United States Department of Agriculture **Forest Service** **Alaska Region** **P.O. Box 21628 Juneau, AK 99802-1628**

File Code: 2770
Date: June 7, 2011

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Blue Lake Hydroelectric Project License Amendment, P-2230-044

FINAL TERMS AND CONDITIONS AND COMMENTS

Dear Secretary Bose:

This letter is in response to the April 8, 2011, Notice of Application Accepted for Filing, Ready for Environmental Analysis, Soliciting Comments, Motions to Intervene, Protests, Recommendations, Terms and Conditions, and Fishway Prescriptions for the Blue Lake Hydroelectric Project License Amendment, Project No. 2230.044. The following final terms, conditions and summary of management direction comprise the final report of the USDA Forest Service pursuant to Section 4(e) of the Federal Power Act.

This project does not conflict with any project that should be or has been constructed by the United States. It neither interferes with nor is inconsistent with the purposes for which the Tongass National Forest was created and/or acquired. We have no objection to a license amendment being issued, subject to certain conditions necessary for the protection and utilization of National Forest System land and resources affected by this project. We will issue a special-use authorization for the project if it is licensed by the Federal Energy Regulatory Commission.

Enclosure 1 summarizes the management direction and information considered in the development of final terms and conditions and contains the final terms and condititions I find necessary for the protection and utilization of the Tongass National Forest as required by the management direction established in the 2008 Tongass National Forest Land and Resource Management Plan. I consider these terms and conditions to be final, but I do reserve the rights to modify them, if necessary, based upon on-going discussions with the Applicant regarding mitigation measures and/or any major changes to the project.

Enclosure 2 contains our comments on the Final License Application and Final Draft Environmental Assessment.

The Certificate of Service is included as Enclosure 3.

Please contact Barbara Stanley, Regional Energy Coordinator at (907) 228-6262 or e-mail at bstanley@fs.fed.us if you have any questions concerning this submittal.

Sincerely,

/s/ Beth G. Pendleton
BETH G. PENDLETON
Regional Forester

Enclosures (3)

cc: Chris Brewton

Enclosure 1

Blue Lake Hydroelectric Project
License Amendment
Project Number 2230-044

USDA Forest Service
Alaska Region

Final 4(e) Report

Review of the 2008 Tongass Land and Resource Management Plan to Determine Project Consistency

and

Submittal of the Final 4(e) License Conditions

June 7, 2011

Blue Lake Hydroelectric Project
License Amendment, Project Number 2230-044
Final 4(e) Report

Condition No. 22 -- Erosion Control Plan

Purpose

The Forest Service has the authority and obligation under the Federal Power Act to evaluate hydroelectric developments for consistency with the Forest Plan. The Federal Power Act in Section 4(e) states: "*That licenses shall be issued within any reservation only after a finding by the Commission that the license will not interfere or be inconsistent with the purpose for which such reservation was created or acquired, and shall be subject to and contain such conditions as the Secretary of Agriculture shall deem necessary for the adequate protection and utilization of such reservation."*

This document summarizes the applicable Forest-wide Standards and Guidelines and pertinent Land Use Designations from the *2008 Tongass Land and Resource Management Plan (*Forest Plan) that were used to develop Forest Service 4(e) conditions.

This document is intended to provide:

1. A well documented, clearly defined administrative record that forms the basis for a consistency determination of the project with the *2008 Tongass Land and Resource Management Plan;*

2. Final 4(e) conditions and rationale;

3. A summary of Management Prescriptions and Standards and Guidelines from the 2008 *Tongass Land and Resource Management Plan* that supports the development of Forest Service 4(e) conditions.

Part I

Final 4(e) Terms and Conditions with Rationale

General

License articles contained in the Federal Energy Regulatory Commission's (Commission) Standard Form L-1 issued by Order No. 540, dated October 31, 1975, cover those general requirements that the Secretary of Agriculture, acting by and through the USDA Forest Service, considers necessary for adequate protection and utilization of the land and related resources of the Tongass National Forest. Under authority of section 4(e) of the Federal Power Act (16 U.S.C. 797(e)), the following terms and conditions are deemed necessary for adequate protection and utilization of Tongass National Forest lands and resources. These terms and conditions are based on those resources enumerated in the Organic Administration Act of 1897 (30 Stat. 11), the Multiple-Use Sustained Yield Act of 1960 (74 Stat. 215), the National Forest Management Act of 1976 (90 Stat. 2949), and any other law specifically establishing a unit of the National Forest System or prescribing the management thereof (such as the Wilderness Act or Wild and Scenic Rivers Act), as such laws may be amended from time to time, and as implemented by regulations and approved Land and Resources Management Plans prepared in accordance with the National Forest Management Act. Therefore, pursuant to section 4(e) of the Federal Power Act, the following conditions covering specific requirements for protection and utilization of the National Forest System lands shall also be included in any license amendment issued for the Blue Lake Hydroelectric Project.

USDA Forest Service Terms and Conditions

Appendix A of the July 10, 2007 License Order for the Blue Lake Hydroelectric Project contains Forest Service Final 4(e) conditions 1 through 12, which are also applicable to this Amendment. Therefore, we have begun numbering the 4(e) conditions for this Amendment with 13.

Condition No. 13 -- Requirement to Obtain a Forest Service Special-Use Authorization
Condition No. 14 -- Forest Service Approval of Final Design
Condition No. 15 -- Traffic Safety
Condition No. 16 -- Safety During Project Construction
Condition No. 17 -- Implementation and Modification of Forest Service Conditions
Condition No. 18 -- Modifications of 4(e) Conditions after Biological Opinion or Certification
Condition No. 19 -- Project Mitigation and Monitoring Plan
Condition No. 20 -- Environmental Compliance Monitor
Condition No. 21 -- Noxious Weed Management Plan
Condition No. 22 -- Erosion Control Plan

Condition No. 13 - Requirement to Obtain a Forest Service Special-Use Authorization

The Licensee shall obtain a special-use authorization from the Forest Service for the occupancy and use of National Forest System lands. The licensee shall obtain the executed authorization before beginning ground-disturbing activities on National Forest System lands and within one year of amendment issuance.

The Licensee may commence ground-disturbing activities authorized by the Amendment and special-use authorization no sooner 60 days following the date the licensee files the Forest Service special-use authorization with the Commission, unless the Commission prescribes a different commencement schedule.

In the event there is a conflict between any provisions of the license and Forest Service special-use authorization, the special-use authorization shall prevail to the extent that the Forest Service, in consultation with the Commission, deems necessary to protect and utilize National Forest System resources.

Rationale

The Energy Policy Act of October 24, 1992 (106 Stat. 2776; 43 U.S.C. 1761(d)) amended section 501 of the Federal Land Policy and Management Act (FLPMA) of October 21, 1976 by providing that Forest Service special use authorizations are required for the continued operation of projects licensed by FERC as of October 24, 1992, if additional National Forest System lands are proposed to be added to the licensed project area.

Condition No. 14 - Forest Service Approval of Final Design

Prior to undertaking activities on National Forest System lands, the Licensee shall obtain written approval from the Forest Service for all final design plans for project components that the Forest Service deems as affecting or potentially affecting National Forest System lands and resources. As part of such prior written approval, the Forest Service may require adjustments in final design plans and facility locations to preclude or mitigate impacts and to assure that the project is compatible with on-the-ground conditions. Should the Forest Service, the Commission, or the Licensee determine that necessary changes are a substantial change; the Licensee shall follow the procedures of Article 2 of the license. Any changes to the license made for any reason pursuant to Article 2 or Article 3 shall be made subject to any new terms and conditions the Secretary of Agriculture may make pursuant to section 4(e) of the Federal Power Act.

Rationale

This condition addresses the Forest Service's concerns for operation and maintenance of the Licensee's improvements as they may affect NFS lands and compliance with Federal, State, and local laws and regulations. Including this standard condition insures that Project operations are consistent with these requirements.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed land use designation management prescriptions and the standards and guidelines for Facilities (FAC3), Fish (FISH2), Recreation and Tourism (REC2), Scenery (SCENE1), Soil and Water (SW3), and Wetlands (WET).

Condition No. 15 - Traffic Safety

When construction is in progress adjacent to or on Forest Service controlled roads open to public travel, the Licensee shall furnish, install, and maintain temporary traffic controls to provide the public with adequate warning and protection from hazardous or potentially hazardous conditions associated with the Licensee's operations. Devices must be appropriate to current conditions and must be covered or removed when not needed.

Rationale

It is essential that the Licensee be required to take measures to protect against damage, injury, death, risks and hazards associated with use of the Blue Lake Road (NFSR 5755) during project construction. This standard condition requires the Licensee to seek out and eliminate, or minimize risks associated with their activities and thus protect the public interests.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Forest-wide standards and guidelines for Transportation (TRAN2).

Condition No. 16 - Safety During Project Construction

Within 60 days of ground-disturbing activity, the Licensee shall file with the Commission a Safety During Construction Plan that has been approved by the Forest Service and identifies potential hazard areas and measures necessary to protect public safety. Areas to consider include construction activities near public roads, trails, recreation areas, and facilities.

The Licensee shall perform daily (or on a schedule otherwise agreed to by the Forest Service in writing) inspections of Licensee's construction operations on National Forest System lands and Licensee adjoining fee title property while construction is in progress. The Licensee shall document these inspections (informal writing sufficient) and shall deliver such documentation to the Forest Service on a schedule agreed to by the Forest Service. The Licensee shall act immediately to correct any items found to need correction.

