Rye Development
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VIA ELECTRONIC FILING

March 14, 2025

Debbie-Anne A. Reese
Secretary
Federal Energy Regulatory Commission
888 First Street, NW
Washington, DC 20426

Re: Western Navajo Pumped Storage Project, FERC Project No. 15314-000;
Application for Preliminary Permit

Dear Secretary Reese:

Pursuant to section 4(f) of the Federal Power Act,[1] and sections 4.32 and 4.81 of the regulations of the Federal Energy Regulatory Commission (Commission or FERC),[2] Western Navajo Pumped Storage, 1, LLC (Applicant), is hereby resubmitting its Application for Preliminary Permit (Application) for the proposed Western Navajo Pumped Storage Project, FERC Project No. 15314 (Project). The proposed Project would be located entirely on federal land held in trust for the Navajo Nation, near the City of Page in Coconino County, Arizona.

By way of background, on June 12, 2023, the Applicant filed an application for a preliminary permit to study the feasibility of the proposed Project.[3] On November 20, 2023, the Navajo Nation opposed the issuance of a preliminary permit because it determined that, at the time, the level of meaningful consultation between the Applicant and the Navajo Nation was unclear.[4] On February 15, 2024, the Commission denied the application without prejudice and established a new policy that it would not issue preliminary permits for proposed projects located on Tribal lands "if the Tribe on whose lands the project is to be located opposes the permit."[5] In its order, the Commission encouraged preliminary permit applicants for proposed projects on Tribal lands to work with the applicable Tribe to resolve any concerns.[6]

In preparing the enclosed Application, the Applicant has met the Commission's new policy articulated in its February 2024 order. Following the Commission's denial, without prejudice of its prior application, the Applicant continued to engage in meaningful and good faith consultation

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1 16 U.S.C. § 797(f).

2 18 C.F.R. §§ 4.32, 4.81.

3 Application for Preliminary Permit for the Western Navajo Pumped Storage Project No. 1, Project No. 15314-000, Accession No. 20230612-5057 (filed June 12, 2023).

4 Motion to Intervene of the Navajo Nation, Project No. 15314-000, Accession No. 20231120-5003 (filed Nov. 20, 2023).

5 *W. Navajo Pumped Storage 1, LLC*, 186 FERC ¶ 61,120, at P 10 (2024).

6 *Id.* at P 10 n.22.

with the Navajo Nation. Among other things, the Applicant presented its proposed Project to the Resources and Development Committee of the Navajo Nation Council; received a Permission to Survey; and obtained a Parks and Recreation Special Use Permit for purposes of conducting studies in support of the Project. As a result, the Navajo Nation has expressed its support for the Applicant to obtain a preliminary permit from the Commission. As stated in a recent letter from Navajo Nation's Assistant Attorney General, Natural Resources Unit:

> The Applicant responded accordingly [to the Commission's February 2024 order] and conducted meaningful consultation and engagement with the Navajo Nation. To date, the Applicant has presented the Project to the Resources and Development Committee of the Navajo Nation Council, received a Permission to Survey, and obtained a Parks and Recreation Special Use Permit to conduct studies and non-invasive activities. While the Applicant's consultation with the Navajo Nation remains ongoing, the Applicant has demonstrated a commitment to meaningfully engage with the Navajo Nation government. As a result, the Applicant has my support to reapply for a preliminary permit and study the feasibility of its Project.[7]

A copy of the Navajo Nation's letter appears in the next page of the Application. Based on this letter, the Applicant submits that the Application complies with Commission policy, as the Navajo Nation has indicated that it does not oppose this Application.

The Applicant appreciates the Commission's consideration of this Application and looks forward to collaborating with the Navajo Nation and other interested stakeholders in its pursuit to develop the proposed Project. If there are any questions or comments regarding the Application, please contact me at (503) 998-0230, via email at erik@ryedevelopment.com, or at the address below.

Sincerely,

Erik Steimle
Vice President
Rye Development, LLC
1455 SW Broadway, Suite 290
Portland, OR 97201

Enclosure: Application for Preliminary Permit for the Western Navajo Pumped Storage Project No. 1

[7] Letter from Veronica Blackhat, Navajo Nation, to Erik Steimle, Western Navajo Pumped Storage Project 1, LLC, at 1 (Feb. 14, 2025).

NAVAJO NATION DEPARTMENT OF JUSTICE
OFFICE OF THE ATTORNEY GENERAL

HEATHER L. CLAH
Acting Attorney General

KRIS O. BEECHER
Acting Deputy Attorney General

February 14, 2025

Western Navajo Pumped Storage Project 1, LLC
c/o Erik Steimle
1455 SW Broadway, Suite 290
Portland, OR 97201

Dear Mr. Steimle,

I am writing as Assistant Attorney General of the Natural Resources Unit, Navajo Nation Department of Justice, to express support for Western Navajo Pumped Storage 1, LLC ("Applicant") reapplying for a preliminary permit from the Federal Energy Regulatory Commission ("FERC") to study the feasibility of its proposed closed loop pumped storage project on lands entirely within the Navajo Nation, near the City of Page in Coconino County, Arizona ("Project").

