

State of Washington
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION

PRIORITY DATE March 4, 2011	WATER RIGHT NUMBER S3-30635
MAILING ADDRESS PUD NO. 1 OF PEND OREILLE COUNTY 130 NORTH WASHINGTON PO BOX 190 NEWPORT WA 99156-0190	SITE ADDRESS (IF DIFFERENT)

Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL OR DIVERSION RATE 225	UNITS CFS	ANNUAL QUANTITY (AF/YR) 31209
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Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
In-Lake Fisheries	225		CFS	31209		01/01 - 12/31
In-Lake Recreation & Aesthetics		225	CFS		31209	01/01 - 12/31
Instream Flow (Downstream)		225	CFS		26000	06/01 - 12/31
Power (Downstream)		225	CFS		26000	06/01 - 12/31
Mitigation (Downstream)		210	CFS		14000	06/01 - 09/30

REMARKS
This Secondary Use Authorization is to confirm the use of annual storage up to 31,209 acre-feet of in-lake beneficial use for fisheries, recreation and aesthetic purposes. During a portion of the year, water will also be released pursuant to a lake management plan for downstream hydropower, instream flow and mitigation uses.

Source Location

COUNTY PEND OREILLE	WATERBODY SULLIVAN LAKE	TRIBUTARY TO OUTLET CREEK	WATER RESOURCE INVENTORY AREA 62-PEND OREILLE
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SOURCE FACILITY/DEVICE Sullivan Lake	PARCEL	WELL TAG	TWP 39N	RNG 44E	SEC 31	QQ Q SW NE	LATITUDE -117.28941	LONGITUDE 48.83992
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Datum: NAD83/WGS84

Place of Use (See Attached Map)

PARCELS (NOT LISTED FOR SERVICE AREAS)

N/A, PARCELS NOT ENUMERATED UNDER LAKES OR RIVERS.

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

In-Lake Uses occur in Sullivan Lake, Pend Oreille County. Out-of-Lake Uses occur from Sullivan Lake, through the Pend Oreille River, into the Columbia River to the confluence of the Columbia River and the Pacific Ocean.

Proposed Works

Proposed works includes Sullivan Dam, Spillway, and Outlet Works.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
January 1, 2012	January 1, 2015	January 1, 2016

Measurement of Water Use

How often must water use be measured?	Daily
How often must water use data be reported to Ecology?	Annually (Jan 31)
What volume should be reported?	Total Annual Volume & Report_Volume
What rate should be reported?	Weekly Peak Rate of Withdrawal (gpm or cfs)

Provisions

Following release of 14,000 acre-feet of water for instream flow purposes and mitigation of out-of-stream uses, the PUD shall convey said quantity to Ecology's trust water program consistent with the *Memorandum of Agreement between the State of Washington and Public Utility District of Pend Oreille County for the Sullivan Lake and Sullivan Creek Water Supply Project* (October 22, 2010).

For regulation purposes, the effective priority date of this secondary use authorization shall be the same as the claimed reservoir right, Claim 300245, June 1907.

Measurements, Monitoring, Metering and Reporting

An approved measuring device shall be installed and maintained for each of the sources identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173.

Ecology is requiring the recording and reporting of meter data as described above to collect seasonal information for water resource planning and compliance. The Lake level shall also be measured at least weekly and records of the lake level shall be maintained. Start and end date of release of water from storage shall be identified. Natural flows from the creeks and inflow system are not considered release from storage.

Recorded water use data shall be submitted via the Internet. To set up an Internet reporting account, contact the Eastern Regional Office. If you do not have Internet access, you can still submit hard copies

by contacting the Eastern Regional Office for forms to submit your water use data.

WAC 173-173 describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology for modifications to some of the requirements.

Department of Fish and Wildlife Requirement(s)

The new cold water release facility intake(s) shall be screened in accordance with Department of Fish and Wildlife screening criteria (pursuant to RCW 77.57.010, RCW 77.57.070, and RCW 77.57.040). Contact the Department of Fish and Wildlife, 600 Capitol Way N, Olympia, WA 98501-1091. Attention: Habitat Program, Phone: (360) 902-2534 if you have questions about screening criteria. <http://wdfw.wa.gov/about/contact/>

Water Use Efficiency

The water right holder is required to maintain efficient water delivery systems and use of up-to-date water conservation practices consistent with RCW 90.03.005.

Proof of Appropriation

The water right holder shall file the notice of Proof of Appropriation of water (under which the certificate of water right is issued) when the permanent distribution system has been constructed and the quantity of water required by the project has been put to full beneficial use. The certificate will reflect the extent of the project perfected within the limitations of the permit. Elements of a proof inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and satisfaction of provisions.

Schedule and Inspections

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

Findings of Facts

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I concur with the investigator that water is available from the source in question; that there will be no impairment of existing rights; that the purpose(s) of use are beneficial; and that there will be no detriment to the public interest.

Therefore, I ORDER approval of Application No. S3-30635 and that a permit be issued, subject to existing rights and the provisions specified above.

Your Right To Appeal

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

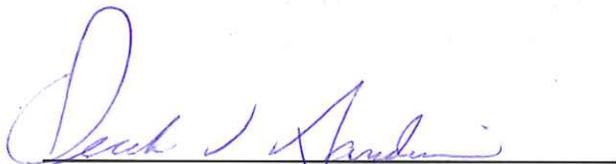
To appeal you must do the following within 30 days of the date of receipt of the Order.

File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.

- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.
- You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel RD SW Ste 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

Signed at Yakima, Washington, this ^{22nd} day of *NOVEMBER* 2011.



Derek I. Sandison, Director
Office of Columbia River

For additional information visit the Environmental Hearings Office Website: <http://www.eho.wa.gov>. To find laws and agency rules visit the Washington State Legislature Website: <http://www1.leg.wa.gov/CodeReviser>.

INVESTIGATOR'S REPORT

Application for Water Right -- PUD No. 1 of Pend Oreille County

Water Right Control Number S3-30635

Daniel Haller, Department of Ecology

BACKGROUND

Sullivan Lake Dam is located in northeast Washington in Pend Oreille County near the Canadian Border and the state line between Washington and Idaho and impounds 31,209 acre-feet of water. Sullivan Lake Dam (and associated Mill Pond) was constructed in 1911. The Sullivan Lake Dam was operated for hydroelectric power (for maximum production of 4 MW) until 1956. PUD No. 1 of Pend Oreille County (PUD) acquired the dam, property, and water rights in 1959, but power was never generated by the PUD. Instead the lake was operated for recreation and fisheries uses, and indirect power benefits were realized through management of storage releases pursuant to the Pacific Northwest Coordination Agreement and applicable law.



On April 2, 2010, the PUD filed an application with the Federal Energy Regulatory Commission (FERC) to surrender its license for the Sullivan Lake Hydroelectric Project. This application followed approximately 2 years of facilitated negotiations between state and federal agencies, external stakeholders, the Kalispel Tribe and the public, which resulted in the Sullivan Lake Hydroelectric Project Settlement Agreement, dated March 26, 2010 ("Settlement Agreement"),¹ on future operations of the Sullivan Lake Dam. The Settlement Agreement was filed with the license surrender application to FERC.