Rationale

While unlikely, there is a possibility that construction activities could be responsible for damage, injury, or death. It is appropriate for the Licensee and not the Forest Service, to protect against damage, injury, death, risks and hazards associated with the use and/or occupation of NFS

lands authorized by the Project amendment. It is essential that the Licensee be required to take measures to minimize this risk to Federal lands and human life. This condition provides an incentive to the Licensee to seek out and eliminate, or minimize risks associated with the construction activities and thus protect the public interests.

Condition No. 17 – Implementation and Modification of Forest Service Conditions
(Applies only to issuance of Special Use Permit)

The Forest Service reserves the authority to modify Forest Service 4(e) terms and conditions if upon completion of the Forest Service administrative appeals process at 36 Code of Federal Regulations (CFR) Part 251, the Chief, USDA Forest Service, or Secretary of Agriculture directs that substantial changes to the terms and conditions submitted herein be made.

Rationale

This license condition is necessary for compliance with the Forest Service administrative appeals process at 36 Code of Federal Regulations (CFR) Part 251.

Condition No. 18 - Modifications of 4(e) Conditions after Biological Opinion or Certification

The Forest Service reserves the right to modify these conditions, if necessary, to respond to any Final Biological Opinion issued for this Project by the National Marine Fisheries Service, United States Fish and Wildlife Service; or any Certification issued for this Project by the State of Alaska.

Rationale

This license condition provides protection for forest resources on NFS land by requiring modifications if environmental requirements change due to actions by other agencies.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed and Semi-Remote Recreation land use designation management prescriptions and the forest-wide standards and guidelines for Fish (FISH2, FISH3), Soil and Water (SW3), Wetlands (WET), and Wildlife (WILD1).

Condition No. 19 – Project Mitigation and Monitoring Plan

The Licensee, in consultation with the Forest Service and interested stakeholders, will develop a Project Mitigation and Monitoring Plan (Plan) within 60 days after amendment issuance. The Plan shall include detailed descriptions of the mitigation and monitoring measure(s), implementation schedules (including public notification strategy), and detailed steps for planning, design, construction, etc. of the approved measure(s). Additionally, the Plan shall provide a mechanism for the Licensee and the Forest Service to meet periodically to

review/modify the implementation schedule of these measures. Once approved by the Forest Service, the Licensee shall file the final Plan, including evidence of consultation, with the Commission and shall implement those measures approved by the Commission.

It is anticipated that certain details of the environmental monitoring (e.g., specific years of sampling and/or specific study sites) may need modification during development of detailed study plans or during subsequent implementation of the environmental monitoring. All such modifications shall be developed in consultation with the Forest Service and stakeholders and approved by these agencies and provided to the Commission before implementation.

Rationale

The Forest Service has an obligation under various laws, regulations and the Forest Plan to protect, mitigate and monitor for impacts documented in the License amendment reports and NEPA document. Implementation of the measures recommended and approved in this Plan will aid in protecting forest resources from known and future project impacts.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed and Semi-Remote Recreation land use designation management prescriptions and the standards and guidelines for Facilities (FAC3), Fish (FISH2, FISH3), Recreation and Tourism (REC2), Scenery (SCENE1), Soil and Water (SW3), Wetlands (WET), and Wildlife (WILD1).

Condition No. 20 - Environmental Compliance Monitor

To ensure adherence to license conditions, mitigative measures, and other environmental aspects of project construction, including those stated in each management and mitigation plan, the Forest Service will require the licensee to provide a qualified environmental compliance monitor to oversee the project during construction activities (e.g., vegetative or land disturbing, or spoil producing activities). The compliance monitor will be a liaison between the Forest Service and Licensee. The compliance monitor should be a third party contractor independent of the licensee or agency, subject to approval for both the Licensee and the Forest Service. The compliance monitor will have the authority to stop work or issue change orders in the field should conditions so warrant. Once major construction activities are completed the compliance monitor will no longer be needed.

Rationale

It is essential that the Licensee ensure adherence to license conditions, mitigation measures, and environmental requirements of project construction. This license condition provides protection for resources on NFS lands by requiring an independent compliance monitor to observe and, if necessary, intervene during major construction activities.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed and Semi-Remote Recreation land use designation management prescriptions and the standards and guidelines for Facilities (FAC3), Fish (FISH2, FISH3), Invasive Species (INV1, INV3), Plants (PLA2),Recreation and Tourism (REC2), Scenery (SCENE1), Soil And Water (SW3), Wetlands (WET), and Wildlife (WILD1).

Condition No. 21 - Noxious Weed Management Plan

Within one year of amendment issuance or prior to any ground-disturbing activity, the Licensee shall file with the Commission a Noxious Weed Management Plan that is approved by the Forest Service. At a minimum the Plan shall:

- Identify methods for prevention and control of noxious weeds.
- Develop a monitoring program to evaluate the effectiveness of noxious weed control measures, and
- Develop procedures for identification of additional measures that the licensee shall implement if monitoring reveals that noxious weed control is not successful or does not meet intended objectives.

Rationale

This condition provides for the protection of forest resources by reducing the likelihood that terrestrial and aquatic invasive species and noxious weeds will be introduced as a result of project activities.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed and Semi-Remote Recreation land use designation management prescriptions and the standards and guidelines for Invasive Species (INV1, INV3), Plants (PLA2).

Condition No. 22—Erosion Control Plan

During planning and before any new construction or non-routine maintenance projects with the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands, the Licensee shall file with the Commission an Erosion Control Measures Plan that has been approved by the Forest Service. The Plan shall include measures to control erosion, stream sedimentation, and soil mass movement. The plan shall be based on actual-site geological, soil, and groundwater conditions.

Rationale

Project construction activities, operation and non-routine maintenance projects have the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands.
This license condition provides protection for forest resources on NFS land by requiring preventative measures to control erosion.

This article is consistent with the 2008 Tongass Land and Resource Management Plan Municipal Watershed and Semi-Remote Recreation land use designation management prescriptions and the standards and guidelines for Fish (FISH2, FISH3), Soil and Water (SW3), Wetlands (WET).

Part II

Forest Plan Direction

Land Use Designation Management Prescriptions

MUNICIPAL WATERSHED

The emphasis of this LUD is to provide protection of municipal water supplies for the following incorporated cities and boroughs: Ketchikan, Petersburg, Sitka, Juneau, Wrangell, Kake, Klawock, Craig, and Hydaburg.

Goals

To maintain these watersheds as municipal water supply reserves, in a manner that meets provisions of the Safe Drinking Water Act and State of Alaska Drinking Water Regulations and Water Quality Standards, in accordance with Forest Service Manual 2542 and 36 CFR 251.9.

Objectives

Limit most management activities to the protection and maintenance of natural resources. Consult with Alaska Department of Environmental Conservation and affected municipalities prior to authorizing activities that are likely to cause pollution.

Desired Condition

Lands managed as Municipal Watersheds are generally in a natural condition. Facilities or structures to provide municipal water supplies may be present. Uses or activities that could adversely affect water quality or supply do not occur. These watersheds provide municipal water that meets State of Alaska Drinking Water Regulations and Water Quality Standards.

Standards and Guidelines *(applicable sections only, numbered as in Forest Plan)*

- **Facilities – Facilities Improvements: FAC3**

  Construct no Forest Service administrative facilities. Facilities such as dams, reservoirs, and pipelines are consistent with municipal watershed objectives.

  Related Terms and Conditions
  Condition No. 14 -- Forest Service Approval of Final Design
  Condition No. 19 -- Project Mitigation and Monitoring Plan
  Condition No. 20 -- Environmental Compliance Monitor

- **Fish – Fish Habitat Planning: FISH2**

  Plan the construction and maintenance of fish improvement projects only if they are compatible with the municipal watershed objectives.

  1. Restrict fish habitat improvements that result in reduced water quality for a municipality using the water from the affected stream.

2. When planning fish habitat improvement projects, consider the effects of anticipated municipal water withdrawals.

Related Terms and Conditions
Condition No. 14 -- Forest Service Approval of Final Design
Condition No. 18 -- Modifications of 4(e) Conditions after Biological Opinion
Condition No. 19 -- Project Mitigation and Monitoring Plan
Condition No. 20 -- Environmental Compliance Monitor
Condition No. 22 -- Erosion Control Plan

- **Lands – Special Use Administration (Non-Recreation): LAND2**

  Manage special uses in accordance with the legislation establishing the watershed (if any) and to safeguard the quality and quantity of municipal water supplies. Limit special uses to those that support development activities. Coordinate all proposals with affected municipalities and obtain written concurrence before issuing special-use authorizations.

  1. Analyze special-use proposals on a case-by-case basis, using an interdisciplinary process, to determine probable effects.

  2. Do not permit any activities that would lead to violation of State of Alaska Drinking Water Regulations.

  3. Terminate or bring into conformance, existing uses that are causing violation of State of Alaska Drinking Water Regulations or degradation of water quality.

- **Recreation – Recreation Use Administration: REC3**

  A. Provide only for those activities and recreation use levels that can be accommodated without detriment to water quality and flow.

  B. Issue appropriate orders for regulating public use within the watershed, in cooperation with the municipality.

- **Scenery – Scenery Operations: SCENE1**

  A. Considerations for the scenery resource will be secondary to the objectives of the municipal watershed. Scenic quality conditions are the result of the municipality's watershed management objectives.