On November 17, 2023, the Navajo Nation opposed the issuance of a Preliminary Permit because, at the time, the level of meaningful consultation with the Navajo Nation was unclear. FERC denied the application without prejudice pursuant to a policy of denying preliminary permit applications on Tribal lands if the Tribe on whose lands the project is to be located oppose the permit. *In re Western Navajo Pumped Storage 1, LLC and Western Navajo Pumped Storage 2, LLC*, 186 FERC ¶ 61,120 (February 15, 2024). FERC's policy respects the Navajo Nation's sovereign authority over its lands and encourages private developers to earnestly engage.

The Applicant responded accordingly and conducted meaningful consultation and engagement with the Navajo Nation. To date, the Applicant has presented the Project to the Resources and Development Committee of the Navajo Nation Council, received a Permission to Survey, and obtained a Parks and Recreation Special Use Permit to conduct studies and non-invasive activities. While the Applicant's consultation with the Navajo Nation remains ongoing, the Applicant has demonstrated a commitment to meaningfully engage with the Navajo Nation government. As a result, the Applicant has my support to reapply for a preliminary permit and study the feasibility of its Project.

I have no objection to the Applicant's use of this letter as part of its preliminary permit application. This letter does not obligate the Navajo Nation to support the project beyond the preliminary permit application, nor does it waive the Nation's right to intervene or otherwise participate in any FERC proceeding. The Navajo Nation further reserves all rights with respect to additional permits or approvals for any and all work conducted on the Navajo Nation.

Respectfully,

Veronica Blackhat
Assistant Attorney General
Natural Resources Unit

UNITED STATES OF AMERICA

BEFORE THE

FEDERAL ENERGY REGULATORY COMMISSION

Application for Preliminary Permit

for the

Western Navajo Pumped Storage Project

March 2025

INITIAL STATEMENT

(1) Western Navajo Pumped Storage 1, LLC (Applicant) applies to the Federal Energy Regulatory Commission (Commission or FERC) for a preliminary permit for the proposed Western Navajo Pumped Storage Project, as described in the attached exhibits. This application is made in order that the applicant may secure and maintain priority of application for a license for the project under Part I of the Federal Power Act (FPA) while obtaining the data and performing the acts required to determine the feasibility of the project and to support an application for a license.

This application complies with the Commission's policy related to preliminary permits located on Tribal lands, as described in *W. Navajo Pumped Storage 1, LLC*, 186 FERC ¶ 61,120 (2024). The Applicant has conducted meaningful consultation and engagement with the Navajo Nation, and the Navajo Nation does not oppose this preliminary permit application. As indicated in a recent letter to Applicant from the Navajo Nation's Assistant Attorney General, Natural Resources Unit:

> The Applicant . . . conducted meaningful consultation and engagement with the Navajo Nation. To date, the Applicant has presented the Project to the Resources and Development Committee of the Navajo Nation Council, received a Permission to Survey, and obtained a Parks and Recreation Special Use Permit to conduct studies and non-invasive activities. While the Applicant's consultation with the Navajo Nation remains ongoing, the Applicant has demonstrated a commitment to meaningfully engage with the Navajo Nation government. As a result, the Applicant has my support to reapply for a preliminary permit and study the feasibility of its Project.

A copy of the Navajo Nation's Assistant Attorney General, Natural Resources Unit, appears in Attachment A of this application.

(2) The location of the proposed project is:

State or Territory	Navajo Nation, Arizona
County:	Coconino

Township or nearby town: Page
Stream or other body of water: Colorado River

(3) The exact name, business address, and telephone number of the Applicant are:

Western Navajo Pumped Storage 1, LLC
100 S. Olive Street
West Palm Beach, FL 33401

(4) The exact name and business address of each person authorized to act as agent for the Applicant in this application are:

Erik Steimle
Vice President
Rye Development, LLC
1455 SW Broadway, Suite 290
Portland, OR 97201
erik@ryedevelopment.com

(5) Applicant is a limited liability company organized and existing pursuant to the laws of the State of Arizona, and as such the Applicant is qualified under Section 4(e) of the FPA to apply for and hold hydroelectric licenses issued under Part I of the FPA. The Applicant is not claiming preference under Section 7(a) of the FPA.

(6) The proposed term of the requested permit is 48 months.

(7) No dams, spillways, waterways, powerhouses, tailraces, or other structures currently exist at the proposed site of the Project.

INFORMATION REQUIRED BY 18 C.F.R. § 4.32

1. **Identify every person, citizen, association of citizens, domestic corporation, municipality, or state that has or intends to obtain and will maintain any proprietary right necessary to construct, operate or maintain the Project:**

   Applicant intends to obtain and will maintain any proprietary rights necessary to construct, operate, and maintain the licensed Project.

2. **Identify (providing names and mailing addresses):**

   (i) Every county which any part of the project and any Federal facilities that would be used by the project would be located;

   Coconino County
   110 E Cherry Ave
   Flagstaff, AZ 86001

   (ii) Every city, town, or similar local political subdivision:

   i. In which any part of the Project, and any Federal facility that would be used by the project, would be located; or

   The proposed Project would be located within the following Navajo Nation Chapter:

   LeChee Chapter
   PO Box 4270
   Page, AZ 86040

   ii. That has a population of 5,000 or more people and is located within 15 miles of the project dam.

