically isolated lakes. Geographically isolated lakes will remain fishless to protect metapopulations (geographically separate populations connected by infrequent but essential interbreeding with nearby populations) of salamanders. A lake is considered isolated if (1) it is more than 2,000 feet from other permanent water bodies; (2) it is within the range of long-toed salamanders; and (3) there is no evidence that salamanders and fish can survive sympatrically (i.e. together in the same habitat).
- Benthic (bottom-dwelling) macroinvertebrate monitoring data indicate that certain lakes have suppressed populations of macroinvertebrates, presumably caused by fish predation. A lake with suppressed populations of macroinvertebrates will become fishless (by discontinuing stocking or removing reproducing populations of fish if feasible), or will be evaluated further (if data are presently lacking) before taking further management action.
- In closely grouped lakes, fishless conditions in at least one lake will be maintained to provide fishless habitat for aquatic organisms in the localized area.
- Where key information and data are currently insufficient for a given lake, the lake will be monitored and evaluated before implementing management actions (e.g. stocking).

The Selected Action will eliminate high densities of reproducing fish populations from up to 27 lakes using several methods of fish removal including: (a) spawning habitat exclusion (to break the cycle of reproduction in lakes with limited spawning habitat); (b) gill netting combined with electrofishing and trapping; and (c) application of the piscicide antimycin, an EPA-registered piscicide (fish toxicant) that has been used to remove successfully nonnative fish from lakes and streams in other NPS units such as Rocky Mountain National Park, Great Basin National Park, Crater Lake National Park, and Great Smoky Mountains National Park. Fish removal using antimycin will begin in summer, 2009 in Middle and Lower Blum Lakes. The effectiveness of fish removal in these lakes will be carefully evaluated before proceeding to treat other lakes; treatment methods may be modified as necessary to minimize impacts to non-target species.

Use of mechanical methods to remove fish (e.g. gillnetting, trapping, electrofishing) will be the minimum tool for specified lakes that are generally less than 5 acres and less than 20-feet deep. Use of the piscicide antimycin will be the minimum tool for larger, deeper lakes where research and professional experience indicate mechanical methods of fish removal will not be feasible. A helicopter will be the minimum tool to shuttle fish removal supplies and equipment that would be too heavy and unsafe to transport on foot. For fish removal using antimycin, an inflatable boat equipped with a 5-hp, 4-stroke engine will be used as the minimum tool necessary for antimycin application. Helicopter support may also be needed during antimycin application given the time sensitive nature of the work; however, that minimum tool determination will be deferred until removal is imminent.

The Selected Action will also allow continued stocking of specified lakes. Only fish species incapable of reproducing and establishing self-sustaining populations will be stocked. In the short term, the Washington Department of Fish and Wildlife (WDFW) will continue to stock Mount Whitney rainbow trout, whose habitat constraints and timing of spawning make them functionally incapable of reproducing in mountain lakes. Golden trout, coastal cutthroat trout (for lakes west of the Cascade Crest, i.e. “west-side” lakes), and intermountain cutthroat trout (for “east-side” lakes) will be stocked in lakes with low reproductive potential (e.g. very limited spawning habitat) to diversify fishing opportunities. The WDFW is also currently developing a native Upper Skagit rainbow trout broodstock for west-side lakes, as well as developing

genetically sterile (triploid) trout. The long-term goal is to stock only genetically sterile fish to further minimize the risk of unwanted reproduction.

Fish stocking will generally occur on a 3 to 10-year cycle. The frequency, number and type of fish to be stocked will be tailored according to specific lake conditions. Stocking will be done by Washington Department of Fish and Wildlife, with assistance from volunteer groups such as the Trailblazers and Washington State Hi-Lakers who will backpack young fish in plastic containers (historically they used 5-gallon milk jugs) to the lakes. The backpack method of stocking will be the minimum tool for the majority of lakes. However, lakes that are too remote for backpack stocking (due to excessive fish mortality during transport) will be stocked using fixed wing aircraft chartered by the Washington Department of Fish and Wildlife. Fish stocking, however, will not be undertaken unless Congress acts by July 1, 2009 to authorize stocking as appropriate in North Cascades National Park Complex.

In summary, a maximum of 42 lakes may be fishable in the future. This figure may be revised downward if monitoring results indicate objectives are not being met. Up to 20 lakes will be permanently returned to a fishless condition by discontinuing stocking and/or actively removing reproducing populations of fish. Lakes where critical information is missing will not be stocked until that information becomes available. An extensive mountain lakes monitoring program will be implemented to inform management actions and minimize unacceptable effects to the biological integrity of the North Cascades' ecosystem.

Implementation of this Selected Action requires authorization from Congress that fish stocking is appropriate within the North Cascades Complex. Legislation is needed because the NPS lacks the authority to implement the Selected Action. The following reasons summarize why the NPS lacks the authority to enable fish stocking in accordance with the Selected Action:

- The Selected Action would enable fish stocking to occur in as many as 42 lakes within the North Cascades NPS Complex and the Stephen Mather Wilderness Area. All of these lakes are naturally fishless. NPS Management Policies 2006 prohibit fish stocking in waters that are naturally fishless (Section 4.4.3, Harvest of Plants and Animals by the

Public). NPS Servicewide Management Policies 2006 require all management decisions affecting wilderness resources to be consistent with the “Minimum Requirement” concept. This concept, derived from Section 4(c) of the Wilderness Act of 1964 and clarified by NPS Policies 2006 (6.3.5 Minimum Requirement), is a documented process used to determine if management actions may affect wilderness character. When determining Minimum Requirement for wilderness administration, the potential disruption of wilderness character and resources must be considered. Only those actions that preserve wilderness character and/or have localized, short-term adverse impacts will be acceptable.

