

April 13, 2022

Via Electronic Filing

Honorable Kimberly D. Bose
Office of the Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

SUBJECT: Dee Bridge Hydroelectric Station
Notice of Intent to Construct a Qualifying Conduit Hydropower Facility

Dear Secretary Bose:

The City of Hood River is hereby providing a Notice of Intent to construct the Dee Bridge Hydroelectric Station, a Qualifying Conduit Hydropower Facility at The Dee Bridge Pressure Reducing Station.

The City of Hood River requests the Commission's review and determination that the facility meets the qualifying criteria under the Hydropower Regulatory Efficiency Act of 2013.

Please contact me at (541) 387-5214 or at w.norris@cityofhoodriver.gov should you have any questions. Thank You.

Sincerely,



Will Norris
Assistant City Manager

Enclosures: Notice of Intent to Construct a Qualifying Conduit Hydropower Facility

Cc w/enclosures:

Federal Energy Regulatory Commission
Robert Bell
888 First Street, N.E.
Washington, D.C. 20426

City of Hood River
Will Norris, Assistant City Manager
Adam Schmidt, Public Works Foreman

NLine Energy, Inc.
Andrew Benjamin, P.E., Project Manager
Mathew Swindle, CEO

Grim and Associates.
John Grim, P.E., Project Manager



BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION
NOTICE OF INTENT TO CONSTRUCT QUALIFYING CONDUIT HYDROPOWER FACILITY

INTRODUCTORY STATEMENT

The City of Hood River applies to the Federal Energy Regulatory Commission for a determination that the Dee Bridge Hydroelectric Station is a Qualifying Conduit Hydropower Facility, meeting the requirements of section 30(a) of the Federal Power Act (FPA), as amended by section 4 of the Hydropower Regulatory Efficiency Act of 2013 (HREA).

The location of the facility is:

State or Territory:	Oregon
County:	Hood River County
Township or nearby town:	Dee
Coordinates:	45°35'21.3"N 121°37'46.0"W
Water source:	Groundwater

The exact name and business address of the applicant(s) is:

[Do not include the representative or consultant preparing the application.]

Applicant's Name:	The City of Hood River Will Norris, Assistant City Manager Adam Schmidt, Operations Foreman
Address:	City of Hood River 211 2 nd Street Hood River, OR 97031
Telephone Number:	541.387.5252
Email Address:	w.norris@cityofhoodriver.gov or A.Schmid@cityofhoodriver.gov

The exact name and business address of each person authorized to act as agent for the applicant(s) in this notice of intent is:

Name of Agent:	Andrew Benjamin
Address:	403 Portway Avenue, Suite 300 Hood River, OR 97031
Telephone Number:	530.420.6098
Email Address:	abenjamin@nlineenergy.com

The City of Hood River is a public municipality and water utility

NON-FEDERAL CONDUIT

[According to section 30(a)(3)(C)(i) of the FPA, as amended by HREA, a qualifying conduit hydropower facility may not use the hydroelectric potential of a federally owned conduit.]

The Dee Bridge Hydroelectric Station will use the hydroelectric potential of a non-federally owned conduit. The conduit for the Dee Bridge Station is owned and operated by The City of Hood River for the purposes of supplying potable water to its service area.



ORIGINAL PROJECT

The Dee Bridge Hydroelectric Station has not been licensed or exempted from the licensing requirements of Part I of the FPA, on or before August 9, 2013, the date of enactment of the Hydropower Regulatory Efficiency Act.

Project Information

[You must provide a detailed description of the proposed hydropower project and a detailed description of the conduit it will use, including the purpose of the existing conduit. The following information must be included:]

(1) A detailed description of any conduits and associated consumptive water supply facilities, intake facilities, powerhouses, and any other structures associated with the facility.

[Including, but not limited to: (1) the name of the conduit(s) or consumptive water supply facilities; (2) where the conduit(s) or consumptive water supply facilities begin (including the town, river, or reservoir); (3) the length and width or diameter (if enclosed) of the conduit; (4) the dimensions of the proposed hydropower structure and any other facilities needed for hydropower operation (i.e., intake pipes, powerhouse, turbine generating units, discharge pipes); and (5) how, where, and into what the water will discharge from the proposed power structure. If your project discharges into a natural water body, please explain how the hydroelectric project does not alter the primary purpose of the conduit.]