   The proposed Project would be located within 15 miles of the following cities/townships that have a population of 5,000 or more people:

   City of Page
   697 Vista Avenue
   Page, AZ 86040

   (iii) Every irrigation district, drainage district, or similar special purpose political subdivision (A) in which any part of the project is located, and any Federal facility that is or is proposed to be used by the project is located, or (B) that owns, operates, maintains, or uses any project facility or any Federal

facility that is or is proposed to be used by the project:

There is no irrigation district, drainage district, or similar special purpose political subdivision in which any part of the Project is located or that owns, operates, maintains, or uses any Project facility.

No federal facility is proposed to be used by the Project.

(iv) Every other political subdivision in the general area of the project that there is reason to believe would likely to be interested in, or affected by the notification are:

No additional political subdivisions.

(v) All potentially affected Indian tribes:

Navajo Nation P.O. Box 7440 Window Rock, AZ 86515	Havasupai Tribe of the Havasupai Reservation, Arizona Thomas Siyuja Chairman 13067 E. Highway 66 Truxton Canon Agency Valentine, AZ 86437 htchair@havasupai-nsn.gov
Hopi Tribe of Arizona Stewart Koyiyumptewa THPO P.O. Box 123 Kykosmovi, AZ 86039 skoyiyumptewa@hopi.nsn.us	Hualapai Indian Tribe of the Hualapai Indian Reservation, Arizona Martin Dawley THPO PO Box 310 Peach Springs, AZ 86434 mdaley@hualapai-nsn.gov
Kaibab Band of Paiute Indians of the Kaibab Indian Reservation, Arizona Roland Maldonado Chairperson HC 65, Box 2 Fredonia, AZ 86022-9600 rolandm@kaibabpaiute-nsn.gov	Las Vegas Tribe of Paiute Indians of the Las Vegas Indian Colony, Nevada Deryn Pete Chairwoman One Paiute Drive Las Vegas, NV 89106 dpete@lvpaiute.com
Moapa Band of Paiute Indians of the Moapa River Indian Reservation, Nevada Darren Daboda THPO	Navajo Nation, Arizona, New Mexico & Utah Richard Begay THPO P.O. Box 4950 Window Rock, AZ 86515

1 Lincoln Street Moapa, NV 89025 moapathpo@moapabandofpaiutes.org	r.begay@navajo-nsn.gov
Paiute Indian Tribe of Utah (Cedar Band of Paiutes, Kanosh Band of Paiutes, Koosharem Band of Paiutes, Indian Peaks Band of Paiutes, and Shivwits Band of Paiutes) Corrina Bow Chairwoman 440 N. Paiute Drive Cedar City, UT 84720-2613	San Carlos Apache Tribe of the San Carlos Reservation, Arizona Vernelda Grant THPO P.O. Box 0 San Carlos, AZ 85550 apachevern@yahoo.com
San Juan Southern Paiute Tribe of Arizona Johnny Lehi Jr. Vice President 67 Nw Maple St Tuba City, AZ 86045	White Mountain Apache Tribe of the Fort Apache Reservation, Arizona Mark Altaha THPO P.O. Box 507 Fort Apache, AZ 85926 markaltaha@wmat.us
Yavapai-Apache Nation of the Camp Verde Indian Reservation, Arizona Chris Coder Tribal Archaeologist 2400 West Datsi Street Camp Verde, AZ 86322 ccoder@yan-tribe.org	Fort McDowell Yavapai Nation, Arizona Ruben Balderas President PO Box 17779 Fountain Hills, AZ 85268-7779 rbalderas@ftmcdowell.org

VERIFICATION STATEMENT

[placeholder page]

This application for preliminary permit is executed in:

STATE OF: Oregon

COUNTY OF: Multnomah

By: (Name) Erik Steinle

(Address) 1455 SW Broadway Ste. 2908 97201

Being duly sworn, deposes and says that the contents of this preliminary permit application are true to the best of (his or her) knowledge or belief. The undersigned applicant has signed the application on this 14th day of March 2025.

Applicant

By:

Subscribed and sworn to before me, a Notary public of the State of Oregon on this 14th day of March 2025.

Notary:

OFFICIAL STAMP
ANTHONY LOUIS BARANELLO
NOTARY PUBLIC - OREGON
COMMISSION NO. 1037356
MY COMMISSION EXPIRES JUNE 06, 2027

1 EXHIBIT 1 – DESCRIPTION OF THE PROPOSED PROJECT (18 CFR §4.81(b))

1.1 General Project Configuration

Western Navajo Pumped Storage 1, LLC (Applicant) proposes to develop the Western Navajo Pumped Storage Project (Project) in the LeChee Chapter of Navajo Nation, Coconino County, Arizona (Figure 1). The proposed Project is approximately 2.5 miles east of the city of Page, Arizona and is bordered by the former Navajo Generating Station[1] (NGS) site to the south, Lake Powell to the north, and Navajo Creek to the east. The Project is proposed as a closed loop pumped storage hydroelectric generating facility, which will involve the construction of new water storage, water conveyance, and generating facilities at off-channel locations where no such facilities exist at this time.

