

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	<u>FEB 20 2015</u>
Returned to applicant for correction	_____
Corrected Application filed	Map filed <u>FEB 20 2015</u>

The applicant City of West Wendover, Nevada; City of Wendover, Utah
 P.O. Box 2825 _____ of West Wendover _____
Street Address or P.O. Box City or Town
Nevada 89883 _____ hereby make(s) application for permission to appropriate the
State and ZIP Code

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.)

Interlocal cooperative agreement between the town of West Wendover, Utah and an unincorporated area in West Wendover, Nevada as ratified by the Town Board of Wendover, Utah and the Elko County Commission. The unincorporated area of West Wendover was incorporated on April 16, 1991 and certified by the Nevada Secretary of State on May 2, 1991.

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1. The source of water is Underground _____
Name of the stream, lake, underground, spring or other sources.
2. The amount of water applied for is 2.0 second-feet (diversion only) _____
One second foot equals 448.83 gallons per minute.
- (a) If stored in a reservoir give the number of acre-feet _____
3. The water is to be used for Municipal _____
Irrigation, power, mining, commercial, domestic or other use. Must be limited 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 _____

Goshute Valley
10-187
EL

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.)

Pequop Well #2 - SE 1/4 SW 1/4 of Section 21, T 35 N, R 66 E, MDB&M, at a point from which the Southeast Corner of said Section 21 bears South 74 degrees 45' 07" East 3480 feet.

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

Sections 7, 8, 9, 10, 15, 16, 17, & 18, T 33 N, R 70 E, MDB&M and Sections 17, 18, 19, & 20, T 1 S, R 19 W, SLB&M

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

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 a pump and motor, etc.)

16-inch diameter cased well drilled and completed to a depth of approximately 500 feet and 10-inch transmission pipeline to supply municipal drinking water

9. Estimated cost of works: \$1.5-million

10. Estimated time required to construct works: 2 years
(If the well is complete, describe works.)

11. Estimated time required to complete the application of water to beneficial use: 10 years

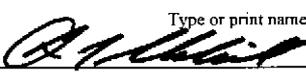
12. Provide a detailed description of the proposed project and its water usage (use attachments if necessary): (Failure to provide a detailed description may cause a delay in processing.)
(see attached Addendum)

13. Miscellaneous remarks:

cmelville@westwendovercity.com
E-mail Address

775-664-3081
Phone No. Ext.

APPLICATION MUST BE SIGNED
BY THE APPLICANT OR AGENT

Chris J. Melville
Type or print name clearly

Signature, applicant or agent
City of West Wendover
Company Name
P.O. Box 2825
Street Address or PO Box
West Wendover, NV 89883
City, State, ZIP Code

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ADDENDUM
Application to Appropriate Water for Diversion Only under Permits
29433, 39110, 49060, 49422, 49423, 49595, and 78451
Basin 10-187 Goshute Valley

The following information is attached to and made a part of an application by the City of West Wendover, Nevada, and the City of Wendover, Utah to add a point of diversion under existing permits.

The purpose of the application is to obtain a permit to add a point of diversion under approved underground Permits 29433, 39110, 49060, 49422, 49423, 49595, and 78451 for the cities of West Wendover, Nevada and Wendover, Utah (Cities) to enable the Cities to supply future peak flow demand, provide source redundancy in the event of well failure and to better manage diversions from the groundwater aquifer, and to temporarily replace their diversion from Johnson Spring (Permit 28527, Certificate 12918) during mineral extraction activities near the spring site by Newmont USA Limited (Newmont).

The combined duty for the specified permits is 4,335 acre-feet which can also be stated as an ultimate average daily demand (annual basis) of 5.99 second-feet. Currently the peak day demand on the system is twice the average daily demand. The ultimate peak day demand of 11.98 second-feet is calculated by multiplying the ultimate average daily demand by a factor of two. The combined diversion capacity of the Shafter Well Field is currently 6.9 second-feet. When considering that five of the six permits for which wells have been completed have already been certificated and the sixth produces roughly half its permitted diversion the Cities assert that it is not possible to fully put to beneficial use the combined duty under the specified permits without additional points of diversion under "diversion only" appropriations.