The Dee Bridge Pressure Reduction Station is potable water pressure reducing facility located at 45°35'21.3"N 121°37'46.0"W. High-pressure potable water is delivered to Riverdale Reservoir through an existing 24-inch transmission pipeline from The City of Hood River's Cold Springs groundwater source of supply.

The Dee Bridge Pressure Reducing Station is located approximately 13 miles northeast of the Cold Springs groundwater collection source. High pressure flows entering the Dee Bridge Pressure Reducing Station are reduced in pressure through a Cla-Val pressure-reducing valve (PRV) from 300 psi to 117 psi to operate within piping pressure limits and ultimately delivering water to the 5-million-gallon Riverdale Reservoir, and eventually to The City of Hood River water customers. The City's water system is gravity driven.

The proposed Dee Bridge hydroelectric station will capture the excess wasted pressure reduced by the PRV by installing a single hydroelectric turbine in a parallel bypass pipeline. The hydroelectric station would convert the bypassed pressure into renewable electricity which would be sold to Pacific Power. The proposed facility in no way alters the purpose of the conduit.

The new hydroelectric turbine will be housed in a 12 ft x 20 ft prefabricated steel building, Northwest of the Dee Bridge. The turbine/generator will be skid mounted on a concrete slab approximately 5 ft x 2 ft in size. The hydroelectric station will be installed in parallel to the existing PRV and will mimic its operation by reducing pressure through the turbine and generating electricity. High pressure water entering the turbine will spin the turbine runner connected to a shaft, which is coupled to a generator. The generator places resistance on the turbine resulting in pressure reduction through the turbine and the generation of electricity. A bypass around the hydroelectric building is included so that if the hydroelectric station is off for any reason, supply will not be interrupted to the Riverdale Reservoir. The bypass also acts to supplement flow to the Riverdale Reservoir in the event demand exceeds the flow capacity of the

turbine. Upon discharge through the hydroelectric station, flows will traverse through a draft tube which ties into the low-pressure side of the bypass. The bypass discharges into the 24-inch main pipeline.

- (2) The purposes for which the conduit is used:

[Section 30(a)(3)(C)(i) of the FPA, as amended by HREA, requires a qualifying conduit hydropower facility to use the hydroelectric potential of a non-federally owned conduit. Such a conduit means any tunnel, canal, pipeline, aqueduct, flume, ditch, or similar manmade water conveyance that is operated for the distribution of water for agricultural, municipal, or industrial consumption and is not primarily for the generation of electricity. Specify the use of your conduit, such as irrigation, municipal water supply, or industrial uses. The primary purpose of the conduit cannot be for power production.]

The purpose of the 24-inch transmission pipeline (conduit) is to convey potable water to the City of Hood River's residents. Potable water is conveyed through the pipeline and stored in reservoirs and then distributed throughout the system to meet customer demands.

- (3) The number, type, generating capacity (kW or MW), and estimated average annual generation (kWh or MWh) of the generating units you are proposing, including plans, if any, for future units:

[The installed generating capacity cannot exceed 5 MW.]

The Dee Bridge Hydroelectric Project will consist of a Canyon Hydropower In-Line Francis Turbine. The turbine will have a flow capacity of 4.4 cubic feet per second at a rated head of 422 feet. The generator will have a rated capacity of 175 kW and will generate power at 480 Volt AC. A schematic layout for the project is provided in Figure 4. The hydroelectric station will have the potential to produce 650,000 kWh annually.

The City of Hood River does not have plans to install additional hydroelectric units at this location.

- (4) If your project is associated with any dam or impoundment, please provide a description of the nature and extent of the dam or impoundment, including the distance between the dam or impoundment and the proposed powerhouse, and a statement of the normal maximum surface area and normal maximum surface elevation of any existing impoundment before and after the hydroelectric facilities are installed. You must also provide evidence that the dam or impoundment would be constructed or continue to exist for agricultural, municipal, or industrial consumptive purposes even if the hydroelectric generating facilities were not installed:

Not Applicable

Existing Preliminary Permit or Permit Application Pending

If you have a preliminary permit for the facility or have applied for a preliminary permit, please provide the permit number below.

There are no preliminary permits or permit applications pending for the Dee Bridge Hydroelectric Station.