- The Stephen Mather Wilderness, a federally designated wilderness area within the North Cascades Complex, encompasses all of the naturally fishless lakes that would potentially be stocked in accordance with the Selected Action. The NPS has determined, in accordance with Minimum Requirement provision under Section 4(c) of the Wilderness Act of 1964, that fish stocking does not meet the minimum requirement and is unacceptable because the practice would result in long-term, adverse impacts on various natural resources, including aquatic organisms associated with naturally fishless lakes (FEIS, Chapter IV).
- The wilderness resources and character of North Cascades are fundamental to the purposes and values for which North Cascades was established. The NPS cannot authorize an activity, in this instance fish stocking, that would derogate the values and purposes for which North Cascades was established, except as may have been or shall be directly and specifically provided by Congress. (16 USC 1a-1).

If Congress should choose to authorize fish stocking, then the NPS would allow the State of Washington to stock fish as described in the Selected Action (Management Alternative B). The NPS would authorize fish stocking, knowing that it is taking an action that is consistent with the way Congress intends the North Cascades Complex to be administered.

Congressional action to authorize fish stocking would also ratify various verbal commitments in support of stocking that were made by federal officials, including the Director of the National Park Service, during hearings regarding the establishment of the North Cascades Complex. The



commitment that continued fish stocking would be authorized was captured in the legislative record, and affirmed in the October 1965 North Cascades Study Report, but never codified in the North Cascades' enabling legislation.

In the event Congressional action to authorize fish stocking is not initiated by July 1, 2009, then the NPS will implement Management Alternative D: cease stocking and remove reproducing populations of fish from the lakes wherever it is feasible to do so. A revised Record of Decision would be prepared as appropriate.

## **OTHER ALTERNATIVES CONSIDERED**

### **Alternative A: No Action – Continue Current Management**

Alternative A authorized fish stocking in North Cascades National Park to continue in up to 40 lakes in accordance with the terms of the 1988 Supplemental Agreement between the NPS and WDFW. In addition, the WDFW would have continued to manage 22 lakes for recreational fishing opportunities in Ross Lake and Lake Chelan National Recreation Areas according to historical practices. This alternative would have collectively maintained fishing opportunities in up to 62 lakes within the North Cascades Complex. Implementation of this alternative would result in major, long-term adverse impacts, primarily associated with taking no management actions to remove reproducing, self-sustaining populations of fish that have exceeded the carrying capacity of several lakes.

### **Alternative C: 11 Lakes May Have Fish**

Alternative C applied the exact same management objectives and strategies for fish stocking and fish removal as those considered for Management Alternative B; however, it limited stocking to select lakes in Ross Lake and Lake Chelan National Recreation Areas. Stocking within North Cascades National Park was not considered. This alternative was crafted to comport with NPS Management Policies 2001. Those policies, now nullified by NPS Management Policies 2006, authorized stocking within National Recreation Areas where the practice was established.

### **Alternative D: 91 Lakes Would Be Fishless (Environmentally Preferred Alternative)**

Alternative D discontinued fish stocking throughout North Cascades NPS Complex. Similar to Alternative B and C, it also emphasized elimination of reproducing populations of fish wherever feasible, using fish removal methods as described for the Selected Action. Alternative D was crafted to meet the spirit and intent of NPS Servicewide Management Policies 2006, by discontinuing stocking and removing reproducing fish populations from mountain lakes wherever feasible.

### **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

In reference to the Council on Environmental Quality regulations guiding the determination of the “Environmentally Preferred” alternative, such an alternative is that which will promote the national environmental policy as expressed in §101 of the National Environmental Policy Act. This section states that “...it is the continuing responsibility of the Federal Government to:

1. fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
2. assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
3. attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
4. preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;
5. achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life’s amenities; and
6. enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.”

Expressed more succinctly, the “Environmentally Preferred” alternative is the course of action that results in the least damage to the physical and biological environment, or conversely, is the alternative which best protects historic, cultural and natural resources.

The Environmentally Preferred Alternative was Alternative D, where all 91 lakes would become fishless by discontinuing stocking and removing reproducing populations of fish wherever feasible to do so. Alternative D was identified as the Environmentally Preferred Alternative because it would result in the least adverse impacts to the biological integrity of the North Cascades ecosystem. In contrast, the No Action alternative would result in the greatest impacts to the mountain lake ecosystems because reproducing populations of fish would remain in the lakes, and continue to cause major adverse impacts to native species. In contrast, Management Alternatives B and C, which authorized stocking to varying degrees, would include removal of reproducing populations of fish wherever feasible to do so. However, those alternatives would enable through stocking the continued introduction of non-native fish into lakes that would naturally be fishless. While various measures would be employed to minimize adverse impacts, the adverse impacts to the biophysical environment from continued stocking would exceed the beneficial impacts associated with eliminating stocking altogether.

## **BASIS FOR DECISION**

In deciding to select Management Alternative B, the NPS considered the Organic Act of 1916, the enabling legislation for the North Cascades Complex, the General Authority Act of 1970 and the 1978 amendment to the General Authority Act of 1970 (commonly referred to as the “Redwood Amendment”), the 1988 Washington Parks Wilderness Act, Executive Order 13352 (Facilitation of Cooperative Conservation), the congressional record, NPS Management Policies 2006, the wide body of scientific knowledge regarding the ecological effects of fish stocking, and the public comments received during the planning process.