  1. Design management activities within the watershed to minimize scenery impacts as seen from Visual Priority Travel Routes and Use Areas (see Appendix F).

  Related Terms and Conditions
  Condition No. 14 -- Forest Service Approval of Final Design
  Condition No. 19 -- Project Mitigation and Monitoring Plan
  Condition No. 20 -- Environmental Compliance Monitor

- **Soil and Water -Watershed Resource Planning: SW3**

  A. Maintain water quality consistent with Alaska Water Quality Standards (18 AAC 70) and protect source watersheds consistent with the federal Safe Drinking Water Act and the Alaska Drinking Water Regulations (18 AAC 80)

B. Do not authorize activities that create or maintain a condition that has a significant potential to cause or allow the pollution or contamination of a public water system.

D. Develop site-specific Best Management Practices (BMPs) for any authorized activity. Consider at a minimum BMPs that limit ground disturbance, restrict public access (in consultation with municipality), and restrict hazardous materials and hazardous waste.

Related Terms and Conditions
Condition No. 14 -- Forest Service Approval of Final Design
Condition No. 18 -- Modifications of 4(e) Conditions after Biological Opinion
Condition No. 19 -- Project Mitigation and Monitoring Plan
Condition No. 20 -- Environmental Compliance Monitor
Condition No. 22 -- Erosion Control Plan

- **Soil and Water - Watershed Resource Improvement: SW4**
  A. Soil and water protective measures are applied to protect the watersheds and water resources for municipal water use. Soil and water improvement will occur on all disturbances that threaten the watershed values.

SEMI-REMOTE RECREATION

Goals

To provide predominantly natural or natural-appearing settings for semi-primitive types of recreation and tourism, and occasional enclaves of concentrated recreation and tourism facilities.

To provide opportunities for a moderate degree of independence, closeness to nature, and self-reliance in environments requiring challenging motorized or non-motorized forms of transportation.

Objectives

Manage recreation and tourism use and activities to meet the levels of social encounters, on-site developments, methods of access, and visitor impacts indicated for the Semi-Primitive Recreation Opportunity Spectrum (ROS) classes. Enclaves of concentrated recreation and tourism developments within the LUD or management activities in adjacent LUDs may cause the ROS setting to become Rural.

Determine on a case-by-case basis whether roads, trails, and other areas should be closed to motorized recreation activities. If so, incorporate into off-highway vehicles (OHV) plans. If not, the use of boats, aircraft, and snowmachines for traditional activities is allowed.

Permit small-scale, rustic recreation and tourism facilities, and occasional enclaves of concentrated recreation and tourism facilities.

Apply the Moderate Scenic Integrity Objective to any developments, facilities, or structures.

Fish enhancement and wildlife habitat improvement may occur.

Desired Condition

Areas in the Semi-Remote Recreation LUD are characterized by generally unmodified natural environments. Ecological processes and natural conditions are only minimally affected by past or current human uses or activities. Users have the opportunity to experience a moderate degree of independence, closeness to nature, solitude, and remoteness, with some areas offering motorized opportunities and others non-motorized opportunities (except for the traditional uses of boats, aircraft, and snowmachines). Interactions between users are infrequent. Facilities and structures may be minimal or occasionally may be larger in scale, but will be rustic in appearance, or in harmony with the natural setting

Standards and Guidelines (*applicable sections only, numbered as in Forest Plan)*

- **Recreation And Tourism – Recreation Use Administration: REC3**

Recreation Management and Operations

A. Generally, manage for Semi-Primitive ROS settings. Enclaves of concentrated recreation and tourism developments within the LUD or management activities in adjacent LUDs may cause the ROS setting to become Roaded Natural, Roaded Modified, or Rural.

B. Designation of motorized routes for OHVs in Semi-Remote Recreation is allowed and will be planned in accordance with 36 CFR 212.

1. Manage roads for Maintenance Level 2, except when Maintenance Level 3 roads provide access to or through the LUD. Occasional enclaves of concentrated recreation and tourism developments could warrant higher service levels in those areas.

C. Where roads, trails, and other areas are closed to motorized recreation activities or vehicles, provide Semi-Primitive Non-Motorized recreation opportunities.

1. Permit use of snowmachines, motorboats, and aircraft for traditional activities.

D. Permit small scale, rustic recreation and tourism facilities such as recreation cabins, shelters, docks, and enclaves of concentrated recreation and tourism development.

1. During all construction activity:
    a. Minimize site modification,
    b. Minimize vegetation clearing adjacent to the site, and
    c. Use colors found in the natural environment.

- **Scenery – Scenery Operations: SCENE1**

A. Design resource activities to remain visually subordinate to the characteristic landscape. Activities may repeat form, line, color, or texture common to the landscape. New form, line, color, or texture will be subordinate to the characteristic landscape.

1. Apply Forest-wide Standards and Guidelines for the Moderate Scenic Integrity Objective.

2. There may be cases where facilities associated with a concentrated recreation or tourism development may not feasibly meet the Moderate objective. After analysis of the proposal and public involvement, the NEPA decision document for this project should determine the specific Scenic Integrity Objective for the development. The environmental analysis shall also prescribe design guidelines necessary to meet this scenery objective. During the project's design phase, the Forest Service shall be closely involved in the review of design work as it evolves.

3. Design visitor facilities to blend, to the extent feasible, with the natural setting.

B. Rehabilitation techniques may be used to restore disturbed landscapes to be compatible with the Semi-Primitive setting.

Related Terms and Conditions
Condition No. 14 -- Forest Service Approval of Final Design
Condition No. 19 -- Project Mitigation and Monitoring Plan
Condition No. 20 -- Environmental Compliance Monitor

- **Transportation – Transportation Operations: TRAN**

A. Where Semi-Primitive Motorized recreation opportunities are emphasized, existing low standard roads are generally managed for use by high clearance or OHVs, snowmobiles, or motorcycles subject to an approved Access and Travel Management Plan. Generally, new roads are not constructed in this area, except to link existing roads or provide access to adjacent LUDs.

1. Limit the design standards of Forest development roads to those commensurate with the intended use.

2. Maintain, as necessary, to provide passage of planned traffic.

3. Locate and design new roads to consider Semi-Primitive recreation opportunities in this LUD.

B. Where Semi-Primitive Non-Motorized recreation opportunities are emphasized, provide foot or cross-country ski trails. Roads and trails may be closed or seasonally restricted. Close or obliterate existing roads except for transportation system links.

Forest-wide Standards and Guidelines

Forest-wide Standards and Guidelines, which apply to all or most areas of the Forest provide for the protection and management of forest resources. They are used in conjunction with the additional standards and guidelines given in the management prescriptions for each Land Use Designation (LUD) and with national and regional policies, as well direction and guidance in Forest Service manuals and handbooks. The following Forest-wide Standards and Guidelines are applicable to this project and are numbered as they appear in the Forest Plan.

Facilities

The recreation and administrative facilities needed to support the management, protection, and utilization of the National Forests, including buildings, utility systems, dams, and other constructed features.

Facility Construction: FAC3

I. Construction Requirements

A. All remodeling, new construction, or building leasing should be constructed in accordance with an approved site development plan in order to provide safe, functional, aesthetically pleasing, energy efficient, and cost-effective facilities.

B. Ensure consistency with LUD direction.

C. Access for persons with disabilities is required for all new facilities (administrative and recreation).

D. Consult Forest Service Handbook (FSH) 7309.11 for gender-related design standards.

F. Develop a revegetation plan using approved plant species. (Consult FSH 2080.)

Related Terms and Conditions

Condition No. 14 -- Forest Service Approval of Final Design
Condition No. 19 -- Project Mitigation and Monitoring Plan
Condition No. 20 -- Environmental Compliance Monitor

Fish

Fish Habitat Planning: FISH2

I. Fish Habitat and Channel Processes

A. Recognize watershed function and channel processes when planning for the protection, restoration or enhancement of fish habitat. (Consult Riparian Forest-wide Standards and Guidelines RIP2 and Soil and Water Forest-wide Standards and Guidelines SW3.)

1. Consider the effects of upstream and upslope activities during site-specific planning.

2. Consider the condition of upstream and upslope areas during site-specific planning.
3. Consider topics such as erosion processes, watershed hydrology, vegetation, stream channel morphology, water quality, wilderness designation, recommendations for inclusion

into the Wild and Scenic River System, species and habitats, and human uses, during analyses.

II. Channel Classification and Process Groups
A. Use channel type inventories to categorize stream reaches into channel process groups. Use channel types and process groups to plan management activities affecting fish and fish habitat along all lakes and streams. Process groups and the channel types included in each process group are shown in Appendix D and publication R10-TP-26, A Channel Type Users Guide for the Tongass National Forest, Southeast Alaska. These groups may be redefined as more information about channel types becomes available.

1. Map and field-verify streams, lakes, and estuaries by channel type and stream class for project planning and implementation.

III. Fish Stream Classification (reference FSH 2090.21 (2001) Chapter 10, Section 12)
A. Determine fish/water quality value class of all streams in the affected area prior to or during site-specific project planning.

B. Use the following classification system across the Forest:

1. Class I: Streams and lakes with anadromous or adfluvial fish or fish habitat, or high quality resident fish waters or habitat above fish migration barriers known to provide reasonable enhancement opportunities for anadromous fish.

2. Class II: Streams and lakes with resident fish or fish habitat—generally steep channels 6 to 25 percent or higher gradient—where no anadromous fish occur, and otherwise do not meet Class I criteria.