Reversible pump-turbines will pump water and generate electric power. The proposed Project concept is based on traditional pumped storage technologies of "storing" electric energy in the form of hydraulic potential, by pumping water to an upper reservoir during off-peak times and allowing it to flow back through hydroelectric turbines when electric demand is peaking. Because the Project is proposed as a closed-loop pumped storage project, it will derive the benefits of traditional pumped storage, essentially increasing off-peak load and increasing generating capacity during peak demand periods, but in an improved manner that reduces and avoids many of the environmental impacts of the traditional pumped storage facility design.

The existing Project site features topography beneficial to a closed loop system. A plateau near Lake Powell is proposed to be utilized as the lower reservoir. Water will be circulated between a lower and upper reservoir to store/generate power. The water from an existing water intake used to pump cooling water for the NGS which is no longer in service, is proposed to be used to initially fill the lower reservoir and as a source of make-up water to periodically replace water lost to evaporation and infiltration.

The two reservoirs are anticipated to be open excavations with ring dike dams and are proposed to be situated north of the former NGS ash disposal sites. Proposed access roads will be built leading from Antelope Point Road east toward the lower reservoir and then bifurcate toward the upper reservoir. A fill and refill conduit line will connect to an existing water-cooling line from the Lake Powell intake facility. The water conveyance between the reservoirs is envisioned as an underground shaft and tunnel system. An underground powerhouse will be located along the headrace/tailrace tunnel between the upper and lower reservoirs and will house three reversible Francis pump-turbines. An underground surge chamber will be located adjacent to the powerhouse along the tailrace tunnel. A 230-kilovolt (kV) transmission line will run from the underground powerhouse approximately 0.8-mile through a multi-use tunnel and then by overhead lines approximately 3.8 miles to an existing substation at the former NGS site. The total area of the proposed Project boundary is 1,930 acres. The legal description for the Project site is Township 41 North, Range 9 and 10 East.

<u>Dams and Embankments:</u>

[1] The Navajo Generating Station was a coal-fired power plant on Navajo Nation land that operated from 1974 until it was decommissioned in 2019.

The upper and lower reservoirs will be contained by zoned rockfill embankments primarily made of local on-site materials. Zone 1 will consist of rock fragments mixed with sandy soils, likely excavated from the reservoir areas, including dam foundations, and placed in lifts and compacted. Zone 2 will consist of a 3-foot wide (minimum) zone of compacted fill against the upstream embankment fill slope and on reservoir excavation slopes, and will provide a bedding layer of crushed unweathered sandstone for the asphaltic concrete liner.

The upper reservoir will be contained by a 10-foot-high and 10,254 foot-long zoned rockfill embankment and the perimeter of the lower reservoir will be contained by a 10-foot-high and 9,911 foot-long zoned rockfill embankment. The configuration of the embankments for the upper and lower reservoirs is shown below in Table 1.

Table 1 Upper and lower reservoir embankment configuration

Upper Reservoir	
Structure Type	Zoned rockfill embankment
Height	10 ft
Length	10,254 ft
Lower Reservoir	
Structure Type	Zoned rockfill embankment
Height	10 ft
Length	9,911 ft

Water Conveyance Structures:

The conveyance system is preliminarily designed as a fully underground system, except for the inlet/outlet located at the upper and lower reservoir. During generation, the proposed system will draw water from the upper reservoir through a steel reinforced concrete water intake, a 38-foot-diameter, 700-foot-long vertical drop shaft, using the force of gravity, to a 38-foot-diameter, 2,400-foot-long high-pressure headrace tunnel. Flow will then be conveyed through a manifold, which leads to the turbine inlet values and subsequently to three pump-turbine units inside the powerhouse. Downstream of the powerhouse, another manifold links to a 38-foot-diameter, 9,429-foot-long low-pressure tailrace tunnel before discharging to the lower reservoir. The proposed water conveyance system configuration is shown in Table 2 below.

Table 2 Water conveyance system configuration

Structure	**Structure Data**
Headrace Tunnel	2,400 feet (length)
Tailrace Tunnel	9,429 feet (length)
Power Tunnel	38 feet (diameter)
Vertical Shaft	700 feet (height)
Total Conveyance[1]	12,529 feet (length)
Intake Structure	Steel/concrete (composition/material)

Powerhouse:

The proposed 320-foot-long by 80-foot-wide powerhouse includes a contained system located approximately 400 feet underground, on the tailrace tunnel. The proposed powerhouse will contain three 259.6 megawatt (MW) fixed speed reversible Francis pump-turbines with a combined capacity of 765 MW under a design head of 704 feet. Additional equipment that will be associated with the powerhouse includes a service bay, mechanical and electrical control equipment, an overhead bridge crane, turbine inlet valves, draft tube gates, and access tunnels for main access and service tunnels.

As a pumped storage project, the facility will be configured to generate 2,066 Gigawatt-hours annually. This is based on an assumed operation in cycling or peaking mode for approximately 8 hours a day, with 16 hours of the remainder of the daily cycle used to pump the water back up to the upper reservoir, using reversible turbines as pumps running on off-peak power.