The NPS placed particular emphasis on the longstanding administrative history of the fish stocking controversy, especially the research-informed policy directives issued in the late 1980’s by the Director of the National Park Service and the Assistant Secretary of the Interior. Those unit-specific policy directives authorized stocking to continue, in variance to NPS servicewide policies which would normally prohibit stocking, in order to ensure continued collaboration between the NPS and WDFW in regard to management fish and wildlife. In recognition of the need for more scientifically based information on the potential adverse effects of stocking, the policy variance also mandated the Superintendent of North Cascades National Park Service

Complex to conduct research into the ecological effects of fish stocking and to use the results of the research to develop a new fisheries management plan.

The decade-long research effort determined that reproducing populations of non-native trout—established in lakes with favorable spawning habitat—can have significant adverse effects on native aquatic organisms such as salamanders, invertebrates, and zooplankton. However, in lakes where fish are stocked in low numbers and cannot reproduce, there appear to be no statistically significant ecological effects to native aquatic life. The inability to detect significant adverse impacts to native species from low densities of stocked fish, coupled with the longstanding research-informed management directives issued by the NPS Director and the Assistant Secretary, would seem to provide a reasonable justification to select an alternative that would enable the Washington Department of Fish and Wildlife to continue stocking. However, the research-informed findings that contributed to the Proposed Action must be considered in concert with the legal, regulatory and policy guidance that governs NPS administration of the North Cascades Complex and the Stephen Mather Wilderness.

In choosing to select Management Alternative B as described in the Plan/FEIS, the 2006 Service-wide Management Policies of the National Park Service (NPS) were also carefully considered. Those servicewide management policies continue to maintain the longstanding servicewide policy that “...*the [NPS] will not stock waters that are naturally barren of harvested aquatic species.*” Continued stocking of lakes would clearly be contrary to current NPS servicewide policies, because all the lakes under consideration are naturally fishless.

To reconcile the conflict between (a) NPS Servicewide Management policies which prohibit stocking in accordance with the NPS doctrine of preservation, and (b) the research-informed policy guidance previously provided by the Director of the NPS and the Assistant Secretary of the Interior, the NPS has determined that implementation of the Selected Action will require authorization from Congress that continued fish stocking is appropriate. Heretofore stocking of fish has been allowed on a short term basis; the Selected Action could make this permanent. The rationale supporting the need for authorization from Congress to permanently enable fish stocking is derived from NPS Management Policies 2006, the Wilderness Act of 1964, and the

1978 amendment to the General Authority Act of 1970 (commonly referred to as the “Redwood Amendment”).

NPS Management Policies 2006 provide:

*“In some special situations, the Secretary may stock native or exotic animals for recreational harvesting purposes, but only when such stocking will not unacceptably impact park natural resources or processes and when...the intent for stocking is a treaty right or expressed in statute, applicable law, or a House or Senate report accompanying a statute.”*(Section 4.4.3 Harvest of Plants and Animals by the Public)

Exhaustive reviews of the legislative history of the North Cascades NPS Complex provide various references in support of fish stocking. For example, the enabling legislation for the North Cascades Complex mandates the NPS to cooperate with the Washington Department of Fish and Wildlife in regard to management of fish and wildlife resources. The enabling legislation also authorizes the State of Washington to issue hunting and fishing licenses in the North Cascades Complex. In addition, during the congressional field hearings leading to the establishment of North Cascades, NPS Director Hartzog stated for the record that the establishment of North Cascades would not lead to an NPS prohibition on fish stocking. Proponents of fish stocking contend this affirmation precluded Congress from explicitly authorizing continued fish stocking in the enabling legislation. This legislative background does not comport with NPS policy regarding “special situations” in which stocking may be authorized because the action is not specifically authorized in law, or in a House or Senate report related to law. Therefore, the administrative history of this issue cannot justify authorizing stocking to continue.

The Wilderness Act of 1964 and NPS policies regarding wilderness stewardship also underscore the NPS’ lack of authority to implement fish stocking.

NPS Management Policies 2006 mandate that the “Minimum Requirement” concept be applied to all management decisions affecting the Stephen Mather wilderness (Section 6.3.5, Minimum Requirement). The NPS has conducted a Minimum Requirements analysis of the proposed action (FEIS Volume II, Appendix K) and determined that fish stocking would adversely affect the

untrammeled character of the Stephen Mather Wilderness and not leave the wilderness free from modern human control and manipulation. Moreover, stocking would also affect the natural character of the wilderness by introducing a non-native species solely for the purpose of creating and maintaining a recreational fishery in lakes that are naturally fishless. In light of these findings, the NPS concludes that fish stocking does not meet the minimum requirement for administration of the Stephen Mather Wilderness.

The NPS is prohibited by law from carrying out a management action that would impair or derogate the wilderness resource unless the action is authorized by Congress through legislation. This prohibition is derived from several key pieces of legislation including the NPS Organic Act of 1916, the General Authority Act of 1970 and the 1978 amendment to the General Authority Act of 1970 (commonly referred to as the “Redwood Amendment”). The Redwood Amendment provides:

“... [T]he authorization of activities shall be construed, and the protection, management, and administration of [NPS] areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress. (16 USC 1a-1).”

