

**APPENDIX D TO SULLIVAN CREEK SETTLEMENT AGREEMENT**

**PROPOSED SPECIAL USE AUTHORIZATION CONDITIONS**

Authorization ID: SUL120123  
Contact ID: CNF1201  
Expiration Date: 12/31/2040  
Use Code: 922

FS-2700-4 (03/06)  
OMB 0596-0082

**U.S. DEPARTMENT OF AGRICULTURE  
Forest Service  
SPECIAL USE PERMIT  
AUTHORITY:  
FEDERAL LAND POLICY AND MGMT ACT, AS AMENDED October 21, 1976**

**PUBLIC UTILITY DISTRICT #1 PEND OREILLE COUNTY of P O BOX 190, NEWPORT, WA 99156**  
(hereinafter called the Holder) is hereby authorized to use or occupy National Forest System lands, to use subject to the conditions set out below, on the **COLVILLE** National Forest or **SULLIVAN LAKE RANGER DISTRICT** unit of the National Forest System.

This permit covers **65** acres, and/or 0.0 miles and is described as: **Sec. 31, T. 39 N., R. 44 E., WILLAMETTE MERIDIAN**, as shown on the location map attached to and made a part of this permit, and is issued for the purpose of:

**USE AND MAINTENANCE OF SULLIVAN LAKE DAM AND RESERVOIR  
USE AND MAINTENANCE OF COLD WATER RELEASE FACILITY  
WATER TEMPERATURE AND FLOW GAGES**

1. **Harvey Creek**
2. **Upper Sullivan Creek (Upstream of Outlet Creek)**
3. **Lower Sullivan Creek (Downstream of Outlet Creek)**

Permitted facilities are described in detail in Exhibit C attached to and made a part of this permit.

The above described or defined area shall be referred to herein as the "permit area".

**TERMS AND CONDITIONS**

**I. AUTHORITY AND GENERAL TERMS OF THE PERMIT**

A. Authority. This permit is issued pursuant to the authorities enumerated at Title 36, Code of Federal Regulations, Section 251 Subpart B, as amended. This permit, and the activities or use authorized, shall be subject to the terms and conditions of the Secretary's regulations and any subsequent amendment to them.

B. Authorized Officer. The authorized officer is the Forest Supervisor or a delegated subordinate officer.

C. License. This permit is a license for the use of federally owned land and does not grant any permanent, possessory interest in real property, nor shall this permit constitute a contract for purposes of the Contract Disputes Act of 1978 (41 U.S.C. 611). Loss of the privileges granted by this permit by revocation, termination, or suspension is not compensable to the holder.

D. Amendment. This permit may be amended in whole or in part by the Forest Service when, at the discretion of the authorized officer, such action is deemed necessary or desirable to incorporate new terms, conditions, and stipulations as may be required by law, regulation, land management plans, or other management decisions.

E. Existing Rights. This permit is subject to all valid rights and claims of third parties. The United States is not liable to the holder for the exercise of any such right or claim.

F. Nonexclusive Use and Public Access. Unless expressly provided for in additional terms, use of the permit area is not exclusive. The Forest Service reserves the right to use or allow others to use any part of the permit area, including roads, for any purpose, provided, such use does not materially interfere with the holder's authorized use. A final determination of conflicting uses is reserved to the Forest Service.

G. Forest Service Right of Entry and Inspection. The Forest Service has the right of unrestricted access of the permitted area or facility to ensure compliance with laws, regulations, and ordinances and the terms and conditions of this permit.

H. Assignability. This permit is not assignable or transferable. If the holder through death, voluntary sale or transfer, enforcement of contract, foreclosure, or other valid legal proceeding ceases to be the owner of the improvements, this permit shall terminate.

I. Permit Limitations. Nothing in this permit allows or implies permission to build or maintain any structure or facility, or to conduct any activity unless specifically provided for in this permit. Any use not specifically identified in this permit must be approved by the authorized officer in the form of a new permit or permit amendment.

## II. TENURE AND ISSUANCE OF A NEW PERMIT

A. Expiration at the End of the Authorized Period. This permit will expire at midnight on 12/31/2039. Expiration shall occur by operation of law and shall not require notice, any decision document, or any environmental analysis or other documentation.

B. Minimum Use or Occupancy of the Permit Area. Use or occupancy of the permit area shall be exercised at least  days each year, unless otherwise authorized in writing under additional terms of this permit.

C. Notification to Authorized Officer. If the holder desires issuance of a new permit after expiration, the holder shall notify the authorized officer in writing not less than six (6) months prior to the expiration date of this permit.

D. Conditions for Issuance of a New Permit. At the expiration or termination of an existing permit, a new permit may be issued to the holder of the previous permit or to a new holder subject to the following conditions:

1. The authorized use is compatible with the land use allocation in the Forest Land and Resource Management Plan.
2. The permit area is being used for the purposes previously authorized.
3. The permit area is being operated and maintained in accordance with the provisions of the permit.
4. The holder has shown previous good faith compliance with the terms and conditions of all prior or other existing permits, and has not engaged in any activity or transaction contrary to Federal contracts, permits laws, or regulations.

E. Discretion of Forest Service. Notwithstanding any provisions of any prior or other permit, the authorized officer may prescribe new terms, conditions, and stipulations when a new permit is issued. The decision whether to issue a new permit to a holder or successor in interest is at the absolute discretion of the Forest Service.

F. Construction. Any construction authorized by this permit may commence by specify date and shall be completed by specify date. If construction is not completed within the prescribed time, this permit may be revoked or suspended.

## III. RESPONSIBILITIES OF THE HOLDER

A. Compliance with Laws, Regulations, and other Legal Requirements. The holder shall comply with all applicable Federal, State, and local laws, regulations, and standards, including but not limited to, the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., the Resource Conservation and Recovery Act, 42 U.S.C. 6901 et seq., the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S. C. 9601 et seq., and other relevant environmental laws, as well as public health and safety laws and other laws relating to the siting, construction, operation, and maintenance of any facility, improvement, or equipment on the property.

B. Plans. Plans for development, layout, construction, reconstruction, or alteration of improvements on the permit area, as well as revisions of such plans, must be prepared by a qualified individual acceptable to the authorized officer and shall be approved in writing prior to commencement of work. The holder may be required to furnish as-built plans, maps, or surveys, or other similar information, upon completion of construction.

C. Maintenance. The holder shall maintain the improvements and permit area to standards of repair, orderliness, neatness, sanitation, and safety acceptable to the authorized officer and consistent with other provisions of this authorization. If requested, the holder shall comply with inspection requirements deemed appropriate by the authorized officer.

D. Hazard Analysis. The holder has a continuing responsibility to identify all hazardous conditions on the permit area which would affect the improvements, resources, or pose a risk of injury to individuals. Any non-emergency actions to abate such hazards shall be performed after consultation with the authorized officer. In emergency situations, the holder shall notify the authorized officer of its actions as soon as possible, but not more than 48 hours, after such actions have been taken.

E. Change of Address. The holder shall immediately notify the authorized officer of a change in address.

F. Change in Ownership. This permit is not assignable and terminates upon change of ownership of the improvements or control of the business entity. The holder shall immediately notify the authorized officer when a change in ownership or control of business entity is pending. Notification by the present holder and potential owner shall be executed using Form SF-299 Application for Transportation and Utility Systems and Facilities of Federal Lands, or Form FS-2700-3a, Holder Initiated Revocation of Existing Authorization, Request for a Special Use Permit. Upon receipt of the proper documentation, the authorized officer may issue a permit to the party who acquires ownership of, or a controlling interest in, the improvements or business entity.

#### IV. LIABILITY

For purposes of this section, "holder" includes the holder's heirs, assigns, agents, employees, and contractors.

