

[illegible]

Method of Determination:

3. ☒ Delivery System Diagram Attached (required). Indicate all major components and distances between components. Indicate weir size/pipe as applicable.
- ☐ Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.
- ☐ Aerial Photo Attached (required for irrigation of 10+ acres).
- ☐ Photo of Diversion and System Attached

4.

<u>Well or Diversion</u> <u>ID No.*</u>	<u>Motor Make</u>	<u>Hp</u>	<u>Motor Serial No.</u>	<u>Pump Make</u>	<u>Pump Serial No. or Discharge</u> <u>Size</u>
<u> N/A </u>	<u> N/A </u>	<u> </u>	<u> </u>	<u> N/A </u>	<u> (10") </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

<u>Measurement</u> <u>Equipment</u>	<u>Type</u>	<u>Make</u>	<u>Model No.</u>	<u>Serial No.</u>	<u>Size</u>	<u>Calib. Date</u>
Rectangular	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Weir	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

2. Measurements: Portable Rectangular Weir at Raceway.

$$Q = CwLh^{3/2} = (3.33)(1.42')(0.58')^{3/2} = (3.33)(1.42')(0.44') = 2.1 \text{ cfs}$$

$$\begin{aligned} Cw &= 3.33 \\ L &= 1.42' (17") \\ h &= 0.58' (7") \end{aligned}$$

E. FLOW CALCULATIONS Additional Computation Sheets Attached

Measured Method: (Rectangular Weir)

$$Q = CwLh^{3/2} = (3.33)(1.42')(0.58')^{3/2} = (3.33)(1.42')(0.44') = 2.1 \text{ cfs}$$

$$\begin{aligned} Cw &= 3.33 \\ L &= 1.42' (17") \\ h &= 0.58' (7") \end{aligned}$$

$$Q(\text{Capacity of 2 - 6" pipes}) = 1.96 \text{ cfs} \sim 2.0 \text{ cfs}$$

$$Q(\text{measured}) = 2.1 \text{ cfs} > 2.0 \text{ cfs } Q(\text{pipe capacity \& permit})$$

Appears that the water conveyed in the 10" penstock and discharging to the pelton wheel turbine in the power house is in compliance with the permit diversion rate of 2.0 cfs.

F. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation: N/A

$$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$$

$$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 =$$

$$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$$

2. Volume Calculations for Other Uses: Hydropower Diversion Volume

$$V_r = 900 \text{ gpm} \times 1,440 \text{ minutes/day} \times 365 \text{ days/yr} / 325,850 \text{ gallons/AF} = 1451.7 \text{ AFA}$$

$$V_d = 2 \text{ cfs} \times 365 \text{ days} \times 1.9835 = 1,448 \text{ AFA}$$

$$V_r < V_d, \text{ Recommend } V_r = 1448 \text{ AFA}$$

G. NARRATIVE/REMARKS/COMMENTS**HYDROPOWER SYSTEM:**

The right holder has constructed a hydropower system to provide electricity to the main ranch and residence atop a hill and a guest residence located between French Creek Road and French Creek.

PENSTOCK HEADWORK BASIN/INLET STRUCTURE:

Water from French Creek is diverted to the penstock headwork basin/inlet structure by a concrete inlet channel located behind the creek bank and riprap, and by a 6" screened 'tee' inlet pipe located in French Creek. The 6" inlet pipe is submerged 1' below the normal low water elevation and tees into the 12" steel penstock in the penstock headwork basin/inlet structure. Two 12" diameter self-cleaning screens are connected to the 12" steel penstock in the penstock headwork basin to prevent debris from entering the penstock.

A 6" PVC stand pipe in the penstock headwork basin is used to maintain a maximum water surface elevation in the penstock headwork basin and to remove and discharge debris back to French Creek. A 30" ribbed plastic inlet pipe, located adjacent to the concrete inlet channel, diverts water from French Creek into a collection pool for discharge into the penstock headwork basin/inlet structure. A 30" slide gate is used for flow control and maintaining the water surface levels within the collection pool.