Drawings, Maps, Diagrams

Include a set of drawings/maps/diagrams clearly showing the structures and equipment of the hydropower facility in relation to the existing conduit. Project drawings of the project must include:

- *A Plan View (overhead view) drawing of the proposed hydropower facilities. The drawing must include the following:*
 - *The hydropower facilities, including all intake and discharge pipes, and how those pipes connect to the conduit*
 - *The portion of the conduit in proximity to the facilities on which the hydroelectric facilities will be located*
 - *The dimensions (e.g. length, width, diameter) of all facilities, intakes, discharges, and conduits*
 - *Identification of all facilities as either existing or proposed*
 - *The flow direction labelled on intakes, discharges, and conduits*
- *A Location Map showing the facilities and their relationship to the nearest town. The map must include the following:*
 - *The powerhouse location labeled, and its latitude and longitude identified*
 - *The nearest town, if possible, or other permanent monuments or objects, such as roads or other structures, that can be easily noted on the map and identified in the field*

VERIFICATION

You must provide Verification in one of the following forms:

Either a sworn, notarized statement, which states:

1. As to any facts alleged in the application or other materials filed, be subscribed and verified under oath in the form set forth below by the person filing, an officer thereof, or other person having knowledge of the matters set forth. If the subscription and verification is by anyone other than the person filing or an officer thereof, it shall include a statement of the reasons therefor.

This (notice of intent to construct, etc.) is executed in the:

State of: Oregon
 County of: Hood River
 By: The City of Hood River
 211 2nd Street, Hood River, OR 97031

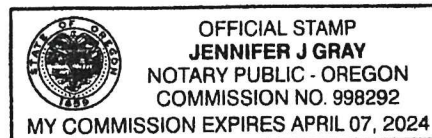
being duly sworn, depose(s) and say(s) that the contents of this (notice of intent to construct, etc.) are true to the best of (his or her) knowledge or belief. The undersigned applicant(s) has (have) signed the (notice of intent to construct, etc.) this 4 day of April, 2022.

By: Will Morris

Subscribed and sworn to before me, a Notary Public [Notary Public, or title of other official authorized by the state to notarize documents, as appropriate] of the State of Oregon this day of May 4, 2022.

/SEAL/ [if any]

Jennifer J Gray
 (Notary Public, or other authorized official)

