

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PERMIT
TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

- Surface Water (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)
- Ground Water (Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE October 22, 1998	APPLICATION NUMBER G3-30109	PERMIT NUMBER G3-30109	CERTIFICATE NUMBER
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NAME Public Utility District No. 1 of Pend Oreille County			
ADDRESS (STREET) P.O. Box 190	(CITY) Newport	(STATE) Washington	(ZIP CODE) 99156-0190

The applicant is pursuant to the Report of Examination which has been accepted by the applicant, hereby granted a permit to appropriate the following public waters of the State of Washington, subject to existing rights and to the limitations and provisions set herein.

PUBLIC WATERS TO BE APPROPRIATED

SOURCE Three wells		
TRIBUTARY OF (IF SURFACE WATERS)		
MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE 338	MAXIMUM ACRE FEET PER YEAR 150

QUANTITY, TYPE OF USE, PERIOD OF USE

338 gallons per minute, 150 acre-feet per year, continuously, for municipal supply for 166 units

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION--WITHDRAWAL

- 1: Lot A of Abbie Acres within the SW $\frac{1}{4}$ SE $\frac{1}{4}$;
- 2: Lot 6 of Abbie Acres within the SW $\frac{1}{4}$ SE $\frac{1}{4}$;
- 3: Lot 6 of Abbie Acres within the SW $\frac{1}{4}$ SE $\frac{1}{4}$;

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) All being within the SW $\frac{1}{4}$ SE $\frac{1}{4}$	SECTION 4	TOWNSHIP N. 36	RANGE, (E. OR W.) W.M. 43 E.	W.R.I.A. 62	COUNTY Pend Oreille
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RECORDED PLATTED PROPERTY

LOT 1: Lot A, 2 & 3: Lot 6	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION) Abbie Acres
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LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Area served by Public Utility District No. 1 of Pend Oreille County, Washington.

DESCRIPTION OF PROPOSED WORKS

Three wells, pumps and pressure distribution systems.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE: Started	COMPLETE PROJECT BY THIS DATE: August 1, 2000	WATER PUT TO FULL USE BY THIS DATE: August 1, 2020
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PROVISIONS

An approved measuring device shall be installed and maintained in accordance with RCW 90.03.360 and/or WAC 508-64-020 through WAC 508-64-040.

The amount of water granted is a maximum limit that shall not be exceeded and the water user shall be entitled only to that amount of water within the specified limit that is beneficially used and required.

This authorization to make use of public waters of the State is subject to existing rights, including any existing rights held by the United States for the benefit of Indians under treaty or otherwise.

A certificate of water right will not be issued until a final examination is made.

Nothing in this authorization shall be construed as satisfying other applicable federal, state, or local statutes, ordinances, or regulations.

All water wells constructed within the State shall meet the minimum standards for construction and maintenance as provided under RCW 18.104 (Washington Water Well Construction Act of 1971) and Chapter 173-160 WAC (Minimum Standards for Construction and Maintenance of Water Wells).

A well log of the completed well shall be submitted by the driller to the Department of Ecology within thirty (30) days of completion of this well. This well log shall be complete and all information concerning the static water level in the completed well in addition to any pump test data shall be submitted as it is obtained.

Use of water under this authorization shall be contingent upon the water right holder's utilization of up to date water conservation practices and maintenance of efficient water delivery systems consistent with established regulation requirements and facility capabilities.

The Washington State Department of Fish and Wildlife (WDFW), has recommended that water rights from the Pend Oreille River be conditioned with instream flows of 7,700 cubic feet per second (cfs) on a year-round basis (as measured at the gage near Newport, Washington).

Total withdrawal under this permit and Surface Water Certificate No. S3-01418C shall not exceed 338 gallons per minute, 150 acre-feet per year, continuously, for municipal supply for 166 lots.

The following hydrographs for the U.S.G.S. Gage on the Pend Oreille River at Newport, Idaho (12395500) demonstrate important hydrologic characteristics of the Pend Oreille River. Before the construction of the Albeni Falls Dam, the river exhibited normal, riverine flow conditions. The first hydrograph shows the typical late summer flow regime for 10 different water years in the 1930s and early 1940s. The solid line at 7700 cfs represents WDFW's recommended instream flow value as it would have applied to the river in the 1930s. When summer flows reached their baseflow, they tended to stay down at that level for the remainder of the water year.

Provisions continued on page 3.

This permit shall be subject to cancellation should the permittee fail to comply with the above development schedule and/or to give notice to the Department of Ecology on forms provided by that Department documenting such compliance.