The NPS cannot permanently override legislative mandates that collectively prohibit derogation of park resources and values with a policy variance. Therefore, the NPS has determined that the Selected Action shall not be implemented unless Congress grants authorization by July 1, 2009 that fish stocking is appropriate.

In addition to legal, regulatory and policy prohibitions regarding fish stocking, the rationale for seeking authorization from Congress is based upon the need for an enduring resolution to the fish stocking controversy. This controversy has caused the NPS considerable administrative challenges for almost 40 years. The administrative burden created by the controversy has diverted substantial fiscal and human resources from other important matters of conservation concern, including the need to address other substantial fishery management issues and threats elsewhere in the North Cascades Complex.

In summary, the NPS has determined that it lacks the authority to implement fish stocking. Therefore, the Selected Action will not be implemented unless Congress grants unambiguous authority to do so.

If Congress does not act to authorize fish stocking in the North Cascades Complex and the Stephen Mather Wilderness by July 1, 2009, then the NPS will implement Management Alternative D as described in Chapter II of the Final Plan/EIS. This deadline is important for providing the Washington Department of Fish and Wildlife reasonably sufficient notice to coordinate logistical actions necessary to implement stocking (as July is generally when the high lakes begin to ice out, enabling access by foot and the ability to stock), as well for providing for timely park efforts to resume monitoring. This deadline is also based upon recognition that the legislative process is an intricate and time-consuming process that is by no means assured.

## **FINDINGS ON IMPAIRMENT OF PARK RESOURCES AND VALUES**

The NPS *Management Policies* (2006) require analysis of potential effects to determine whether actions would impair park resources. The NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts to park resources and values. However, the laws do give the NPS the management discretion to allow impacts to park resources and values, when necessary and appropriate, to fulfill the purposes of a park as long as the impact does not constitute impairment of the affected resources and values.

The impairment that is prohibited by the *Organic Act of 1916* is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values. Whether an impact meets this definition depends on the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question.

An impact to any park resource or value may, but does not necessarily, constitute impairment. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the enabling legislation or proclamation of the park,
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- identified in the park's general management plan or other relevant NPS planning documents as being significant.

An impact would be less likely to constitute impairment to the extent that it is an unavoidable result, which cannot be further mitigated, of an action necessary to preserve or restore the integrity of park resources or values. However, the impact threshold at which impairment occurs is not always readily apparent.

After analyzing the environmental impacts described in the plan/EIS and public comments received, the NPS has determined that implementation of the Selected Action will not constitute impairment to any of the North Cascades Complex resources and values. Instead, the impact analysis indicates that continued stocking would generally cause minor to moderate, long-term adverse impacts; and removal of reproducing populations of fish would have short-term adverse effects but long-term beneficial effects.

## **MEASURES TO MINIMIZE ENVIRONMENTAL HARM**

Measures to enable adaptive management of the mountain lakes fishery, and minimum requirement/minimum tool considerations regarding actions in the Stephen Mather Wilderness, are the primary tools and procedures that will be applied to minimize environmental harm. Adaptive management is based on the premise that managed ecosystems are complex and unpredictable. The purpose of adaptive management is to give policy makers a better framework for applying scientific principles to complex environmental decisions. It is an analytical process for adjusting management and research decisions to better achieve management objectives.



The NPS must use adaptive management to comply with the Council on Environmental Quality regulations (40 CFR 1500) requiring the adoption of a monitoring and enforcement program. Adaptive management is an iterative process of applying management actions, monitoring consequences, evaluating monitoring results against objectives, adjusting management actions, and using feedback to make future management decisions. By monitoring the success or failure of management actions in the context of complex ecosystems, environmental harm can be minimized.

The Final Plan/EIS includes a monitoring plan (Volume II, Appendix F) to enable adaptive management of the mountain lakes fishery. Based on monitoring and adaptive management, the following management actions may change or be discontinued, with decisions made according to lake-specific circumstances: species to be stocked; densities of fish to be stocked; and the category and type of fish removal methods to be applied to lakes with high densities of reproducing fish.

High densities of reproducing fish populations will be eliminated from lakes using three general methods of fish removal: mechanical (e.g. gillnetting), chemical (the piscicide antimycin), and spawning habitat exclusion. To minimize adverse impacts from fish removal, mitigation measures have been identified for each type of fish removal method. The specific choice of mitigation will depend upon lake conditions. For example, mechanical methods as opposed to antimycin will be used on shallow lakes generally smaller than 5 acres, provided they do not have conditions that might make removal infeasible (e.g. an abundance of large woody debris). Mechanical methods may prove more time consuming and costly than antimycin application, but NPS policies regarding use of pesticides mandate the use of less toxic alternatives if such options exist and are feasible to implement.

The piscicide antimycin will only be applied to larger, deeper lakes where professional experience and research suggests that mechanical removal of fish will not be feasible. Antimycin was selected for use because it is toxic to fish in extremely low (part per billion) concentrations; it has limited toxicity to non-target aquatic organisms; and it rapidly degrades via natural pathways of oxidation, such as in turbulent streams. Moreover, antimycin has been

applied successfully in several National Park Service units, including Great Basin National Park, Great Smoky Mountains National Park and Crater Lake National Park.

