

September 1, 2022

Via E-Filing

Frank Blackett, Regional Engineer
Office of Energy Projects
Division of Dam Safety and Inspections
San Francisco Regional Office
100 First Street, Suite 2300
San Francisco, CA 94105

Application for Preliminary Permit: Black Mesa Pumped Storage Project – South

Dear Mr. Blackett:

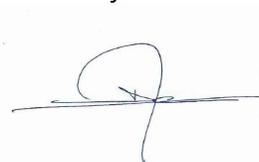
On October 4, 2021, pursuant to 18 CFR § 4.32 and 4.81 of the Federal Energy Regulatory Commission's (Commission) regulations, Nature and People First Arizona PHS, LLC's (NPFA) filed an Application for a Preliminary Permit for the proposed Black Mesa Pumped Storage Project - South (Project). The proposed facility is a 2,250 megawatt (MW) pumped storage hydroelectric facility located near Kayenta in Navajo County, Arizona.

As detailed in the application, NPFA proposes to evaluate the potential development of this pumped storage power plant in consultation with the Navajo Nation. NPFA has a keen interest in harnessing and increasing renewable energy production and looks forward to working with the Commission while developing this important new source of clean and sustainable energy storage.

The application was filed with Commission's Secretary but not with the Regional Office pursuant to 18 CFR § 4.32(b)(1). Therefore, NPFA herein submits the application to the San Francisco Regional Office.

If you require additional information, please contact me at (781) 491-5364 or at Denis.Payre@natureandpeoplefirst.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Denis Payre', written over a horizontal line.

President and CEO
Nature and People First Arizona PHS, LLC
405 Waltham St, Suite 145
Lexington, MA 02421

**BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

APPLICATION FOR PRELIMINARY PERMIT

BLACK MESA PUMPED STORAGE PROJECT – SOUTH (PROJECT)

A. Initial Statement – Information Required by 18 C.F.R § 4.81

1. Statement of Application

Nature and People First Arizona PHS, LLC (Applicant or NPFA) applies to the Federal Energy Regulatory Commission (FERC) for a preliminary permit for the proposed Black Mesa Pumped Storage Project - South (Project), water power 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 while obtaining the data and performing the acts required to determine the feasibility of the Project and to support an application for a license.

The Project is designed to meet the long-hours storage required as states and utilities in the region meet their goals to decarbonize electricity. Photovoltaic panels will cover most of the surface of the reservoirs to reduce evaporation.

The proposed Project is located near Kayenta on the Navajo Nation in northeastern Arizona.

A preliminary permit with a term of 48 months will allow the Applicant to complete its studies of the site and file a License Application.

2. Project Location

The location of the proposed Project is:

State or territory:	Arizona
Counties:	Navajo County, Apache County
Nearby Town:	Kayenta
Body of Water:	Four water sources are under review: <ol style="list-style-type: none">1. Colorado River2. San Juan River3. Two aquifer sources at the proposed site

3. Applicant's Contact Information

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

Denis Payre, President and CEO
Nature and People First Arizona PHS, LLC
405 Waltham St, Suite 145
Lexington, MA 02421
Tel: (781) 491-5364

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

Denis Payre, President and CEO
Nature and People First Arizona PHS, LLC
405 Waltham St, Suite 145
Lexington, MA 02421
Tel: (781) 491-5364

4. Statement of Authority

NPFA is a domestic limited liability company and is not claiming preference under section 7(a) of the Federal Power Act (FPA).

5. Term of Permit

The proposed term of the requested preliminary permit is 48 months.

6. Existing Dams or Other Project /Facilities

The proposed project can make use of the existing WAPA 230kV transmission line to Shiprock substation.

Tracey LeBeau
Administrator and CEO
Western Area Power Administration
P.O. Box 281213
Lakewood, CO 80228-8213

B. Additional Information Required by 18 CFR § 4.32¹

- 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:**

NPFA, a domestic limited liability company, intends to obtain and will maintain any proprietary right to construct, operate, or maintain the Project.

- 2. For a preliminary permit or a license, identify (providing names and mailing addresses):**

- (A) Every county in which any part of the project, and any Federal facilities that would be used by the project, would be located:**

Glenn Kephart
County Manager
Navajo County
100 East Code Talkers Drive
South Highway 77
P.O. Box 668
Holbrook, AZ 86025

Ryan Patterson
County Manager and Clerk of the Board
Apache County
75 West Cleveland
St. Johns, AZ 85936

Mike Stark
County Manager
San Juan County
100 South Oliver, Aztec, NM 87410

¹ Code of Federal Regulations. Title 18. Chapter I, Subchapter B, Part 4. Acceptance for filing or rejection; information to be made available to the public; requests for additional studies.