A. The holder assumes all risk of loss to the authorized improvements.

B. The holder shall indemnify, defend, and hold the United States harmless for any violations incurred under any such laws and regulations or for judgments, claims, or demands assessed against the United States in connection with the holder's use or occupancy of the property. The holder's indemnification of the United States shall include any loss by personal injury, loss of life or damage to property in connection with the occupancy or use of the property during the term of this permit. Indemnification shall include, but is not limited to, the value of resources damaged or destroyed; the costs of restoration, cleanup, or other mitigation; fire suppression or other types of abatement costs; third party claims and judgments; and all administrative, interest, and other legal costs. This paragraph shall survive the termination or revocation of this authorization, regardless of cause.

C. The holder has an affirmative duty to protect from damage the land, property, and interests of the United States.

The holder shall maintain insert specific value<sup>1</sup> worth of insurance coverage, naming the United States additionally insured on the policy(ies), to partially fund the indemnification obligations of the holder for any and all losses due to personal injury, loss of life, or property damage, including fire suppression and hazardous waste costs. The holder shall furnish proof of insurance (such as a surety bond, or certificate of insurance) to the authorized officer prior to execution of this permit and verify annually, and in writing, the insurance obligation to the authorized officer. The authorized officer may allow the holder to replace, repair, restore, or otherwise undertake necessary curative actions, to the satisfaction of the authorized officer, in order to mitigate damages in addition to or as an alternative to monetary indemnification.

D. In the event of any breach of the conditions of this authorization by the holder, the authorized officer may, on reasonable notice, cure the breach for the account at the expense of the holder. If the Forest Service at any time pays any sum of money or does any act which will require payment of money, or incurs any expense, including reasonable attorney's fees, in instituting, prosecuting, and/or defending any action or proceeding to enforce the United States rights hereunder, the sum or sums so paid by the United States, with all interests, costs and damages shall, at the election of the Forest Service, be deemed to be additional fees hereunder and shall be due from the holder to the Forest Service on the first day of the month following such election.

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<sup>1</sup> Forest Service policy on insurance can be found at FSM 2713 and FSH 2709.11.

E. With respect to roads, the holder shall be proportionally liable for damages to all roads and trails of the United States open to public use caused by the holder's use to the same extent as provided above, except that liability shall not include reasonable and ordinary wear and tear.

F. The Forest Service has no duty to inspect the permit area or to warn of hazards and, if the Forest Service does inspect the permit area, it shall incur no additional duty nor liability for identified or non-identified hazards. This covenant may be enforced by the United States in a court of competent jurisdiction.

## V. TERMINATION, REVOCATION, AND SUSPENSION

A. General. For purposes of this permit, "termination", "revocation", and "suspension" refer to the cessation of uses and privileges under the permit.

"Termination" refers to the cessation of the permit under its own terms without the necessity for any decision or action by the authorized officer. Termination occurs automatically when, by the terms of the permit, a fixed or agreed upon condition, event, or time occurs. For example, the permit terminates at expiration. Terminations are not appealable.

"Revocation" refers to an action by the authorized officer to end the permit because of noncompliance with any of the prescribed terms, or for reasons in the public interest. Revocations are appealable.

"Suspension" refers to a revocation which is temporary and the privileges may be restored upon the occurrence of prescribed actions or conditions. Suspensions are appealable.

B. Revocation or Suspension. The Forest Service may suspend or revoke this permit in whole or part for:

1. Noncompliance with Federal, State, or local laws and regulations.
2. Noncompliance with the terms and conditions of this permit.
3. Reasons in the public interest.
4. Abandonment or other failure of the holder to otherwise exercise the privileges granted.

C. Opportunity to Take Corrective Action. Prior to revocation or suspension for cause pursuant to Section V (B), the authorized officer shall give the holder written notice of the grounds for each action and a reasonable time, not to exceed 90 days, to complete the corrective action prescribed by the authorized officer.

D. Removal of Improvements. Prior to abandonment of the improvements or within a reasonable time following revocation or termination of this authorization, the holder shall prepare, for approval by the authorized officer, an abandonment plan for the permit area. The abandonment plan shall address removal of improvements and restoration of the permit area and prescribed time frames for these actions. If the holder fails to remove the improvements or restore the site within the prescribed time period, they become the property of the United States and may be sold, destroyed or otherwise disposed of without any liability to the United States. However, the holder shall remain liable for all cost associated with their removal, including costs of sale and impoundment, cleanup, and restoration of the site.

## VI. FEES

A. Termination for Nonpayment. This permit shall automatically terminate without the necessity of prior notice when land use rental fees are 90 calendar days from the due date in arrears.

B. The holder shall pay an annual fee<sup>2</sup> of written amount Dollars, \$XXXX for the period from January 1 to December 31, 20XX and thereafter annually on January 1, written amount Dollars, \$XXXX. Provided, charges for this use shall be made or readjusted whenever necessary to place the charges on a basis commensurate with the fair market value of the authorized use.

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<sup>2</sup> Fee shall be determined as of the date of issuance consistent with FSM 2701 and FSH 2709.11

C. Payment Due Date. The payment due date shall be the close of business on JANUARY of each calendar year payment is due. Payments in the form of a check, draft, or money order are payable to USDA, Forest Service. Payments shall be credited on the date received by the designated Forest Service collection officer or deposit location. If the due date for the fee or fee calculation statement falls on a non-workday, the charges shall not apply until the close of business on the next workday.

D. Late Payment Interest, Administrative Costs and Penalties Pursuant to 31 U.S.C. 3717, et seq., interest shall be charged on any fee amount not paid within 30 days from the date the fee or fee calculation financial statement specified in this authorization becomes due. The rate of interest assessed shall be the higher of the rate of the current value of funds to the U.S. Treasury (i.e., Treasury tax and loan account rate), as prescribed and published by the Secretary of the Treasury in the Federal Register and the Treasury Fiscal Requirements Manual Bulletins annually or quarterly or at the Prompt Payment Act rate. Interest on the principal shall accrue from the date the fee or fee calculation financial statement is due.

In the event the account becomes delinquent, administrative costs to cover processing and handling of the delinquency will be assessed.

A penalty of 6 percent per annum shall be assessed on the total amount delinquent in excess of 90 days and shall accrue from the same date on which interest charges begin to accrue.

Payments will be credited on the date received by the designated collection officer or deposit location. If the due date for the fee or fee calculation statement falls on a non-workday, the charges shall not apply until the close of business on the next workday.

Disputed fees are due and payable by the due date. No appeal of fees will be considered by the Forest Service without full payment of the disputed amount. Adjustments, if necessary, will be made in accordance with settlement terms or the appeal decision.

If the fees become delinquent, the Forest Service will:

Liquidate any security or collateral provided by the authorization.

If no security or collateral is provided, the authorization will terminate and the holder will be responsible for delinquent fees as well as any other costs of restoring the site to its original condition including hazardous waste cleanup.

Upon termination or revocation of the authorization, delinquent fees and other charges associated with the authorization will be subject to all rights and remedies afforded the United States pursuant to 31 U.S.C. 3711 *et seq.* Delinquencies may be subject to any or all of the following conditions:

Administrative offset of payments due the holder from the Forest Service.

Delinquencies in excess of 60 days shall be referred to United States Department of Treasury for appropriate collection action as provided by 31 U.S.C. 3711 (g), (1).

The Secretary of the Treasury may offset an amount due the debtor for any delinquency as provided by 31 U.S.C. 3720, *et seq.*)

## VII. OTHER PROVISIONS

A. Members of Congress. No Member of or Delegate to Congress or Resident Commissioner shall benefit from this permit either directly or indirectly, except when the authorized use provides a general benefit to a corporation.