## **PUBLIC ENGAGEMENT AND AGENCY COORDINATION**

The public scoping phase formally began in January 16, 2003 with the publication of a Notice of Intent to prepare Mountain Lakes Fishery Management Plan and Draft EIS in the *Federal Register*. The NPS in February 2003 prepared and distributed Public Scoping Brochures describing the planning process and announcing that four public scoping meetings would be convened in late March 2003 in the surrounding communities of Sedro-Woolley, Wenatchee, Bellevue and Seattle, Washington. The Public Scoping Brochures summarized the purpose of and need for a fishery management plan for the North Cascades Complex, the objectives for the plan/EIS, and the history of mountain lakes fishery management. The brochure also contained important information (dates/times/locations) about the public scoping meetings. A project website was created in January 2003 and was periodically updated with new information. A News Release for the public scoping meetings was sent on February 14, 2003, to the following news media: Seattle Times, Seattle Post Intelligencer, Chelan Mirror, Wenatchee World, Associated Press, Everett Herald, River Post, Argus, Spokane Chronicle, Bellingham Herald, Skagit Valley Herald, and Lynden Tribune.

The public scoping meetings were held in Sedro-Woolley on March 18, 2003 (21 people attended); in Wenatchee on March 20, 2003 (5 people attended); in Bellevue on March 25, 2003 (21 people attended); and in Seattle on March 27, 2003 (25 people attended). The format for each meeting included an opening presentation, followed by having participants break out into smaller work groups where facilitators assisted in discussions about issues, objectives, and preliminary alternatives. Issues and concerns were recorded at the public meetings and in subsequent written comments and emails. The public comment period ended on April 18, 2003.

Upon conclusion of the public scoping period the NPS received 30 pieces of correspondence, including 22 pieces of correspondence from individuals, six from organizations, and one each from a business and a local Tribe. The correspondence collectively provided 248 comments, and

96% of comments received were considered substantive. A public scoping report was prepared and posted on the project web site.

The formal public comment period for the Draft Plan/EIS began on May 27, 2005 with the *Federal Register* publication of the EPA's Notice of Filing of the Draft Plan/EIS. The NPS' Notice of Availability was published on May 31, 2005. The 90-day opportunity for public review and comment initially ended on August 26, 2005, but was extended until September 15, 2005 to give interested parties more time to provide written comments on the lengthy draft document. Correspondence received during the public comment period included letters, electronic mail, transcripts from public meetings, and comments on the NPS Planning, Environment and Public Comment website. The NPS received 65 pieces of correspondence from individuals, and from members and representatives of 7 recreational groups, 1 business, 2 federal government agencies, 1 state government agency, and 4 conservation and preservation groups. The correspondence contained 475 comments on various topics. A majority of the comments focused on the pros and cons of continued stocking or removal of fish from the lakes. Only a limited number of comments addressed the specific methods of fish removal and the anticipated impacts of those activities.

The formal release of the Final Plan/EIS occurred on July 18, 2008 with publication in the *Federal Register* of the EPA's Notice of Filing of the Final Plan/EIS (the NPS' Notice of Availability was published on July 23, 2008). Volume II includes a public comment and response report, including the full text of all correspondence received. The majority of comments received focused on various aspects of the alternatives proposed in the Draft Plan/EIS. Of the 97 comments addressing the alternatives, 31 comments addressed the preferred alternative (alternative B). Thirty-five comments regarded alternatives that had been eliminated for consideration in the draft plan/EIS, and 6 comments proposed new alternatives. Other topics that received numerous comments included the Park Legislation and Authority section in the Purpose and Need for the Plan (71 comments), comments related to impacts of the proposal and alternatives on aquatic organisms (36 comments), and the NPS' Minimum Requirements Analysis regarding fishery management actions in the Stephen Mather Wilderness (32 comments).

## **Washington Department of Fish and Wildlife**

Consultation with the Washington Department of Fish and Wildlife (WDFW) began in October 2002. The WDFW agreed to serve as a cooperating agency in the NEPA process, and to actively assist in a technical advisory capacity. The NPS and WDFW convened a Technical Advisory Committee (TAC) composed of NPS and WDFW biologists, and several environmental consultants. The purpose of the TAC was to advise and provide recommendations regarding compilation and evaluation of data for each of the 91 lakes under consideration in the Plan, to formulate strategies and tactics for fisheries management actions, including removal of reproducing populations of fish, and continued stocking. Specific tasks included:

- Refining, based on public input, the nature and scope (spatial/temporal) of ecological issues to be evaluated in the Plan;
- Recommending reasonable fishery management actions for park management to consider in developing alternatives;
- Providing baseline data and professional expertise to describe the affected environment for the EIS;
- Developing impact analysis methodologies based upon best available science;
- Reviewing and commenting on the impact analysis section of the Draft Plan/EIS;
- Providing technical guidance on presentations for public meetings; and
- Review and comment on the draft EIS.

WDFW personnel participated in seven Technical Advisory Committee Meetings during preparation of the Draft Plan/EIS. WDFW provided substantial data, information and technical expertise that were used to inform the environmental impact analysis, the management provisions regarding stocking as part of Management Alternatives B and C, and in the strategies and tactics proposed for removal of reproducing fish populations. WDFW personnel also provided an alternative interpretation of the NPS' Minimum Requirement Analysis, asserting that fish stocking would indeed meet the minimum requirement for administration of the Stephen Mather Wilderness. Following release of the Draft Plan/EIS, WDFW personnel provided technical assistance in responding to select comments received during public review.