[eCFR :: 18 CFR Part 4 -- Licenses, Permits, Exemptions, and Determination of Project Costs](#)

3. Every city, town, or local political subdivision:

(A) In which any part of the project, and any Federal facilities that would be used by the project, would be located:

Paul Madson
Chapter President
Chilchinbeto Chapter, Navajo Nation
P.O. Box 1681
Kayenta, AZ 86033

Larry Tuni
Chapter President
Dennehotso Chapter, Navajo Nation
P.O. Box 2301
Dennehotso, AZ 86535

Curtis Yanito
Chapter President
Mexican Water Chapter, Navajo Nation
Red Mesa TP#1019, HC 61 Box 38
Teec Nos Pos, AZ 86514

Herman Farley
Chapter President
Red Mesa Chapter, Navajo Nation
P.O. Box 422
Montezuma Creek, UT 84534

Alfred L. Jim
Chapter President
Teec Nos Pos Chapter, Navajo Nation
Northern Agency
P.O. Box 106
Highway 160 BIA School Road #N5114
Chapter Government Building
Teec Nos Pos, AZ 86514

Melissa Kelly
Chapter President
Beclahbito Chapter, Navajo Nation
HC-61 Box 20
Shiprock, NM 87420-9064

Harry Descheene
Gadiiahi Chapter, Navajo Nation
P.O. Box 1318
Shiprock, NM 87420

Robert Lapahie, Jr.
Chapter President
Hogback Chapter, Navajo Nation
P.O. Box 1288
Shiprock, NM 87420

(B) That has a population of 5,000 or more people and is located within 15 miles of the project dam:

Stephen Young
Acting Town Manager
Kayenta Township
100 N. Highway 163
P.O. Box 1490
Kayenta, AZ 86033

4. Every irrigation district, drainage district, or similar special purpose political subdivision:

(A) In which any part of the project, and any Federal facilities that would be used by the project, would be located; or

None.

(B) That owns, operates, maintains, or uses any project facilities or any Federal facilities that would be used by the project:

Tracey LeBeau
Administrator and CEO
Western Area Power Administration
P.O. Box 281213
Lakewood, CO 80228-8213

5. Every other political subdivision in the general area of the Project or proposed Project that there is reason to believe would be likely to be interested in, or affected by, the notification:

None.

6. All Indian tribes that may be affected by the project.

Jonathan Nez
Navajo Nation President
Navajo Nation
P.O. Box 9000
Window Rock, AZ 86515

THE FOLLOWING EXHIBITS ARE FILED HERewith AND ARE HEREBY MADE A PART OF THIS APPLICATION:

- Exhibit 1: Description of the Proposed Project
- Exhibit 2: Description of the Studies to be Conducted and Statement of Costs and Financing
- Exhibit 3: Project Location and Features

EXHIBIT 1

DESCRIPTION OF THE PROPOSED PROJECT

The proposed Project and associated facilities are located in Navajo County, Arizona.

PROJECT DESCRIPTION UNDER 18 C.F.R. § 4.81(B)

Project Features:

- 1. The number, physical composition, dimensions, general configuration and, where applicable, age and condition, of any dams, spillways, penstocks, powerhouses, tailraces, or other structures, whether existing or proposed, that would be part of the project.**

The proposed Black Mesa Pumped Storage Project - South (Project), would be located approximately twenty miles southwest of Kayenta on the Navajo Nation in northeastern Arizona. The project concept envisions the construction of new water storage reservoirs, water conveyance conduits, and generation facilities at off-channel locations where no such facilities exist at this time, comprising a closed-loop pumped storage power plant facility with capacity of 2,250 MW. The project proposes to use a new reservoir, the Upper Reservoir as the larger upper pool and a new reservoir, the Lower Reservoir, as the lower pool. The powerhouses would be located underground between the upper reservoir and the lower reservoirs.

No dams or hydroelectric power generation features currently exist within the proposed project boundary.

PROPOSED PROJECT FEATURES	PHYSICAL COMPOSITION	DIMENSIONS/ADDITIONAL INFORMATION
Power conduit to north powerhouse	Concrete lined tunnel	23 foot diameter 13,700 feet long
North powerhouse	Subterranean	60 feet wide 320 feet long 100 feet high
North powerhouse lower conduits	Three concrete lined draft tube tunnels discharging into Lower Reservoir	18 foot diameter 3,800 feet long
Power conduit to middle powerhouse	Concrete lined tunnel	23 foot diameter 15,400 feet long
Middle powerhouse	Subterranean	60 feet wide 320 feet long 100 feet high

PROPOSED PROJECT FEATURES	PHYSICAL COMPOSITION	DIMENSIONS/ADDITIONAL INFORMATION
Middle powerhouse lower conduit	Three draft tube tunnels discharging into Lower Reservoir	18 foot diameter 2,700 feet long
Power conduit to south powerhouse	Concrete lined tunnel	23 foot diameter 17,500 feet long
South powerhouse	Subterranean	60 feet wide 320 feet long 100 feet high
South powerhouse lower conduit	Three concrete lined draft tube tunnels discharging into Lower Reservoir	18 foot diameter 4,700 feet long

2. The estimated number, surface area, storage capacity, and normal maximum surface elevation (mean sea level) of any reservoirs, whether existing or proposed, that would be part of the project.