Given under my hand and the seal of this office at Spokane, Washington,

this 18th day of October, 1999,

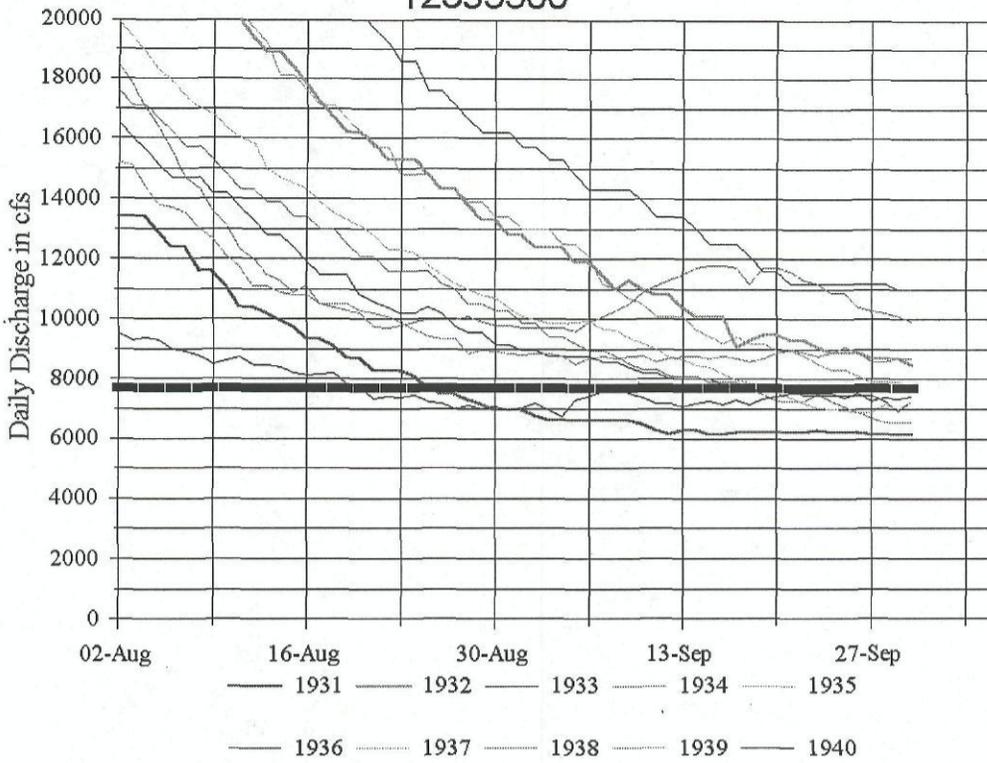


Department of Ecology

by George B. Schlender, Section Manager

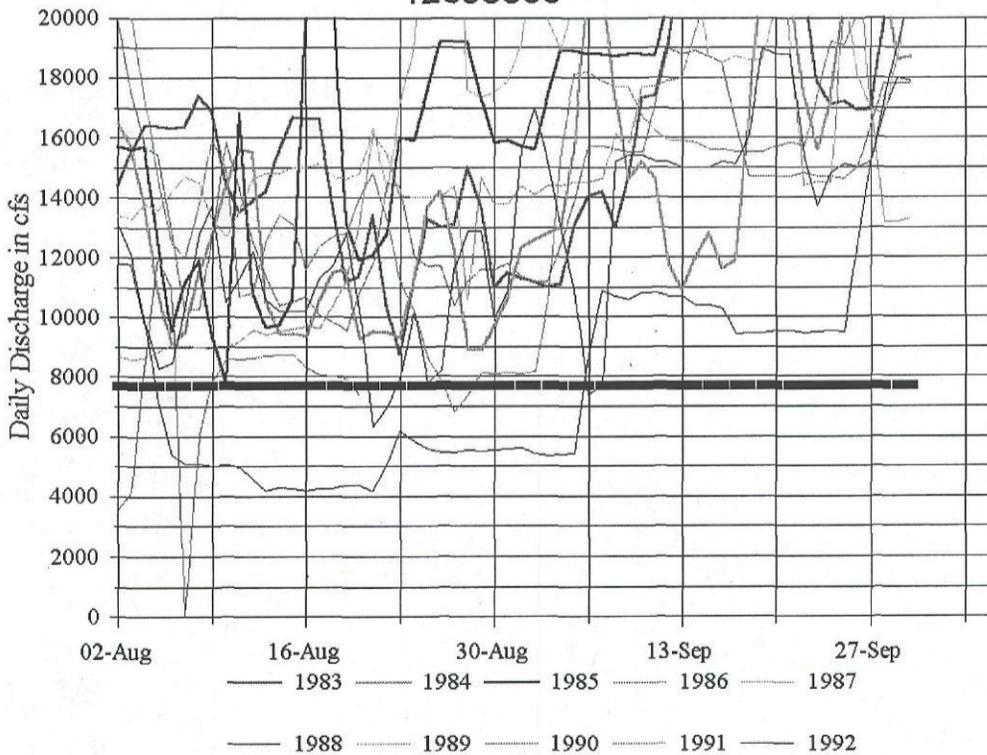
ENGINEERING DATA
OK cac

Pend Oreille R at Newport 12395500



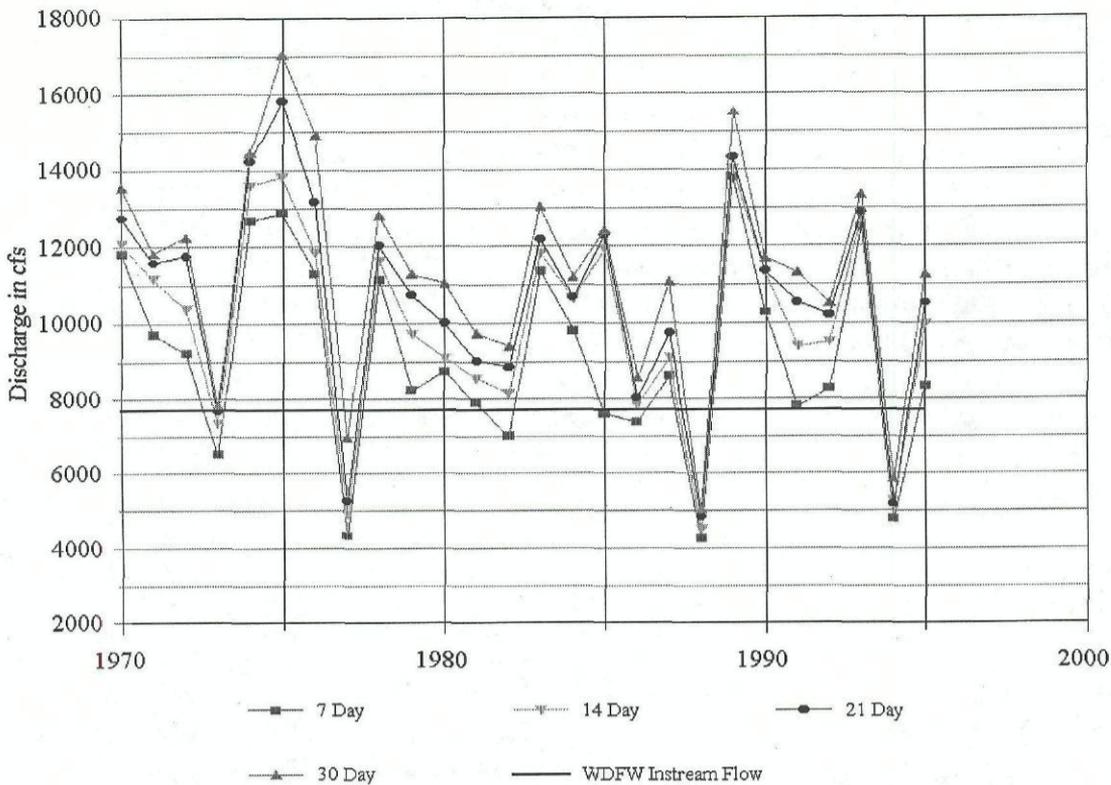
With the construction of the Albeni Falls dam in 1952, the character of the daily discharge changed dramatically from a riverine regime to an impounded, highly regulated, flow regime. The next hydrograph depicts the late summer, daily average discharge for a ten-year period in the 1980s through the early 1990s. The highly variable discharge data reflects the flows that result from the power generation demands that are placed on the river.