## **U.S. Environmental Protection Agency**

Discussions with the EPA began in January 2003. EPA requested that the NPS include in their impact analysis: (1) water quality, (2) nonnative fish as pollutants, and (3) impacts to bull trout from downstream dispersal. EPA also recommended consultations with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (NOAA Fisheries). EPA reviewed the Draft EIS and expressed concern for manipulating the native ecology through continued stocking. In a letter dated August 24, 2005, EPA provided comments on the plan, expressed support for Alternative D, and assigned a rating of EC-1 (Environmental Concerns - Adequate) to the Draft Plan/EIS. The EPA also reviewed Final Environmental Impact Statement, and on July 18, 2008 they submitted a letter to the NPS expressing appreciation for responding to their stated concerns for continued stocking. The letter concurred with the NPS' determination that the Selected Action will meet the objectives of the Plan/EIS, and it expressed support for adoption of Management Alternative D should the NPS not receive Congressional authority to implement Management Alternative B. Finally, the EPA formally announced its lack of objections to the proposed final plan in the *Federal Register* on September 12, 2008

## **U.S. Fish and Wildlife Service**

Informal consultations with the U.S. Fish and Wildlife Service (USFWS) began in the summer of 2003 with a species list request. Informal discussions with the U.S. Fish and Wildlife Service continued during preparation of the Draft Plan/EIS and corresponding Biological Assessment (BA). The NPS submitted the Draft Plan/EIS to the USFWS in May 2005, but due to heavy workloads within the USFWS, the BA was not assigned until March 2006. After the initial BA was drafted and submitted to the USFWS for their concurrence, critical habitat for bull trout was designated in 29 reaches within the North Cascades Complex. The BA was amended to include an analysis of impacts to bull trout critical habitat, then resubmitted to the USFWS in July 2006. The amended BA determined that implementation of the Preferred Alternative (Management Alternative B) “may affect, [but is] not likely to adversely affect” the threatened coastal Puget Sound distinct population segment of bull trout (*Salvelinus confluentus*), bald eagle (*Haliaeetus leucocephalus*), marbled murrelet (*Marmoratus marmoratus*), Canada lynx (*Lynx Canadensis*), grizzly bear (*Ursus arctos horribilis*), and the endangered gray wolf (*Canis lupus*). The NPS

received a concurrence letter from the U.S. Fish and Wildlife Service on August 18, 2006. The consultation record is included in Volume II, Appendix C of the Final Plan/EIS.

### **National Marine Fisheries Service**

Informal consultations with the National Marine Fisheries Service (NOAA Fisheries) began in the summer of 2003. NOAA Fisheries recommended that the NPS evaluate impacts to chinook salmon (threatened) and coho salmon (candidate). In August 2005 the NPS submitted a Biological Assessment to NOAA fisheries, seeking concurrence with a “not likely to adversely affect” determination concerning Puget Sound chinook salmon (*Oncorhynchus tshawytscha*). The NPS received concurrence from NOAA Fisheries on September 15, 2006. The consultation record is included in Volume II, Appendix C of the Final Plan/EIS.

### **Native American Tribes**

A public scoping letter requesting input was sent to the following tribes on March 31, 2003: Yakama Nation, Skagit System Cooperative, Nlakapamux National Tribal Council, Swinomish Tribe, Sauk-Suiattle Indian Tribe, Nooksack Tribal Office, and Colville Confederated Tribes. The Swinomish Tribe submitted comments on the Draft Plan/EIS, expressing concern that if any ground disturbance could occur from high lakes fishing activities, there should be compliance with section 106 of the National Historic Preservation Act.

Further consultations with the Skagit and Swinomish tribes were conducted to verify the widespread belief that stocking is a modern practice that was not performed by native people. All responded that they had never heard of stocking prior to European settlement, although several individuals suggested it might have been possible. Based on this response, the decision was made to dismiss ethnographic resources, including the cultural practice of stocking, as an issue in the plan/EIS.

### **Washington State Historic Preservation Office**

The Washington State Historic Preservation Office (SHPO) was contacted in the summer of 2003 regarding their cultural resource and ethnographic concerns related to mountain lakes fishery management. The SHPO did not envision any concerns for the various actions under

consideration but expressed interest in receiving appropriate correspondence. A copy of the Draft Plan/EIS was sent to the SHPO for their review and comment. No comments were received. Further consultation was discontinued because the Draft Plan/EIS did not identify effects to historic properties that would constitute an undertaking in the context of the National Historic Preservation Act (NHPA). If implementation of the Mountain Lakes Fishery Management Plan leads to specific undertakings currently not envisioned (e.g. unanticipated discoveries of cultural resources that could be adversely affected by fishery management actions), then the NPS will initiate section 106 consultation in accordance with the August 2008 *Programmatic Agreement among the National Park Service, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers for Compliance with Section 106 of the National Historic Preservation Act*.

### **U.S. Geological Survey**

The U.S. Geological Service (USGS) Forest Range and Experiment Station and Oregon State University conducted more than a decade of research into the ecological effects of introduced trout and char in the mountain lake ecosystems of North Cascades. This research was mandated in the late 1980's by the Director of the National Park Service and the Assistant Secretary of the Interior to enable research-informed management of the mountain lake fishery. The research yielded extensive baseline information on the mountain lake ecosystems, and new insights into the ecological effects of introduced trout and char on zooplankton, macroinvertebrates and amphibians, especially the long-toed salamander (*Ambystoma macrodactylum*), and the northwestern salamander (*Ambystoma gracile*). Early on in the planning process, the NPS requested the researchers participate in the Technical Advisory Committee (TAC), but they recused themselves from involvement in the TAC to maintain scientific objectivity. Informal discussions with various staff members from the USGS occurred throughout the planning process. These discussions have served to clarify their research findings and to gather additional data and information in support of this plan/EIS.