UPPER RESERVOIR	SURFACE AREA	STORAGE CAPACITY
	8,200 acres at elevation 7,600 msl (normal operating)	250,000 acre-feet at elevation 7,610 msl (maximum live storage)
LOWER RESERVOIR		
	14,500 acres at elevation 5,800 msl (normal operating)	250,000 acre-feet at elevation 5,810 msl (maximum live storage)

3. The estimated number, length, voltage, interconnections, and, where applicable, age and condition, of any primary transmission lines whether existing or proposed, that would be part of the project.

The proposed project intends to utilize existing Western Area Power Administration (WAPA) transmission lines and distribution infrastructure. Expansions and/or upgrades to these lines and equipment may be required, depending on age and condition of the existing lines. New transmission lines, if necessary, could also be added within an existing right-of-way (ROW).

New Interconnections:

- Number: 1
- Length: approximately 110 miles
- Voltage: 230kV
- Substation: San Juan

Expansion of the chosen substation(s) may be required to accommodate the additional power.

- 4. The total estimated average annual energy production and installed capacity, the hydraulic head for estimating capacity and energy output, and the estimated number, rated capacity, and, where applicable, the age and condition, of any turbines and generators, whether existing or proposed, that would be part of the project works.**

Pump/Turbine Specifications

Number: Nine (three in each of three powerhouses)
 Hydraulic Capacity (each): 1,826 CFS at 1,800 feet rated head
 Rating (each): 335,000 HP

Generator Specifications

Number: Nine (three in each of three powerhouses)
 Rating (each): 250,000 kW
 Total plant Capacity: 2,250,000 kW
 Estimated Average Annual energy output: 4,927,500 MWh

- 5. All lands of the United States that are enclosed within the Project Boundary.**

PARCEL OWNERSHIP	ACRES
County	0
Federal	1,500
Municipal	0
Private	0
Tribal	78,700
Total	80,200

PROJECT FEATURES	ACRES
Upper Reservoir	9,000
Lower Reservoir	16,000
Powerhouse North	0.5
Powerhouse Middle	0.5
Powerhouse South	0.5
Switchyards and Transmission Corridor	1,500
Total	26,501.5

6. Any other information demonstrating in what manner the proposed project would develop, conserve, and utilize in the public interest the water resources of the region.

The Black Mesa Pumped Storage Project – South is designed to provide long-duration storage that will support integration of intermittent renewable energy sources and meet goals to decarbonize regional energy sources. The Project could potentially be configured to increase local municipal water supply and provide clean drinking water to the people of the Navajo Nation. The Project could also potentially be configured to serve grazing and agricultural uses. The reservoirs will feature floating PV panel arrays on the surface to reduce evaporation. Several leading members of Navajo Nation have expressed an interest in the Project being configured to serve these uses.

EXHIBIT 2

DESCRIPTION OF STUDIES TO BE CONDUCTED AND A STATEMENT OF COSTS AND FINANCING

DESCRIPTION OF STUDIES TO BE CONDUCTED, PURSUANT TO 18 C.F.R. § 4.81 (c)

1. General requirement. For any proposed project, a study plan containing a description of:

- (i) Any studies, investigations, tests, or surveys that are proposed to be carried out, and any that have already taken place, for the purposes of determining the technical, economic, and financial feasibility of the proposed project, taking into consideration its environmental impacts, and of preparing an application for a license for the project.**

The following is a summary of the completed and planned regulatory actions, studies, investigations, tests or surveys.

Completed regulatory actions, studies, investigations, tests or surveys:

- Evaluation for the Proposed Black Mesa Pump Storage Hydroelectric Project near Kayenta on the Navajo Nation, Arizona (SWCA 2021)

Ongoing and planned regulatory actions and studies, investigations, tests or surveys:

Engineering Feasibility

Engineering feasibility studies will be conducted to substantiate technical feasibility and consummate cost estimates for the Project. Preliminary evaluations of the demand and markets for peaking power, pumping energy, and on-peak generation have been conducted. This evaluation and involvement in relevant resource planning procedures will continue throughout the license application process and may result in adjustments to the Project configuration, including the total energy storage capacity, quantity and capacities of the pump turbine units, operating modes, or any other Project characteristics.

Geology

In order to inform feasibility-level designs of the major Project features, geologic mapping will be composed, and a subsurface investigation program will be created and implemented; the information garnered from these studies will be provided as part of the License Application in the Supporting Design Report. Seismic analysis will include calculations of peak ground acceleration (PGA), and will be prepared with consideration of applicable attenuation relationships. During license application development, site

seismicity will also be evaluated. Before conducting any ground disturbing activities, an erosion control plan will be prepared. The Applicant will participate in a cooperative effort with the appropriate tribal and federal resource agencies, including the Tribal Historic Preservation Officer (THPO), to assess any potential adverse effects on resources pertaining to geology or affected by geological surveys and develop appropriate measures to minimize and/or mitigate for any such effects.