During pumping operations, water will be drawn through the three reversible Francis pump-turbine units into a 38-foot-diameter penstock, which will convey water to the upper reservoir. During power generation, operations will be reversed. The powerhouse configuration is shown in Table 3 below.

Table 3 Powerhouse configuration

Structure	Structure Data
Type	Underground, concrete lined
Pump-Turbine Type	Fixed Speed Reversible Francis Pump-Turbines
No. of Pump-Turbines	3 x 259.6 MW
Pump-Turbine Axis Centerline	3,758 feet MSL
Powerhouse Cavern Estimated Dimensions (L x W x H)	320 x 80 x 150 feet
High Voltage and Multi-Use Access Tunnel	25-foot-diameter and 4,000 feet L
Main Access Tunnel	Horseshoe shape 38 feet W 26 feet H, and 4,400 feet L

Notes: MW = megawatt; MSL = mean sea level; H = height; L = length

Fill/Refill Water Intake Structure and Conveyance:

An existing intake structure (lake pump station) at Lake Powell, originally associated with the NGS would be used for the initial filling of the lower reservoir as well as for periodically replenishing water lost to evaporation and infiltration. The Project proposes a water fill and refill pipeline extending approximately 10,880 feet east from the existing NGS water pipeline to the lower reservoir, designed to draw water from the NGS pipeline to supply the reservoir.

1.2 Reservoirs

1.2.1 Upper Reservoir

The Project will include a proposed upper reservoir constructed with a normal water surface elevation of approximately 4,605 ft msl. The upper reservoir would cover approximately 160

acres and the perimeter would be contained by a zoned rockfill embankment approximately 10 feet high. The approximate storage volume of the upper reservoir will be 10,090 acre-ft. The upper reservoir will receive water pumped from the proposed lower reservoir during normal Project operation. The proposed upper reservoir configuration is shown in Table 4 below.

Table 4 Upper reservoir configuration

Feature	Feature Data
Surface Area at Maximum Pool	163.5 acres
Active Storage Capacity	10,090 acre-feet
Maximum Water Surface Elevation	4,605 feet msl

Notes: Elevations are based on North American Vertical Datum of 1988 (NAVD88); msl = mean sea level

1.2.2 Lower Reservoir

The proposed lower reservoir would be constructed on a plateau, approximately 5,280 feet west of the proposed upper reservoir and will cover approximately 157.8 acres. The perimeter of the lower reservoir would be contained by a 10-foot-high and 9,911-foot-long zoned rockfill embankment. The lower reservoir would have a normal maximum water surface elevation of approximately 3,905 ft msl, and a storage capacity of approximately 10,092 acre-ft. The lower reservoir configuration is shown in Table 5 below.

Table 5 Lower reservoir configuration

Feature	Feature Data
Surface Area at Maximum Pool	157.8 acres
Active Storage Capacity	10,092 acre-feet
Maximum Water Surface Elevation	3,905 feet msl

Notes: Elevations are based on North American Vertical Datum of 1988 (NAVD88); msl = mean sea level

1.3 Switchyard and Transmission Lines

The proposed Project will incorporate generator step-up transformers linked to a 230kV SF6-insulated switchgear assembly, equipped with four circuit breakers, all housed within the proposed underground powerhouse. The 230kV main breaker would be fitted to carry the power to the surface via the approximately 0.8-mile service tunnel and then routed to a proposed switchyard. From the new switchyard, the 230 kV transmission line would be routed overhead for 3.8 miles to the existing NGS substation.

1.4 Estimate of Annual Energy Production

The powerhouse will be equipped with three reversible Francis pump-turbines with a total installed capacity of 765 MW under an average design head of 704 feet. The estimated average annual energy production is 2,066 Gigawatt-hours. This value is based on an assumed operation in cycling or peaking mode for approximately eight hours a day, with 16 hours of the remainder of the daily cycle used to pump the water. The turbine generating units will be newly manufactured for the Project.

1.5 Lands of the United States

The Commission's regulations for Exhibit 1 of a preliminary permit application (18 CFR §4.81(b)(5)) provide that FERC Form 587 must be included in the application for Projects with boundaries that include lands of the United States. As contemplated, all of the Project would occupy lands within the Navajo Nation – on land held in trust for the Navajo Nation, by the United States.

1.6 Public Interest

The proposed Project will fulfill the public interest in the following manner:

- Provide a reliable source of green, renewable power
- Add much needed peaking capacity
- Offer sustainable development with direct investment in the local and regional economy
- Improve black start capability of the regional power grid
- Increase transmission system performance and reliability
- Improve thermal plant efficiency by reduced operation in inefficient rapid response mode
- Reduce thermal generation reserve requirement
- Reduce volatility of electrical prices, adding balance to load disparities in the market
- Provide a method to store intermittently generated energy, such as wind and solar energy.

2 EXHIBIT 2 – DESCRIPTION OF PROPOSED STUDIES (18 CFR § 4.81 (c))

2.1 Description of Studies

Upon issuance of a Preliminary Permit, the Applicant proposes to conduct detailed studies to determine the overall feasibility of the Project and potentially support the preparation of an Application for License as described below.