B. Appeals and Remedies. Any discretionary decisions or determinations by the authorized officer are subject to the appeal regulations at 36 CFR 251, Subpart C, or revisions thereto.

C. Superior Clauses. In the event of any conflict between any of the preceding printed clauses or any provision thereof and any of the following clauses or any provision thereof, the preceding printed clauses shall control.

D. Dam Safety (B37).

1. Definitions. The following definitions apply to this clause:

- a. **Qualified Engineer.** An engineer authorized to practice engineering in the field of dams in the State where the dam is located, either by professional registration as provided by State law or by reason of employment by the State or Federal Government.
- b. **Dam Failure.** Catastrophic event characterized by the sudden, rapid, and uncontrolled release of impounded water. It is recognized that there are lesser degrees of failure and that any malfunction or abnormality outside the design assumptions and parameters which adversely affect a dam's primary function of impounding water may also be considered a failure.
- c. **Rehabilitation or Modification.** Repair of major structure deterioration to restore original condition; alteration of structures to meet current design criteria, improve dam stability, enlarge reservoir capacity, or increase spillway and outlet works capacity; replacement of equipment.
- d. **Hazard Potential.** The classification of a dam based on the potential for loss of life or property damage that could occur if the structure failed (FSM 7500).
- e. **Emergency Action Plan.** Formal plan of procedures to prevent or reduce loss of life and property that could occur if the structure failed. The plan does not include flood plain management for the controlled release of floodwaters for which the project is designed.

2. Dam Classification. The dam constructed pursuant to this authorization shall be classified according to its height and storage capacity (water debris or both) as well as its hazard potential as follows:

Height and Storage Capacity (Class B): **200 ft long, 34 ft high concrete gravity dam with parabolic spillways with a storage capacity of 31,000 ac.-ft. (1,240 ac.)**

Hazard Potential (Low, Moderate, High): **High**

Classification criteria are contained in FSM 7511, which the Forest Service may amend from time to time.

The provisions of sections 5 and 8 of this clause apply only to dams classified as high hazard, or as otherwise may be specifically provided for in this authorization to address special or unique circumstances.

The hazard potential of the dam shall be reassessed at least every five years by a qualified engineer retained by the holder, and this information made available to the authorized officer. The Forest Service may change the hazard potential at any time based on changed conditions or new information.

3. Construction, Inspection, Certification, and Project Files. For construction, rehabilitation or improvement, the holder shall provide for inspection by a qualified engineer to ensure adequate control of the work being performed. At a minimum, the qualified engineer shall maintain a daily inspection diary, descriptions of design changes, and records of construction material and foundation tests.

Upon completion of construction, rehabilitation, or improvement, the holder shall forward to the Forest Service a statement from the qualified engineer responsible for inspection certifying that the works were built in accordance with the approved plans and specifications, or approved revisions thereto. No water shall be impounded until approval is given by the authorized officer.

All design notes, as-built plans, and the aforementioned diaries and records shall be maintained in a project file by the holder for the duration of this authorization, and shall be available to the Forest Service or other inspection personnel (not applicable to debris retention dams).

4. Dam Operation and Maintenance Plans. Dam operation and maintenance plans shall be prepared during the design phase for new dams. The plan(s) shall, as a minimum, describe operating requirements and procedures to be followed for the operation of the structure; routine or recurring maintenance required; record keeping to be performed for operation and maintenance; and individuals responsible for implementing the

plans. At the time of the operation and maintenance inspection, the plan shall be reviewed and amended as needed by the individual responsible for implementation and the engineer performing any inspection. No plans or amendments thereto shall be valid until approved by the authorized officer.

5. Dam Emergency Action Plan. The following provisions are required for certain hazard classifications identified in section 2. The holder shall, during the design phase, prepare an emergency action plan which will include, but not be limited to:

- a. Actions to be taken upon discovery of an unsafe condition or impending failure situation to prevent or delay dam failure, and reduce damage or loss of life from subsequent failure.
- b. Procedures for notification of law enforcement, civil preparedness, and Forest Service personnel.
- c. Procedures for notifying persons in immediate danger of losing life or property.
- d. Maps delineating the area which would be inundated by water, debris, or both in the event of dam failure.
- e. The names of those individuals responsible for activating the plan and carrying out the identified actions.

In preparing the emergency action plan, the holder shall consult and cooperate with appropriate law enforcement and civil preparedness personnel, who may be responsible for implementing all or part of the plan. Emergency action plans shall be reviewed and updated annually, and tested at intervals not exceeding five years.

6. Inspection and Maintenance of Dams. The holder shall have the dam and appurtenant structures inspected by a qualified engineer to determine the state of operation and maintenance at least every

One

year(s). An inspection shall also be made following earthquakes, major storms, or overflow of spillways other than the service spillway. Two copies of the inspection report shall be provided to the authorized officer within 30 days of the date of inspection.

Repairs or operational changes recommended by the inspecting engineer shall be made by the holder within a reasonable period of time following the inspection, but in no event later than one year from the inspection (unless a longer period of repairs is authorized in writing, or a shorter period is required when such repairs are deemed by the authorized officer as immediately required for reasons of public safety). Upon request by the authorized officer, the holder shall provide a plan of action outlining planned time and methods for performing said repairs or operational changes, and notify the authorized officer when actions are completed. The authorized officer shall specify a completion date for corrective work. If corrective action is not taken by the date specified by the authorized officer, the Forest Service shall have corrective action taken and the holder shall be responsible for all costs including legal and court costs.

7. Forest Service Inspection of Dams. The holder shall allow inspection of the dam and appurtenant structures at any time by the authorized officer. Any condition adversely affecting or which could adversely affect the operation of the facility; safety of the structure or the public, or surrounding lands and resources shall, upon written notice, be corrected or changed by the holder at the holder's expense. The authorized officer shall specify a completion date for corrective work. If corrective action is not taken by the date specified by the authorized officer, the Forest Service shall have corrective action taken and the holder shall be responsible for all costs including legal and court costs. A copy of the Forest Service inspection report shall be provided to the holder.

An inspection performed by the Forest Service does not relieve the holder of the responsibility of ensuring that inspections are made in accordance with section 6 of this clause.

8. Dam Safety Evaluations. This provision is required for certain hazard classifications identified in section 2.

Beginning in [redacted] and at 5-year intervals thereafter, the holder shall have a formal dam safety evaluation performed by a qualified engineer to verify the safety and integrity of the dam and appurtenant

structures. The evaluation will include, but is not limited to, a detailed field inspection of the dam and appurtenant structures and a review of all pertinent documents, such as investigation, design, construction, instrumentation, operation, maintenance, and inspection records. The evaluation shall be based on current accepted design criteria and practices. The holder shall provide two copies of the evaluation report to the authorized officer and Regional Engineer. Based on this report, the authorized officer may require the holder to perform additional evaluations pursuant to such standards as the officer may define and may require rehabilitation or modification of the structure within a reasonable time.

9. Right of Action To Abate Emergency Situations. In situations where the authorized officer determines on the available facts that there is danger of a dam failure for any reason, such officer may exercise discretionary authority to enter upon the structure and appurtenances authorized herein and take such actions as are necessary to abate or otherwise prevent a failure. Such actions include, but are not limited to, lowering the level of the impounded waters utilizing existing structures or by artificial breach of the dam. In the event that such actions are taken, the United States shall not indemnify or otherwise be liable to the holder for losses or damages, including losses or damages to the structure or the value of impounded waters. The holder shall be responsible for all costs including legal and court costs. The failure of the Forest Service to exercise any discretion under this provision shall not be a violation of any duty by the United States, and shall not relieve the holder of any and all liability for damages in the event of a dam failure.