¹ A copy of the Settlement Agreement is located in the water right file, or may be viewed on-line at <http://www.ecy.wa.gov/programs/wr/cwp/sullivan.html>.

Concurrent with these negotiations, Ecology's Office of Columbia River (OCR) and the PUD discussed opportunities that might result from changing the operation of the Sullivan Lake Dam. The Settlement Agreement reserved for the PUD the right to sell or lease 5,000 acre-feet of storage from June 1st to August 31st each year, with priority consideration given to OCR because of the environmental benefits inherent in RCW 90.90. The Settlement Agreement also described the PUD's release of approximately 9,000 acre-feet of water in September each year, which was also of interest to OCR. OCR and the PUD entered into a Memorandum of Agreement on October 22, 2010 (2010 MOA)² for the contractual delivery of 14,000 acre-feet³ of water each year associated with new reservoir operations under the Settlement Agreement.

OCR and the PUD negotiated a permitting approach for the project as outlined in the 2010 MOA (see 2010 MOA, Section 5). Consistent with that approach, the PUD filed an application for a secondary use permit for water stored in Sullivan Lake on March 4, 2011. Under the PUD's proposal, following storage releases beginning in 2012, trust water applications would be filed by the PUD to transfer a total of 14,000 acre-feet of water to Ecology's trust water program. Once Ecology holds the trust water right, it will manage that 14,000 acre-feet of water for fisheries benefit (1/3rd, or 4,667 acre-feet) and for mitigation of new permits (2/3^{rds}, or 9,333 acre-feet) that would be issued to authorize water uses downstream of Sullivan Lake. Consistent with RCW 90.90.110:

"Two-thirds of the water made available through reoperation of Sullivan lake funded from the Columbia river basin water supply development account created in RCW 90.90.010 must be used to supply or offset out-of-stream uses described in RCW 90.90.020(3) in Douglas, Ferry, Lincoln, Okanogan, Pend Oreille, and Stevens counties. At least one-half of this quantity must be made available for municipal, domestic, and industrial uses."

The remaining water stored in the lake (30,209 acre-feet less 14,000 acre-feet released to OCR, or 17,209 acre-feet) will be managed in-lake, then released according to the terms of the Settlement Agreement for downstream purposes. Such purposes include in-lake fisheries and recreation benefits, and downstream recreation (e.g. white water rafting), hydropower, and instream flow purposes.

Priority Processing

This application is being priority processed because it qualifies under the criteria under which an application may be processed prior to competing applications (RCW 90.03.370(1)(b)(iv)): *"The department shall expedite processing applications for the following types of storage proposals . . . applications for secondary permits to secure use from existing storage facilities."*

² A copy of the MOA is located in the water right file, or may be viewed on line at <http://www.ecy.wa.gov/programs/wr/cwp/sullivan.html>.

³ The 14,000 acre-feet was derived from the 5,000 acre-feet of water available from June 1st to August 31st plus the additional September releases of 9,000 acre-feet.

Attributes of Proposal

Table 1 Application Summary

Name	PUD No. 1 of Pend Oreille County
Priority Date	March 4, 2011
Instantaneous Rate	225 cfs
Annual Quantity	31,209 acre-feet
Purpose(s) of Use	Instream Flow, Hydropower (off-site), Mitigation of New Uses, Recreation and Aesthetics
Period of Use	<ul style="list-style-type: none"> • Continuous (for 31,209 acre-feet in-lake recreation, fisheries, and aesthetics); • June 1 to September 30 (for 14,000 acre-feet to OCR trust water program) • June 1 to December 31 (for 12,000 acre-feet delivered for downstream recreation, hydropower, and instream flows)
Place(s) of Use	In-Lake Uses occur in Sullivan Lake, Pend Oreille County. Out-of-Lake Uses occur from Sullivan Lake, through the Pend Oreille River, into the Columbia River to the confluence of the Columbia River and the Pacific Ocean.

Table 2 Proposed Sources of Withdrawal or Diversion

Source Name	Parcel	WellTag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
SULLIVAN LAKE	N/A	N/A	39N	44E	31	SW NE	-117.28941	48.83992

Legal Requirements for Approval of Appropriation of Water

RCW 90.03 authorizes the appropriation of public water for beneficial use and describes the process for obtaining water rights. The subject application is for a secondary permit associated with existing Water Right Claim No. 300245, which asserts a right to store 31,209 acre-feet of water. RCW 90.03.370 describes the statutory framework for issuing reservoir permits and secondary use permits. RCW 90.03.370(1)(a) states:

" . . . the party or parties proposing to apply to a beneficial use the water stored in any such reservoir shall also file an application for a permit, to be known as the secondary permit, which shall be in compliance with the provisions of RCW 90.03.250 through 90.03.320."

Laws governing the surface water right permitting process are contained in RCW 90.03.250 through 90.03.340. In accordance with RCW 90.03.290, determinations must be made on the following four criteria in order for an application for water rights to be approved:

- Water must be available.
- There must be no impairment of existing rights.
- The water use must be beneficial.
- The water use must not be detrimental to the public interest.⁴

⁴ RCW 90.03.290 states in different subsections that water right permits cannot be granted if proposed uses will be "detrimental to the public interest" or be "detrimental to the public welfare." These terms are considered to be interchangeable.

RCW 90.42 authorizes water to be acquired, held, and managed in trust by the State of Washington. RCW 90.42.040(3) specifies that before a trust water right can be exercised, Ecology must determine that there will be no impairment to existing rights or the public interest.

In 2011, the Legislature approved changes to RCW 90.90.110 under Second Substitute House Bill 1803 for the Sullivan Lake Water Supply Project. The amendments describe the purposes and location for out-of-stream permits mitigated under the project (see Background Section for amended language). In summary, 9,333 acre-feet must be used to offset new permits in 6 northeast counties, of which 4,667 acre-feet is reserved for municipal, domestic and industrial uses. The remaining 4,667 acre-feet of out-of-stream mitigation can be used for other purposes (e.g. agricultural irrigation).

Public Notice

RCW 90.03.280 requires that notice of a water right application be published once a week, for two consecutive weeks, in a newspaper of general circulation in the county or counties where the water is to be stored, diverted and used. RCW 90.42.040(5) contains a similar requirement before a trust water certificate can be created. Notice was provided in compliance with RCW 90.03.280 and RCW 90.42.040(5) as follows.

Notice of this application was published in the following 17 newspapers during the weeks of July 25, 2011 and August 1, 2010, consecutively, with the last publication date occurring on August 4, 2011.

- Wenatchee World published in Chelan & Douglas Counties; AND
- The Columbian published in Clark County; AND
- The Daily News published in Cowlitz County; AND
- Tri-City Herald published in Franklin & Benton Counties; AND
- Columbia Basin Journal published in Grant County; AND
- Ellensburg Daily Record published in Kittitas County; AND
- Goldendale Sentinel, published in Klickitat County; AND
- Davenport Times published in Lincoln County; AND
- Okanogan County Chronicle published in Okanogan County; AND
- Chinook Observer published in Pacific County; AND
- Newport Miner published in Pend Oreille County; AND
- Skamania County Pioneer published in Skamania County; AND
- Spokesman Review published in Spokane County; AND
- Statesman-Examiner published in Stevens County; AND
- Wahkiakum County Eagle published in Wahkiakum County; AND
- Union-Bulletin published in Walla Walla County; AND
- Yakima Herald-Republic published in Yakima County

RCW 90.42.040(5)(b) also requires that before a trust water certificate can be created, “ *the department shall send a notice containing pertinent information to all appropriate state agencies, potentially affected local governments and federally recognized tribal governments, and other interested parties*”. The department provided the required notice on October 13, 2011.