PENSTOCK CONVEYANCE SYSTEM:

Short sections of 12" steel penstock pipe have been installed outside of the penstock headwork basin inlet structure and at the powerhouse. Approximately 2,900 lineal feet of 10" Schedule 40 penstock pipe was installed between the two short sections of 12" steel penstock pipe.

POWERHOUSE:

The powerhouse, located next to French Creek and approximately 160' lower in elevation than the penstock headwork basin/inlet structure, contains the pelton wheel turbine, generator, and system controls. The 12" steel penstock pipe wyes into two (2) short sections of 6" steel penstock pipes, which then discharge to the pelton wheel turbine. Water is returned to French Creek by a concrete raceway located on the west side of the power house.

An emergency shut-off wheel is located on the north wall outside of the powerhouse. This emergency shut-off wheel allows the operator to terminate the flow to the pelton wheel turbine. Generated power is transmitted to a transformer for conveyance of electricity to the overhead power lines serving the main ranch and residence and guest residence.

OVERLAP ANALYSIS:

Place of Use: Although Water Right's 77-4019 and 77-10022 are within the same place of use, the beneficial uses are different – domestic, irrigation, and stock water. Therefore, there is no place of use overlap.

Have conditions of permit approval been met? ☒ Yes ☐ No

CONDITION NO.7 (D08) – Right holder shall keep records based on visual estimates of the percentage of total creek flow being diverted under this right. Right holder maintains a log in the powerhouse to assure the diversion rate does not exceed 25% of the stream flow in French Creek. Right holder is in compliance with this condition.

CONDITION NO.10 (029) – The right holder shall comply with all fish screening and/or fish passage requirements of the Idaho Department of Fish and Game. Right holder has installed 1/8" mesh fish screens on the 6" 'tee' inlet assembly in French Creek. Right holder is in compliance with this condition.

CONDITION NO.1 – Prior to construction of the outflow structure, an approved stream channel alteration must be attained from the Idaho Department of Water Resources and the U.S. Army Corps of Engineers. On March 24, 2011, the U.S. Army Corps of Engineers issued a Nationwide Permit No.7

(NWW-2009-675), Outfall and Associated Intake Structures, to the right holder for construction of the hydropower systems intake and outfall structures. Right holder is in compliance with this condition.

RATE &/OR STORAGE RECOMMENDED FOR LICENSING

Description	Rate of Flow (cfs)		Storage (af)
Permit Amount	2.0	&/or	N/A
Beneficial Use Limit	2.0	&/or	N/A
System Measurement	2.1	&/or	N/A
Proof Fee Amount	2.0	&/or	N/A
Recommended Amount	2.0	&/or	N/A

H. RECOMMENDATIONS

1. Recommended Amounts

<u>BENEFICIAL USE</u>	<u>PERIOD OF USE</u>	<u>DIVERSION RATE</u>	<u>ANNUAL VOLUME</u>
POWER	01/01 to 12/31	2.000 CFS	1448.0 AFA
<u>Totals:</u>		2.000 CFS	1448.0 AFA

