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5100 San Felipe Unit 244E
Houston, TX 77056
713.840.1489

SENT ELECTRONICALLY

July 1, 2008

**Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 1st Street, N.E.
Washington, DC 20426**

**Re: Preliminary Permit Application for the North Eden Pumped Storage
Hydroelectric Project**

Dear Ms. Bose,

**Please find attached the Preliminary Permit Application for the North Eden
Pumped Storage Hydroelectric Project.**

**If you have any questions or need additional information feel free to
contact me at (208) 745-0834 or brent.smith@symbioticsenergy.com**

Sincerely,

A handwritten signature in blue ink that reads 'Brent L. Smith'.

**Brent Smith
Chief Operating Officer
Rigby, Idaho**

PRELIMINARY PERMIT APPLICATION

FOR THE

**NORTH EDEN PUMPED STORAGE
HYDROELECTRIC PROJECT**

PREPARED FOR:
North Eden Hydro, LLC
Logan, UT

July 2008

PRELIMINARY PERMIT APPLICATION

FOR THE

**NORTH EDEN PUMPED STORAGE
HYDROELECTRIC PROJECT**

PREPARED FOR:
North Eden Hydro, LLC

PREPARED BY:
Symbiotics, LLC
P.O. Box 535
Rigby, Idaho 83442

July 1, 2008

Preliminary Permit Application
for the
North Eden Pump Storage Hydroelectric Project

GENERAL:

The applicant for the proposed North Eden Pumped Storage Hydroelectric Project is North Eden Hydro, LLC, which is an affiliate of the owner of the land, water and other resources to be used in the proposed project. The members of North Eden Hydro, LLC, are familiar with all aspects of hydroelectric development from the initial licensing process through design, construction and ongoing operations, and have been and are currently involved in various phases of numerous projects in the past twenty years including projects in Idaho, Utah, Montana, Wyoming, Oregon and Hawaii.

The applicant, North Eden Hydro, LLC, is not claiming municipal preference under section 7(a) of the Federal Power Act.

IDENTIFICATION:

- 1. Every citizen, association of citizens, domestic corporation, municipality or state who has or intends to obtain proprietary right to the site:***

North Eden Hydro, LLC
975 South State Highway
Logan, UT 84321
Phone: (435) 752-2580

- 2. Any entity owning proprietary right as an applicant:***

Non applicable

- 3. Names and mailing addresses of entities affected or used by this project:***

SITLA and Private Land Owners:

SITLA
Attn. John Andrews
675 East 500 South, Suite 500
Salt Lake City, UT 84102

Yale Johnson
277 South Meadowvile Rd.
Laketown, UT 84038

4. Counties which the project is located:

The project is located in Rich County, UT with the point of interconnect being in Bear Lake County, Idaho.

Rich County
Becky Peart, County Clerk
P.O. Box 218
County Courthouse
Randolph, UT 84064

Bear Lake County
Kerry Haddock, County Clerk
P.O. Box 190
County Courthouse
Paris, ID 83261

5. Cities, towns, or similar subdivision (5,000 people or more) within a 15-mile radius of the project dam:

There are no cities, towns or similar subdivision of 5,000 people or more within a 15 mile radius. The nearest town with a population over 5,000 is Logan, Utah, which is approximately 37 miles West.

6. Irrigation districts, drainage districts or similar political subdivisions within the project area:

Bear River Commission
106 West 500 South
Bountiful, UT 84010

7. Every other political subdivision in the project area applicant believes may be interested in, or affected by the project:

Non applicable

INITIAL STATEMENT:

The applicant is requesting a preliminary permit for a period of three years from the date of issuance to conduct preliminary environmental reviews, environmental impact statement, feasibility study and preliminary design.

1. A. The location of the proposed project is:

State: Utah
County: Rich
Nearby Town: Montpelier, Idaho
Body of Water: North Eden and Ground Water

2. A. Applicant:

North Eden Hydro, LLC
975 South State Highway
Logan, UT 84321
Phone: (435) 752-2580

2. B. Agent:

Mr. Brent L. Smith, COO
Symbiotics, LLC.
P.O. Box 535
Rigby, Idaho 83442
Phone: (208) 745-0834
Fax: (208) 745-0835
E-mail: brent.smith@symbioticsenergy.com

Secondary contact:

Dr. Vincent Lamarra, CEO
Symbiotics, LLC.
975 South State Highway
Logan, Utah 84321
Phone: (435) 752-2580
Fax: (435) 752-2581
E-mail: vince.lamarra@symbioticsenergy.com

EXHIBIT 1:

1. A Dams

Upper:

Main

Type: Earth Embankment

Composition: Earth

Height: 100 Ft

Length: 4000 Ft

Lower

Main

Type: Earth Embankment

Composition: Earth

Height: 130 Ft

Length: 1300 Ft

1. B Penstock or other conduit

1. Length: 2200 Ft
2. Diameter: 25 Ft
3. Composition: Steel

1. C Powerhouse Description

1. Number of units: 5
2. Proposed Capacity: 100 MW

1. D Description of other project structures

The project will consist of two, approximately 8,000 Af reservoirs, a 25 ft diameter, 2,200 ft long steel penstock. Connecting to 5 generating pump/turbine units located in a 350 ft x 120 ft x 45 ft tall powerhouse.