2.1.1 Description of Proposed Studies

The Applicant has performed preliminary review of the proposed Project as part of a prefeasibility study. The Applicant proposes to conduct a more detailed feasibility study of the technical features of the Project. The feasibility study will be designed to evaluate various Project concepts, layouts, and equipment arrangements to optimize Project configuration, while considering potential environmental impacts. The study will be in sufficient depth and breadth to provide information needed for the preparation of an Application for License and construction of the Project. Initial pre-feasibility studies completed to date include a Preliminary Impact Evaluation, including a cultural resources records search, a preliminary biological study, and a review of previous biological studies; and a Pre-Feasibility Study including a review geological site conditions, energy generating capacity, water supply, and preliminary layout.

The planned feasibility study is expected to include, but not be limited to, the following:

1. Evaluations of alternative Project configurations, and selection of preferred alternative.
2. Topographic land survey (LiDAR)
3. Geotechnical and seismic investigations
4. Public resources investigations, including but not limited to:
    - Groundwater assessment
    - Surface water quality study
    - Review of quagga mussel O&M procedures to prevent quagga mussels from impeding water flow
    - Baseline nesting raptor surveys
    - Baseline invasive plant surveys
    - Baseline golden and bald eagle surveys
    - Baseline surveys for roosting bats
    - Baseline surveys for special-status amphibians
    - Baseline surveys for rare plants and milkweed
    - Wetland survey
    - Visual resources study
    - Socioeconomics study
    - Environmental justice assessment
5. Power marketing assessments and preliminary power sales analyses
6. Transmission interconnection planning
7. Cost estimating, economic feasibility, and financial planning investigations

A Notice of Intent and Pre-Application Document is being filed simultaneously with this Preliminary Permit Application. If the result of the feasibility analysis is favorable, the following

activities are envisioned to take place during the remaining preliminary permit term to support the FERC licensing and development of the Project:

8. Stakeholder consultation and discussion
9. Additional study plan preparation and scoping, as needed
10. Preparation of Application for License

2.1.2 Need for New Roads

There will be no new roads constructed to complete the proposed studies.

2.2 Work Plan for New Dam Construction

2.2.1 Description of Field Studies

The upper and lower reservoir locations will be investigated by borehole drilling, test pits, sampling and in-situ and laboratory testing. Measures will be taken to avoid or minimize disturbance at the drill sites. There will be no investigations in wetland areas or navigable streams. The locations and timing of such investigations have yet to be determined; however, the drilling will be conducted within the identified Project footprint.

2.2.2 Proposed Schedule

A proposed schedule showing the approximate intervals at which studies, investigations, test, or survey are anticipated to be completed during the permit term (i.e., 48 months) is provided below and is subject to change as determined by field conditions and/or additional information.

Table 6 Proposed schedule

Task	From the beginning of month	To the end of month
Evaluations of alternative Project configurations, and selection of preferred alternative	0	12
Topographical land surveys	6	18
Geotechnical and seismic investigations	6	18
Ecological resource investigations	12	36
Engineering studies to optimize Project configuration	12	24
Power marketing assessment and preliminary power sales analyses	24	36
Transmission interconnection planning	12	24
Cost estimating, economic feasibility, and financial planning investigations	12	36
Preparation, consultation, and filing of Application for License	24	48

2.3 Waiver

The Applicant is not seeking a waiver because the information required is provided above.

2.4 Statement of Costs and Financing

2.4.1 Estimated Costs

The estimated cost for completing study items 1 through 7 in Section 2.1.1 is $1,500,000 to $2,500,000. The estimated cost for completing study items 8 through 10 in Section 2.1.1 is $1,000,000 to $1,500,000.

2.4.2 Project Financing

The expected source of financing to conduct the activities identified in Section 2.1.1 is the Applicant. The Applicant can obtain sufficient sources of capital to complete the studies.

3 EXHIBIT 3 – PROJECT MAPS (18 CFR § 4.81 (d))

This section contains maps showing the location, the Project layout, and the Project boundary for the proposed Project.

3.1 General Location of Proposed Project

The proposed Project location is shown on Figure 1.

3.2 Project Features

The probable locations of the primary Project features are shown in Figure 2.

3.3 Proposed Project Boundary

The proposed Project boundary is shown on Figure 2.

3.4 National Wild and Scenic River Systems

The proposed Project boundary does not include any areas designated as or being considered for inclusion in the National Wild and Scenic Rivers System. There are no areas designated as or being considered for inclusion in the National Wild and Scenic Rivers System within the vicinity of the proposed Project area.

3.5 Designated Wilderness Areas

The proposed Project boundary does not include any areas designated as or recommended for designation as a wilderness area or wilderness study area under the Wilderness Act.