Water Supply

The water supply for the project will be either remote river water resources, locally available groundwater resources, or a combination of the two, with rights of use owned or acquired by the applicant. Four potential water supply sources have been identified for the Project, including the Colorado River, the San Juan River, and two local aquifers. Studies will be conducted to develop a thorough understanding of hydrogeology and important groundwater/surface water relationships, including recharge routes, discharge, groundwater mobility, variability of Colorado and San Juan River baseflows, and other criteria pertinent to groundwater/surface water interaction within the system, including evaluation of potential impacts to river flows.

Water Quality

Impacts of the Project on water quality are not anticipated but will be assessed to confirm.

Wildlife and Botanical Resources

The Applicant will consult with the appropriate tribal and federal resource agencies to develop the following survey plans:

- Identification of aquatic habitats that might be influenced by the Project, both natural and artificial, including wetlands, seeps and springs, and other water sources. For each aquatic habitat identified, the Applicant will assess the condition, size, existing use by vegetation and wildlife, any potential effect of the Project, and options for protection, mitigation, and enhancement measures.
- Habitat analysis for area within Project boundary.
- Identification of any species of concern, indicator species, threatened or endangered species, or noxious or invasive weeds within Project boundary.
- Identification of construction and operational particularities including, but not limited to permitting, scheduling, labor resources, construction duration, and other project details that may impact biological resources.

Rare, Threatened, and Endangered Species

The Applicant will consult with the appropriate tribal, state, and federal resource agencies during an examination of the area within the Project boundary and immediately surrounding areas will be conducted to ascertain the presence of special-status species and potential effects of the Project on habitats, individuals, and populations of any special-status species determined to inhabit these areas. The following steps will be taken during this process:

- Reconnaissance surveys to understand the existence and extent of habitat for relevant species.
- Protocol-level surveys for species with existing survey protocols.
- Focused surveys for other special-status species with potential habitat within the Project boundary.
- Focused surveys for other special-status species with potential habitat in the area immediately surrounding the Project boundary that could be affected by Project-related activities.
- Identification of existing and potential threats to special-status species.
- Identification of construction and operational particularities including, but not limited to, scheduling, labor resources, construction duration, and other project details that may impact biological resources.
- Investigation of relevant papers and reports and review of new information not currently available.

Recreation

During the licensing process, the Applicant will consider potential impacts of Project development and operation on present recreation resources, facilities, and opportunities, and protection, mitigation, and enhancement measures will be developed where appropriate. Potential recreational resources at the Project will be considered, but will likely be limited to land-based recreation due to the pumped storage functionality of the Project and resulting frequent and substantial reservoir elevation fluctuation.

Aesthetic Resources

During the licensing process, the Applicant will cooperate with the appropriate tribal and federal resource agencies to administer a visual resource survey and develop potential protection, mitigation, and enhancement measures for visual resources.

Cultural Resources

The Applicant will participate in a cooperative effort with the THPO to conform with the requirements of Section 106 of the National Historic Preservation Act. In order to understand historic and pre-historic cultural resources within the Project area and transmission corridors, a cultural resource inventory will be conducted, especially within sections of the Project area and transmission corridors that are currently un-surveyed. In the un-surveyed sections, cultural resource inventories will be performed by a qualified cultural resource professional.

Socio-economic Resources

During the licensing process, the economic advantages of the Project to local and regional economies, both due to temporary construction and long-term operation, will be examined.

Tribal Resources

During the licensing process, the Applicant will work with the THPO to conform with the requirements of Section 106 of the National Historic Preservation Act. The Applicant will define an Area of Potential Effects (APE) in coordination with the THPO as details of the Project, especially the final transmission plan and site design, become better defined. Areas requiring additional surveys will be identified by qualified cultural resource professionals, and the results of these surveys will be documented and provided to appropriate stakeholders for review.

Wetlands

The Applicant believes that there are no navigable waters or jurisdictional wetlands within the project boundary, however a wetland survey will take place. In the case that wetlands are discovered during field explorations, the utmost care will be taken to avoid or mitigate impacts due to drilling, test pit excavations, and other activities. Any potential long-term wetland impacts will be addressed with procedures approved by resource agencies.

(ii) The approximate locations and nature of any new roads that would be built for the purpose of conducting the studies.

The Applicant does not anticipate the need to construct any new roads for the purposes of conducting the studies noted above.