1. E Identification and description of Federal Dam

None

1. F Existing and proposed project facilities:

All project features are proposed.

2. Reservoirs

Upper:

- A. Surface area: 112 Acres
- B. Storage capacity: 7,558 Af
- C. Normal maximum surface elevation: 6,988 msl

Lower:

- A. Surface area: 280 Acres
- B. Storage capacity: 8,684 Af
- C. Normal maximum surface elevation: 6,245 msl

3. Transmission Lines

- A. Length: 5.0 Mile proposed
- B. Voltage: 500 KV
- C. Interconnections (utility identification): PacifiCorp
- D. Existing and/or proposed transmission lines:

The proposed 5.0 mile 500 KV line will interconnect with a proposed upgrade to an existing PacifiCorp 240 kV line. At that point power will be distributed across the WECC.

4. Generating Equipment

- A. Estimated average annual energy output: 10 hours of generation, five days a week will produce approximately 1,300,000 MWhs annually.
- B. Number of generating units: 5
- C. Turbine ratings for each unit: 1800 CFS
- D. Generator rating for each unit: 100 MW
- E. Single capacity rating for each generating unit: 100 MW
- F. Existing and/or proposed generating equipment: The five 100 MW generating units are proposed
- G. Hydraulic head: min 698 , max 851

5. Federal lands within project boundary:

There are no federal lands within the project boundary. The project is located on School Trust Institutional Lands Administration (SILTA) lands with an area of 485 acres. The other 225 acres are on lands owned by the private land owners.

6. Description how proposed project would develop, conserve and utilize public interest water resources of the region

Upon approval, the proposed North Eden Pump Storage Hydroelectric Project will provide enhanced value to the region's water resources, as well as urgently needed relief to the current national energy crisis.

EXHIBIT 2:

1. A Description of study plan

The applicant anticipates the need for the following studies:

- Groundwater studies
- Energy production studies
- Environmental impact studies
- Water quality studies
- Project land surveys
- Engineering studies, including soil studies, test pits and core holes.
- Study on energy needs
- Water rights studies

Additional studies may be required as issues arise.

B Description and location of new roads

No new roads will be required for the purposes of conducting studies described in this exhibit.

2. Work plan for new dam construction

A. Description of field studies, tests and other land disturbing activities:

A subsurface investigation will be required to determine the rock structure and stability for the proposed dam sites. Samples shall be checked for rock structure as well as determine the suitability for project features for the dams and power tunnels. The applicant proposes to use existing roads located within the project boundary to minimize or eliminate the potential for any land disturbing activities.

B. Schedule for conducting studies

It is the intent of the applicant to file a PAD/NOI during the 3 year duration of the permit. The applicant will then follow the ILP schedule for studies, unless the applicant deems necessary to request the Traditional Licensing Process.

C. Environmental measures to minimize impacts

It is not anticipated that preliminary studies will adversely impact cultural resources, endangered species or federally owned lands. Therefore the applicant requests waiver of requirements in paragraph (c) (2) pursuant to Section 1.14 (a) (2).

EXHIBIT 3:

1. A *Estimated cost of studies*

The cost to complete the proposed studies during the requested three year period is estimated at \$5,000,000 to \$10,000,000.

2. A *Sources and extent of financing studies*

These costs will be funded by private investors and the applicant.

3. A *Proposed market for the power generated:*

Western Electrical Coordinating Council (WECC)

B. *Purchaser of the power generated:*

Power will be marketed to local utilities and providers in the WECC system. Potential customers could be, but not limited to PacifiCorp, Rocky Mountain Power, and Utah Association of Municipal Power UAMPS

EXHIBIT 4:

Please find attached the map of the project area, boundary and features.