Consultation with the Department of Fish and Wildlife

The Department must give notice to the Department of Fish and Wildlife (WDFW) of applications to divert, withdraw or store water (RCW 77.57.020). WDFW is a party to the Settlement Agreement, and was consulted by Ecology during Ecology’s negotiations with the PUD prior to signing the 2010 MOA. In

addition, in response to the public notice on this application, WFW provided a letter to Ecology on September 7, 2011. The letter states "*WDFW has no objection to this application. This is a non-additive water right that manages Sullivan Lake for instream flow benefits and other uses in the Columbia River*".

State Environmental Policy Act (SEPA)

On April 8, 2011, in compliance with the National Environmental Policy Act (NEPA), the Federal Energy Regulatory Commission (FERC) published a Draft Environmental Impact Statement (EIS) for two related projects: 1) a relicense application of Boundary Dam on the Pend Oreille River by Seattle City Light, and 2) a license surrender application for Sullivan Dam by the PUD. The applications were causally linked by mitigation measures that Seattle City Light proposed for its relicensing that were located at Sullivan Lake. Ecology offered comments to FERC on the project, both during scoping of the EIS and on the draft EIS, which were generally incorporated by FERC into the EIS.

On September 21, 2011, Seattle City Light and the PUD, each acting as lead agencies for their respective project actions, adopted the FERC EIS via a SEPA Notice of Adoption (see water right file). Copies of the environmental documents can be obtained from Ecology's website⁵.

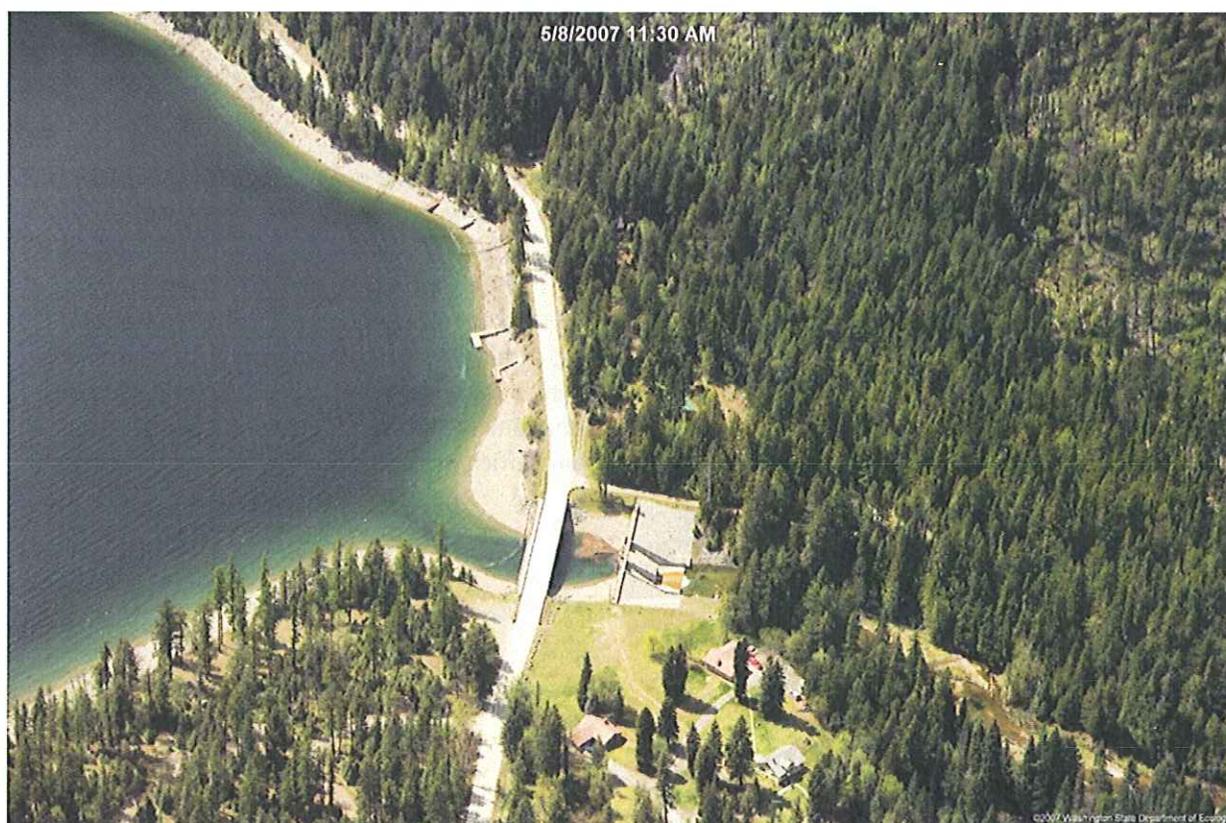
This application for a secondary use permit is a component of the overall project considered under the FERC EIS, which was adopted under SEPA. As such, Ecology is relying on these environmental documents in its determination for this application. The FERC EIS considered all the possible effects on Sullivan Lake as a result of the relicensing effort, including reoperation of the lake to accommodate downstream releases under the 2010 MOA. The FERC EIS also considered downstream impacts and cumulative impacts associated with associated permitting of water based on Sullivan Lake releases to OCR. Site-specific impacts associated with individual projects that may receive permits mitigated by these releases cannot be completely known, and additional environmental review may be necessary if the lead agency determines the FERC EIS does not contain sufficient evaluation and disclosure of such impacts.

⁵ <http://www.ecy.wa.gov/programs/wr/cwp/sullivan.html>.

INVESTIGATION

Proposed Use and Basis of Water Demand

Sullivan Lake impounds up to 31,209 acre-feet of water annually with a minimum pool elevation of 2,565 feet and a maximum pool elevation of 2,588.6 feet. Historically, Sullivan Lake filled and emptied each year in accordance with Pacific Northwest Coordination Agreement⁶ and its FERC license. The lake filled each spring on or around April 1. The lake maintained a constant full elevation of 2,588.6 for the months of June through September for summer recreation. The PUD began lowering the lake on October 1 to provide room to catch spring run-off and provide downstream power benefits. The lake was drained to elevation 2565.0 by about December 15 each year. Minimum instream flow releases of 10 cfs were generally maintained year-round⁷.



Under the Settlement Agreement, FERC License Surrender, and OCR 2010 MOA, a new lake management plan was adopted by the PUD. The new lake management plan adopts specific lake level targets, monitoring, and ramping rates described in detail in the Settlement Agreement. Generally however, the timing of the releases starts earlier in the year with additional water released in June through September that was previously released from October to December. The following table is excerpted from the 2010 MOA and describes on a weekly basis the projected increased flows over historic operations that would be made available downstream of Sullivan Lake (14,000 acre-feet) to

⁶ The Pacific Northwest Coordination Agreement is an agreement for coordination of operations among power systems in the Pacific Northwest. http://www.nwd-wc.usace.army.mil/PB/97PNCA_Conformed.pdf.