3. Class III: Perennial and intermittent streams with no fish populations but which have sufficient flow, or transport sufficient sediment and debris, to have an immediate influence on downstream water quality or fish habitat capability. For streams less than 30 percent gradient, special care is needed to determine if resident fish are present.

A stream segment is designated Class III if, for the majority of its length, the bankfull stream width is greater than 1.5 meters (5 feet) and the channel incision (or entrenchment) is greater than 5 meters (15 feet).

Streams that do not meet both the width and incision criteria may be classified as Class III streams based on a professional interpretation of stream characteristics for the stream segment being assessed. The following characteristics **could** indicate a Class III stream:

a) Steep side-slopes containing mobile fine sediments, sand deposits, or deep soils that can provide an abundant source area for sedimentation.
b) Very steep gradient channels (greater than 35 percent slope).
c) Recently transported bedload or woody debris wedges (especially if deposited outside high water mark).
d) High water indicators (scour lines, drift lines etc) that greatly exceed observed wetted stream width.
e) Large sediment deposits stored amongst debris that could be readily transported if debris shifts.

4. Class IV: Other intermittent, ephemeral, and small perennial channels with insufficient flow or sediment transport capacity to directly influence downstream water quality or fish habitat capability. Class IV streams do not meet the criteria used to define Class I, II, or III streams. Class IV streams must have bankfull width of at least 0.3 meter (1 foot) over the majority of the stream segment. For perennial streams, with average channel gradients less than 30 percent, special care is needed to determine if resident fish are present (resident fish presence dictates a Class II designation).

5. Non-streams: Rills and other watercourses, generally intermittent and less than 1 foot in width, little or no incision into the surrounding hillslope, and with little or no evidence of channel scour.

IV. Objectives/Guidelines for Management Affecting Fish Habitat

A. Maintain or restore the natural range and frequency of aquatic habitat conditions on the Tongass National Forest to sustain the diversity and production of fish and other freshwater organisms.

B. Use (and update) baseline fish habitat objectives as a reference to evaluate the relative health or condition of riparian and aquatic habitat. Use baseline fish habitat objectives, listed below (and others as developed), (Anadromous Fish Habitat Assessment Team 1995, Bryant et al. 2004, Woodsmith et al. 2005) to characterize the natural range of habitat conditions by channel types and process groups. Specific measurement protocols are described in the Alaska Region Aquatic Management Handbook (FSH 2090.21 – 2001-1).

1. Width-to-depth ratio—Relationship between bankfull width and average bankfull depth, expressed as bankfull width / average bankfull depth.

2. Large woody debris (LWD)—Frequency of qualifying large wood pieces per kilometer of stream.

3. Total key pieces of LWD—Frequency of large, structurally integral pieces of wood scaled to channel size per kilometer of stream.

4. Pools per kilometer—Frequency of qualifying pools per kilometer of stream.

5. Pool spacing—Frequency of qualifying pools per unit area of channel, length of channel surveyed / average channel bed width / number of pools.

6. Residual pool depth per channel bed width—Residual pool depth scaled to channel size, residual pool depth / average channel bed-width.

7. Median particle size.

8. Pool length per meter—Total qualifying pool length divided by length of survey.

9. Pool size (relative depth)—Average residual pool depth / average bankfull depth.

10. Relative submergence—Expressed as average bankfull depth.

C. Maintain or restore stream banks and stream channel processes.

1. Stream Class I, and Class II streams that flow directly into Class I streams. Maintain, restore, or improve anadromous, adfluvial, and high-value resident fish habitat capability by providing natural or improved cover/pool ratio, pool-riffle sequences, and habitat features, such as stable LWD. Design management activities to maintain stream bank, channel, and flood plain integrity.

2. Other Stream Class II. Maintain or restore habitat capability for resident fish populations by providing natural or improved cover/pool ratio, pool-riffle sequences, and habitat features, such as stable LWD. Design management activities to maintain stream bank, channel, and flood plain integrity. Avoid impacts to downstream Class I streams.

3. Stream Class III. Design management activities to maintain or restore stream bank, channel, and flood plain integrity. Avoid impacts to downstream Class I and Class II streams.

D. Maintain or restore natural and beneficial quantities of LWD over the short and long term.

1. Stream Class I, and Class II streams that flow directly into Class I streams. Maintain or restore anadromous, adfluvial, and high-value resident fish habitat capability by providing for natural and beneficial volumes of LWD for rearing, stream energy dissipation, and sources of organic matter to the stream ecosystem. Use biological and physical characteristics of the stream to determine size classes and distribution of LWD. Limit navigational clearing of large wood to the minimum necessary for safety.

2. Other Stream Class II. Maintain or restore habitat capability for resident fish populations by providing LWD, and by designing for future sources of LWD at volumes determined by channel type biological and physical characteristics.

3. Stream Class III. Maintain or restore LWD in channels and banks to prevent changes in natural stream bank and stream channel processes.

E. Maintain or restore water quality to provide for fish production.

1. Stream Classes I, II, and III. Prevent adverse effects to rearing and spawning habitat. Maintain or restore anadromous, adfluvial, and high-value resident fish habitat capability. Maintain or restore capability for other resident fish populations to the extent feasible. Ensure no chronic sediment input following soil-disturbing activities. Prevent adverse impacts to fish habitat downstream by minimizing siltation.

2. Implement applicable Best Management Practices (BMPs) (FHS 2509.22).

F. Maintain or restore optimum water temperatures for salmonids, considering both winter and summer habitat requirements, climate, and natural watershed characteristics.

1. Stream Class I, and Class II streams that flow directly into Class I streams. Maintain or restore optimum salmonid summer stream temperatures at between 50 and 68°F or at natural levels.

2. Other Stream Class II. Maintain water temperatures below 68°F, or at natural levels, to maintain or restore habitat capability for resident fish populations. Manage watersheds and riparian streamsides to maintain appropriate water temperature for downstream Class I streams as described in F.1.

3. Stream Class III. Manage watersheds and riparian streamsides to maintain water temperature standards and guidelines for downstream Class I and II streams.

G. Maintain, restore, or improve, where feasible, stream conditions that support the migration or other movement of aquatic organisms inhabiting a waterbody.

1. If a stream crossing cannot be avoided, the best solution for aquatic organism passage is generally to maintain the natural stream form and processes from the inlet, through the crossing, and into the downstream channel. Bridges, open-bottom culverts, and stream-simulated culverts designed and installed to applicable BMPs (Soil and Water Conservation Handbook, FSH 2509.22) and design standards (Aquatic Habitat Management Handbook, FSH 2090.21) to best meet this objective.

2. Some stream conditions, engineering constraints, or cost may make it desirable to install culverts that use a variety of weir/baffles or roughened channel to provide for passage. These hydraulically designed culverts rely on matching culvert hydraulic conditions at a specified design flow to the swimming performance of a specified design fish (Aquatic Habitat Management Handbook, FSH 2090.21).

3. Stream crossing structures requiring aquatic organism passage will be designed to current standards by qualified professionals.

4. Consult applicable BMPs (see FSH 2509.22).

5. Consult and improve the inventory of identified fish stream crossings.

6. As per the Memoranda of Understanding (MOU) between the Forest Service and the Alaska Department of Natural Resources, culvert installation, stream alignment, or diversions; dams; low-water crossings; and construction, placement, deposition, or removal of any material or structure below ordinary high water may require State of Alaska concurrence.

7. Overall, the intent is to not disrupt the migration or movement of aquatic organisms, but occasionally it is not feasible to protect some sections of habitat and movement will be restricted. In determining feasibility, consider the following:

a) Presence of known sensitive, isolated, or unique fish populations.
b) Extent and quality of available habitat and how it is affected by the location of the stream crossing.
c) Cumulative impacts of restricting fish passage at multiple sites in the same watershed.
d) Upstream and downstream linkages between the anadromous and resident life strategies of the same species.
e) Advice from the Alaska Department of Fish and Game (ADF&G) and ADNR.
f) Length of time that a stream structure will restrict movement.
g) Cost of providing ideal passage conditions compared to less than ideal conditions.
h) Availability of suitable, cost-effective compensatory mitigation projects.

8. The discharge of dredge or fill material from normal silviculture activities such as timber harvest is exempt from Clean Water Act Section 404 permitting requirements in waters of

the United States (404(f)(1)(A). Forest roads qualify for this exemption only if they are constructed and maintained in accordance with BMPs specified in 33 CFR 323.4(a). These BMPs have been incorporated into BMP 12.5 in the Alaska Region's BMP Handbook (FSH 2509.22).

V. Management Indicators

A. Use Forest Plan management indicators to evaluate the potential effects of proposed project management activities affecting fish habitat.

VI. Management Activities

A. Maintain a fish program schedule that includes anticipated inventory needs, proposed habitat improvement and maintenance projects, and monitoring requirements.

VII. Coordination

A. Coordinate activities that affect fish resources with other Forest disciplines through the Interdisciplinary Team process, and with state, other federal, and local agencies and groups.

1. Develop and maintain Memoranda of Understanding/Agreements with appropriate state, federal, and local agencies, and aquaculture associations.

2. Coordinate with the state and federal agencies, and the Pacific Northwest Research Station, to maintain a continuous program for research, monitoring, and assessment of impacts of land-use activities on fish habitat.