2. Work plan for new dam construction. For any development within the project that would entail new dam construction, a work plan and schedule containing:

- (i) A description, including the approximate location, of any field study, test, or other activity that may alter or disturb lands or waters in the vicinity of the proposed project, including floodplains and wetlands; measures that would be taken to minimize any such disturbance; and measures that would be taken to restore the altered or disturbed areas.**

The locations of major project features, including the upper and lower reservoir locations, powerhouse locations, and penstock routes will be investigated by borehole drilling, test pits, sampling, and field and laboratory testing. None of these investigations will take place in wetlands or navigable streams. The drilling will take place only within the identified Project boundary, utilizing permitting. The exact locations and timing of the investigations has yet to be determined.

- (ii) A proposed schedule (a chart or graph may be used), the total duration of which does not exceed the proposed term of the permit, showing the intervals at which the studies, investigations, tests, and surveys identified under this paragraph are proposed to be completed.**

Upon approval of this Application, NPFA will continue consulting with the Navajo Nation and will consult with the Bureau of Indian Affairs, and other resource Agencies, conduct preliminary studies, and implement the tasks and schedule listed in Table 1 below.

Table 1 Black Mesa Pumped Storage Project – South, Tasks and Schedule

TASKS	SCHEDULE
Coordinate with Navajo Nation Chapter houses on Project interest and preferred facility location.	Month 0 - 8
Coordinate with landowners, tribal interest holders and grazing permittees for proposed site location. Consult with the resource Agencies on the Project.	Month 0 - 8
Identify points of electrical transmission interconnection, water sources and conveyance, and access roads.	Month 0 - 38
Complete a biological data request and cultural resources records search for site options.	Month 0 – 4
Conduct field surveys for biological, cultural, and surface waters to identify potential avoidance areas and continue to consult with the resource agencies on these interest areas.	Month 4 - 28
Advance design based on stakeholder input and field survey information	Month 12 - 38
Draft License Application	Month 30 - 40
Final License Application	Month 40 - 48

NPFA has completed preliminary engineering and environmental studies. Importantly, outreach meetings and preliminary information about the Project has been shared with the Navajo Nation's:

- Office of the President and Vice-President
- Office of the Speaker
- Council
- Council Resources & Development Committee
- Division of Economic Development
- Division of Natural Resources
- Environmental Protection Agency
- Department of Water Resources
- Department of Justice Water Rights Unit
- Navajo Tribal Utility Authority, Chilchinbeto Chapter

A number of leading members of the Nation have expressed their interest in the Project. Likewise, similar information has been shared with the Western Area Power Administration, United States Department of Energy, and many utilities in the Southwest region, with individuals expressing interest in the Project.

3. Waiver. The Commission may waive the requirements of paragraph (c)(2) pursuant to §385.207 of this chapter, upon a showing by the applicant that the field studies, tests, and other activities to be conducted under the permit would not adversely affect cultural resources or endangered species and would cause only minor alterations or disturbances of lands and waters, and that any land altered or disturbed would be adequately restored.

The Applicant does not plan to apply for a waiver for the requirements of 18 CFR §4.81(c)(2) pursuant to 18 CFR §385.207.

4. Exhibit 2 must contain a statement of costs and financing, specifying and including, to the extent possible:

- (i) The estimated costs of carrying out or preparing the studies, investigations, tests, surveys, maps, plans or specifications identified under paragraph (c) of this section.**

The Applicant expects that the cost of performing the studies will be approximately \$6,800,000. This cost includes the studies listed in this application, consultations, the PAD, NOI, and preparing the draft and final license applications.

- (ii) The expected sources and extent of financing available to the applicant to carry out or prepare the studies, investigations, tests, surveys, maps, plans, or specifications identified under paragraph (c) of this section.**

The Applicant can secure sufficient capital to complete the identified studies. The Applicant is in discussions with financing partners for the construction of the project and will secure financing during the course of the studies planned during the preliminary permit.

EXHIBIT 3

PROJECT LOCATION AND FEATURES

As required by 18 C.F.R. § 4.81 (d), this Exhibit 3 includes maps that show the following:

- 1. The location of the Project as a whole with reference to the affected stream or other body of water and, if possible, to a nearby town or any permanent monuments or objects that can be noted on the maps and recognized in the field;**

A regional "location map" is provided as Attachment A. Streams or other bodies of water under review include:

- The Colorado River
- The San Juan River
- Two aquifers at the proposed project

- 2. The relative locations and physical interrelationships of the principal project features identified under paragraph (b) of this section;**

A map identifying the referenced features is attached as Attachment B.

- 3. A proposed boundary for the project, enclosing:**

- (i) All principal project features identified under paragraph (b) of this section, including but not limited to any dam, reservoir, water conveyance facilities, powerplant, transmission lines, and other appurtenances; if the project is located at an existing Federal dam, the Federal dam and impoundment must be shown, but may not be included within the project boundary;**
- (ii) Any non-Federal lands and any public lands or reservations of the United States necessary for the purposes of the project. To the extent that those public lands or reservations are covered by a public land survey, the project boundary must enclose each of and only the smallest legal subdivisions (quarter-quarter section, lots, or other subdivisions, identified on the map by subdivision) that may be occupied in whole or in part by the project.**

A map identifying the referenced features is attached as Attachment B.