⁷ The 10 cfs minimum diversion was typically maintained without additional releases from storage, but could result in storage releases in dry years.

OCR. Approximately 12,000 acre-feet will be released similar to historic operations and about 5,000 acre-feet would now be held in-lake over the winter instead of being released.

Table 3 Increased flows as a result of Sullivan Lake reoperation

Period	Dry Year Flow Increase		Wet Year Flow Increase		Monthly Total	
	cfs	acre-feet	cfs	acre-feet	Dry (acre-feet)	Wet (acre-feet)
June Week 1	40	560	50	700		
June Week 2	40	560	50	700		
June Week 3	40	560	50	700		
June Week 4	40	720	50	900	2400	3000
July Week 1	30	420	30	420		
July Week 2	25	350	25	350		
July Week 3	20	280	20	280		
July Week 4	20	400	20	400	1450	1450
August Week 1	20	280	20	280		
August Week 2	20	280	20	280		
August Week 3	20	280	20	280		
August Week 4	20	400	20	400	1240	1240
September Week 1	20	280	20	280		
September Week 2	170	2380	190	2660		
September Week 3	210	2940	210	2940		
September Week 4	210	3780	210	3780	9380	9660
Total (June-Aug)					5090	5690
Total (June-Sept)					14470	15350

The new lake management plan adopted by the parties in the Settlement Agreement strike a balance between diverse in-lake and downstream interests. The following table summarizes the proposed future uses identified in the PUD's application under the new lake management plan.

Table 4 Proposed Beneficial Uses

Proposed Use	Rate (cfs)	Volume (acre-feet)	Period of Use
In-Lake Recreation, Aesthetics and Resident Fisheries	0	31,209	Continuous
Mitigation for Out-of-Stream Uses	210	14,000 ⁸	6/1 to 9/30
Instream Flow (Downstream)	225	26,000	6/1 to 12/31
Recreation (Downstream)	225	26,000	6/1 to 12/31
Hydropower (Downstream)	225	26,000	6/1 to 12/31

The 9,333 acre-feet of water proposed to be used as mitigation is proposed as a consumptive use offset that will provide mitigation on at least a bucket-for-bucket basis for consumptive use impacts on the river and downstream water users. To the extent that return flows can be directly measured as returning to the Columbia River or conjunctively managed groundwater, then it will not be debited

⁸ The 14,000 acre-feet is allocated 2/3rds for out-of-stream uses and 1/3rd for instream uses. However, some instream benefit also accrues for the 9,333 acre-feet of out-of-stream use as the applicants whose uses will be mitigated by Ecology trust water holdings are downstream of Sullivan Lake.

against the 9,333 acre-feet of mitigation water held in trust by Ecology for consumptive uses. In other words, total use less measured return flows would be mitigated. If return flows cannot be directly measured (e.g. septic tanks or agricultural irrigation return flow), then total use would be mitigated. Return flows in those situations would not be inferred or estimated. Therefore, following end-use permitting for this project, it is possible that more than 9,333 acre-feet of new permits may be issued based on the 9,333 acre-feet of water for instream flow purposes held in trust, with the difference being directly measured return flows. Ecology would approve on-going measurement and monitoring plans for directly-measured return flows tied to routine planning (e.g. water / sewer planning) on a case-by-case basis in actual permit decisions. Those case-by-case evaluations would also consider whether the diversions and return flows could be managed conjunctively such that existing right are not impaired. However, actual decisions on applications for new permits based on the mitigation water that would be made available through this secondary use permit will not be made until any such applications are processed in the future, and are not the subject of this report.

Other Rights Appurtenant to the Place of Use

The PUD holds the following water right documents that are the subject of this project and documented in the 2010 MOA.

1. Water Right Claim 300245 and Certificate of Change Vol. 2 Page 817: Claim 300245 asserts a right to store 31,209 acre-feet in Sullivan Lake with a priority date of June 1907 for hydropower purposes. The source for the storage of water is from Sullivan Lake, Sullivan, Harvey, Noisy, and Sand Creeks.⁹ This claim reflects the reservoir storage right, which would provide the basis for the proposed secondary use permit sought through the PUD's application.
2. Water Right Claim 300244: Claim 300244 asserts a right to divert 250 cfs with a priority date of June 1907 and is based on a Notice of Water Right recorded in the Stevens County Auditor's Office in 1907. This claims the use of natural flow water and storage water from Sullivan Lake and all tributaries of Sullivan Lake, Sullivan, Noisy, Harvey, and Sand Creeks for the purpose of power generation. The claimed point of diversion is within the SW¼SW¼ of Section 22, T. 39 N., R. 43 E.W.M. for use at the Sullivan Creek Power Plant, and since 1956 for downstream power generation pursuant to the license for FERC Project No. 2225 and the Pacific Northwest Coordination Agreement.
3. Water Right Claim 300243: Claim 300243 asserts a right to divert 148 cfs (110 cfs evidenced by CC 2-817) and 107,426 acre-feet (includes 79,844 acre-feet claimed under CC 2-817) with a priority date of June 1907 and is based on a Notice of Water Right recorded in the Stevens County Auditor's Office in 1907. This diversionary right is for Mill Pond (NE¼NE¼ of Section 25), just below Sullivan Lake. Under the terms of the 2010 MOA, the PUD will convey its interest in this claim to trust following removal of Mill Pond.
4. Reservoir Permit 333: This reservoir permit issued with a priority date of May 13, 1964 for 29,704 acre-feet of storage for power generation. Beginning of construction was due in 1998

9

The Washington Supreme Court determined that the right had neither been abandoned nor relinquished in the case *PUD No. 1 of Pend Oreille Cy. v. Dep't of Ecology*, 146 Wn.2d 778, 51 P.3d 744, (2002). See <http://www.ecy.wa.gov/programs/wr/caselaw/images/pdf/SullivanCrk.pdf>.

and the project is no longer being pursued by the PUD. Under the 2010 MOA, this permit will be cancelled.

5. Surface Water Permit S3-26568P: This permit issued with a priority date of June 3, 1980 for 550 cfs (subject to existing and claimed rights) for power generation. Beginning of construction was due in 2008 and the project is no longer being pursued by the PUD. Under the 2010 MOA, this permit will be cancelled.
6. Amended Change Decision CS3-CV2P817: This decision issued in 2003 granting a change in point of diversion under a permit for power generation associated with the Mill Pond site. Completion of construction is due by 2013 and the project is no longer being pursued by the PUD. Under the 2010 MOA, this change authorization will be cancelled.
7. Certificate of Change Vol 2, Page 817: This decision issued in 1964 and confirmed the change in point of diversion of a vested water right for the purposes of power generation. An application for change was submitted in June of 1993 to change the point of diversion from this location downstream to the Mill Pond on Sullivan Creek. The decision was appealed to the Supreme Court, which confirmed the District's right to change the point of diversion of 110 cfs and divert water for power purposes at the new location. This authorization for Change is still active. See Amended Report of Examination under Certificate of Change Vol 2 page 817 issued May 8, 2003.