B. Consider the influence of proposed management activities on fishing use patterns.

C. Consider effects of off-highway vehicle (OHV) travel and road closures on fish habitat and populations.

VIII. Projects

A. Use the following priority for fish habitat project work: mitigation for unplanned impacts, rehabilitation/restoration, and enhancement. For both mitigation and rehabilitation, consider alternatives for cost efficiency of performing off-site enhancement (enhancement of a different area than where the impact actually occurs).

1. Location of off-site enhancement shall be governed by the following priorities:
    a) First priority: same stream reach (same species)
    b) Second priority: same stream (same species)
    c) Third priority: same watershed (same species)
    d) Fourth priority: same anadromous fish harvest area (same species)
    e) Fifth priority: differing species, using above priority order

B. Enhance fish habitat to meet the objectives identified in this Plan. Opportunities may include but are not limited to, instream enhancement, lake fertilization, cooperative bio-enhancement (e.g., stocking), incubation boxes, and fishway construction.

1. Use the Cooperative Fisheries Planning process (consult ANILCA, Section 507) and/or other cooperative agreements for developing priorities for the enhancement of fish resources.

2. Determine habitat capability on streams and lakes identified for enhancement in the Cooperative Fisheries Planning process prior to construction of fish projects.

3. Update the fish habitat enhancement list (Cooperative Fisheries Planning process) periodically.

C. Recognize bio-enhancement (e.g., stocking of juveniles, use of egg incubation boxes, transferring of adult fish to seed stream systems) as part of the fish improvement project costs when appropriate. Cooperate/coordinate with state and federal agencies and aquaculture associations to facilitate bio-enhancement.

D. Fishpass projects abide by the standards and best practices for colonization projects included in the Comprehensive Salmon Enhancement Plan for Southeast Alaska, Phase III.

E. Coordinate new projects to enhance the use of National Forest System lands with the recreation program managers.

Related Terms and Conditions
Condition No. 14 -- Forest Service Approval of Final Design
Condition No. 18 -- Modifications of 4(e) Conditions after Biological Opinion
Condition No. 19 -- Project Mitigation and Monitoring Plan
Condition No. 20 -- Environmental Compliance Monitor
Condition No. 22 -- Erosion Control Plan

Fish Habitat Restoration and Improvement: FISH3

I. Planning

A. Improve or restore fish habitat to work toward the habitat objectives of the Forest Plan. Give priority to restoration projects.

B. Construct projects using the most cost-efficient methods, while achieving desired results consistent with the Land Use Designation.

C. During project planning consider the need to monitor the accomplishment of project objectives. Need shall be governed by the type of project, with high interest/high investment projects being monitored more intensively.

1. Where needed, develop cooperative agreements with fish/aquaculture agencies and other groups to assess the effectiveness of Forest Service habitat improvement.

D. Coordinate habitat restoration and improvement projects with ADF&G and other appropriate agencies and groups.

II. Construction Coordination

A. Coordinate all fish habitat restoration and improvement using an interdisciplinary process.

III. Monitoring

A. Conduct monitoring of fish habitat restoration and improvement projects to ensure their continued function at the design level of operation.

B. Monitor fish production on a representative sample of restoration and improvement projects to evaluate effectiveness of individual projects, categories of similar projects, and the effectiveness of the overall improvement program.

Related Terms and Conditions
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Invasive Species

Invasive Species Prevention: INV1

I. Invasive Species Inventory

A. Maintain consolidated invasive species inventory for the Forest and Districts in the appropriate corporate database in accordance with Forest Service Manual (FSM) 2083 and the most current and appropriate inventory protocols.

II. Project Planning

A. For all proposed projects or activities, the responsible line officer will determine the risk of invasive species (flora and fauna) introduction or spread and the need to implement appropriate mitigation measures.

B. Ensure that contracts, permits, and project design documents contain appropriate provisions concerning the prevention and/or spread of invasive species.

Related Terms and Conditions
Condition No. 20 -- Environmental Compliance Monitor
Condition No. 21 -- Noxious Weed Management Plan

Invasive Species Control and Management: INV3

I. Invasive Species Management

A. Reduce population sizes and/or limit the spread of Priority Invasive Species on the Tongass National Forest through the use of an integrated pest management approach. (Consult FSM 2080 for the list of Priority Invasive Species.)

Related Terms and Conditions
Condition No. 20 -- Environmental Compliance Monitor
Condition No. 21 -- Noxious Weed Management Plan

Plants

Invasive Plants: PLA2

I. Invasive Plants

A. See Invasive Species Forest-wide Standards and Guidelines.

B. Follow established guidance on the use of plant materials for revegetating an area and habitat restoration.

Related Terms and Conditions
Condition No. 20 -- Environmental Compliance Monitor
Condition No. 21 -- Noxious Weed Management Plan

Recreation and Tourism

Recreation Resource Planning: REC2

I. Interagency Planning

A. Accomplish outdoor recreation planning by providing opportunities and programs that are appropriate to the Forest environment, dependent upon natural settings, and help participants experience and understand nature.

1. Determine the appropriate role of the National Forest System (NFS) lands in providing natural resource-based recreation opportunities, sites, facilities, and experiences. Within the context of national policy, cooperate and coordinate with national, state, and local agencies in providing a balance of outdoor recreation opportunities throughout Southeast Alaska.

2. Use the ROS framework of settings and experience opportunities to define the capabilities of NFS lands to meet identified recreation needs and services. (Consult ROS handbooks and Forest ROS maps.)

B. Provide recreation opportunities on NFS lands in concert with, and supplemental to, those opportunities that are located on other land ownerships and jurisdictions. Generally, recreation areas, sites, and facilities located on NFS lands should:

1. Complement commercial public services (i.e., resorts, marinas, stores, service stations) within communities or on private or other public land.

2. Support a system of anchorages suitable for recreation boats along small boat waterways that connect communities or provide access to popular recreation attractions.

3. Provide other appropriate facilities to meet specific identified recreation needs on a case by-case basis.

C. Cooperatively participate with local communities and user groups when implementing recreation development projects. Implementation should:

1. Involve the public and affected communities, landowners, and other affected interest groups in the project planning process.

2. Recognize that recreation use by residents and tourists radiate from communities and service centers to use lands and facilities under a variety of ownerships and jurisdictions.

3. Verify the local role of the Forest Service in providing recreation opportunities, services, and facilities.

4. Verify the basis for developing Forest Service recreation-related projects.

5. Identify sites and activities where joint or cooperative development or management is desirable. Include opportunities for such things as on-site interpretation of natural and cultural resources, particularly on lands of mixed ownership; providing public information through joint publications; joint cabin reservation systems; or construction, operation, and maintenance agreements.

6. Consult FSM 2300 and internal Forest-wide handbooks.

II. Integrated Resource Planning

A. During non-recreation project planning, assess the effects of these projects on the diversity and quality of recreation settings and activity opportunities within, and adjacent to, the project area.

1. Where recreation resources may be affected, analyze the opportunities foregone due to resource management actions. During project planning and design, consider valid substitutes for recreation settings and activity opportunities.

B. Identify opportunities to enhance existing, and provide additional, recreation activities, opportunities, and services where desirable to meet local or Forest-wide recreation demands. Give particular attention to opportunities that are in relatively short supply within the day-use travel distance of communities, are important to local users, are important to tourism and commercial service providers, provide a base for visitor use of Primitive and Semi-Primitive areas, compliment recreation programs of communities, the state, and private landowners, contribute to the supply of Semi-Primitive Motorized opportunities, and are related to the unique combination of marine, wildlife, and fish resources characteristic of Southeast Alaska.

C. Coordinate, to the extent feasible, recreation project development with fish and wildlife habitat improvement, and road projects.

Related Terms and Conditions

Condition No. 14 -- Forest Service Approval of Final Design

Condition No. 19 -- Project Mitigation and Monitoring Plan

Condition No. 20 -- Environmental Compliance Monitor

Scenery

Scenery Operations: SCENE1

I. Scenery Management

A. This plan adopts Scenic Integrity Objectives (SIOs) that provide direction and objectives for landscapes within each Land Use Designation (LUD). The long-term desired future scenic condition for a specific area is the maintenance of a scenic integrity level that is at least as high as the adopted SIO for that area. Adopted SIOs are described in the scenery section of each LUD.

B. Perform landscape/viewshed analysis, using as much of the available tools and technology as possible, when planning projects within viewsheds seen from Visual Priority Travel Routes and Use Areas (VPRs). Some level of analysis may be appropriate in some areas involving nonpriority use areas. More comprehensive viewshed analysis such as long-term, full corridor planning may be used in the most sensitive viewsheds. See Appendix F of this Plan for a listing

of the designated VPRs. As a part of the planning for major (e.g., large scale mining operations) land-disturbing activities, consider whether changes to the VPR list are necessary.

C. Consider the scenic condition of adjacent non-National Forest System lands during the planning of development activities on the National Forest.

D. Consult the National Forest Landscape Management Handbooks series (nos. 434, 462, 478, 483, 484, 559, 608, 617, 666) and Agriculture Handbook 701, Landscape Aesthetics, for scenery management guidance.

Related Terms and Conditions
Condition No. 14 -- Forest Service Approval of Final Design
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Soil and Water
Watershed Resources Planning: SW3
I. Land Use Activities
A. Plan and conduct land use activities to avoid irreversible or serious and adverse effects on soil and water resources.