10. Liability. The activities permitted by this authorization shall be deemed a high risk use and occupancy. Sole responsibility for the safety of the dam and associated facilities and any liability resulting therefrom shall be on the holder and his successors, agents, or assigns. Pursuant to 36 CFR 251.56(d), or its replacement, the holder shall be liable for injury, loss, or damage resulting from this authorization regardless of the holder's fault or negligence. Maximum strict liability shall not exceed \$1,000,000.00 except as that amount may be changed in the aforementioned regulations.

In addition to all waivers and limitations on liability of the United States under this authorization, the provisions of 33 U.S.C. 702(c) shall apply to any damages from or by floods or flood waters at any place.

E. Protection of Habitat of Endangered, Threatened, and Sensitive Species (X8). Location of areas needing special measures for protection of plants or animals listed as threatened or endangered under the Endangered Species Act of 1973, as amended, or as sensitive by the Regional Forester under authority of FSM 2670, derived from ESA Section 7 consultation, may be shown on a separate map, hereby made a part of this authorization, or identified on the ground. Protective and mitigative measures specified by the authorized officer shall be the responsibility of the authorization holder.

If protection measures prove inadequate, if other such areas are discovered, or if new species are listed as Federally threatened or endangered or as sensitive by the Regional Forester, the authorized officer may specify additional protection regardless of when such facts become known. Discovery of such areas by either party shall be promptly reported to the other party.

F. Archaeological-Paleontological Discoveries (X17). The holder shall immediately notify the authorized officer of any and all antiquities or other objects of historic or scientific interest. These include, but are not limited to, historic or prehistoric ruins, fossils, or artifacts discovered as the result of operations under this authorization, and shall leave such discoveries intact until authorized to proceed by the authorized officer. Protective and mitigative measures specified by the authorized officer shall be the responsibility of the holder.

G. Reservoir Storage Increase (X20). The Forest Service reserves the right to issue additional authorizations to other applicants to increase the storage capacity of this site if such action proves feasible. No authorization will be granted for additional facilities that will jeopardize the privileges granted by this authorization. Any additional authorizations permitting larger facilities will provide for payment of costs, including the cost of construction of the original project works, on a cost-benefit ratio mutually agreeable to the holder and the new applicant. If the holder and applicant cannot agree on division of costs, the Forest Service shall decide on an equitable division between the old and new works.

~~H. Water Rights Acquired in the Name of the United States (X99). All water rights obtained by the holder for use on the area authorized must be acquired in the name of the United States.~~

I. Water Rights and Water Facilities. (D25). Water Rights. This permit does not confer any water rights on the holder. Any necessary water rights must be acquired by the holder in accordance with state law. Any expenses for acquiring water rights shall be the responsibility of the holder. The United States reserves the right to place any conditions on installation, operation, maintenance, and removal of facilities to pump, divert, store, or convey water on National Forest System lands covered by this permit that are necessary to protect public property, public safety, and natural resources on National Forest System lands in compliance with applicable law. The holder waives any claims against the United States for compensation in connection with imposition of any conditions on installation, operation, maintenance, and removal of water facilities under this permit.

J. Nullification or Modification of Water Rights. (D26).

1. Nullification. Authorization of any facilities to pump, divert, store, or convey water under this permit shall cease upon nullification in a state proceeding of the holder's right to use water being pumped, diverted, stored, or conveyed by those facilities.

2. Modification. Authorization of any facilities to pump, divert, store, or convey water under this permit shall be modified to make use of those facilities consistent with any modification of the holder's water rights that occurs as a result of any state proceedings.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0596-0082. The time required to complete this information collection is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call toll free (866) 632-9992 (voice). TDD users can contact USDA through local relay or the Federal relay at (800) 877-8339 (TDD) or (866) 377-8642 (relay voice). USDA is an equal opportunity provider and employer.

The Privacy Act of 1974 (5 U.S.C. 552a) and the Freedom of Information Act (5 U.S.C. 552) govern the confidentiality to be provided for information received by the Forest Service.

This permit is accepted subject to the conditions set out above.

HOLDER NAME: PUD #1 PEND OREILLE COUNTY U.S. DEPARTMENT OF AGRICULTURE  
Forest Service

By: \_\_\_\_\_  
(Holder Signature)

By: \_\_\_\_\_  
(Authorized Officer Signature)

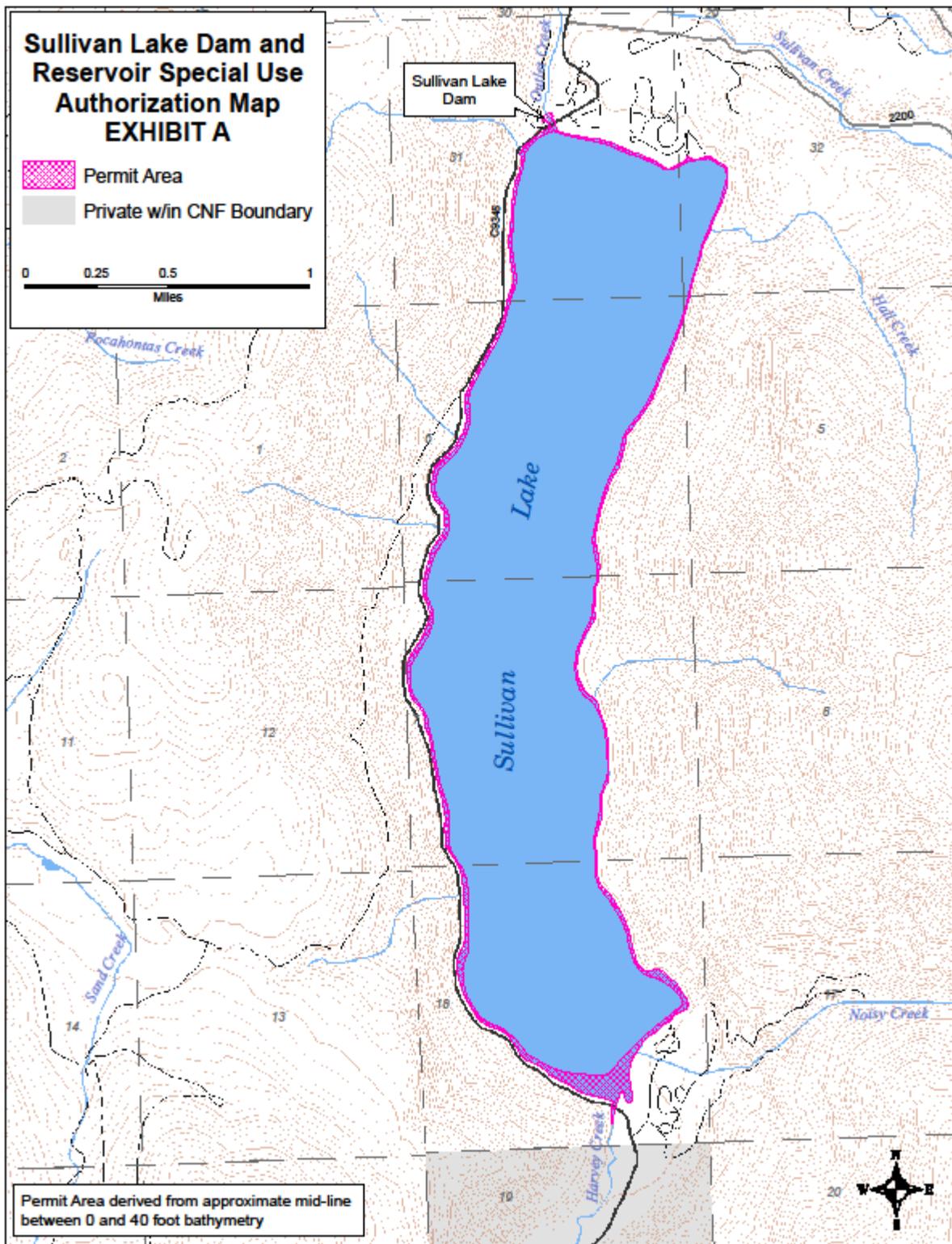
By: \_\_\_\_\_  
(Holder Signature)