The PUD also holds several domestic / municipal water rights for use in serving public water supply to nearby residents, including the town of Metaline Falls. Also, the proposed uses under this secondary use application include instream flow through the creation of a trust water right, which overlaps numerous state-held trust water rights in the Columbia River for that purpose. New appropriations downstream based on mitigation provided by this project may also have overlapping rights which will be examined in those individual permit decisions when applications for any such permits are processed in the future.

Water Availability

For water to be available for appropriation, it must be both physically and legally available. Because the diversionary and storage rights for Sullivan Lake are based on vested rights asserted via claims, no initial finding of water availability was made by Ecology as in the case of a typical permit issuance. A finding that water is legally available here must instead be based on the panoply of the evidence in the record, which includes:

- Claims filed by the PUD for diversionary rights into Sullivan Lake and for storage therein.
- Claims filed by the PUD for diversionary rights for power generation.
- "Notice of Water Right for appropriation of 500 cfs of water from Sullivan Creek made by Lewis P. Larson on June 26, 1907; who posted and filed notice of appropriation of water in accordance with law; and recorded the same in Book "C", Page 272, of the Records of the Auditor of Stevens County, Washington (of which the present Pend Oreille County was then a part)" (see Claim 300244 file).
- Determination of extent and validity of the subject diversionary and reservoir claims in the Washington State Supreme Court case, *PUD Dist. 1 of Pend Oreille Cy. v. Dep't of Ecology for Certificate of Change Vol 2 page 817*.
- History of use and reservoir operations documented by the PUD, in documents such as the FERC EIS, and the Settlement Agreement.

As part of the negotiations of the Settlement Agreement and 2010 MOA, and preparation of the FERC EIS, the PUD performed water availability modeling. The PUD concluded that approximately once every 10 years, Sullivan Lake was not filled completely. However, because OCR has only contracted for 14,000 acre-feet of the 31,209 acre-foot capacity of the lake under the 2010 MOA, the releases of 14,000 acre-feet each year will be a firm supply.

The MOA with the PUD and the delivery of 14,000 acre-feet are planned in perpetuity. The MOA does contain a section titled "Expectations after 30 years", which describes the process by which the PUD and Ecology will coordinate in the future. This section was included because Sullivan Lake is operated on United States Forest Service lands and therefore subject to a special use permit with a term of 30 years. The intent of both parties is to coordinate on any future federal permitting or license requirements to ensure a firm delivery of at least 14,000 acre-feet of water for downstream OCR uses, and overall use of 31,209 acre-feet for instream and in-lake beneficial uses.

A portion of the water released under this authorization (9,333 acre-feet) will be used to mitigate for new out-of-stream uses as directed by the Legislature in RCW 90.90.020(1), which provides that two-thirds of water generated through OCR projects of this nature will be available for appropriation for out-of-stream uses and that one-third of the water (4,667 acre-feet) will augment instream flows. These uses include year-round demands for municipal, domestic, and industrial uses, as well as seasonal uses like agricultural irrigation (in 6 specific counties per RCW 90.90.110). Water available for release under the Settlement Agreement is not available year-round. Rather those releases will occur seasonally, from June to September each year.

Impairment Considerations

Impairment is an adverse impact on the physical availability of water for a beneficial use that is entitled to protection. A water right application may not be approved if it would:

- Interrupt or interfere with the availability of water to an adequately constructed groundwater withdrawal facility of an existing right. An adequately constructed groundwater withdrawal facility is one that (a) is constructed in compliance with well construction requirements and (b) fully penetrates the saturated zone of an aquifer or withdraws water from a reasonable and feasible pumping lift.
- Interrupt or interfere with the availability of water at the authorized point of diversion of a surface water right. A surface water right conditioned with instream flows may be impaired if a proposed use or change would cause the flow of the stream to fall to or below the instream flow more frequently or for a longer duration than was previously the case.
- Interrupt or interfere with the flow of water allocated by rule, water rights, or court decree to instream flows.
- Degrade the water quality of the source to the point that the water is unsuitable for beneficial use by existing users (e.g., via sea water intrusion).

Analysis of whether this application meets the requirement under RCW 90.03.290 that the PUD's proposed use of water will not impair other existing water rights involves comparison of current reservoir operations with what will occur if the proposed secondary uses are approved, and how the difference will affect other existing water rights. The analysis must consider impacts to existing water right holders and instream flow requirements established under the Columbia River instream flow rule, WAC 173-563.

Downstream impacts are not directly associated with the releases of water from the reservoir, because the proposed releases will add water to the Columbia River between June and September. In-lake impacts are associated with releases of water from the reservoir that change the historic operating scheme. Impacts are associated with 1) not releasing as much water during the winter months (October to December) as historically occurred in favor of shifting those releases earlier in the year, and 2) allowing a portion of the retimed releases to be consumptively used downstream, when historically they were only used for non-consumptive hydropower demands.

In considering impacts to existing water right holders and the instream flow rule, one must consider actual river operations, particularly in drought years when water availability issues are most acute. In the context of this application, there are four classes of water uses that must be considered:

- Water right holders with priority dates senior to June 1907.
- Uninterruptible water right with priority dates junior to June 1907.
- Interruptible water right with priority dates junior to June 1907.
- The State's June 24, 1980 Instream Flow Rule.

Numerous water rights downstream of Sullivan Lake (e.g. on Sullivan Creek, Pend Oreille River, and Columbia River) have priority dates senior to June 1907. In every year (wet, average, dry, drought), water is available to meet their uses. Any tribal reserved water rights for instream flow purposes that may exist in association with treaty-based fisheries rights for Native tribes also would pre-date the reservoir authorization. As any such possible rights are unadjudicated, and are thus unquantified, an impairment review of these rights is complex. A flow-based indicator of these unconfirmed and unquantified rights is reflected in the 2008 BiOp and the State's adopted instream flow rule, which are two indicators of the amount of water necessary for fish. Under the proposed management plan for Sullivan Lake adopted in the Settlement Agreement and incorporated herein by reference, this authorization will move the Columbia River hydrograph to a more normative state, which is consistent with BiOp fisheries objectives. Water availability for fish will increase under this authorization because water will be released from storage at a time when competition for water is higher (June to September). Water is generally available surplus to fisheries objectives in October to December (the time when flow releases will diminish) whereas water is often not available in June to September (the time when flow releases will increase).

Numerous water rights downstream of Sullivan Lake exist with priority dates between 1907 and 1980 (the date when interruptible water rights were first issued). Secondary beneficial uses requested by Application S3-30635 are subject to the 1907 storage right, and, thus, the proposed secondary use permit would have a priority date of June 1907. Therefore, according to the State's priority system, the water under this application is entitled to be fully fulfilled before rights junior to it. However, even were this not the case, just as with of water right holders senior to 1907, water is available each year to fully meet the needs of water right holders from 1907 to 1980.

There are two groups of out-of-stream water right holders on the Columbia River who do not receive a full supply every year. The first are those that hold rights which are interruptible when the instream flows established under the 1980 instream flow rule, which has only occurred once in the 31 years since the instream flow was adopted and this permit issued (2001 drought year). The second is the Quad Cities Permit (S4-30976P), which is subject to the BiOp flows. However, because these rights are junior to the priority date for the PUD's water right, they are not subject to an impairment analysis. Additionally, any diminishment in availability for those users would occur from October to December, when their water rights have not historically been limited or curtailed.