Figure 1 Regional Project Location

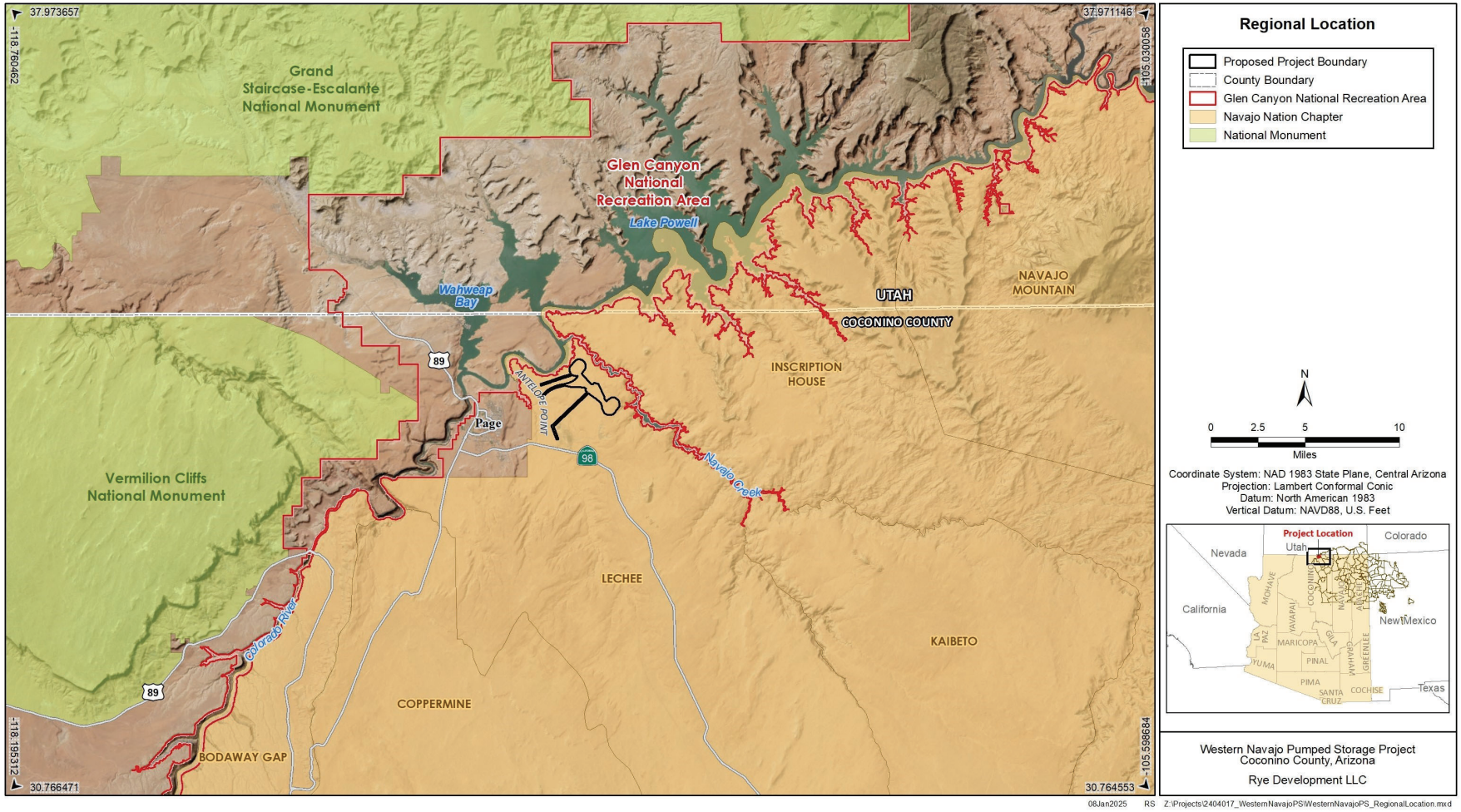
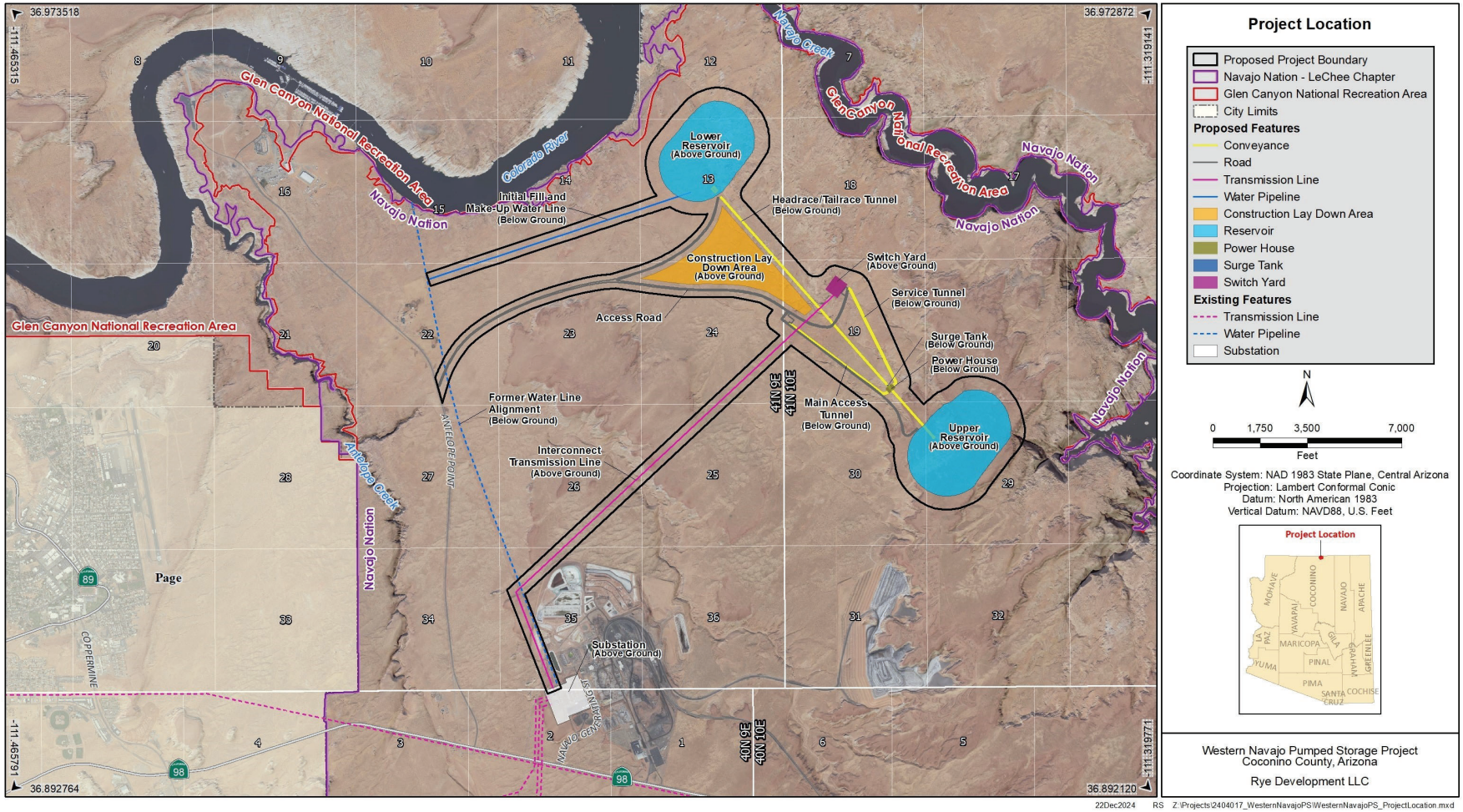