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☐ Other

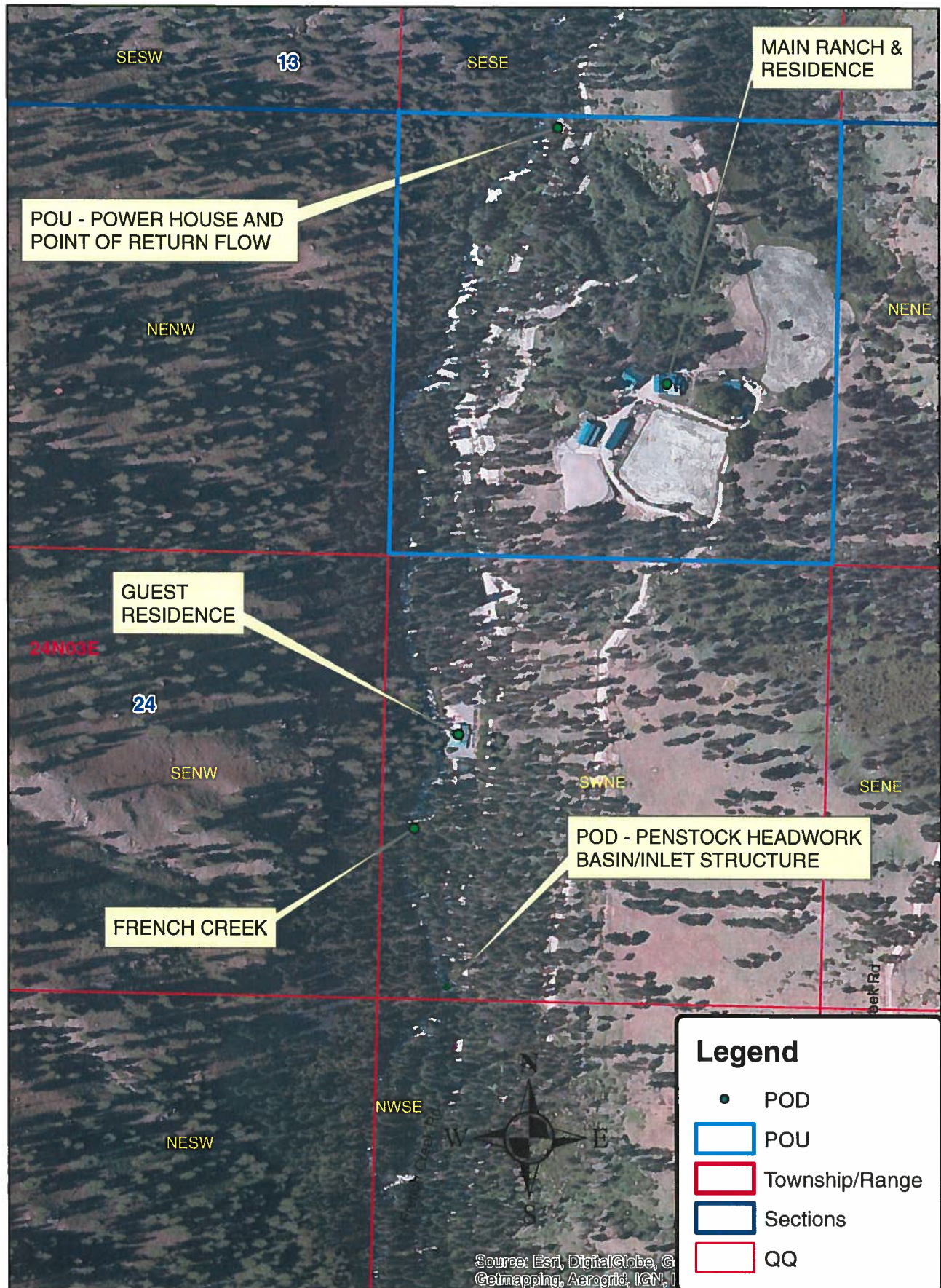
I. AUTHENTICATION

Field Examiner's Name Rick Collingwood Date 3/1/13

Reviewer _____ Date _____

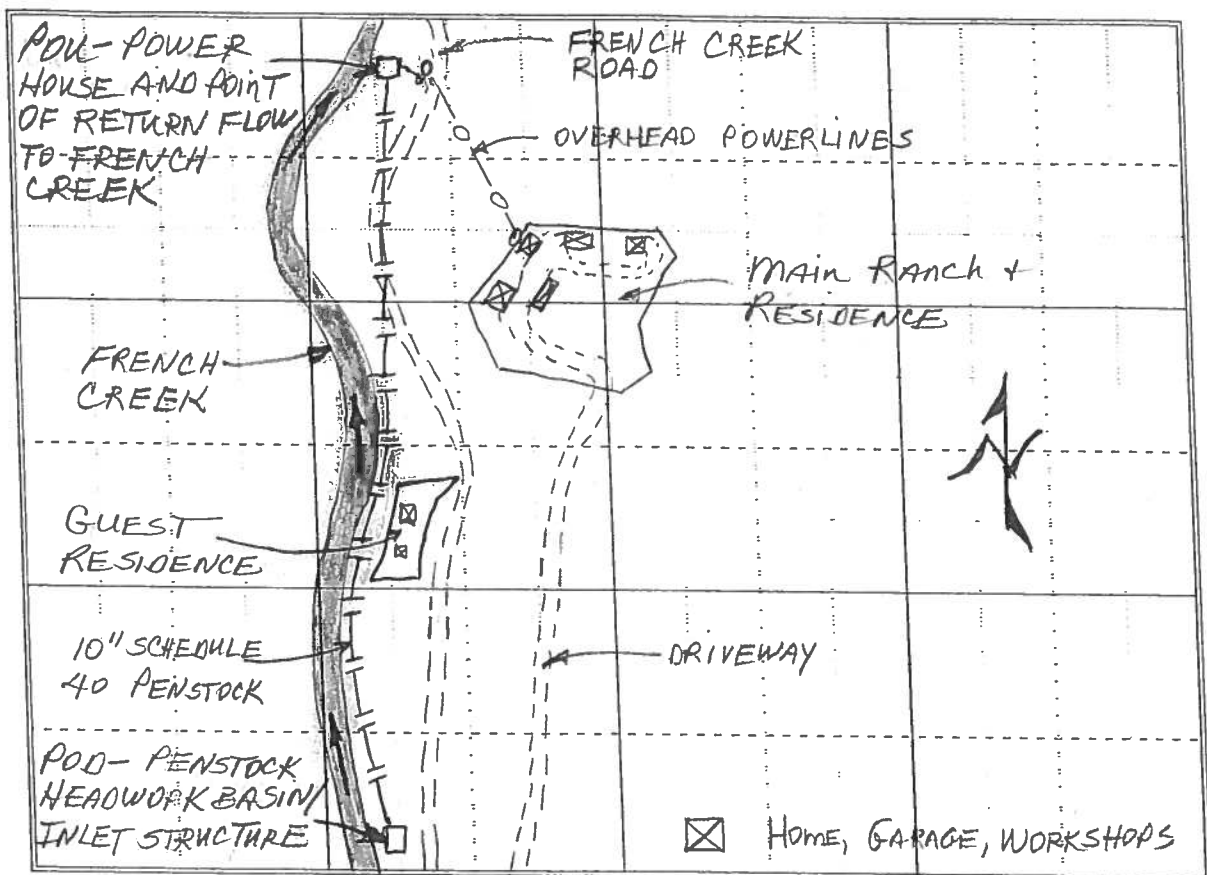
77-14283

ESRI AERIAL PHOTO - 2012



0 137.5 275 550 825 1,100 Feet

3. Delivery System Diagram: Indicate all major components and distances between components. Indicate weir size/ditch size/pipe diameter (inside), as applicable. Use the space provided or ☐ see attached.