Columbia River instream flows established under WAC 173-563 are not met once every 31 years (from 1980 to present) based on a flow forecast at The Dalles (60 million acre-feet). This rule is junior to the PUD's 1907 storage right and is therefore also not subject to an impairment analysis. Note that the flows in the 2008 Federal Columbia River Power System (FCRPS) Biological Opinion (BiOp) do not constitute a water right for instream flows, but rather created a public interest consideration that will be discussed later in this report.

As discussed in the water availability section, releases are out-of-time relative to some of the expected out-of-stream demands. In other words, more water will be released in June through September compared to historic releases, than will be consumed by downstream appropriators. No additional water will be released in October to May compared to historic releases, but downstream consumption will occur. Ecology must consider whether water users would be impaired as a result of this out-of-time mitigation proposal.

It is a long-standing tenet of western water law that impairment only exists if there is some disruption to water availability for junior water users based on conditions existing at the time of their initial appropriation¹⁰. One must then consider the expectations of downstream junior appropriators. Historically, releases from Sullivan Lake have been variable. For example, from 1907 to 1956 when the lake was operated for on-site power generation, the reservoir was lowered as needed for nearby industrial uses and refilled as water became available. After 1956, reservoir operations changed in response to downstream power coordination, including the PUD's participation in the Pacific Northwest Power Coordination Agreement. The claim references both of these operations and the continuous use of water for project operations. Absent expectation of a particular operation and water availability, retiming water releases cannot frustrate junior water users' uses.

The courts have also held that *"It is the general rule, probably subject to exceptions not here involved, that the producer of an artificial flow is for the most part under no obligation to lower claimants to continue to maintain it"*¹¹. This is particularly germane to this project given that, absent funding of reoperation of a portion of the reservoir by Office of Columbia River, the PUD may have chosen to decommission the dam in conjunction with their FERC license surrender. Such a move would have returned the hydrograph to a completely normative one, with releases occurring much earlier in the year than the historic October to December releases. In this way, the flow releases from the dam can be considered artificial, or at the PUD's discretion. Downstream users may enjoy the privilege of such discretion when water is available for their use, but cannot assert impairment if that water availability discontinues.

Finally, users on and near Sullivan Lake will experience a different operating regime that historically, marked by earlier reservoir releases (and therefore lower lake levels), but with higher winter-time lake levels associated with an additional 5,000 acre-feet of water in agreed carry-over for next year. These impacts were vetted through a much publicized and collaborative process that included local input and resulted in the Settlement Agreement. A search of Ecology records yielded the PUD as the only holder of water rights on Sullivan Lake, and approximately 15 water right holders and claimants on springs and creeks tributary to Sullivan Lake. Those users hold water rights for such purposes as domestic and stockwater which are not expected to be affected by a change in lake management.

¹⁰ See R. Beck, *Waters and Water Rights* (1991); *Big Creek Water Users v. Ecology and Trendwest* (2002).

¹¹ See *Stevens v. Oakdale Irrigation District* (1939).

Beneficial Use

RCW 90.54.020(1) states that uses of water for domestic, stock watering, industrial, commercial, agricultural, irrigation, hydroelectric power production, mining, fish and wildlife maintenance and enhancement, recreational, and thermal power production purposes, and preservation of environmental and aesthetic values, and all other uses compatible with the enjoyment of the public waters of the state, are declared to be beneficial.

The PUD proposes to use all 31,209 acre-feet of water under Application S3-30635 for non-consumptive in-lake fisheries uses and in-lake recreation uses, which are beneficial uses in keeping with RCW 90.54.020(1). After it is put to beneficial use in-lake, the PUD plans to release all but approximately 5,000 acre-feet of water each year from the dam for downstream uses including instream flows, hydropower, recreation, and mitigation for new out-of-stream uses. The Legislature clarified that a portion of the releases had to be used for municipal, domestic, and industrial uses, which are also deemed to be beneficial.

Following release of water consistent with this secondary use application, the PUD will submit an application to transfer 14,000 acre-feet of this water to the state trust water program. RCW 90.42.080 authorizes Ecology to acquire trust water rights for various uses, including for the instream and out-of-stream uses contemplated herein.

Public Interest Considerations

Analysis of whether this application meets the requirement under RCW 90.03.290 that the PUD's proposed use of water will not be detrimental to the public interest involves comparison of the current regime related to storage of water under Water Right Claim No. 300245 with what will occur if the proposed secondary uses are approved, and how the difference from the present status quo will affect the range of values that encompass the public interest.

The 1971 Water Resources Act, RCW 90.54, provides the most comprehensive list of legislative policies that guide the consideration of public interest in the allocation of water. These policies generally require a balancing of the state's values supporting conservation of natural resources and values with the state's economic well-being. Specifically, the policies require allocation of water in a manner that preserves instream resources, protects the quality of the water, provides adequate and safe supplies of water to serve public need, and makes water available to support the economic well-being of the state and its citizens. The public interest criteria provide for the greatest level of discretion afforded to Ecology in the permit process and invoke the general environmental and water management policies enacted by the Legislature.

The Watershed Management Act was passed by the state Legislature in 1998 to provide a collaborative framework for local citizens and local governments to join with tribes and state agencies to develop watershed management plans. RCW 90.82.010 states: "The development of such plans serves the state's vital interests by ensuring that the state's water resources are used wisely, by protecting existing water rights, by protecting instream flows for fish, and by providing for the economic well-being of the state's citizenry and communities." For some projects, Ecology can look to adopted watershed plans as an expression of the public interest.

The proposed Sullivan Lake Water Supply Project is unique in that releases have the potential to affect over two dozen Water Resource Inventory Areas (WRIAs) from Sullivan Lake to the Pacific Ocean. These watershed planning efforts range from those that have completed plans and are in the implementation phase to those that have just begun the process. Many watersheds abut the Columbia River, and their

planning units may propose a framework for the use of its water. However, the regional management framework of the river (including its international treaties, federal dam operators, tribal interests and other factors) is difficult for a single local entity to affect. None of the adopted watershed plans include a specific endorsement or critique on this particular project. However, all the plans identify both instream values and out-of-stream uses as important interests in their areas.

Another expression of public interest can be found in input received from the public and stakeholders during negotiation of the Settlement Agreement, which was signed by the PUD, Ecology, WDFW, the United States Forest Service, U.S. Fish and Wildlife, the Bureau of Indian Affairs, Seattle City Light, the Kalispel Tribe of Indians, the Selkirk Conservation Alliance, The Lands Council, American Whitewater, the Town of Cusick, and citizens-at-large. Some of the concerns raised and addressed to the parties satisfaction in the final project proposal included:

1. Desire to improve fishery in Sullivan Creek. Sullivan Creek has been identified as potential bull trout recovery habitat.
2. Desire to minimize water temperature increases during lake draining.
3. Desire flows in 200 cfs range for optimum kayaking during lake draining for whitewater recreation enthusiasts.
4. Desire to maintain lake full or near full in summer for recreation and for docks owned by local cabin owners.
5. Desire to increase minimum instream flow releases.
6. Desire to avoid rapid increases or decreases in dam discharge flows.
7. Desire to control costs of new measures.
8. Desire by Seattle City Light in potential mitigation projects associated with its FERC relicensing of Boundary Dam (downstream of Sullivan).
9. Desire by U.S. Forest Service to maintain campgrounds and boat launches on Sullivan Lake.