1. Include soil and water resource data and interpretations in project analyses. (Consult FSM 2530 and 2550.)

2. Maintain water quality and quantity to protect the state-designated beneficial uses. Consult the Alaska Nonpoint Source Pollution Control Strategy, the Soil and Water Conservation Handbook (Chapter 10, FSH 2509.22), the Soil Management Handbook (FSH 2509.18), and the Forest Service Alaska Regional Water Quality Management Plan addressed in the Memorandum of Agreement dated April 6, 1992 (as amended), with the Alaska Department of Environmental Conservation.

3. Apply Best Management Practices (BMPs) to all land-disturbing activities as a process to protect the beneficial uses of water from nonpoint sources of pollution. Also consult FSM 2530, Facilities, Transportation, and Fish Forest-wide Standards and Guidelines, U.S. Army Corps of Engineer Regulations (33 CFR 323.4), and the Clean Water Act.

4. Apply soil conservation practices to meet regional Soil Quality Standards (SQS) on all land-disturbing activities as a process to prevent detrimental soil disturbance. Detrimental soil disturbance is defined as significant changes or impairment in soil properties that are expected to result in reduced short- or long-term productivity of the land. (Consult FSM 2520 and 2550, FSH 2509.18 and R10 Supplement to FSM 2554 #2500-92-1, effective January 15, 1992 [as amended].) BMPs also include some soil conservation practices (Soil and Water Conservation Handbook, Chapter 10, FSH 2509.22); develop other specific soil conservation practices during project planning, as needed.

5. Evaluate soil stability (BMP 13.5) potential soil mass wasting effects, and stability of Class IV channels and minor drainageways (“nonstreams”). At the Forest Plan level, slope gradients of 72 percent or more are removed from the tentatively suitable timber base due

to high risk of soil mass movement and accelerated erosion of Class IV channel systems. At the project planning level, the Forest Supervisor or District Ranger may approve timber harvest on slopes of 72 percent or more on a case-by-case basis, based on the results of an on-site analysis of slope and Class IV channel stability and an assessment of potential impacts of accelerated erosion on downslope and downstream fish habitat, other beneficial uses of water, and other resources. It is anticipated that harvest of these areas will be a small percentage of the total harvest unit. To document the analysis for allowing harvest on steep slopes, the following checklist should be used:

a) Steepness
b) Channel dissection
c) Parent material
d) Soil drainage
e) Precipitation (rain-on-snow zone)
f) Potential impacts on downslope/downstream beneficial uses

If the stability analysis is undertaken prior to the signing of the decision document, the approval (if approved) should be documented in the decision document. If the slope stability information is not available prior to the signing of the NEPA document, it should be documented in the Change Analysis. (Also see Fish and Riparian Forest-wide Standards and Guidelines for definitions of Class IV streams and BMP 13.16 in the Soil and Water Conservation Handbook.)

B. Seek to avoid adverse impacts to soil and water resources (such as accelerated surface erosion or siltation of fish habitat) when conducting land use activities on wetlands, flood plains, and riparian areas. (Consult Executive Orders 11988, 11990, and 11514; FSM 2510 and 2520; U.S. Army Corps of Engineers regulations [33 CFR 323]; NFMA Planning Regulations [36 CFR 219.27]; appropriate BMPs [Chapter 10 of the Soil and Water Conservation Handbook, FSH 2509.22] for wetlands, flood plains, and riparian areas; and Wetlands and Riparian Forest-wide Standards and Guidelines.)

C. Under applicable state and federal law, reserve both ground and surface water rights to manage National Forest System lands. (Consult FSM 2540.)

1. Review projects and reserve water rights or notify the state of water uses for reservation management purposes, when it is determined such uses are necessary for carrying out the purposes of the project. Be sure review of uses and needs includes at least the following items:

a) In-stream flow needs
b) Adequate flow for fish passes and habitat
c) Forest Service administrative and domestic use
d) Developed special uses and recreation sites

D. Consult with state, federal, and local government agencies and Native American communities for the protection, mitigation, and/or improvement of the water and soil resources.

E. Participate actively in planning by other federal, state, and local agencies when these plans could affect the water resources on NFS lands.

F. Cooperate with state and federal agencies having overlapping resource management responsibilities, including the Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, U.S. Army Corps of Engineers, U.S. Environmental Protection

Agency, National Marine Fisheries Service, and the U.S. Fish and Wildlife Service. Execute plans and decisions in consideration of the statutory responsibilities of these agencies.

II. Watershed Analysis and Cumulative Watershed Effects
A. Watershed analysis (Appendix C) is required in the following circumstances:

1. Before making site-specific adjustments to Forest-wide Riparian Standards and Guidelines (including timber salvage in riparian areas).

2. Before authorizing management activities in public water system source watersheds. A watershed analysis must be documented as part of the NEPA decision in these circumstances.

3. Watershed analysis (as described in Appendix C) is otherwise not required, but may be conducted at the discretion of the responsible line officer.

B. Minimize cumulative watershed effects that could adversely affect soil and water resources and change stream channel equilibrium, such as 1) changes in sediment transport or stream flow leading to stream aggradation, degradation, and/or streambank erosion; 2) silting in of pools; and 3) reduction in aquatic habitat capability. Evaluate cumulative effects at the watershed scale during project planning and analysis; consider completing a watershed analysis. (Consult BMP 12.1 [Soil and Water Conservation Handbook, FSH 2509.22] for cumulative watershed effects analysis guidance.)

III. Public Water Systems/Domestic Source Waters
A. Secure "favorable conditions of water flows" (Organic Administration Act of 1897). Maintain water quality consistent with Alaska Water Quality Standards (18 AAC 70) and protect source watersheds consistent with the federal Safe Drinking Water Act and the Alaska Drinking Water Regulations (18 AAC 80). Do not authorize activities that create or maintain a condition that has a significant potential to cause or allow the pollution or contamination of a public water system. Conduct watershed analysis (see Appendix C) and consult with the Alaska Department of Environmental Conservation and the water system owner/operator before authorizing management activities in source watersheds for public water systems. Develop appropriate site-specific BMPs for all management activities that may affect public water supplies. Refer to FSM 2542 and 36 CFR 251.9 for guidance. Refer to 18 AAC 80.620(c)(3) for systems that seek to avoid filtration.

1. In Municipal Watershed LUDs, refer to the Municipal Watershed LUD Management Prescriptions.

2. For state classified public water systems (Class A and B systems as defined by 18 AAC 80.1190), consult with ADEC and owners or operators of public water systems to meet watershed protection needs on a case-by-case basis.

3. For other domestic source water systems, apply appropriate BMPs for all management activities that may affect the water supply.

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Transportation

Road and Bridge Administration: TRAN2

I. Road Management

A. Manage the National Forest System roads and bridges based on road management objectives using the criteria listed below:

1. Keep the designated National Forest System roads open to public motorized use unless:
   a) Use conflicts with Land Use Designation (LUD) objectives, such as the need to protect fish or wildlife habitat, or to retain a non-motorized recreation experience.
   b) Financing is not available to maintain the road or manage the associated use of adjacent lands.
   c) Use causes unacceptable damage to roadway or adjacent soil and water resources.
   d) Use results in unsafe conditions.
   e) There is little or no public need.

2. Manage road use by seasonal closure if any of the following conditions are anticipated:
   a) Seasonal conflicts with LUD objectives, such as the need to provide security for wildlife during critical times of the year.

   b) Traffic hazards or unacceptable damage to roadway or adjacent soil and water resources due to weather or seasonal conditions.

3. Restrict public use by temporary closure if:
   a) Concurrent use between commercial and other traffic is unsafe.

   b) The potential for damage to equipment from vandalism is high.

Related Terms and Conditions
Condition No. 15 -- Traffic Safety

Wetlands

Wetlands: WET

I. Objectives

A. Avoid alteration of, or new construction on, wetlands wherever there is a practicable, environmentally preferred alternative, considering the functions of wetlands as well as other non-wetland ecosystems in the project area. Practicable alternatives take into consideration costs, existing technology, and logistics in light of overall project purposes. (Consult 40 CFR 230.3[q].)

B. Minimize the loss of higher value wetlands (especially fens) and the adverse impacts of land management activities on wetlands. (Consult Executive Order 11990 and BMP 12.5 for guidance on wetland protection.)

C. Seek to maintain the natural and beneficial functions of wetlands.

III. Land Use Activities
A. The discharge of dredged or fill material onto wetlands is regulated under Section 404 of the Clean Water Act, which is administered by the U.S. Army Corps of Engineers (USACE) and U.S. Environmental Protection Agency (EPA). Certain categories of activities are exempt from regulation, while others may be permitted (refer to 33 CFR 323.4 Part 330 Appendix A 325). Consult with USACE early in the planning process to determine whether a 404 permit is required. For non-exempt activities, permit requirements may include compensation or replacement of any lost aquatic function.

B. Consistent with the Clean Water Act, as amended, use Best Management Practices (BMPs) in all management activities that could affect water quality of wetlands. BMPs are intended to ensure that flow and circulation patterns, as well as chemical and biological characteristics of water are not impaired. (FSH 2509.22, BMP 12.5)

C. Before issuing authorizations, leases, easements, rights-of-way, or exchanging lands containing wetlands, identify uses that are restricted under identified federal, state, or local wetlands regulations. Incorporate appropriate restrictions, where necessary, to protect or minimize wetland impacts, or withhold such properties from exchange.

D. Cooperate with state and federal agencies having overlapping resource management responsibilities for wetlands, including the Alaska Department of Fish and Game, Alaska Department of Environmental Conservation, Alaska Department of Natural Resources, USACE, EPA, National Marine Fisheries Service, and the U.S. Fish and Wildlife Service.