Scale: 1" = NTS

- ☐ Copy of USGS Quadrangle attached showing location(s) of point(s) of diversion and place(s) of use (required)
☒ Aerial photo attached (required for irrigation of 10+ acres)
☒ Photo of diversion and system attached



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
WALLA WALLA REGULATORY OFFICE
201 N. Third Avenue
Walla Walla, Washington 99362-1876

March 24, 2011

RECEIVED

MAR 01 2013

WATER RESOURCES
WESTERN REGION

Regulatory Division

SUBJECT: NWW-2009-675

Mr. Warren S. Watts, P.E.
3435 Clemans Rd.
Clarkston, Washington 99403

Dear Mr. Watts:

We hereby verify that Carl Smid's proposed project is authorized in accordance with Department of Army (DA) **Nationwide Permit (NWP) No. 7, Outfall and Associated Intake Structures**. Work includes the total discharge of less than 25 cubic yards with a total impact to Waters of the US to include 16 linear feet of bank. All work shall be done in accordance to the attached Carl Smid Hydroelectric Project drawings dated 02 October 2009 and 18 January 2010. Please refer to File Number NWW-2009-675 in all future correspondence with our office regarding this project.

This project is located at on French Creek, within Section 24 of Township 24 North, Range 3 East, near latitude 45.4141 and longitude -116.03177, in Idaho County, near Riggins, Idaho.

DA permit authorization is necessary because your project would involve the discharge of dredged and/or fill material into Waters of the U.S., including wetlands under our regulatory jurisdiction. Specifically, the work would involve: the discharge of rock and a concrete intake structure into French Creek.

CONDITIONS

The regional and general permit conditions for NWP No. 7 are available at on the Walla Walla District website at www.nww.usace.army.mil/html/offices/op/rf/2007NWPRegionalCondition_Idaho.pdf. You must comply with all regional and general conditions and the special conditions, listed below, for this verification letter to remain valid and to avoid possible enforcement actions.

The following Special Conditions include:

- a. Conduct work located below the ordinary high water mark only during the low flow period between July 1 and October 31.
- b. Silt fencing or other erosion and sedimentation control device shall be installed between any area of earth disturbance and the water. The silt fencing must be installed

according to the manufacturer's specifications, during construction, and must be maintained until the construction activity is completed and the disturbed ground is revegetated and stable to prevent erosion and the release of sediments downstream.

- c. Revegetate all areas disturbed by project construction with native species immediately upon completion of the project to prevent erosion. Revegetation will include native woody species.
- d. Equipment must work from the top of the bank and not in the channel to minimize impacts to the aquatic environment.
- e. Existing tree and shrub species that currently exist along the riverbank shall be preserved to the maximum extent to help provide additional bank stability and maintain riparian habitat functions.
- f. Perform work according to the attached October 2 2009, drawing sheets 1 through 7 with drawing sheet 3 as revised on January 18, 2010. No other discharge of dredged or fill material below the ordinary high water mark is authorized.
- g. Permittee is responsible for all work done by any contractor. Permittee shall ensure any contractor who performs the work is informed of and follows all the terms and conditions of this authorization, including any Special Conditions listed above. Permittee shall also ensure these terms and conditions are incorporated into engineering plans and contract specifications.
- h. This Corps permit does not authorize you to take an endangered species, in particular the Snake River Basin steelhead, Snake River spring/summer Chinook salmon or bull trout. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act of 1973, as amended (ESA) (e.g. an ESA Section 10 permit, or a Biological Opinion under ESA Section 7, with "incidental take" provisions with which you must comply). The U.S. Fish and Wildlife Service (FWS) and National Marine Fisheries Service (NMFS) letters of concurrence, dated October 27, 2010 and March 21, 2011 respectively contain terms and conditions they agreed would make the potential impacts of your project discountable and insignificant and are therefore not likely to adversely affect listed species or their designated critical habitat. Your authorization under this Corps permit is conditional upon your compliance with all of those terms and conditions, and are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with the consultation mentioned above, where take of the listed species occurs, would constitute an unauthorized take, and it would also constitute non-compliance with your Corps permit. The FWS and NMFS are the appropriate authority to determine compliance with the terms and conditions of its letter of concurrence, and with ESA.