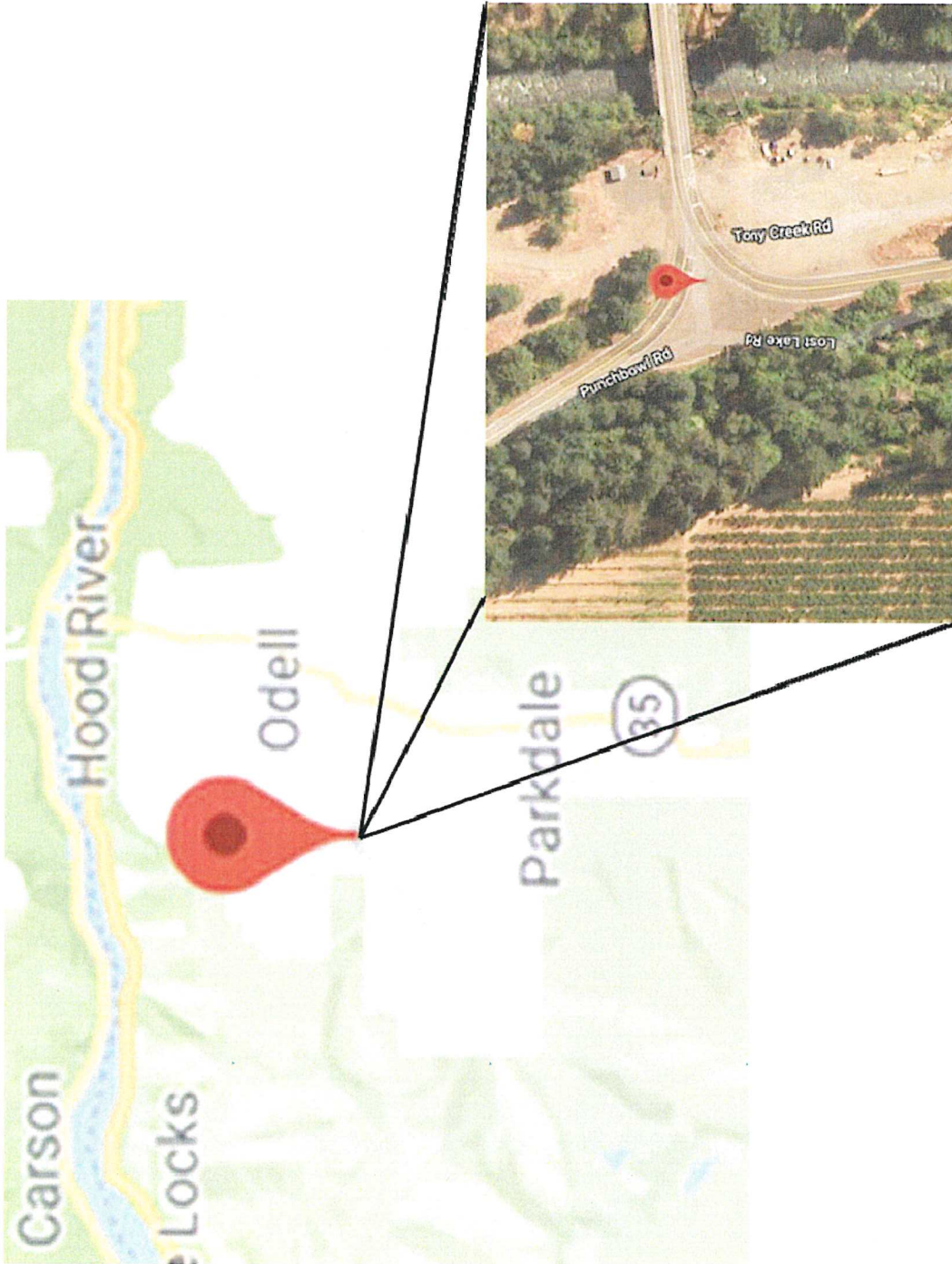


Or an unsworn declaration in the following form:

2. "I declare (or certify, verify, or state) under penalty of perjury that the foregoing is true and correct. Executed on _____ [date]."

 (Signature)