E. Mitigate to minimize impacts caused by activities when BMPs do not perform as expected.

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Wildlife

Wildlife Habitat Planning: WILD1

I. Coordination/Cooperation with Other Agencies, Institutions, and Partners
A. Coordinate with the Alaska Department of Fish and Game (ADF&G), other state agencies, the National Marine Fisheries Service (NMFS), the U.S. Fish and Wildlife Service (USFWS), tribal governments, and other cooperators and partners during the planning of activities that may affect wildlife.

1. The Forest should meet at least annually with state and federal wildlife agencies to review resource activities, present progress reports on implementation of past cooperative work or agreements, and schedule cooperative work.

2. Seek to maintain Memoranda of Understanding with appropriate state, federal, and local agencies and associations.

B. Emphasize management for indigenous wildlife species and natural habitat, except in cases where the Forest Service, in cooperation with the ADF&G and USFWS, find desirable alternatives. Special consideration should be given to the possible adverse effects on habitat of sensitive, threatened, and endangered species.

C. Coordinate wildlife habitat surveys, studies, plans, and improvement projects with the ADF&G, USFWS, NMFS, and other appropriate state, federal, tribal, local, and private agencies. Use the Sikes Act authorities for cooperative work with the state. Use agreements and other partnerships to cooperate with other partners.

D. Coordinate with the ADF&G in development of state strategic plans and population goals and objectives for wildlife species, and attempt to incorporate wildlife goals and objectives into forest management.

E. Provide habitat information to the ADF&G to assist in correlating hunting seasons, permits, and bag limits to on-the-ground habitat conditions so that population and habitat objectives can be achieved.

II. General Habitat Planning/Coordination

A. Recognize as wildlife habitat, areas of land and water that can contribute to achieving wildlife objectives for consumptive and non-consumptive uses.

B. Provide the abundance and distribution of habitat necessary to maintain viable populations of existing native and desirable introduced species well-distributed in the planning area (i.e., the Tongass National Forest). (Consult 36 CFR 219.19 and 36 CFR 219.27.)

C. Cooperate with the state and, as appropriate, the USFWS in managing vehicle, boat, and other human use (e.g., hunting and fishing seasons and bag limits), as necessary, to achieve wildlife objectives, recognizing the access provisions of the Alaska National Interest Lands Conservation Act of 1890 (ANILCA). Emphasize management to reduce human disturbance in high value habitat areas and during critical periods of wildlife use.

D. Maintain a Forest program schedule that includes anticipated wildlife habitat and population inventory needs, monitoring requirements, and proposed habitat improvement and maintenance projects.

E. Use Forest Plan Management Indicator Species to evaluate the potential effects of proposed management activities affecting wildlife habitat. (Consult Forest Service Manual [FSM] 2620.)

F. Develop interagency habitat capability models for any or all of the management indicators to systematically assess the impacts of proposed projects during project level analysis. Periodically review and update models to reflect the most current habitat relationships and habitat modeling technology.

G. Cooperate with ADF&G to seek to prevent existing populations of invasive species from dispersing into Wilderness areas. Address issues regarding management, introduction, and re-introduction of wildlife species consistent with national and regional policy.

H. When population or habitat declines for a plant or animal species or subspecies indicates that long-term persistence is at risk, evaluate the particular species for designation as a Regional Sensitive Species by the Regional Forester. (Consult FSM 2670 and R10 supplemental directions for Threatened, Endangered, and Sensitive Species.)

III. Habitat Improvement Planning

A. Identify habitat improvement projects to meet wildlife habitat and population objectives.

1. Consider the following factors to assess habitat improvement project opportunities and priorities:

a) To meet state wildlife population objectives
b) To meet subsistence use needs
c) Existing habitat in poor condition compared to its potential
d) Habitat with a history of receiving high levels of use
e) Treatments with a favorable benefit/cost ratio.

XV. Mountain Goat

A. Provide for the long-term productivity of mountain goat habitat and viability of mountain goat populations, both native and introduced.

1. Locate facilities and concentrated human activities as far from important wintering and kidding habitat as feasible.

a) Where feasible, locate facilities, camps, LTFs, campgrounds, and other developments 1 mile or more from important wintering and kidding habitat.

b) If the 1 mile or more distance cannot be achieved, mitigate possible adverse impacts by seasonally restricting or regulating human use and other site-specific mitigation measures.

2. Forest Service and State of Alaska permitted or approved aircraft flights (fixed wing and helicopter), including helicopter yarding of timber, should maintain a 1,500-foot vertical or horizontal clearance from traditional summer and kidding habitat and animals whenever feasible. Where feasible, flight paths should avoid known mountain goat kidding areas from May 15 through June 15. Pilots will not compromise safety.

3. Where feasible, maintain mountain goat important winter habitat capability. During project planning, use the most recent version of the interagency mountain goat habitat capability model, which shows the most important habitat to generally be productive old-growth forest within 1,300 feet of escape terrain (greater than 50 percent slope or cliff). Travel corridors used by mountain goats between important seasonal sites should be identified and maintained, especially when they occur in forested areas.

<u>Related Terms and Conditions</u>

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PART III

Final 4(e) Terms and Conditions

General

License articles contained in the Federal Energy Regulatory Commission's (Commission) Standard Form L-1 issued by Order No. 540, dated October 31, 1975, cover those general requirements that the Secretary of Agriculture, acting by and through the USDA Forest , considers necessary for adequate protection and utilization of the land and related resources of the Tongass National Forest. Under authority of section 4(e) of the Federal Power Act (16 U.S.C. 797(e)), the following terms and conditions are deemed necessary for adequate protection and utilization of Tongass National Forest lands and resources. These terms and conditions are based on those resources enumerated in the Organic Administration Act of 1897 (30 Stat. 11), the Multiple-Use Sustained Yield Act of 1960 (74 Stat. 215), the National Forest Management Act of 1976 (90 Stat. 2949), and any other law specifically establishing a unit of the National Forest System or prescribing the management thereof (such as the Wilderness Act or Wild and Scenic Rivers Act), as such laws may be amended from time to time, and as implemented by regulations and approved Land and Resources Management Plans prepared in accordance with the National Forest Management Act. Therefore, pursuant to section 4(e) of the Federal Power Act, the following conditions covering specific requirements for protection and utilization of the National Forest System lands shall also be included in any license amendment issued for the Blue Lake Hydroelectric Project.

USDA Forest Service Terms and Conditions

Appendix A of the July 10, 2007 License Order contains Forest Service Final 4(e) conditions 1 through 12, which are also applicable to this Amendment. Therefore, we have begun numbering the 4(e) conditions for this Amendment with 13.

Condition No. 13 -- Requirement to Obtain a Forest Service Special-Use Authorization
Condition No. 14 -- Forest Service Approval of Final Design
Condition No. 15 -- Traffic Safety
Condition No. 16 -- Safety During Project Construction
Condition No. 17 -- Implementation and Modification of Forest Service Conditions
Condition No. 18 -- Modifications of 4(e) Conditions after Biological Opinion or Certification
Condition No. 19 -- Project Mitigation and Monitoring Plan
Condition No. 20 -- Environmental Compliance Monitor
Condition No. 21 -- Noxious Weed Management Plan
Condition No. 22 -- Erosion Control Plan

Condition No. 13 - Requirement to Obtain a Forest Service Special-Use Authorization

The Licensee shall obtain a special-use authorization from the Forest Service for the occupancy and use of National Forest System lands. The licensee shall obtain the executed authorization before beginning ground-disturbing activities on National Forest System lands and within one year of amendment issuance.

The Licensee may commence ground-disturbing activities authorized by the Amendment and special-use authorization no sooner 60 days following the date the licensee files the Forest Service special-use authorization with the Commission, unless the Commission prescribes a different commencement schedule.

In the event there is a conflict between any provisions of the license and Forest Service special-use authorization, the special-use authorization shall prevail to the extent that the Forest Service, in consultation with the Commission, deems necessary to protect and utilize National Forest System resources.

Condition No. 14 - Forest Service Approval of Final Design

Prior to undertaking activities on National Forest System lands, the Licensee shall obtain written approval from the Forest Service for all final design plans for project components that the Forest Service deems as affecting or potentially affecting National Forest System lands and resources. As part of such prior written approval, the Forest Service may require adjustments in final design plans and facility locations to preclude or mitigate impacts and to assure that the project is compatible with on-the-ground conditions. Should the Forest Service, the Commission, or the Licensee determine that necessary changes are a substantial change; the Licensee shall follow the procedures of Article 2 of the license. Any changes to the license made for any reason pursuant to Article 2 or Article 3 shall be made subject to any new terms and conditions the Secretary of Agriculture may make pursuant to section 4(e) of the Federal Power Act.

Condition No. 15 - Traffic Safety

When construction is in progress adjacent to or on Forest Service controlled roads open to public travel, the Licensee shall furnish, install, and maintain temporary traffic controls to provide the public with adequate warning and protection from hazardous or potentially hazardous conditions associated with the Licensee's operations. Devices must be appropriate to current conditions and must be covered or removed when not needed.

Condition No. 16 - Safety During Project Construction

Within 60 days of ground-disturbing activity, the Licensee shall file with the Commission a Safety During Construction Plan that has been approved by the Forest Service and identifies potential hazard areas and measures necessary to protect public safety. Areas to consider include construction activities near public roads, trails, recreation areas, and facilities.