- 4. Areas within or in the vicinity of the proposed project boundary which are included in or have been designated for study for inclusion in the National Wild and Scenic Rivers System; and**

None.

- 5. Areas within the project boundary that, under the provisions of the Wilderness Act, have been:**

- (i) Designated as wilderness area**
- (ii) Recommended for designation as wilderness area**
- (iii) Designated as wilderness study area**

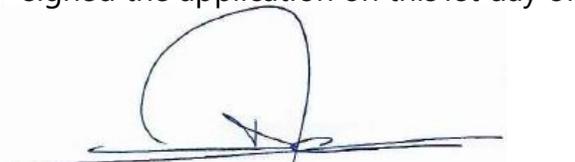
None.

VERIFICATION STATEMENT

This application for a preliminary permit for the proposed Black Mesa Pumped Storage Project - South is executed in the state of Arizona, county of Navajo.

By: Denis Payre
President and CEO
Nature and People First Arizona PHS, LLC
405 Waltham St, Suite 145
Lexington, MA 02421

Being duly sworn, deposes, and says that the contents of this application for a preliminary permit are true to the best of his knowledge or belief. The undersigned applicant has signed the application on this 1st day of October of 2021.



Denis Payre
President and CEO
Nature and People First Arizona PHS, LLC

This Verification Statement has not been notarized consistent with FERC's July 26, 2021 Supplemental Notice Waiving Regulation (Docket No. AD20-11-000).

LAND DESCRIPTION

**Public Land States
 (Rectangular Survey System Lands)**

1. STATE Arizona 2. FERC PROJECT NO. N/A

3. TOWNSHIP T36N RANGE R21E MERIDIAN Gila-Salt River

4. Check one:

License
 Preliminary Permit

Check one:

Pending
 Issued

If preliminary permit is issued, give expiration date: N/A

5. EXHIBIT SHEET NUMBERS OR LETTERS

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

6. contact's name Denis Payre

telephone no. (781-491-5364)

Date submitted 10/1/21

LAND DESCRIPTION

**Public Land States
 (Rectangular Survey System Lands)**

1. STATE Arizona 2. FERC PROJECT NO. N/A

3. TOWNSHIP T35N RANGE R22E MERIDIAN Gila-Salt River

4. Check one:

License
 Preliminary Permit

Check one:

Pending
 Issued

If preliminary permit is issued, give expiration date: N/A

5. EXHIBIT SHEET NUMBERS OR LETTERS

Section 6	5	4 Sheet 1-S	3 Sheet 1-S	2 Sheet 1-S	1 Sheet 1-S
7	8	9 Sheet 1-S	10 Sheet 1-S	11 Sheet 1-S	12 Sheet 1-S
18	17	16 Sheet 1-S	15 Sheet 1-S	14 Sheet 1-S	13 Sheet 1-S
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30	29	28	27	26	25
31	32	33	34	35	36

6. contact's name Denis Payre

telephone no. (781-491-5364)

Date submitted 10/1/21

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 Preliminary Permit

Check one:

Pending
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If preliminary permit is issued, give expiration date: N/A

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18 Sheet 1-S	17 Sheet 1-S	16 Sheet 1-S	15 Sheet 1-S	14	13
19 Sheet 1-S	20 Sheet 1-S	21 Sheet 1-S	22 Sheet 1-S	23 Sheet 1-S	24 Sheet 1-S
30 Sheet 1-S	29 Sheet 1-S	28 Sheet 1-S	27 Sheet 1-S	26 Sheet 1-S	25 Sheet 1-S
31 Sheet 1-S	32 Sheet 1-S	33 Sheet 1-S	34 Sheet 1-S	35 Sheet 1-S	36 Sheet 1-S

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 Preliminary Permit

Check one:

Pending
 Issued

If preliminary permit is issued, give expiration date: N/A

5. EXHIBIT SHEET NUMBERS OR LETTERS

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

6. contact's name Denis Payre

telephone no. (781-491-5364)

Date submitted 10/1/21

LAND DESCRIPTION

**Public Land States
 (Rectangular Survey System Lands)**

1. STATE Arizona 2. FERC PROJECT NO. N/A

3. TOWNSHIP T34N RANGE R22E MERIDIAN Gila-Salt River

4. Check one:

License
 Preliminary Permit

Check one:

Pending
 Issued

If preliminary permit is issued, give expiration date: N/A

5. EXHIBIT SHEET NUMBERS OR LETTERS

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

6. contact's name Denis Payre

telephone no. (781-491-5364)

Date submitted 10/1/21

LAND DESCRIPTION

**Public Land States
 (Rectangular Survey System Lands)**

1. STATE Arizona 2. FERC PROJECT NO. N/A

3. TOWNSHIP T36N RANGE R23E MERIDIAN Gila-Salt River

4. Check one:

License
 Preliminary Permit

Check one:

Pending
 Issued

If preliminary permit is issued, give expiration date: N/A

5. EXHIBIT SHEET NUMBERS OR LETTERS

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

6. contact's name Denis Payre

telephone no. (781-491-5364)

Date submitted 10/1/21

LAND DESCRIPTION

**Public Land States
 (Rectangular Survey System Lands)**

1. STATE Arizona 2. FERC PROJECT NO. N/A

3. TOWNSHIP T35N RANGE R23E MERIDIAN Gila-Salt River

4. Check one:

License
 Preliminary Permit

Check one:

Pending
 Issued

If preliminary permit is issued, give expiration date: N/A

5. EXHIBIT SHEET NUMBERS OR LETTERS

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

6. contact's name Denis Payre

telephone no. (781-491-5364)

Date submitted 10/1/21

LAND DESCRIPTION

**Public Land States
 (Rectangular Survey System Lands)**

1. STATE Arizona 2. FERC PROJECT NO. N/A

3. TOWNSHIP T34N RANGE R23E MERIDIAN Gila-Salt River

4. Check one:

License
 Preliminary Permit

Check one:

Pending
 Issued

If preliminary permit is issued, give expiration date: N/A

5. EXHIBIT SHEET NUMBERS OR LETTERS

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

6. contact's name Denis Payre

telephone no. (781-491-5364)

Date submitted 10/1/21

LAND DESCRIPTION

**Public Land States
 (Rectangular Survey System Lands)**

1. STATE Arizona 2. FERC PROJECT NO. N/A

3. TOWNSHIP T35N RANGE R24E MERIDIAN Gila-Salt River

4. Check one:

License
 Preliminary Permit

Check one:

Pending
 Issued

If preliminary permit is issued, give expiration date: N/A

5. EXHIBIT SHEET NUMBERS OR LETTERS

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

6. contact's name Denis Payre

telephone no. (781-491-5364)

Date submitted 10/1/21

LAND DESCRIPTION

**Public Land States
 (Rectangular Survey System Lands)**

1. STATE Arizona 2. FERC PROJECT NO. N/A

3. TOWNSHIP T34N RANGE R24E MERIDIAN Gila-Salt River

4. Check one:

License
 Preliminary Permit

Check one:

Pending
 Issued

If preliminary permit is issued, give expiration date: N/A

5. EXHIBIT SHEET NUMBERS OR LETTERS

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

6. contact's name Denis Payre

telephone no. (781-491-5364)

Date submitted 10/1/21

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

ATTACHMENT A

REGIONAL LOCATION MAP



Kleinschmidt

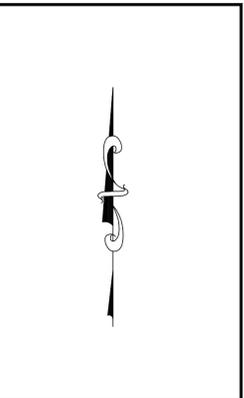
PROPOSED BLACK MESA SOUTH PUMPED STORAGE PROJECT
 ATTACHMENT A
 REGIONAL LOCATION MAP

ATTACHMENT B

PROJECT FEATURES AND BOUNDARY

24x36 = FULL SCALE

0 1" 2" 3"



