THE STATE OF NEVADA

APPLICATION TO APPROPRIATE WATER

Name of applicant:	**NGP BLUE MOUNTAIN I, LLC AND NEVADA LAND & RESOURCE CO., LLC**
Source:	**UNDERGROUND**
Basin:	**DESERT VALLEY**
Manner of Use:	**INDUSTRIAL**
Period of Use:	**January 1st to December 31st**
Priority Date:	**09/19/2008**

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APPROVAL OF STATE ENGINEER

This is to certify that I have examined the foregoing application, and do hereby grant the same, subject to the following limitations and conditions:

This permit is issued pursuant to NRS 533.371 and 534.120(2). The water approved under this permit is to supply cooling water to a geothermal power plant which, due to the plants thermal resource, is temporary in nature. Future changes in manner and place of use will be denied. This project is a renewable energy generation project as defined in NRS 701.080.

This permit is issued subject to existing rights. It is understood that this right must allow for a reasonable lowering of the static water level. This well shall be equipped with a two (2) inch opening for measuring depth to water. If the well is flowing, a valve must be installed and maintained to prevent waste. A totalizing meter must be installed and maintained in the discharge pipeline near the point of diversion and accurate measurements must be kept of water placed to beneficial use. The totalizing meter must be installed before any use of water begins, or before the Proof of Completion of Work is filed. This source is located within an area designated by the State Engineer, pursuant to NRS 534.030. The State retains the right to regulate the use of the water herein granted at any and all times.

The total combined duty of water under Permits 77055, 77056, 77402, 77403, 77404, 77405, 77406 and 77407 shall not exceed 2,986 acre-feet annually; however, the total combined consumptive use of water under those permits shall not exceed 2,300 acre-feet annually.
(Continued on Page 2)

Monthly records shall be kept of the amount of water diverted, recharged/reinjected and beneficially used under Permits 77055, 77056, 77402, 77403, 77404, 77405, 77406 and 77407 and the records shall be submitted to the State Engineer on a quarterly basis within 15 days after the end of each calendar quarter.

A ground-water monitoring plan shall be submitted for approval by the State Engineer and shall be implemented prior to development of water under these permits. The ground-water monitoring plan shall be sufficient to establish the magnitude of areal extent of water-level impacts that may result from pumpage of ground water under these permits. If ground-water monitoring data indicate an unreasonable effect upon prior water rights, diversion of water under these permits maybe curtailed or mitigation measures required.

This permit does not extend the permittee the right of ingress and egress on public, private or corporate lands.

The issuance of this permit does not waive the requirements that the permit holder obtain other permits from State, Federal and local agencies.

The point of diversion and place of use are as described on the submitted application to support this permit.

The amount of water to be appropriated shall be limited to the amount which can be applied to beneficial use, **but shall not exceed 0.276 cubic feet per second or 200 acre-feet annually.**

Work must be prosecuted with reasonable diligence and proof of completion of work shall be filed on or before:	**May 19 , 2011**
Water must be placed to beneficial use and proof of the application of water to beneficial use shall be filed on or before:	**May 19 , 2014**
Map in support of proof of beneficial use shall be filed on or before:	**N/A**

IN TESTIMONY WHEREOF, I, TRACY TAYLOR, P.E.,

State Engineer of Nevada, have hereunto set my hand and the seal of my office, this 19th day of **May**, A.D. **2009**

P.E.

State Engineer

Completion of work filed _____

Proof of beneficial use filed _____

Cultural map filed _____

Certificate No. _____ Issued _____

llb

Application No. 77403

APPLICATION FOR PERMIT TO APPROPRIATE THE PUBLIC WATERS OF THE STATE OF NEVADA

THIS SPACE FOR OFFICE USE ONLY

Date of filing in State Engineer's Office SEP 1 9 2008

Returned to applicant for correction _____

Corrected application filed _____ Map filed SEP 2 4 2008 under 77055

The applicant NGP Blue Mountain I, LLC & Nevada Land & Resource Co., LLC

409 Grandville St., Suite 900 (Street Address or P.O. Box) of Vancouver (City or Town)

BC Canada V6C1T2 (State and Zip Code) hereby make(s) application for permission to appropriate the public waters of the State of Nevada, as hereinafter stated. (If applicant is a corporation, give date and place of incorporation; if a copartnership or association give names of members.)

NGP BLUE MOUNTAIN I, LLC, FOREIGN LLC, DELAWARE, FILED 9/19/07
NV LAND & RESOURCE CO., LLC, DOMESTIC LLC, NEVADA, FILED 3/18/04

added by Chris Mahanna on 9/24/08 - Swazham - 9/25/08

1. The source of water is Underground (Name of stream, lake, underground, spring or other sources.)
2. The amount of water applied for is 0.276 cfs, NTE 200 afa second feet. (One second foot equals 448.83 gallons per minute)
   (a) If stored in reservoir give number of acre-feet _____
3. The water to be used for Industrial (Irrigation, power, mining, commercial, domestic or other use. Must limit to one major use.)
4. If use is for:
   (a) Irrigation, state number of acres to be irrigated _____
   (b) Stockwater, state number and kind of animals _____
   (c) Other use (describe fully in No. 12) _____
   (d) Power:
      (1) Horsepower developed _____
      (2) Point of return of water to stream _____

31-HO

5. The water is to be diverted from its source at the following point: (Describe as being within a 40-acre subdivision of public survey, and by course and distance to a found section corner. If on unsurveyed land, it should be so stated.)