You must also comply with the conditions detailed in the Section 401 Water Quality Certification (WQC) issued by the Idaho Department of Environmental Quality (IDEQ). The associated Regional Conditions for the WQC may also be accessed at the website provided above. If you should change the project activities or description described in your application, this NWP may not be valid; please contact us prior to starting work. If you have any questions regarding the conditions set forth in the Water Quality Certification, please contact IDEQ, at 208-799-4370.

This verification is valid until March 18, 2012, which is the date all of the existing Nationwide Permits will expire. If you have commenced or are under contract to commence this activity before March 18, 2012, you will have twelve (12) months from this date to complete the activity under the present terms and conditions of the above-referenced Nationwide Permits. In the event you have not commenced or completed construction of your project by this date, a new application or verification is required.

Attached to this verification of NWP No. 7 are two copies of the Preliminary Jurisdictional Determination (JD) form for Waters of the United States, including wetland(s), located within your project area. Please sign both copies and return one to the Corps at the address in the letterhead above. The other copy is for your records. The Preliminary JD is a non-binding action and shall remain in effect, unless a request for an Approved Jurisdictional Determination or new information supporting a revision is provided to this office. Enclosed you will also find a Request for Appeal form. Please note that since this jurisdictional determination is preliminary, it is subject to change and therefore is not an appealable action under the Corps of Engineers Administrative Appeal Procedures (33 CFR 331).

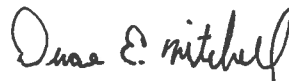
Please note, Nationwide Permit General Condition 26 (*Compliance Certification*) requires that every permittee who has received NWP verification must submit a signed certification regarding the completed work and any required mitigation. The enclosed Compliance Certification form is enclosed for your convenience and must be completed and returned to us.

This letter of authorization does not convey any property rights, or any exclusive privileges and does not authorize any injury to property or excuse you from compliance with other Federal, State, or local statutes, ordinances, regulations, or requirements which may affect this work.

We are interested in your thoughts and opinions concerning the quality of service you received from the Walla Walla District, Corps of Engineers Regulatory Division. Please visit us online at www.nww.usace.army.mil/html/offices/op/rf/survey.asp, which will be automatically submitted to us. Alternatively, you may call and request a paper copy of the survey, which you may complete and return to us by mail or 509-527-7823 FAX. For additional information about the Walla Walla Regulatory please visit us at www.nww.usace.army.mil/html/offices/op/rf/rfhome.asp.

Please contact me by telephone at 509-527-7156, by mail at the address in the letterhead, or via e-mail at duane.e.mitchell@usace.army.mil if you have any questions or need additional information. A copy of this letter is being sent to the following individuals, for informational purposes, Mr. Greg Taylor, IDWR; Mr. Ray Hennekey, IDFG and Mr. Cindy Barrett, IDEQ.

Sincerely,



Duane E. Mitchell
Regulatory Project Manager
Walla Walla Regulatory Office

Enclosures

FIELD EXAM PHOTOS

Water Right Permit: 77-14283

Field Exam Date: 8-29-12

PLS: SW1/4, NE1/4 Section 24, T.24N, R.03E.