Figure 1: Project Vicinity Map



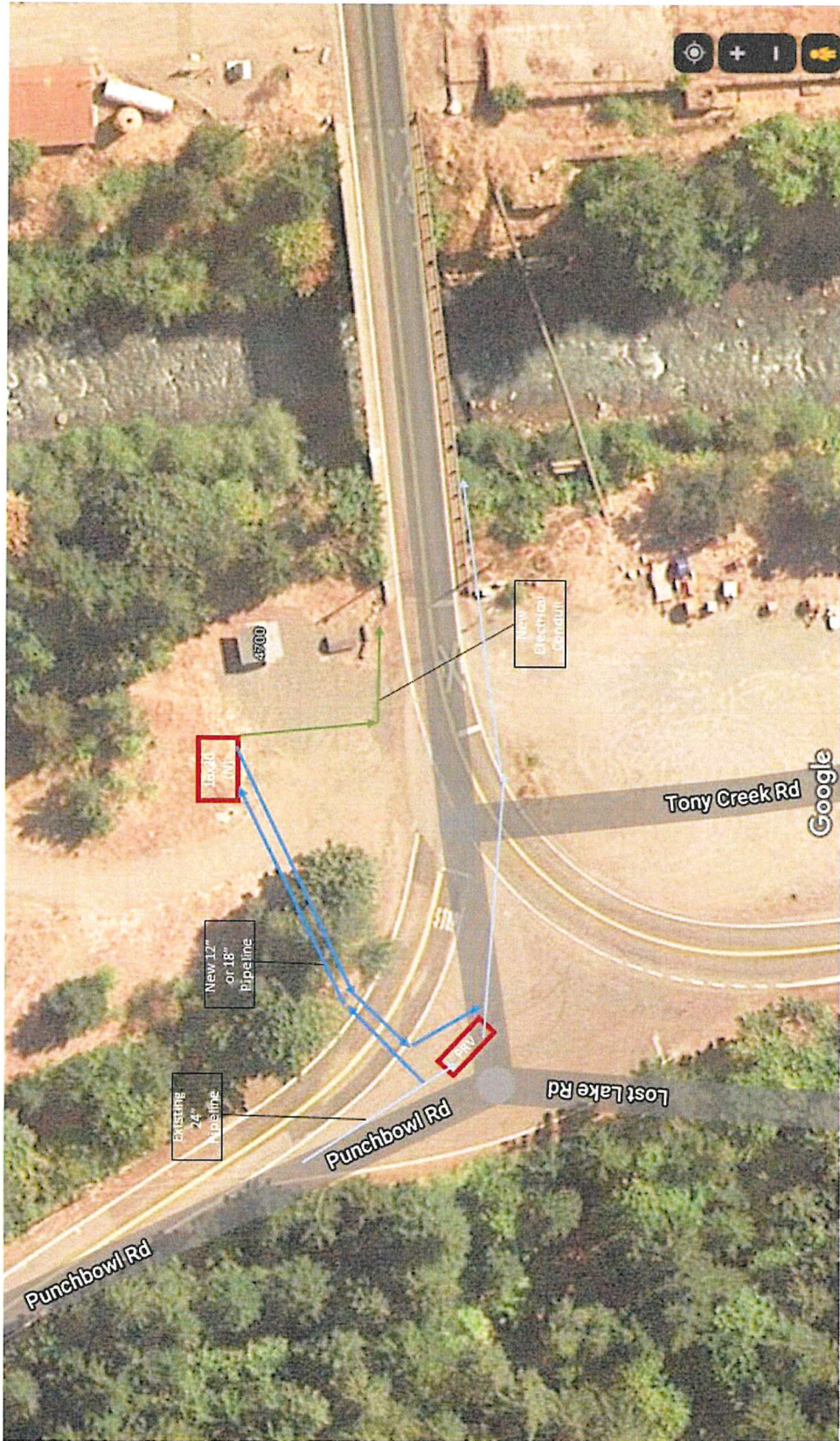
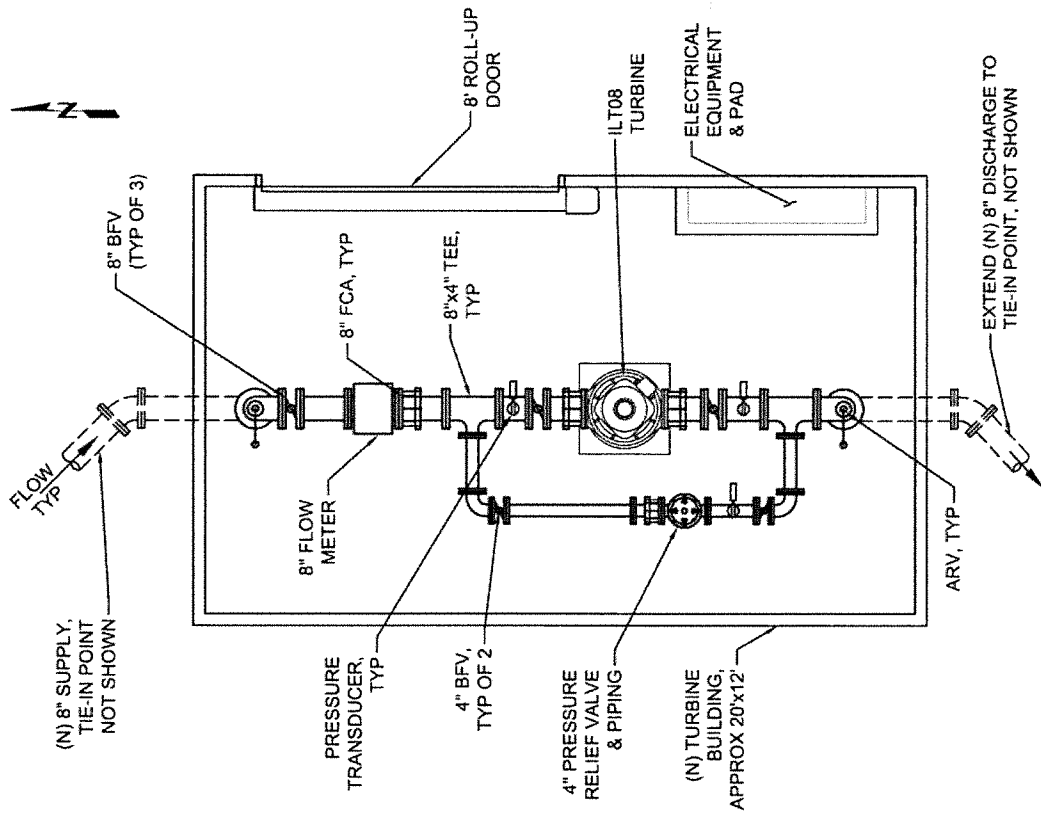


Figure 2: Project Location

Site Coordinates: 45°35'22.6"N 121°37'44.9"W

Figure 3: Initial Design Layout



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