230KV TRANSMISSION LINE TO SAN JUAN SUBSTATION

NORTH POWERHOUSE LOWER CONDUIT

NORTH POWERHOUSE

MIDDLE POWERHOUSE LOWER CONDUIT

MIDDLE POWERHOUSE

NORTH POWERHOUSE UPPER CONDUIT

MIDDLE POWERHOUSE UPPER CONDUIT

LOWER RESERVOIR

FLOATING SOLAR PANEL ARRAY ON EACH RESERVOIR

SOUTH POWERHOUSE LOWER CONDUIT

SOUTH POWERHOUSE

SOUTH POWERHOUSE UPPER CONDUIT

PROJECT BOUNDARY

UPPER RESERVOIR

NOT FOR CONSTRUCTION

NATURE AND PEOPLE FIRST AMERICA, LLC
LEXINGTON, MA

BLACK MESA SOUTH PUMPED STORAGE PROJECT

PRELIMINARY
PROJECT LAYOUT

Kleinschmidt 888-224-5942
KleinschmidtGroup.com

No.	Revision	Date	Drawn	Checked
-	-	-	-	-

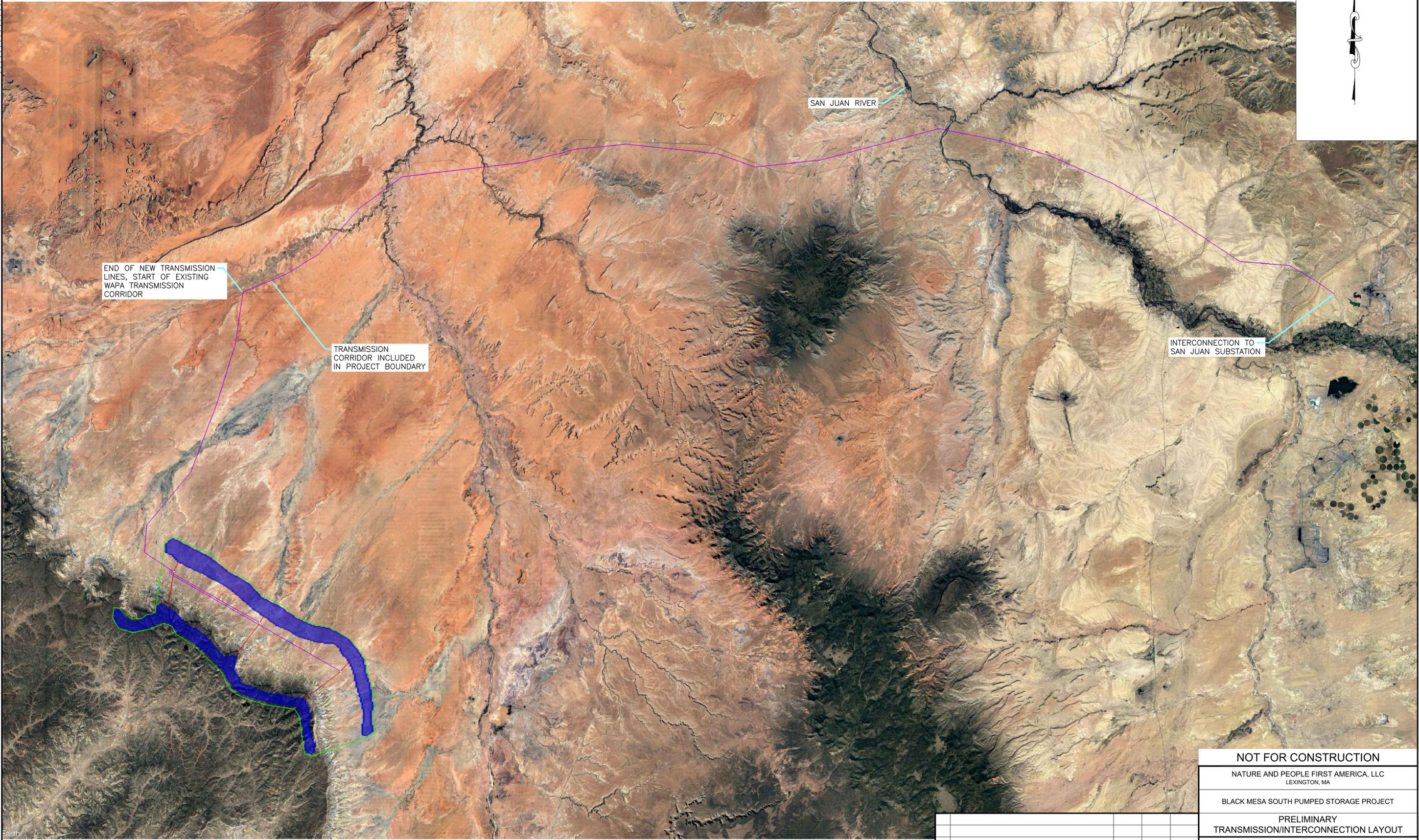
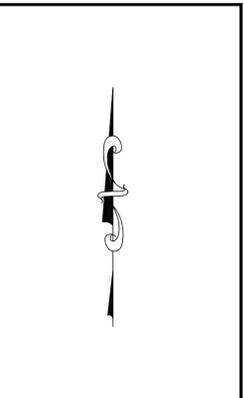
Designed	Drawn	Checked
ASH	RMD	MSP

Project No.	Date Revised	Drawing No.
4680-008	09-29-21	1-S

PRINTED: Oct. 4, 2021 - 2:38 PM J:\6800\008\Drawings\CAD\FIGURE 1S.dwg

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3"
2"
1"
0
24x36 = FULL SCALE



END OF NEW TRANSMISSION LINES, START OF EXISTING WAPA TRANSMISSION CORRIDOR

TRANSMISSION CORRIDOR INCLUDED IN PROJECT BOUNDARY

SAN JUAN RIVER

INTERCONNECTION TO SAN JUAN SUBSTATION

NOT FOR CONSTRUCTION
NATURE AND PEOPLE FIRST AMERICA, LLC
LEXINGTON, MA
BLACK MESA SOUTH PUMPED STORAGE PROJECT
PRELIMINARY
TRANSMISSION/INTERCONNECTION LAYOUT

No.	Revision	Date	Drawn	Checked
-	-	-	-	-

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KleinschmidtGroup.com

Designed	Drawn	Checked	Project No.	Date Revised	Drawing No.
ASH	RMD	MSP	4680-008	09-29-21	2-S

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J:\6800\008\Drawings\CAD\FIGURE 2S.dwg

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