Clear public interest measures for this project can also be found in the legislative record for the Columbia River Program itself. The following table provides statutory citations from RCW 90.90 and the portion of Second Substitute House Bill 1803 not yet codified in RCW 90.90¹² for the Sullivan Lake Water Supply Project that meets this public interest metric.

Table 5 Summary of Legislative Public Interest Expressions

Reference	Statute	Tie To Sullivan Lake Project
90.90.005	<p>(1) The legislature finds that a key priority of water resource management in the Columbia river basin is the development of new water supplies that includes storage and conservation in order to meet the economic and community development needs of people and the instream flow needs of fish.</p> <p>(2) The legislature therefore declares that a Columbia river basin water supply development program is needed, and directs the Department of Ecology to aggressively pursue the development of water supplies to benefit both instream and out-of-stream uses.</p>	<p>1/3rd of water for instream use</p> <p>2/3rds of water for out-of-stream use</p>

¹² This bill amending RCW 90.90 was passed in 2011 specifically to ensure that maximum public benefits were derived from the Sullivan Lake project.

90.90.010	(2)(a) Expenditures from the Columbia river basin water supply development account may be used to assess, plan, and develop new storage, improve or alter operations of existing storage facilities, implement conservation projects, or any other actions designed to provide access to new water supplies within the Columbia River basin for both instream and out-of-stream uses.	1/3 rd of water for instream use 2/3rds of water for out-of-stream use
90.90.020	(3) The Department of Ecology shall focus . . . on the following needs: (b) Sources of water supply for pending water right applications; (d) New municipal, domestic, industrial, and irrigation water needs within the Columbia river basin.	At least 4,667 acre-feet for municipal, domestic, and industrial uses, and up to 4,667 acre-feet for other out-of-stream uses.
SSB1803	Two-thirds of the water made available through reoperation of Sullivan lake funded from the Columbia river basin water supply development account created in RCW 90.90.010 must be used to supply or offset out-of-stream uses described in RCW 90.90.020(3) in Douglas, Ferry, Lincoln, Okanogan, Pend Oreille, and Stevens counties. At least one-half of this quantity must be made available for municipal, domestic, and industrial uses.	Same as prescribed in SSHB 1803

A major public interest consideration is for the conservation and, as necessary, restoration of instream resources – namely salmon and steelhead, other aquatic and terrestrial species dependent on Columbia River flows, and their habitats. The *“Statewide Strategy to Recover Salmon”* was issued by the Washington State Joint Natural Resources Cabinet on September 21, 1999. It opens with:

“Salmon, steelhead and trout have been, and continue to be, a critical part of Washington’s history, culture, economy and recreational enjoyment. They are a basic and important natural resource, a symbol of the natural beauty of the state. Salmon are also valued for subsistence, for nutritional health and for the spiritual well-being of tribal people.”

“Salmon have been vital to the sport and commercial fishing industry. Fishing provides jobs, supports businesses, and provides quality recreational experiences for a significant number of families from Washington, around the country and the world. For example, the U.S. Department of Commerce estimates that in 1996 sport fishing contributed more than \$704 million to Washington’s economy. The decline of salmon is affecting families, communities, the state and the northwest region as a whole. The loss of salmon also means the loss of revenue for tribal economies historically dependent on salmon.”

The 1999 Washington Legislature created and authorized the Salmon Recovery Funding Board (SRFB), now codified in RCW 77.85. The SRFB administers grants to provide funding of habitat protection and restoration projects and related programs and activities that produce sustainable and measurable benefits for fish and their habitat. The intent of the law (RCW 77.85.005) begins with the following:

“The Legislature finds that repeated attempts to improve salmonid fish runs throughout the state of Washington have failed to avert listings of salmon and steelhead runs as threatened or endangered under the federal Endangered Species Act (16 U.S.C. Sec. 1531 et seq.). These listings threaten the sport, commercial, and tribal fishing industries as well as the economic well-

being and vitality of vast areas of the state. It is the intent of the Legislature to begin activities required for the recovery of salmon stocks as soon as possible, although the Legislature understands that successful recovery efforts may not be realized for many years because of the life cycle of salmon and the complex array of natural and human-caused problems they face."

"The Legislature finds that it is in the interest of the citizens of the state of Washington for the state to retain primary responsibility for managing the natural resources of the state, rather than abdicate those responsibilities to the federal government, and that the state may best accomplish this objective by integrating local and regional recovery activities into a state-wide plan that can make the most effective use of provisions of federal laws allowing for a state lead in salmon recovery. The Legislature also finds that a state-wide salmon recovery plan must be developed and implemented through an active public involvement process in order to ensure public participation in, and support for, salmon recovery. The Legislature also finds that there is a substantial link between the provisions of the federal Endangered Species Act and the federal Clean Water Act (33 U.S.C. Sec. 1251 et seq.)."

These legislative findings and actions clearly demonstrate that fish survival and recovery are consistent with public interest.

In the 2008 Biological Opinion¹³, NOAA Fisheries concluded the operation of the Federal Columbia River Power System (FCRPS) affects 13 species of salmon and steelhead listed for protection under the Endangered Species Act (ESA). Maintenance of the 2008 BiOp flows¹⁴ and actions to address other limiting factors, such as predation, habitat, hatchery effects, and harvest, are essential to preventing take of listed salmonids. The first hydro strategy to improve juvenile and adult fish survival in the FCRPS is to operate the FCRPS to more closely approximate the shape of the natural hydrograph¹⁵. The following table summarizes the number of years water is available above the BiOp flows at Priest Rapids Dam based on 50 years of data from BPA's Hyd-Sim model¹⁶.

Table 6 Number of Years BiOp is met in last 50 years.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Years	44	35	35	30	27	26	29	4	48	50	17	41

The new proposed reservoir management plan outlined in the Settlement Agreement calls for additional releases of water in June to September, with diminished releases occurring from October to December. Shifting the release incrementally in this manner consistent with the approach recommended in the BiOp is an expression of the public interest.

The public interest in demand-shifting for both fisheries needs and impacts on out-of-stream users during droughts can be evaluated by comparing the Columbia River instream flow rule to historic droughts in the basin. The following chart shows the 1980 instream flow (as bars) and hydrographs of historic droughts (as lines). Low flow years were often below the 1980 instream flows in April to August (although the 60 MAF flow trigger at the Dalles to enforce the flows only occurred in 2001). Historic low flows during drought years are much more common during the June to September period when

¹³ <http://www.nwr.noaa.gov/Salmon-Hydropower/Columbia-Snake-Basin/upload/Final-ExSum.pdf>.