### **CONCLUSION**

Among the four management alternatives considered, the Selected Action (with authorization from Congress as discussed above) meets the NPS legal and regulatory requirements and

research-informed policy guidance that informed this conservation planning effort. The Selected Action will protect natural, cultural, and environmental resources, and will provide for continued sport fishing opportunities in a manner that conserves the biological integrity of the mountain lake ecosystems. The Selected Action will not result in the impairment of park resources and values.

The Selected Action will not be implemented unless Congress takes action to authorize permanent fish stocking as appropriate within the North Cascades National Park Service Complex. If Congress does not provide such authorization by July 1, 2009, then the NPS will implement Management Alternative D, the Environmentally Preferred Alternative, as described in the Final Plan/EIS. If Congress does authorize stocking, then the NPS will incorporate this legislative direction, including any prescriptive guidance regarding management of the mountain lakes fishery, into the Final Mountain Lakes Fishery Management Plan. In either case, the official responsible for implementing the Selected Action is the Superintendent, North Cascades NPS Complex.

**Approved by:**

<signed>

11/26/08

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Jonathan B. Jarvis

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Date

Regional Director, NPS Pacific West Region



## APPENDIX A. LAKE MANAGEMENT ACTIONS

**Table I. Standard Management Actions**

<p>This table describes the standard fishery management actions that will be implemented to manage the mountain lakes fishery. The standard management actions in this table are broken down into classes 1-4, based on the presence, reproductive status, and estimated density of fish in the lakes. These standard management actions will require periodic monitoring and evaluation to enable adaptive management.</p> <p>Table II indicates how each of these management actions will be applied to the 91 lakes governed by the Mountain Lakes Fishery Management Plan.</p>	
<b>For a lake that is currently fishless:</b>	
1	The lake will remain fishless.
<b>For a lake with high densities of reproducing fish, apply one of the following management actions:</b>	
2A	Remove all reproducing fish. Monitor the recovery of native organisms and keep the lake fishless.
2B	Remove all reproducing fish. Monitor lake conditions and use the results to determine whether or not to restock the lake with nonreproducing fish. If the lake is restocked and monitoring results indicate fish are causing major adverse impacts, then fish densities will be reduced by changing stocking densities, stocking cycles, or the species of stocked fish. If these management changes do not work, then discontinue stocking.
2C	Remove all reproducing fish. Implement a resting period (that is, keep the lake fishless for a period of time) to foster recovery of native organisms. The duration of the resting period will be determined on a lake-by-lake basis based upon monitoring results. If monitoring results indicate favorable recovery of native organisms, then restock the lake with low densities of nonreproducing fish and monitor lake conditions. If monitoring results indicate fish are causing major adverse impacts, then reduce stocking densities, stocking cycles, or the species of stocked fish. If these management changes do not work, then discontinue stocking.
<b>For a lake with low densities of reproducing fish, apply one of the following management actions:</b>	
3A	Remove all reproducing fish. Monitor the recovery of native organisms, and keep the lake fishless.
3B	Evaluate the reproductive status of fish and the status of indicator taxa. If fish density is high enough that impacts on indicator taxa may be major, apply prescription 2A, 2B, or 2C. If fish densities and impacts to indicator taxa are low, maintain the low fish densities. If monitoring data indicate fish are causing major adverse impacts, then completely remove fish.
3C	For lakes with extremely low densities of fish, augment the population with supplemental stocking and monitor indicator taxa. If monitoring results indicate fish are causing major adverse impacts, then stop stocking and remove all fish.
<b>For a lake that has been stocked and does not contain a reproducing population of fish, apply one of the following management actions:</b>	
4A	Discontinue stocking. Monitor the recovery of native organisms.
4B	Lack of data for decision-making. Discontinue stocking and monitor lake conditions. If the lake is restocked and monitoring results indicate fish are causing major adverse impacts, then discontinue stocking.
4C	Continue stocking with low densities of fish expected not to reproduce in the lake. If monitoring results indicate fish are causing major adverse impacts, then reduce stocking densities, stocking cycles, or the species of stocked fish. If these management changes do not work, then discontinue stocking.

**Table II. Lake-specific Management Actions**

This table describes the specific management actions that will be implemented for each of the 91 lakes governed by the Final Plan/EIS.