The Licensee shall perform daily (or on a schedule otherwise agreed to by the Forest Service in writing) inspections of Licensee's construction operations on National Forest System lands and Licensee adjoining fee title property while construction is in progress. The Licensee shall document these inspections (informal writing sufficient) and shall deliver such documentation to the Forest Service on a schedule agreed to by the Forest Service. The Licensee shall act immediately to correct any items found to need correction.

Condition No. 17 – Implementation and Modification of Forest Service Conditions
(Applies only to issuance of Special Use Permit)

The Forest Service reserves the authority to modify Forest Service 4(e) terms and conditions if upon completion of the Forest Service administrative appeals process at 36 Code of Federal Regulations (CFR) Part 251, the Chief, USDA Forest Service, or Secretary of Agriculture directs that substantial changes to the terms and conditions submitted herein be made.

Condition No. 18 - Modifications of 4(e) Conditions after Biological Opinion or Certification

The Forest Service reserves the right to modify these conditions, if necessary, to respond to any Final Biological Opinion issued for this Project by the National Marine Fisheries Service, United States Fish and Wildlife Service; or any Certification issued for this Project by the State of Alaska.

Condition No. 19 – Project Mitigation and Monitoring Plan

The Licensee, in consultation with the Forest Service and interested stakeholders, will develop a Project Mitigation and Monitoring Plan (Plan) within 60 days after amendment issuance. The Plan shall include detailed descriptions of the mitigation and monitoring measure(s), implementation schedules (including public notification strategy), and detailed steps for planning, design, construction, etc. of the approved measure(s). Additionally, the Plan shall provide a mechanism for the Licensee and the Forest Service to meet periodically to review/modify the implementation schedule of these measures. Once approved by the Forest Service, the Licensee shall file the final Plan, including evidence of consultation, with the Commission and shall implement those measures approved by the Commission.

It is anticipated that certain details of the environmental monitoring (e.g., specific years of sampling and/or specific study sites) may need modification during development of detailed study plans or during subsequent implementation of the environmental monitoring. All such modifications shall be developed in consultation with the Forest Service and stakeholders and approved by these agencies and provided to the Commission before implementation.

Condition No. 20 - Environmental Compliance Monitor

To ensure adherence to license conditions, mitigative measures, and other environmental aspects of project construction, including those stated in each management and mitigation plan, the Forest Service will require the licensee to provide a qualified environmental compliance monitor to oversee the project during construction activities (e.g., vegetative or land disturbing, or spoil producing activities). The compliance monitor will be a liaison between the Forest Service and Licensee. The compliance monitor should be a third party contractor independent of the licensee or agency, subject to approval for both the Licensee and the Forest Service. The compliance monitor will have the authority to stop work or issue change orders in the field should conditions so warrant. Once major construction activities are completed the compliance monitor will no longer be needed.

Condition No. 21 - Noxious Weed Management Plan

Within one year of amendment issuance or prior to any ground-disturbing activity, the Licensee shall file with the Commission a Noxious Weed Management Plan that is approved by the Forest Service. At a minimum the Plan shall:

- Identify methods for prevention and control of noxious weeds.
- Develop a monitoring program to evaluate the effectiveness of noxious weed control measures, and
- Develop procedures for identification of additional measures that the licensee shall implement if monitoring reveals that noxious weed control is not successful or does not meet intended objectives.

Condition No. 22—Erosion Control Plan

During planning and before any new construction or non-routine maintenance projects with the potential for causing erosion and/or stream sedimentation on or affecting National Forest System Lands, the Licensee shall file with the Commission an Erosion Control Measures Plan that has been approved by the Forest Service. The Plan shall include measures to control erosion, stream sedimentation, and soil mass movement. The plan shall be based on actual-site geological, soil, and groundwater conditions.

Enclosure 2

Forest Service Comments
On Final Application
and
Final Draft Environmental Assessment
for the
Blue Lake Hydroelectric Project License Amendment
FERC Project P-2230-044

Application for Capacity-Related Amendment

Page 21, 2.4 Changes at Blue Lake**:** ***"****Expansion-related work in the Blue Lake area would include…and 4) timber clearing around the reservoir and in the Blue Lake Creek valley…"*

On May 9, 2011 the Applicant distributed the Draft Reservoir Inundation Plan notifying stakeholders of a tentative decision to "leave the vegetation in the potentially-inundated areas in place during and after reservoir filling…"

The application should be revised to also address the possibility of leaving the timber in place during and after inundation. How would this affect project cost estimates?

Final Draft Environmental Assessment

General Comment: The Blue Lake Project is within an inventoried roadless area, Sitka Urban #331.

Please include a discussion on the roadless characteristics of the Sitka Urban Roadless Area and how it would be affected by this project. If a roadless area characteristic is not relevant, a simple statement to that effect with the rationale for that conclusion is all that is necessary.

Roadless area characteristics are described in the 2001 Roadless Rule (Federal Register / Vol. 66, No. 9 / Friday, January 12, 2001) and include:

- high quality or undisturbed soil, water, and air;
- sources of public drinking water;
- diversity of plant and animal communities;
- habitat for threatened, endangered, proposed, candidate, and sensitive species and for those species dependent on large, undisturbed areas of land;
- Primitive, Semi-Primitive Non-Motorized, and Semi-Primitive Motorized classes of dispersed recreation;

- reference landscapes;
- natural appearing landscapes with high scenic quality;
- traditional cultural properties and sacred sites; and
- other locally identified unique characteristics.

As stated on p. 1-1 of the 2008 Tongass Land and Resource Management Plan Final Environmental Impact Statement (FEIS), the analysis for the 2008 Tongass Land and Resource Management Plan tiers to the 2003 Tongass Land Management Plan Revision Supplemental EIS (SEIS) for Roadless Area Evaluation for Wilderness Recommendations. Volume III, Appendix C Part II of this SEIS provides a roadless area evaluation for the Sitka Urban Roadless Area #331, and these roadless characteristics are described. This document is available on-line at the following link:
http://www.tongass-seis.net/seis/pdf/Volume_III.pdf

There is a map on-line at http://www.tongass-seis.net/shrd/srd-331.html; it would be helpful to include a map in the EA that shows the project within the roadless area boundary.

Page 20, Section 3.2.2, Changes at Blue Lake**:** *Expansion-related work in the Blue Lake area would include … 4) timber clearing around the reservoir and in the Blue Lake Creek valley.*

On May 9, 2011 the Applicant distributed the Draft Reservoir Inundation Plan notifying stakeholders of the tentative decision to "leave the vegetation in the potentially-inundated areas in place during and after reservoir filling…"

The FDEA resource analyses, including potential effects and recommendations, do not reflect this decision. Please revise the document, accordingly.

Page 26, 3.2.2.6 Timber Clearing Around The Reservoir and in Blue Lake Creek Valley: *"Prior to reservoir filling, timber and other large vegetation in the potentially-inundated area will be removed…CBS is exploring a plan to make utility wood available for use as firewood, in conjunction with Stakeholders."*

As noted above, the Applicant is now considering leaving the vegetation in the potentially-inundated areas in place during and after reservoir filling.

Does the Applicant still plan on making utility wood available? Please revise the document.

Page 35-36, 4.2.5 Endangered Species Act: *"..Prior to submittal of the FAA, CBS will determine, in consultation with USFWS, NMFS and USFS, the potential need for one or more Biological Evaluations and decide on whether CBS or the respective agencies will prepare these documents."*

The Forest Service will work with the Applicant on the preparation of Biological Evaluations. These will be needed before we can complete the NEPA decision document that is required for the issuance of a special use authorization.

Page 40, 5.4.1.3 Blue Lake and Sawmill Creek Water Rights: *"CBS recently submitted a request to ADNR to amend the language of the various water rights in terms and units*

consistent with current ADNR practice…and to better reflect CBS's current use of Blue Lake water..."

Please update the Project Water Rights section with the latest information from the State of Alaska. Much of the rest of the analysis is dependent on knowing the water allocation, i.e. how much is being allocated and where it is going.

Page 65, 5.7.1 Affected Environment, Sensitive Plant Species: ***"…****maintains a list of sensitive plants whose populations are monitored in project areas as regulated by the NEPA (National Environmental Policy Act) process…"*

The current Alaska Region Sensitive Species List is dated 2009. Please include the citation here and in the reference section.

Page 70, 5.7.2.2.1 Construction-Related Effects: ***"****Machinery and workers could facilitate the introduction of noxious weeds to the project area above the dam. Equipment brought in from other areas may be contaminated with seeds and other parts of non-native species…"*

Prior to any ground disturbance on NFS lands, the Forest Service will work with the Applicant to determine the factors that favor establishment and spread of noxious weeds and will assist in designing management practices or prescriptions to reduce risk of infestation or spread of noxious weeds during construction activities and long-term operations.

Page 91, 5.12.1 Affected Environment, Blue Lake: ***"****viewing Blue Lake is feasible only from a limited number of overlook or access sites, and from the surface of the lake itself. ..Except for the effects of drawdown.."*

On May 9, 2011 the Applicant distributed their Draft Reservoir Inundation Plan notifying stakeholders of the tentative decision to "leave the vegetation in the potentially-inundated areas in place during and after reservoir filling…"

The environmental analysis needs to consider the scenic impacts of leaving the vegetation.

File Encl 3 - Certificate of Service Blue Lake.DOC cannot be converted to PDF.

Document Content(s)