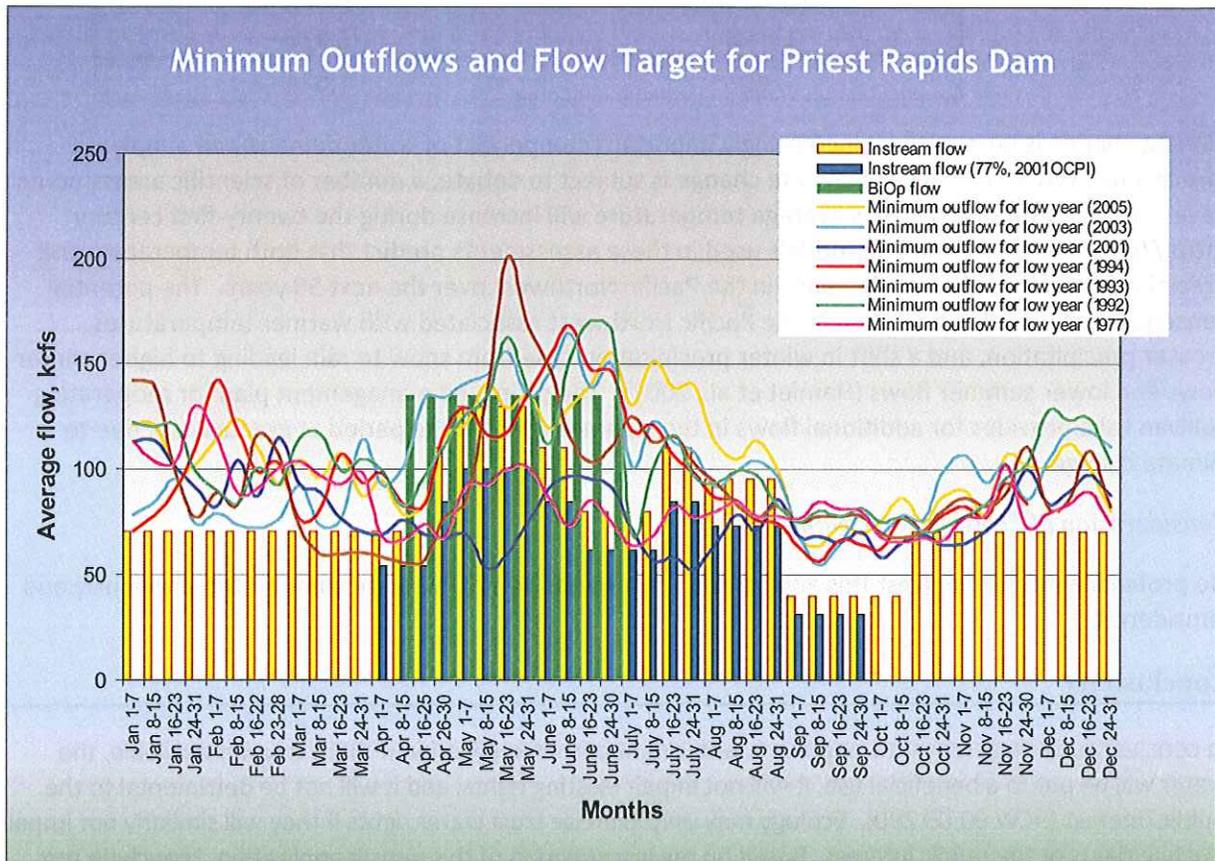
¹⁴ 2007 FCRPS B.A., Appendix B, Table B.2 1-2, Page B.2.1-11,

[http://www.salmonrecovery.gov/Biological Opinions/FCRPS/BA-CA/FCRPS/Appendix.pdf](http://www.salmonrecovery.gov/Biological%20Opinions/FCRPS/BA-CA/FCRPS/Appendix.pdf).

¹⁵ 2008 BiOP, Executive Summary, Page 9

¹⁶ Appraisal Assessment of the Black Rock Alternative, December 2004, Table 3-5

availability will increase as a result of this project, than during October to December when flows will diminish.



Another major public interest doctrine associated with the 1971 Water Resources Act requires policy decisions to balance natural resources and values with the state’s economic well being.

- Agriculture is an important and essential component of the state’s economy. Many of the human modifications to the mid-Columbia drainage system were made specifically to promote agricultural and economic development of the mid-Columbia area. Washington agricultural products currently are traded worldwide. The PUD’s proposed use of water includes mitigation for new irrigation uses downstream, which is consistent with regional and historic land use in the proposed diversion area.
- Providing additional supplies for municipal and industrial needs is also in the public interest. Population is expected to increase significantly by the Office of Financial Management in the six counties the Legislature targeted in SSHB 1803 by the year 2025¹⁷. The following table summarizes these increases. The 4,667 acre-feet provided for municipal, domestic, and industrial purposes will meet a portion of these needs.

Table 7 Population increases forecasted by 2025

County	Population Increase by 2025
Stevens	17,472
Douglas	8,232

¹⁷ See <http://www.ofm.wa.gov/pop/gma/countypop02.pdf> for difference between historic 2010 population and 2025 intermediate level projected population.

Okanogan	5,349
Pend Oreille	2,988
Lincoln	2,416
Ferry	1,624

Climate change is becoming an increasingly important component of water demand and supply forecasting. While the cause of climate change is subject to debate, a number of scientific assessments have concluded that the Earth's average temperature will increase during the twenty-first century (<http://www.ipcc.ch/>). Climate models used in these assessments predict that both temperature and precipitation will significantly increase in the Pacific Northwest over the next 50 years. The potential consequences to water resources in the Pacific Northwest associated with warmer temperatures, greater precipitation, and a shift in winter precipitation type from snow to rain leading to higher winter flows and lower summer flows (Hamlet et al., 2001). The proposed management plan for reoperating Sullivan Lake provides for additional flows in the summer which is the period at greatest risk due to climate change.

Consideration of Protests and Comments

No protests were filed against this application. Comments by WDFW were summarized previously and considered.

Conclusions

In conclusion, Ecology may only approve a water right permit application if there is water available, the water will be put to a beneficial use, it will not impair existing rights, and it will not be detrimental to the public interest (RCW 90.03.290). Ecology may only exercise trust water rights if they will similarly not impair existing rights or the public interest. Based on my investigation of this permit application, I conclude the following.

- The proposed uses are beneficial.
- Water is physically and legally available for appropriation.
- Exercise of this water right for the in-lake beneficial uses will not impair existing water rights.
- Seasonal release of this water right for downstream uses, including instream flows, hydropower use, and mitigation for year-round out-of-stream uses will not impair existing water rights.
- Exercise of this water right will not be detrimental to the public interest.
- Exercise of this water right following conveyance to the State as a trust water right will not impair existing rights or the public interest.
- Exercise of the two-thirds portion of the 14,000 acre-feet managed in trust by Ecology for mitigation of out-of-stream uses by offsetting consumptive uses (total use less measured return flow) will not impair existing water rights.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that this request for a water right be approved and that a permit be issued in the amounts and within the limitations listed below and subject to the provisions listed above.

Purpose of Use and Authorized Quantities

Quantity, purpose, place, and point of diversion recommended in this authorization are summarized in Tables 1, 2 and 4 of this Report of Examination. The amount of water recommended is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial.

 11/18/2011

Daniel R. Haller, P.E.

Date

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