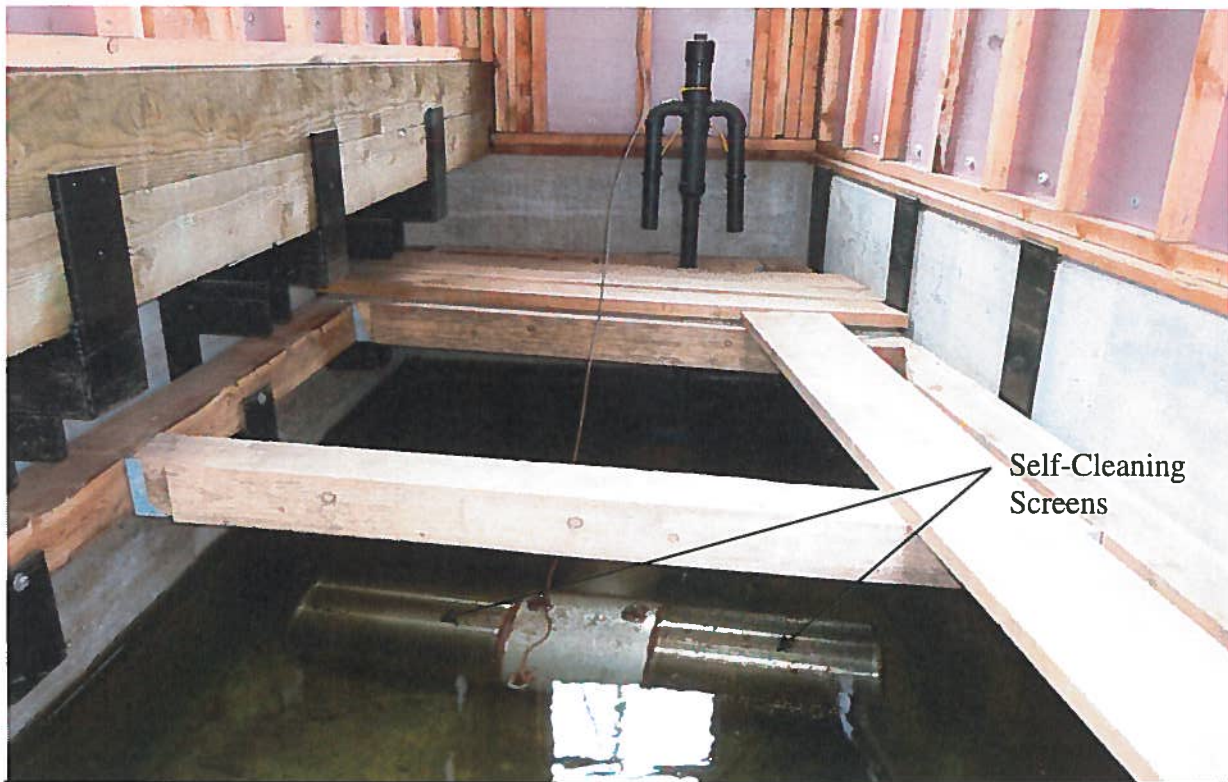
Field Examiner: RC



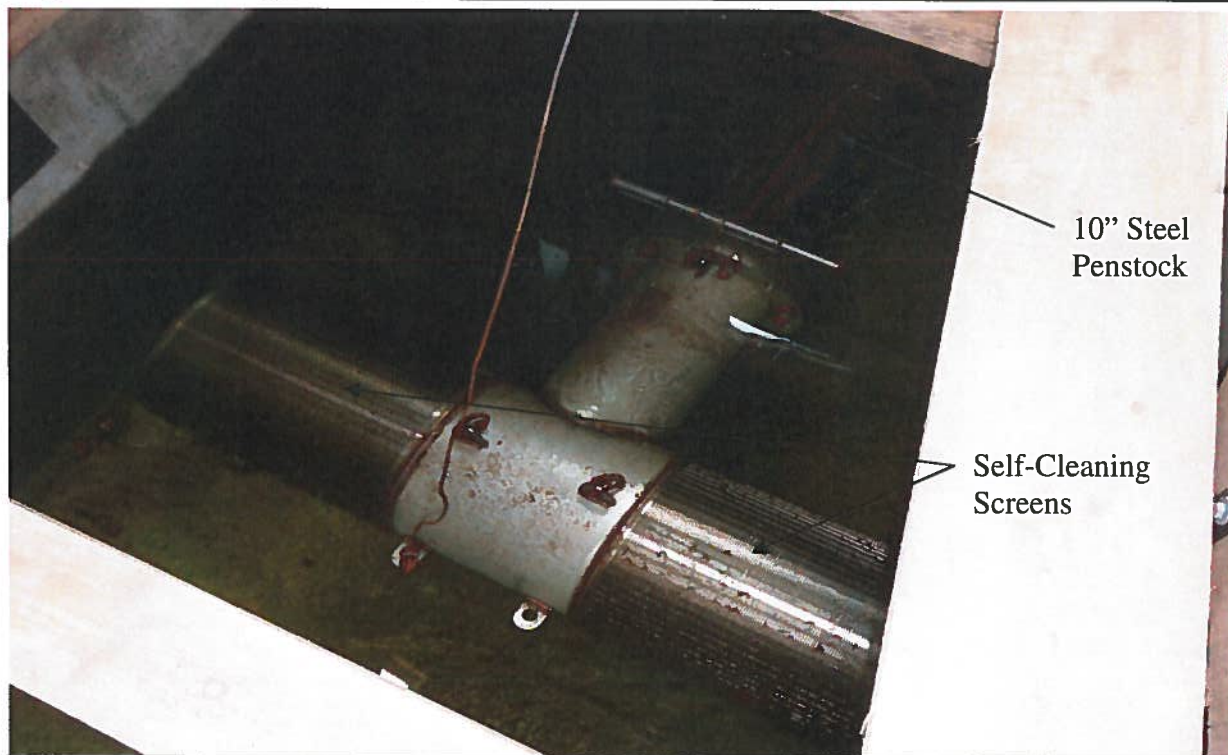
Point of Diversion: View westerly of a 30" slide gate attached to a short section of 30" plastic ribbed pipe on the east bank of French Creek. The slide gate is used to control the flow depth for the concrete inlet channel shown next to the slide gate. The concrete channel extends into the penstock inlet structure.