SW¼ NW¼ Section 35, T.36N., R.34E. M.D.B.&M or at a point which from which the N¼ Cor. of said Section 35 bears N. 48° 44' 58" E a distance of 2,861.78 feet. (Well #2)

E changed by Chris Mahannah on 9/24/08
- Swackhamer - 9/25/08

6. Place of use: (Describe by legal subdivision. If on unsurveyed land, it should be so stated.)

Sections 1, 10-16, 21-28 & 35 in T.36N., R.34E. M.D.B.&M.

7. Use will begin about January 1 (Month and Day) and end about December 31 (Month and Day) of each year.

8. Description of proposed works. (Under the provisions of NRS 535.010 you may be required to submit plans and specifications of your diversion or storage works.) (State manner in which water is to be diverted, i.e. diversion structure, ditches and flumes, drilled well with pump and motor, etc.)

WELL, PUMP, STORAGE, DISTRIB. PIPING. } added by Chris Mahannah on 9/24/08
- Swackhamer 9/25/08

9. Estimated cost of works: $75 Million

10. Estimated time required to construct works: Three Years
(If well completed, describe works.)

11. Estimated time required to complete the application of water to beneficial use: Five years

12. Provide a detailed description of the proposed project and its water usage (use attachments if necessary):
(Failure to provide a detailed description may cause a delay in processing.)

See Attachment "B" & Table 1 for cooling tower water demand calculations & justification. Additional rights are requested under NRS 534.120(2) as a preferred use & renewable energy under NRS 701.080

13. Miscellaneous remarks:

NGP's existing rights totaling 2,186 afa are being moved from Section 1 to Section 35 based on results of exploratory drilling. These new applications are seeking a total additional 800 afa for wells 1-4 (200 afa/well) which would bring their combined total duty to 2,986 afa under all permits. A monitoring program as dictated under existing rights will be submitted to the State Engineer. See Attachment "A".

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E-mail Address

(775) 323-1804
Phone No

By

Chris C. Mahannah, PE, Agent
Type or print name clearly

Signature, applicant or agent

Mahannah & Associates, LLC
Company Name

P.O. Box 2494
Street Address or P.O. Box

Reno, NV 89505
City, State, Zip Code

APPLICATION MUST BE SIGNED BY THE APPLICANT OR AGENT

2008 SEP 19 PM 1:16

$250 FILING FEE AND SUPPORTING MAP MUST ACCOMPANY APPLICATION

Revised 11-07

ATTACHMENT "A"

Renewable Portfolio Standard: In 1997 Nevada passed a Renewable Portfolio Standard as part of their 1997 Electric Restructuring Legislation (AB 366). It required any electric providers in the state to acquire actual renewable electric generation or purchase renewable energy credits so that each utility had 1 percent of total consumption in renewables. On June 8, 2001, Nevada Governor Kenny Guinn signed SB 372, at the time the country's most aggressive renewable portfolio standard. In June 2005, the Nevada legislature passed a bill during a special legislative session that modified the Nevada RPS (Assembly Bill 03). The bill extends the deadline and raised the requirements of the RPS to 20 percent of sales by 2015. As of April 2005, both Sierra Pacific Power and Nevada Power have yet to meet all of the energy requirements of the Nevada RPS. The Nevada Geothermal Power Blue Mountain Project will fulfill a portion of the State mandated RPS.

State and County Economic Benefit: The Blue Mountain Project will bring significant economic benefit to the State and County. Development and construction of the project will create many temporary jobs during the next 1.5 years and plant operations will require 15+ permanent fulltime skilled employees. Construction and operation will increase sales tax revenues and the project will be subject to net proceeds of mines and property taxes. Additional, under new federal legislation the State and County will receive 50% and 25 % respectively of royalties collected from inclusion of federal leases in the participating area of the geothermal resource. The plant and attendant transmission facilities are easily accessible and supported from existing County infrastructure and will not require significant additions to County resources.

ATTACHMENT "B"

Since the original water applications were issued in 2006, the geothermal resource has been further defined which has led to a larger, hotter resource capable of increased megawatt potential than originally expected. This has resulted in a desire for additional cooling tower water rights in the amount of 800 afa in order to maximize the electrical output of the project. This amount is based on analyzing water in the vicinity of section 35 and using these results in the current plant design to calculate the expected cooling tower water usage.

The attached Table 1 shows the calculation of the water consumption for summer conditions (maximum makeup flow requirement), winter conditions (minimum makeup flow requirement) and average conditions that are used to estimate annual water usage. The calculation shows that the water usage could exceed NGP's current water rights by 778 afa.

TABLE 1

Blue Mountain Cooling Tower Performance

	Water Requirements Calculation		
	Summer	Average	Winter
DB Temperature [°F]	90	51	28
WB Temperature [°F]	58	41	26
Inlet Relative Humidity [%]	13.6%	44.2%	79%
Air Flow/CT Cell [ACFM]*	1,400,000	1,400,000	1,400,000
Total Heat Duty [M-Btu/hr]	1,017.8	1,037.5	1,054.6
Inlet Air Enthalpy [Btu/lb]	26.8	16.7	9.8
Outlet Air Enthalpy [Btu/lb]	48.855	37.49	30.015
Outlet Relative Humidity [%]	100%	100%	100%
CW Mass Evaporated [gpm]	2,045	1,470	1,150
CW Make Up [gpm]	2,556	1,838	1,438
CW Blow Down [gpm]	511	368	288
Concentration Cycles	5.0	5.0	5.0
Plant Capacity Factor		100%	
Annual Evaporation (AF/Y)		2,371	
Annual Blowdown (AF/Y)		593	
Total Water Requirement (AF/Y)		**2,964**	
Current Water Permits (AF/Y)		**2,186**	
Water Shortfall (AF/Y)		**778**	

77403