Pend Oreille R at Newport 12395500



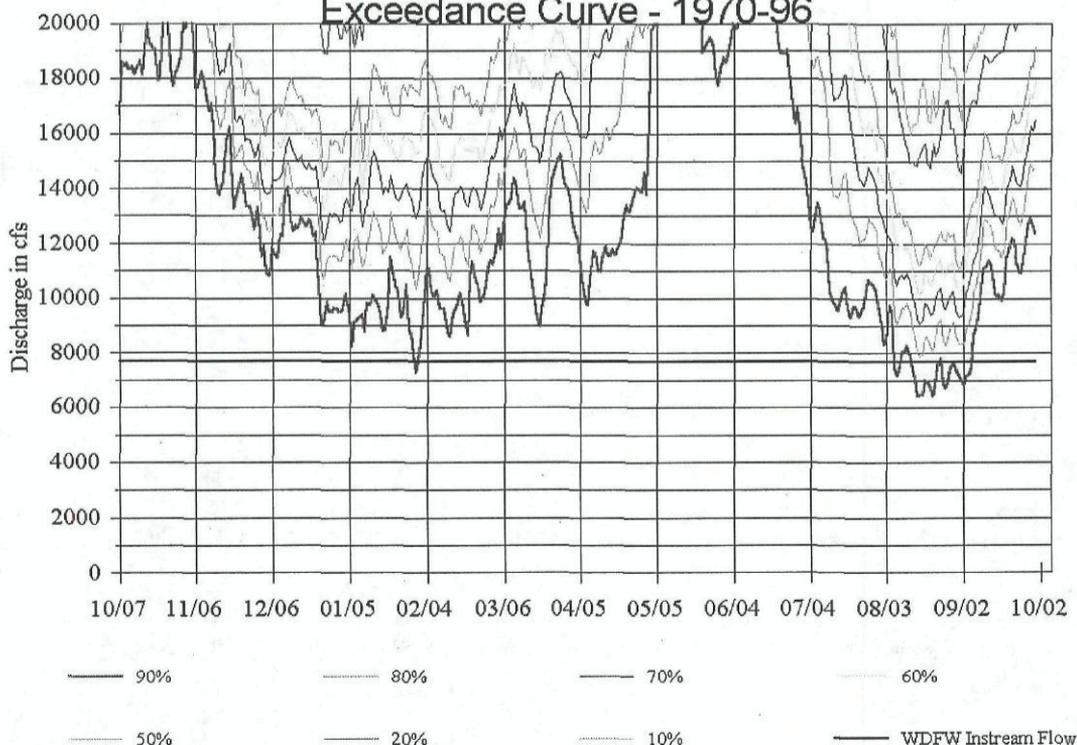
Trying to devise a methodology to implement the WDFW recommended instream flow given the current flow regime of the river requires some careful consideration of the day-to-day variability of the discharge. Given its fluctuations, just simply regulating junior water rights every time the daily average flow drops below 7700 cfs (the recommended instream flow) would be inappropriate and unworkable. Examining the data in the hydrograph indicates that the day-to-day variability is on the order of 5,000 cfs. Looking at a suite of duration frequency low flow analyses (7-day, 14-day, 21-day, and 30-day) for the 1970 through 1996 period allows us to get a better handle on when the flow in the river is truly flowing at a rate that is below the recommended instream flow. By looking at the actual daily flow data, we can see that three water years during the period 1970 – 96 exhibited sustained, low flow periods that were lower than the 7700 cfs threshold (1977, 1988, and 1994). The data from the duration frequency analysis shows that using a 14-day low flow criteria gives us the best opportunity to identify the low flow events.

Pend Oreille River Low Flow Analysis



Calculating the exceedance probability for the daily average flows for the period 1970 – 96 allows us to see how frequently (on a yearly basis) and for what duration (how many weeks during each year) the flows on the Pend Oreille River can be expected to be below the recommended instream flow. The following graph demonstrates that on average, we can expect the summer low flows in the Pend Oreille River will be above the instream flow 8 to 9 times out of ten years. During that one in ten year event when the flow in the river is below the recommended flow, the low flow will last for approximately one month (typically August).

Pend Oreille R at Newport Exceedance Curve - 1970-96



Therefore, this permit shall be conditioned that all diversion shall cease when the 14-day average flow in the Pend Oreille River falls below 7700 cfs (as measured at the Pend Oreille River at Newport gage) as recommended by WDFW.



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

4601 N. Monroe, Suite 202 • Spokane, Washington 99205-1295 • (509) 456-2926

October 18, 1999

Mr. Patrick Buckley
Public Utility Dist. No. 1 of Pend Oreille County
Pend Oreille River Watershed
P.O. Box 190
Newport, WA 99156-0190

Dear Mr. Buckley:

Re: Ground Water Permit No. G3-30109P

Enclosed is Permit No. G3-30109P. We are in receipt of your permit fees in the amount of \$20.00. The examination report indicates you have already begun construction of your project. Under the development schedule contained in the permit, construction work for your project shall be completed by August 1, 2000.

We are also enclosing a Notice of Completion of Construction to be sent to this office when you have finished the work.

Please read carefully the enclosed instruction sheet as well as both sides of your permit.

Sincerely,

Cindy A. Christian
Water Resources Program

CAC:kt
Enclosure



Your address is within the Pend Oreille River Watershed