NORTH EDEN PUMPED STORAGE HYDROELECTRIC PROJECT

PROJECT LOCATION MAP

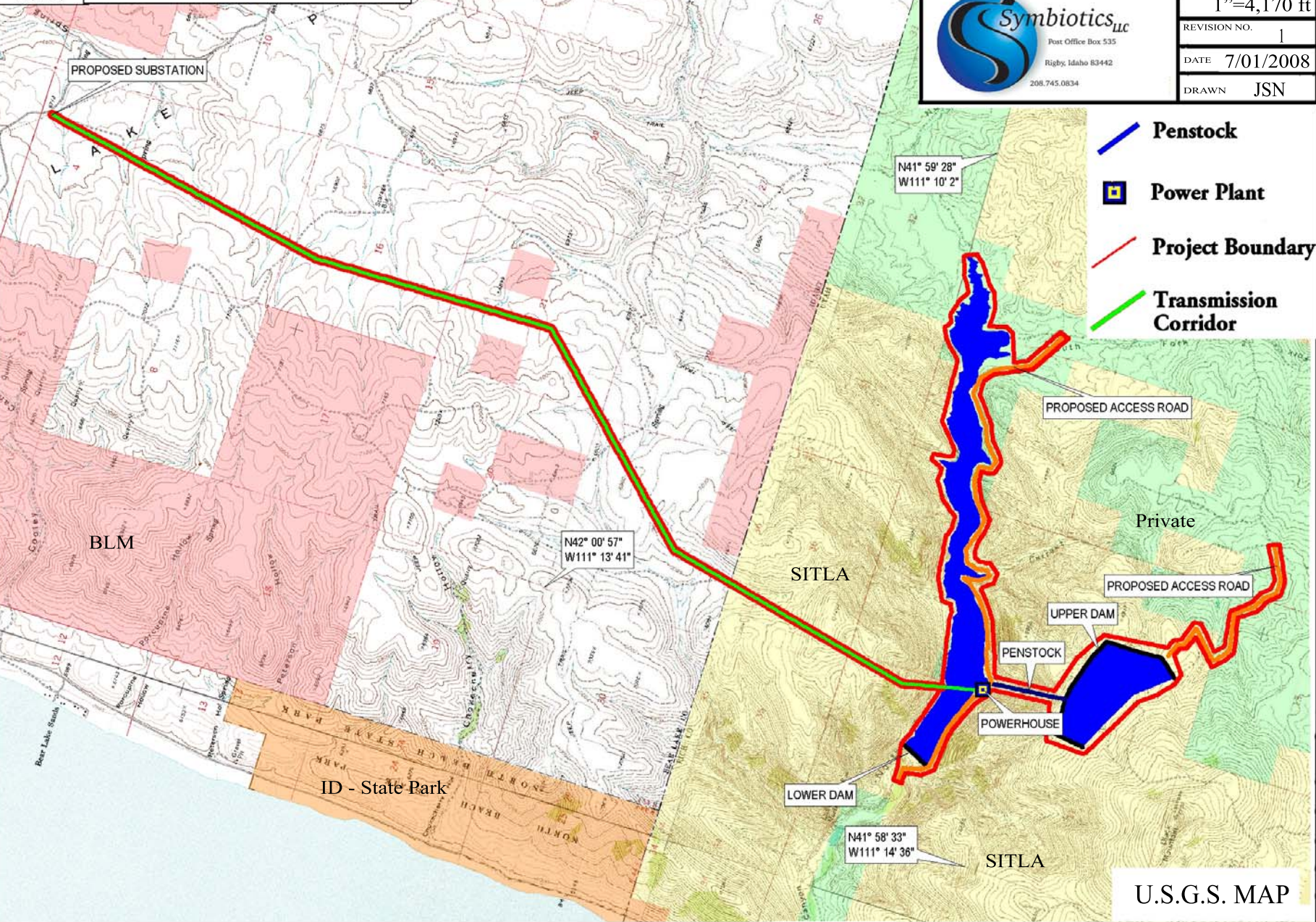
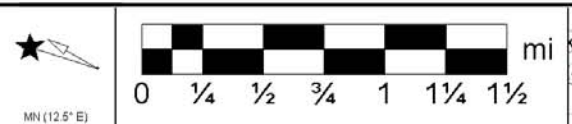
SCALE 1 : 50,000

1"=4,170 ft

REVISION NO. 1

DATE 7/01/2008

DRAWN JSN



PROPOSED SUBSTATION

N41° 59' 28"
W111° 10' 2"

N42° 00' 57"
W111° 13' 41"

N41° 58' 33"
W111° 14' 36"

PROPOSED ACCESS ROAD

PROPOSED ACCESS ROAD

UPPER DAM

PENSTOCK

POWERHOUSE

LOWER DAM

Private

BLM

SITLA

SITLA

ID - State Park

U.S.G.S. MAP

Document Content(s)

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