Title: \_\_\_\_\_  
(Name and Title)

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Exhibit A – Vicinity Map of Permit Area



**USDA Forest Service Special Use Authorization  
Special Conditions**

1. Sullivan Dam Operation and Maintenance Holder shall be responsible for all operation and maintenance (O&M) of Sullivan Lake Dam, including applicable measures consistent with the Washington State Department of Ecology Dam Safety Program and the Forest Service Dam Management Program. This will include:
  - a. Developing and maintaining an operation and maintenance (O&M) manual.
  - b. Conducting regularly scheduled Piezometer inspections and recordings.
  - c. Conducting annual surficial inspections and maintaining records of findings and of actions taken to correct problem conditions.
  - d. Submitting to the Department of Ecology and the Forest Service a copy of the annual inspection checklist and inspection findings. The annual report will be available to the Resource Committee upon request (either written or verbal).
  - e. Developing, maintaining, and implementing an Emergency Action Plan (EAP) as directed by the appropriate agencies.
  - f. Cooperating and participating in scheduled and/or unscheduled inspections by the Department of Ecology and Forest Service.
  - g. Upon request (either written or verbal), holder shall provide Resource Committee<sup>3</sup> representatives access to Sullivan Dam and to pertinent Project records for the purpose of inspecting the facilities to determine compliance with these conditions; provided that Resource Committee representatives show proper credentials, give responsible notice of such inspections, and follow holder's standard safety procedures when engaged in such inspections.
2. Cold Water Release Facility The holder shall undertake the design, permitting, construction, monitoring, operation, and maintenance of a cold water release facility consisting of a 48 inch diameter pipe, with fish screens that meet NOAA design criteria of 0.2 feet per second (fps) approach velocity at the inlet and routed through one of the three existing low-level outlet gates at Sullivan Dam as provided for under the conditions of this permit and as described in Exhibit C (Cold Water Release Facility Plan).

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<sup>3</sup> See Appendix 1.

3. Temperature Gages

- a. Below Confluence Water Temperature Gage: To achieve the criteria for mixed water temperature after the confluence of Sullivan Creek and Outlet Creek described in Number 4 below, a continuous water temperature monitoring station (gage) shall be installed and maintained by the holder on Sullivan Creek at least 300 feet downstream of the confluence with Outlet Creek.
- b. Above Confluence Water Temperature Gage: A continuous water temperature monitoring station (gage) shall be installed and maintained by the holder on Sullivan Creek upstream of its confluence with Outlet Creek.

4. Reservoir Level Operations and Requirements Upon completion of the cold water release facility, the holder shall operate Sullivan Lake Reservoir in the following manner each year:

a. Spring Operations:

- i Each year the holder shall start refilling Sullivan Lake on or before April 1st and shall seek to achieve and maintain a full Sullivan Lake elevation of 2588.6 ft MSL (as measured at Sullivan Lake Dam) subject to hydrologic conditions, water availability and dam discharge flow requirements defined in Numbers 6, 8, and 10 below. Refilling rates shall also be adjusted as necessary to accommodate the Harvey Creek Bedload Mobilization activities, as described in Number 8 below.

b. Summer Operations:

- ii During the summer period, defined as June 1 through Labor Day each year, the target Sullivan Lake level will be 2588.6 (full pool). Although lake level modeling indicates that in dry years the lake may not be completely full by June 1, the holder shall use its best efforts to reach and maintain that level.
- iii The holder shall comply with the required minimum dam discharge flows during the summer period as described in Number 6 below.
- iv The holder shall manage the discharges from the cold water pipe and the Sullivan Lake Dam gates: (1) to meet state water temperature standards (WAC 173-201A-200); (2) with the goal of preventing the daily average “below confluence water temperature” from exceeding 14 degrees C; and (3) with the goal of preventing the daily average “below confluence water temperature” from deviating from the daily average Sullivan Creek “above confluence water temperature” by more than 1 degree C, when daily average “above confluence water temperature” is less than 14 degrees C.

c. Fall Operations:

Drawdown shall be initiated the day following Labor Day each fall and shall be conducted in the manner described below.

- i. The holder shall manage the discharges from the cold water pipe and the Sullivan Lake Dam gates: 1) to meet state water temperature standards (WAC 173-201A-200); 2) with the goal of preventing the daily average “below confluence water temperature” from exceeding 14 degrees C; and 3) with the goal of preventing the daily average “below confluence water temperature” from deviating from the daily average Sullivan Creek “above confluence water temperature” by more than 1 degree C, when daily average “above confluence water temperature” is less than 14 degrees C.
- ii. The holder will strive to maintain the operation described in Number 4.c. i (3) above until fall turnover. Once fall turnover occurs in Sullivan Lake (mid-October), Sullivan Creek temperatures

may fall below Outlet Creek temperatures by several degrees, and it may not be possible to maintain a 1 degree C water temperature difference.

- iii. Subject to the temperature constraints above, the holder shall strive to maximize discharge flows through the cold water pipe and minimize the use of the low-level gates at the dam during fall drawdown. When low level gates are used, releases shall be made from two gates simultaneously.
- iv. Discharge flows shall be ramped up no more than 80 cfs per day as measured at the Outlet Creek gage.
- v. Drawdowns shall be managed to reach a target lake water surface elevation of 2577 feet by no later than November 15. After November 15, the holder shall strive to release all water through the cold water pipe.
- vi. Discharge flows shall be forecasted and posted online one week in advance to support recreational use. To the extent consistent with other constraints in this subsection, drawdown will be managed to provide discharge flows between 180 and 220 cfs on at least 3 weekends in September or October to support whitewater paddling.
- vii. Down ramping rate when changing release flows shall not exceed 10 cfs per hour as measured at the Outlet Creek gage.
- viii. To prevent thermal shock of the downstream system, flows shall be up ramped or down ramped to prevent waters below the confluence from changing daily average temperature more than 2 degrees C per day.
- ix. Drawdown shall be managed with the goal of reaching a lake water surface elevation of 2570 feet by December 31.

5. Interim Operations Upon issuance of this special use authorization, and prior to the construction of the Cold Water Release Facility, the holder shall operate Sullivan Lake Reservoir as follows:

a. Spring Operations:

Each year the holder shall start refilling Sullivan Lake on or before April 1st and shall seek to achieve and maintain a full Sullivan Lake elevation of 2588.6 ft MSL (as measured at Sullivan Lake Dam) subject to hydrologic conditions, water availability and dam discharge flow requirements defined in Numbers 6, 8, and 10 below. Refilling rates shall also be adjusted as necessary to accommodate the Harvey Creek Bedload Mobilization activities, as described in Number 8 below.

b. Summer Operations:

During the summer period, defined as June 1 through Labor Day each year, the target Sullivan Lake level will be 2588.6 (full pool). Although lake level modeling indicates that in dry years the lake may not be completely full by June 1, the holder shall use its best efforts to reach and maintain that level.