Figure 2 Project Features



Western Navajo Pumped Storage Project
Coconino County, Arizona

Rye Development LLC

22Dec2024 RS Z:\Projects\2404017_WesternNavajoPS\WesternNavajoPS_ProjectLocation.mxd

Form FERC-587
OMB No. 1902-0145
(Expires 10/31/2018)

LAND DESCRIPTION

Public Land States
(Rectangular Survey System Lands)

1. STATE Arizona 2. FERC PROJECT NO. P-15314-000

3. TOWNSHIP 41 North RANGE 9 East MERIDIAN Gila-Salt River Principal Meridian

4. Check one:

____License
X Preliminary Permit

Check one:

X Pending
_____Issued

If preliminary permit is issued, give expiration date:_____

5. EXHIBIT SHEET NUMBERS OR LETTERS

Section 6	**5**	**4**	**3**	**2**	**1**
7	**8**	**9**	**10**	**11**	**12** X
18	**17**	**16**	**15** X	**14** X	**13** X
19	**20**	**21**	**22** X	**23** X	**24** X
30	**29**	**28**	**27**	**26** X	**25** X
31	**32**	**33**	**34**	**35** X	**36**

6. contact's name _____Erik Steimle

telephone no. (_____503-686-1688)

Date submitted _____March 14, 2025_

This information is necessary for the Federal Energy Regulatory Commission to discharge its responsibilities under Section 24 of the Federal Power Act.

Form FERC-587
OMB No. 1902-0145
(Expires 10/31/2018)

LAND DESCRIPTION

Public Land States
(Rectangular Survey System Lands)

1. STATE Arizona 2. FERC PROJECT NO. P-15314-000

3. TOWNSHIP 41 North RANGE 10 East MERIDIAN Gila-Salt River Principal Meridian

4. Check one:

____License
X Preliminary Permit

Check one:

X Pending
_____Issued

If preliminary permit is issued, give expiration date:_____

5. EXHIBIT SHEET NUMBERS OR LETTERS

Section 6	**5**	**4**	**3**	**2**	**1**
7	**8**	**9**	**10**	**11**	**12**
18 X	**17**	**16**	**15**	**14**	**13**
19 X	**20** X	**21**	**22**	**23**	**24**
30 X	**29** X	**28**	**27**	**26**	**25**
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Form FERC-587
OMB No. 1902-0145
(Expires 10/31/2018)

LAND DESCRIPTION

Public Land States
(Rectangular Survey System Lands)

1. STATE Arizona 2. FERC PROJECT NO. P-15314-000

3. TOWNSHIP 40 North RANGE 9 East MERIDIAN Gila-Salt River Principal Meridian

4. Check one:

____License
X Preliminary Permit

Check one:

X Pending
_____Issued

If preliminary permit is issued, give expiration date:_____

5. EXHIBIT SHEET NUMBERS OR LETTERS

Section 6	**5**	**4**	**3**	**2** X	**1**
7	**8**	**9**	**10**	**11**	**12**
18	**17**	**16**	**15**	**14**	**13**
19	**20**	**21**	**22**	**23**	**24**
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