Point of Diversion: View westerly of the concrete inlet channel to the penstock inlet structure and the 30" slide gate.



View inside of the penstock inlet structure of the two (2) self-cleaning screens attached to the 10' steel penstock pipe.



View of the two (2) self-cleaning screens and the 10' steel penstock.



View of a section of 6" PVC vertical pipe used to control the water level in the concrete inlet channel in the penstock inlet structure. The vertical pipe is also used to divert leaves and other debris back to French Creek.



View southerly of the power station located approximately $\frac{1}{2}$ mile downstream of the penstock inlet structure. The penstock size increases from 10" to 12" at the power station.



View inside of power station of the 6" penstock connection to the enclosed pelton wheel and the power turbine.



View of the 17" wide by 24" deep concrete raceway which discharges to French Creek. A portable rectangular weir is shown for flow measurement. Attached to the bracket mounted to the wall of the power station is a staff gage for flow measurements.



View southeasterly of the transformer for the power station. Overhead power lines deliver the electricity to the home and miscellaneous structures at the top of the hill. The corner of a large workshop is shown at the top of the photo.



Place of Use: View northeasterly of the home served by the hydropower system.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Interim Director

August 6, 2012

Carl Smid
4210 French Creek Road
Riggins, ID 83549

RE: Scheduling Field Exam for Water Right Permit No. 77-14283

Dear Mr. Smid:

We are planning to **conduct water right field examinations** in the vicinity of the above-referenced permit **on August 29, 30, & 31, 2012**. An examination is needed to verify your water use in order to issue a water right license.

Please be advised that you will need to operate your system under normal operating conditions during the examination. The permit authorizes the diversion of 2.0 cfs from French Creek for power production.

In order to conduct your exam as efficiently as possible, we ask that you call this office to schedule a day and time convenient for you. **Please call me at 208-334-2190 by August 14, 2012, to conduct the exam on August 29, 30, or 31, 2012.** If there is a problem with scheduling or conducting the examination at this time, please let me know so we can reschedule or make other arrangements.

I appreciate your attention to this matter and I look forward to hearing from you.

Sincerely,

A handwritten signature in black ink, reading "Rick Collingwood". The signature is fluid and cursive, with a large, sweeping loop at the end.

Rick Collingwood, P.E.
Water Resource Agent, Sr.