The holder shall comply with the required minimum dam discharge flows during the summer period as described in Number 6 below.

c. Fall Operations:

- i. Drawdown shall be initiated the day following Labor Day each fall and shall be conducted in a manner that reaches the maximum flow target as quickly as possible, given the following constraints:
- i. Discharge flows shall be managed to meet state water temperature standards (WAC 173-201A-200) and will under no circumstances cause the combined waters of Outlet Creek and Sullivan Creek as measured at “below confluence water temperature gage” to exceed 16 degrees C.
- ii. Drawdown shall strive to reach a target lake water surface elevation of 2577 feet by no later than November 15.
- iii. Discharge flows will ramp up no more than 80 cfs per day but not to exceed a change of more than 2 degrees C in average daily temperature per day as measured at the below confluence water temperature gage. This criterion shall be subject to monitoring and adaptive management, as approved by the Resource Committee and subject to approval by the Authorized Officer.
- iv. Discharge maximum flow target shall be 200 cfs during periods of normal or below normal precipitation, and 225 cfs during periods of higher than normal precipitation.
- v. Down ramping rate shall not exceed 10 cfs per hour.
- vi. Drawdown shall be managed with the goal of reaching a Lake water surface elevation of 2570 feet by December 31.

6. Sullivan Lake Dam Minimum Discharge Flows Each year, the holder shall maintain minimum discharge flows in Outlet Creek measured by the Outlet Creek USGS gauging station, and as follows:

- a. June 1 through June 30, minimum discharge flows shall be 30 cfs.
- b. July 1 through the end of fall drawdown (when elevation reaches 2570.0 ft) minimum discharge flows shall be 20 cfs.
- c. From the date the Lake reaches elevation 2570.0 ft until the beginning of spring filling (per Number 4 above), outflow shall equal inflow from Harvey Creek.
- d. From April 1 through May 31, minimum discharge flows shall be 10 cfs or inflow, whichever is less.

7. Limitations Regarding Sullivan Lake Surface Elevations and Discharge Flow Requirements

- a. The holder shall comply with the Sullivan Lake water surface elevations and discharge flow requirements at all times, but subject to short term deviations due to equipment failures, maintenance activities, electric and mechanical device limitations, safety inspections, testing, natural disasters, such as floods, and Harvey Creek Bedload Mobilization activities described in Number 8 below.
- b. The holder shall use the existing USGS stream gage on Outlet Creek and install a new Sullivan Lake level recording gage at Sullivan Dam to record data to demonstrate compliance with

discharge flow requirements. If USGS ceases to maintain the Outlet Creek stream gage, the holder will thereafter maintain the gage.

8. Harvey Creek Bedload Mobilization The holder shall manage Sullivan Lake surface elevations to facilitate the mobilization of Harvey Creek bedload consistent with the provisions of this permit and subject to future study and/or decision-making through consultation and approval of the Resource Committee and subject to the approval of the Authorized Officer.

These measures shall be referred to as the Harvey Creek Bedload Mobilization Project (“Harvey Creek Project”). The various lake operating scenarios to implement the Harvey Creek Project and the explanation of the basis for these measures are as described in the report entitled: “Sullivan Lake – Decisions About Filling and Draining Rates- An Interactive Approach” by EES Consulting, dated November, 2009.

The Harvey Creek Project shall be implemented as summarized in the Decision Tree matrix (Appendix 2) as follows:

- a. The holder, in consultation with the Resource Committee, shall begin to examine available regional flow projections, snow pack data and run-off forecasts by April 1 each year to determine if the spring run-off can reasonably be expected to be at least 120% of the long term average.
- b. If the Resource Committee agrees, by April 20 each year, based on the forecasts above, that the forecasts predict it will be a 120% or greater Spring run-off year, the decision will be made to hold Sullivan Lake level at no more than elevation 2575.0 until May 20 of that year, and the operating provisions described below will be implemented, subject to final approval by the Authorized Officer.
- c. Flows in Harvey Creek will be monitored. If before May 20, Harvey Creek reaches a flow of 250 cfs or more, when the flow begins to recede from its peak, the lake filling can resume at its normal rate.
- d. On May 20, regardless of Harvey Creek flows, lake filling will resume at its normal rate.
- e. After each year that the “lake level hold-down” is attempted as part of the Harvey Creek Project, the Resource Committee will meet after July 1 and examine the effectiveness of the lake level hold-down, whether or not the forecasts were correct, whether or not a high flow event actually occurred on Harvey Creek, and whether or not the Harvey Creek flow was adequate to move sediments and bedload, achieving the goal of reducing sediment buildup at the Harvey Creek stream entrance to the lake. After four lake level hold-downs, the Resource Committee will meet to recommend to the Authorized Officer whether or not further operating changes are warranted or whether the Harvey Creek Project should be discontinued.
- f. The holder shall install a new stream gage on Harvey Creek to USGS standards and shall operate and maintain this gage to collect flow data required to implement the Harvey Creek Project.

9. Recreation Mitigation Measures

- a. The holder shall, in consultation with Sullivan Lake dock and launch facility owners, evaluate the functionality of existing facilities under the operational regime of Number 4 above and Number 10 below.
- b. The holder shall, prior to beginning of operational changes under Number 4 above and Number 10 below, mitigate all functional deficiencies for facilities in existence at the end of 2009.
- c. Improvements to any Forest Service facilities must meet Forest Service standards and be approved by the Forest Service.

10. Water Supply Program The holder may sell or lease up to 5,000 AF of the useable storage in Sullivan Lake annually for use outside the Sullivan Creek drainage<sup>4</sup> between June 1 and August 31. The total of up to 5,000 AF includes water released under the new minimum discharge flow regime (described in Number 6 above) that is in excess of the old minimum flow of 10 cfs in Outlet Creek. The holder agrees to give priority consideration to the Columbia River Basin Water Supply Management Program.

For the purposes of this water supply program, the holder shall release water at a rate described in Table 1, not to exceed 2.0 times the minimum discharge flow requirement of Number 6 above. Water shall be released at as steady a rate as possible, as measured by the day-to-day change in daily average cfs.

The higher discharge flows listed in Table 1 will occur in wet and average water years. In dry water years, the lower flows shown in Table 1 shall be released. Whether or not a dry year is occurring will be decided by May 20 each year by the Resource Committee utilizing the decision tree shown in Appendix 3.

Table 1 shows the range of water supply discharge flows, which includes the minimum discharge flows (as described in Number 6 above).

<b>Table 1. Water Supply Discharge Flows</b>	
<b>Period</b>	<b>Discharge Flow (cfs)</b>
June Week 1	50-60
June Week 2	50-60
June Week 3	50-60
June Week 4	50-60
July Week 1	40-45
July Week 2	35-40
July Week 3	30-35
July Week 4	30-35
Aug Week 1	30-35
Aug Week 2	30-35
Aug Week 3	30-35
Aug Week 4	30-35
Sept Week 1	30-35

Holder shall manage the discharges shown in Table 1 above: 1) to meet state water temperature standards (WAC 173-201A-200); 2) with the goal of preventing the daily average “below confluence water temperature” from exceeding 14 degrees C; and 3) with the goal of preventing the daily average “below confluence water temperature” from deviating from the daily average Sullivan Creek “above confluence water temperature” by more than 1 degree C, when daily average “above confluence water temperature” is less than 14 degrees C.

11. Dam Safety

a. The holder shall implement the Dam Operations and Maintenance Plans (Clause VII. D.4) on file in the Colville National Forest Supervisor’s Office.

<sup>4</sup> In order to realize the environmental, habitat, and conservation benefits of water released under this condition (No. 10), *outside the Sullivan Drainage* means downstream (in the Pend Oreille River / Columbia River system) of the calculated range of thermal mixing of Sullivan Creek water into the Pend Oreille River or presumptively, river mile 26 on the Pend Oreille River.

- b. The holder shall implement the Dam Emergency Action Plan (Clause VII. D.5) on file in the Colville National Forest Supervisor's Office.