<b>Lake Name</b>	<b>Lake Code</b>	<b>Current Condition</b>	<b>Management Action</b>
Azure	MP-09-01	Fishless	1
Battalion	MLY-02-01	High density reproducing fish	2B
Bear	MC-12-1	High density reproducing fish	2C
Berdeen	M-08-01	High density reproducing fish	2C
Berdeen, Lower	M-07-01	High density reproducing fish	2A
Berdeen, Upper	M-09-01	High density reproducing fish	2A
Blum (Largest/Middle, No. 3)	M-11-01	High density reproducing fish	2B
Blum (Lower/West, No. 4)	LS-07-01	High density reproducing fish	2C
Blum (Small/North, No. 2)	MC-01-01	Fishless	1
Blum (Vista/Northwest, No. 1)	MC-02-01	Fishless	1
Bouck, Lower	DD-04-01	High density reproducing fish	2C
Bouck, Upper	DD-05-01	Stocked with nonreproducing fish	4A
Bowan	MR-12-01	Stocked with nonreproducing fish	4A
Coon	MM-10-01	Stocked with nonreproducing fish	4C
Coppera	MC-06-01	Stocked with nonreproducing fish	4B
Dagger	MR-04-01	High density reproducing fish	2B
Dee Dee, Upper	MR-15-01	High density reproducing fish	2B
Dee Dee/Tamarack, Lower	MR-15-02	Stocked with nonreproducing fish	4A
Despair, Lower	M-14-01	Fishless	1
Despair, Upper	M-13-01	Fishless	1
Diobsud No. 1	LS-01-01	High density reproducing fish	2A
Diobsud No. 2, Lower	LS-02-01	High density reproducing fish	2B
Diobsud No. 3, Upper	LS-03-01	Stocked with nonreproducing fish	4A
Doubtful	CP-01-01	High density reproducing fish	2C
Doug's Tarn	M-21-01	High density reproducing fish	2C
East, Lower	MC-14-02	Fishless	1
East, Upper	MC-14-01	Fishless	1
Firn	MP-02-01	Low density reproducing fish	3B
Green	M-04-01	High density reproducing fish	2B
Green Bench	LS-04-01	Fishless	1
Hanging	MC-08-01	High density reproducing fish	2Ab
Hidden	SB-01-01	Low density reproducing fish	3C
Hidden Lake Tarn	EP-14-01	Stocked with nonreproducing fish	4A
Hi-Yu	M-01-01	Stocked with nonreproducing fish	4B
Hozomeen	HM-02-01	High density reproducing fish	2A
Ipsoot	LS-06-01	Low density reproducing fish	3B
Jeanita	DD-01-01	Low density reproducing fish	3B
Kettling	MR-05-01	High density reproducing fish	2A
Kwahnesum	MC-07-01	Stocked with nonreproducing fish	4A
McAlester	MR-10-01	High density reproducing fish	2B
Middle, Lower	MC-16-02	Fishless	1
Middle, Upper	MC-16-01	Fishless	1
Monogram	M-23-01	High density reproducing fish	2C
Monogram Tarn	M-23-11	Stocked with nonreproducing fish	4A
Nert	M-05-01	Stocked with nonreproducing fish	4A

<b>Lake Name</b>	<b>Lake Code</b>	<b>Current Condition</b>	<b>Management Action</b>
Noisy Creek, Upper	LS-14-01	Fishless	1
No Name	PM-01-01	Stocked with nonreproducing fish	4C
Panther Potholes, Lower	RD-05-02	Stocked with nonreproducing fish	4A
Panther Potholes, Upper	RD-05-01	Fishless	1
Pegasus	EP-10-01	Fishless	1
Pond SE of Kettling Lakes	MR-09-01	Stocked with nonreproducing fish	4C
Quill, Lower	M-24-02	Stocked with nonreproducing fish	4B
Quill, Upper	M-24-01	Stocked with nonreproducing fish	4B
Rainbow	MR-14-01	High density reproducing fish	2C
Rainbow, Upper (North)	MR-13-01	Fishless	1
Rainbow, Upper (South)	MR-13-02	Stocked with nonreproducing fish	4A
Rainbow, Upper (West)	MM-11-01	Stocked with nonreproducing fish	4A
Redoubt	MC-11-01	Fishless	1
Reveille, Lower	MC-21-02	Fishless	1
Reveille, Upper	MC-21-01	Fishless	1
Ridley	HM-03-01	Stocked with nonreproducing fish	4C
Sky	EP-13-01	Fishless	1
Skymo	PM-03-01	High density reproducing fish	2C
Sourdough	PM-12-01	High density reproducing fish	2B
Sourpuss	ML-01-01	Fishless	1
Stiletto	MR-01-01	Stocked with nonreproducing fish	4B
Stout	EP-09-02	Low density reproducing fish	3B
Stout, Lower	EP-09-01	Low density reproducing fish	3B
Sweet Pea	ML-02-01	Stocked with nonreproducing fish	4C
Talus Tarn	M-06-01	Fishless	1
Tapto, Lower	MC-17-03	Fishless	1
Tapto, Middle	MC-17-02	Fishless	1
Tapto, Upper	MC-17-01	Fishless	1
Tapto, West	MC-17-04	Fishless	1
Thornton, Lower	M-20-01	Low density reproducing fish	3C
Thornton, Middle	M-19-01	Stocked with nonreproducing fish	4C
Thunder	RD-02-01	Fishless	1
Tiny	MC-15-01	Fishless	1
Torment	ML-03-01	Stocked with nonreproducing fish	4A
Trapper	GM-01-01	Low density reproducing fish	3B
Triplet, Lower	SM-02-01	High density reproducing fish	2C
Triplet, Upper	SM-02-02	High density reproducing fish	2A
Triumph	M-17-01	Stocked with nonreproducing fish	4C
Unnamed	FP-01-01	Fishless	1
Unnamed	MR-11-01	Stocked with nonreproducing fish	4C
Unnamed	MR-16-01	Low density reproducing fish	3B
Vulcan	ML-04-01	Fishless	1
Wilcox/Lillie, Upper	EP-06-01	High density reproducing fish	2A
Wilcox/Sandie, Lower	EP-05-01	High density reproducing fish	2C
Wild	MC-27-01	Fishless	1
Willow	HM-04-01	Stocked with nonreproducing fish	4C