12. Implementation of Activities on National Forest System Lands (III.B)

The holder shall not commence implementation of habitat or ground-disturbing activities on National Forest System (NFS) lands until the Forest Service has approved site-specific project designs and issued a notice to proceed. Site specific plans shall be prepared by the holder and include:

- a. Detailed construction plans and drawings.
- b. A Spill Prevention and Control, and Hazardous Materials Plan for hazardous materials storage, spill prevention and cleanup on NFS lands, as needed, will be provided to USDA Forest Service for review and approval before work commences.

13. Construction Stipulations

Construction stipulations will include all clauses necessary to provide adequate control of the construction activity. To avoid problems in interpretation of requirements and construction performance the stipulations will clearly set forth the specifications and requirements and provide for inspecting the work while in progress. The Forest Service will authorize construction to proceed in accordance with terms and conditions including, but not limited to, those addressing the following:

- a. Construction of the Cold Water Release Facility shall be in accordance with the plans and specifications on file at Colville National Forest Supervisor's Office and identified as the Cold Water Release Facility Plan.
- b. The Forest Service may suspend all or any part of the construction activities (and/or revoke or terminate the special-use authorization without administrative proceedings) upon breach of any of the conditions herein.
- c. Prior to suspension, revocation, or termination, the Forest Service shall give the holder written notice of the grounds for such action and reasonable time to cure any noncompliance. However, the Forest Service may require immediate temporary suspension of all or any part of the activities when the Forest Service determines it is necessary to protect the public health, safety, or the environment. If requested by the holder, the superior to the officer ordering the suspension, revocation, or termination shall arrange within 10 days of the request for an on-the-ground review of the conditions with the holder. The superior shall affirm, modify, or cancel the temporary suspension as soon after the review as possible.
- d. The holder shall be responsible for the prevention and control of soil erosion and gullying in the construction area and adjacent areas and shall take such preventative measures as are necessary to repair and revegetate damaged areas and to prevent future damage.
- e. Holder shall protect scenic and esthetic values in the construction area as far as possible.

- f. The holder shall take reasonable precautions to protect all public land survey monuments and accessories, private property corners, and Forest boundary markers. In the event that any such land markers or monuments are damaged or destroyed, the holder shall reestablish or reference the corner in accordance with directions and procedures to be furnished by the Forest Service.
- g. The holder shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work sites, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The holder shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the holder shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Authorized Officer.
- h. The holder shall protect from damage all existing improvements and utilities (1) at or near the work site, and (2) on adjacent property of a third party, the locations of which are made known to or should be known by the holder. The holder shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the holder fails or refuses to repair the damage promptly, the Authorized Officer may have the necessary work performed and charge the cost to the holder.
- i. The holder shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Authorized Officer. The holder shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.
- j. Temporary buildings (*e.g.*, storage sheds, shops, offices) and utilities may be erected by the holder only with the approval of the Authorized Officer and shall be built with labor and materials furnished by the holder without expense to the Government. The temporary buildings and utilities shall remain the property of the holder and shall be removed by the holder at its expense upon completion of the work.
- k. The holder shall, under regulations prescribed by the Authorized Officer, use only established roadways, or use temporary roadways constructed by the holder when and as authorized by the Authorized Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the holder shall protect them from damage. The holder shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

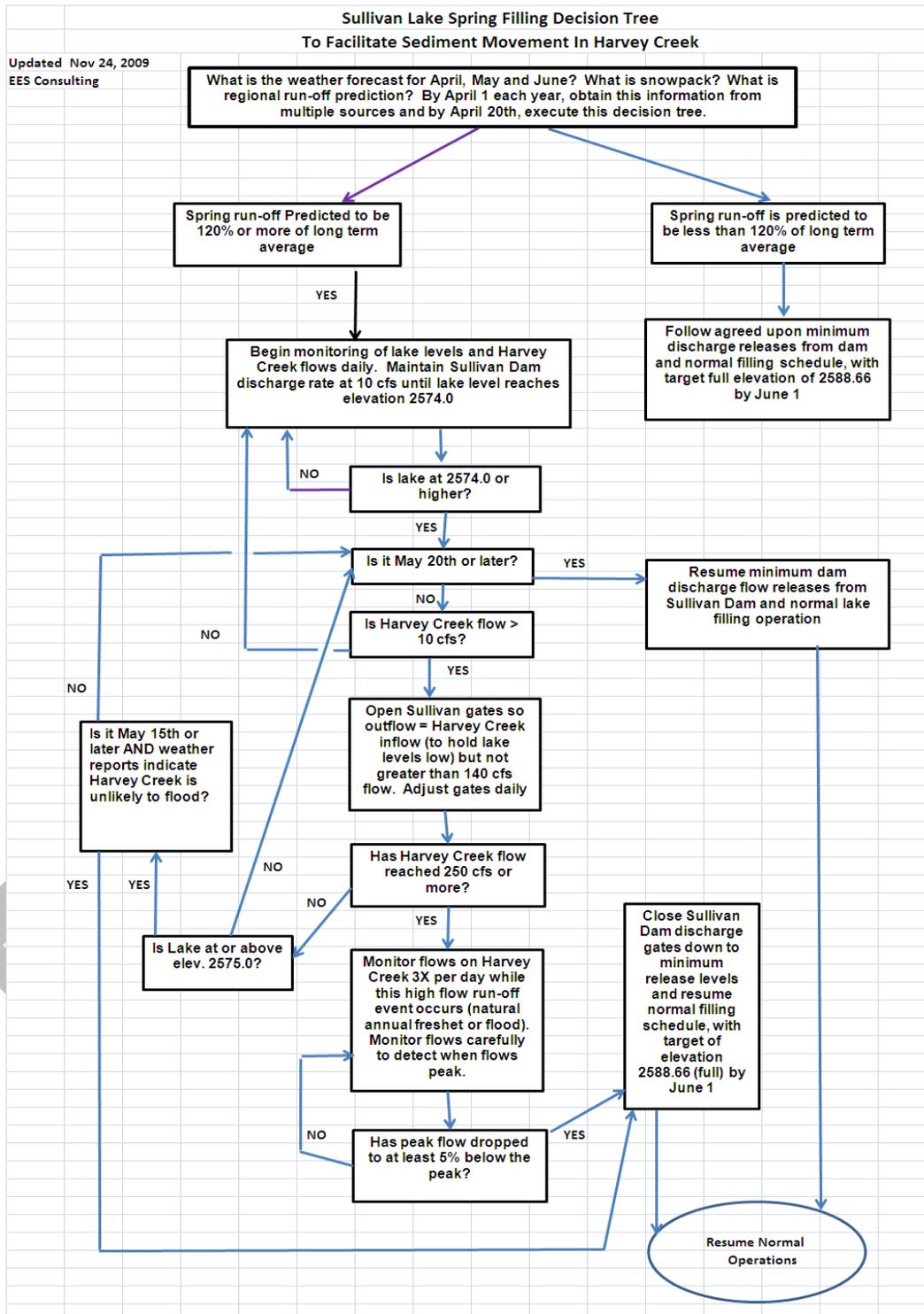
## APPENDICES

### Appendix 1: Resource Committee

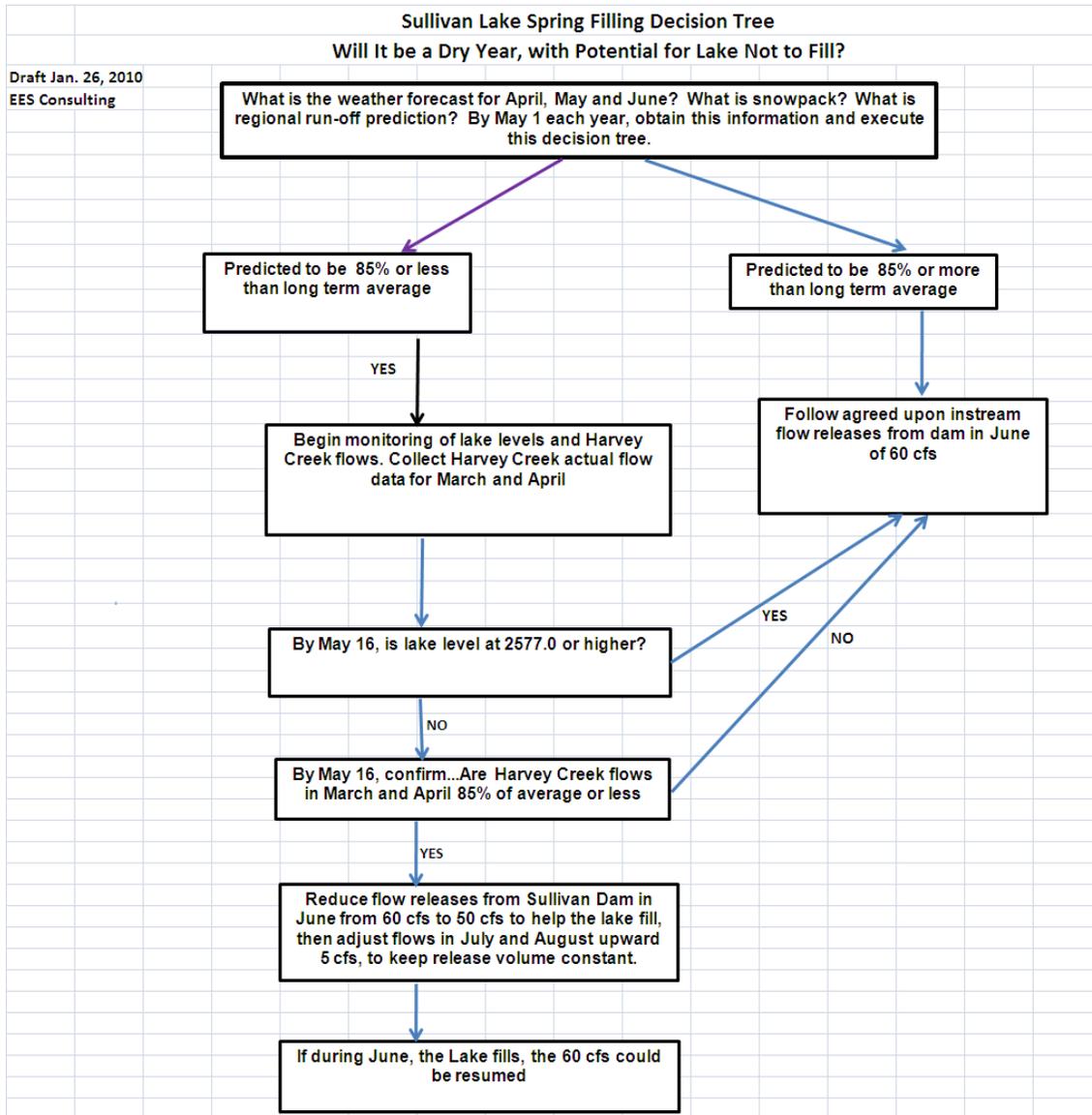
Description from Settlement Agreement Section 8 to be inserted here when special use authorization is issued.

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Appendix 2: Decision Tree for Spring Filling Rate Adjustments To Facilitate Harvey Creek Bedload Mobilization



### Appendix 3: Decision Tree for Dry Year Flow Releases



## Exhibit C – Permitted Facilities

Detailed description of project facilities.

### Sullivan Lake Dam

Sullivan Lake Dam is a concrete gravity dam having a maximum structural height of about 34 feet. The dam consists of two 19-ft-wide ogee spillways and a 20-ft-wide non-overflow section located between the spillways. The non-overflow section contains three low-level outlets for draining the lake. Concrete wing walls with earth fill on the downstream sides flank the left and right sides of the dam. The left wall is 86 feet long and the right wall is 66 feet long. The elevation of the walkway on top of the dam is 2593.33 ft MSL.

Six timber crest gates occupy the spillway crest of Sullivan Lake Dam. The gates, which are 4 feet high by 5 feet wide, are manually operated from the walkway and can regulate the lake elevation between El. 2584.66 and 2588.66 ft MSL. A concrete apron dissipates energy from spill. Figures A-2 and A-3 show upstream and downstream views of Sullivan Lake Dam. Sullivan Lake covers approximately 1,240 acres at elevation 2,588.66 ft. MSL. It is held at this level during the summer months for recreation use.



## Exhibit C – Permitted Facilities

### Sullivan Lake Dam – Cold Water Release Facility

A cold water release facility will be constructed and installed at Sullivan Lake Dam consisting of a 48-inch diameter pipe, with fish screens at the intake, which will be routed through one of the three existing low-level outlet gates to provide cooling of water temperatures in Outlet and Sullivan Creeks.

**Reservoir Pipeline.** The HDPE pipeline will be installed on the reservoir floor for majority of the pipeline length. From the intake structure to just upstream from the existing vehicle bridge, the pipeline will be installed from a barge by floating the pipeline into position, then sinking the pipeline to the floor with concrete collar anchors and releasing the air buoyancy. Divers will be required to clear the pipeline alignment of any debris and large rocks as well as ensure the pipeline is properly installed. The air line feeding the air burst system will be routed adjacent to the main water supply pipeline. From the upstream side of the bridge to the dam, the pipeline will be buried in the channel floor to maintain the hydraulic capacity of the approach channel as well as protect the pipeline from damage during large spill events. As the pipeline approaches the dam, the pipe will extend up onto the existing concrete apron upstream from the dam and connect via a bolted flange to a steel pipe section which extends through the dam.

**Pipeline Dam Penetration.** A steel pipe section will be used to extend through dam. The pipe section will consist of a 4 ft round to steel transition, then a 4 ft square steel insert which will be installed inside the existing concrete conduit. The steel pipeline section will bolt to the new HDPE pipeline on the upstream end. A flanged connection will be provided at the downstream end to allow installation of a control gate. The steel transition section will be encased in concrete to provide thrust restraint for the steel pipeline section. Epoxy or expansion anchors will be installed through the liner into the existing concrete conduits as required to provide additional shear resistance. The steel pipe section will be provided with an epoxy coating on the inside of the pipe.

**Pipeline Outlet Structure.** A fabricated steel control gate will be installed on the downstream end of the pipeline. The gate will be used to control the flow released from the dam during the cold water release periods. The gate will be fitted with a pneumatic operator with the air provided from a small air compressor located in the mechanical equipment enclosure.

**Pipeline Intake.** The pipeline intake will be fitted with two Tee style fish screens designed to meet NOAA Fisheries screening criteria. For this application, the screen would be designed to meet a maximum approach velocity of 0.2 fps which is required by NOAA Fisheries for intake structures which do not have a positive bypass system. The minimum effective screen area required assuming a maximum design flow of 160 cfs would then be 800 square feet (sf). An air burst cleaning system would be provided. The air compressor, storage tank, piping, valves, and associated equipment would be located on the left abutment in a metal building. An air line will be ran from a new system control house near the dam, along the top of the pipeline to the intake. A support structure for the intake will be installed on the reservoir bottom. The structure will elevate the intake off of the reservoir bottom enough to ensure unimpeded flows entering the pipeline. An air burst system will be required in order to clean the intake screens.

**Mechanical Equipment Building.** A pre-fabricated metal building will be provided to house the air burst equipment and pneumatic operator air compressor. A standby generator will be required to provide power to the mechanical equipment.

Drawings Attached.