The Cities assert that developing sources on the west side of the Goshute Valley would provide redundancy and make it possible to better manage groundwater diversions based on seasonal differences in recharge between the west and east sides of the valley. The Cities have sought to develop underground sources on the west side in the past as evidenced by Application 67991 which was filed in 2001 and denied by the Nevada State Engineer in 2012. In addition, the Cities attempted several times to negotiate with the owners of the Big Spring Ranch to develop sources on the ranch property with no success. Subsequently the Big Spring Ranch property was acquired by Newmont. These actions were based on the presumption that groundwater diversions from opposing sides of the basin would have little impact on each other and thus afford a high degree of redundancy between the Cities' existing underground sources on the east side (Shafter Well Field) and new underground sources on the west side. This presumption has been confirmed by recent studies completed by Newmont in association with its environmental permitting efforts.

In October 2013 the Cities entered into a surplus water service agreement with Newmont which required Newmont to drill and equip two new municipal wells and construct associated infrastructure to connect the new wells to the Cities transmission pipeline in exchange for Newmont's temporary use of Johnson Spring. The application is for the southernmost of the two wells which is identified as Pequop Well #2.

The current populations of West Wendover, Nevada and Wendover, Utah are estimated to be 4,500 and 1,400 respectively. The following future population data is excerpted from the Johnson Spring Transmission System Surplus Water Determination (Aqua, 2013):

West Wendover: According to U.S. Census and city records West Wendover grew by an average of 13% per year between 1992 and 2000 and achieved a population of 4,721. Between 2001 and 2010 the population decreased to 4,410. West Wendover estimates

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its current population to be 4,500. The population is predicted to grow at the following rates and durations:

TABLE 1 – West Wendover Growth Rate Projection

PERIOD	GROWTH RATE (%)	ENDING POPULATION
2013 through 2030	2.5	6,847
2031 through 2040	2.0	8,347
2041 through 2050	1.5	9,687

Wendover: U.S. Census records show that Wendover grew by an average of 4% per year between 1990 and 2000 and reached a population of 1,537. Between 2000 and 2010 the population decreased to 1,400 and has remained more or less stable. During the high growth period between 1992 and 2000 Wendover grew at approximately one-third of West Wendover's growth rate. For this projection it is assumed that Wendover will grow at one-half of West Wendover's growth rate. Thus, the population is predicted to grow at the following rates and durations:

TABLE 2 – Wendover Growth Rate Projection

PERIOD	GROWTH RATE (%)	ENDING POPULATION
2013 through 2030	1.25	1,729
2031 through 2040	1.0	1,910
2041 through 2050	0.75	2,058

Over the past twenty years the Cities have completed capital improvements totaling over \$8-million to the water supply and delivery system for Basin 10-187. These improvements, funded primarily through federal and state loan programs and cash reserves, include the completion of two municipal production wells, rehabilitation and reconstruction of Johnson Spring and its pumping facility, rehabilitation of a 1.5 MG culinary water reservoir, interior and exterior coating and floor replacement of a 1.5 MG steel culinary water tank, and the installation of over twenty-four miles of 24-inch and 20-inch transmission pipeline to convey water from Basin 10-187 to the Cities. The Cities regularly prioritize and plan future improvements and maintain rate structures and fund balances sufficient for completion of those improvements.

Future water right and source demands were estimated in the Johnson Spring Transmission System Surplus Water Determination (Aqua, 2013) The source or peak day demands have been calculated based on historical data as required by NAC 445A.66725.1. The results are shown in the table below.

Cities of West Wendover, Nevada and Wendover, Utah Water Right Demand, Source Demand, and Total Demand

Year	West Wendover, Nevada			Wendover, Utah			Total	
	Population	Source Demand (GPM)	Water Right Demand (AF/YR)	Population	Source Demand (GPM)	Water Right Demand (AF/YR)	Source Demand (GPM)	Water Right Demand (AF/YR)
Year 2013	4,500	2,475.00	2,317.50	1,400	428.40	428.40	2,903.40	2,745.90
Year 2030	6,847	3,765.85	3,526.21	1,729	529.07	529.07	4,294.92	4,055.28
Year 2040	8,347	4,590.85	4,298.71	1,910	584.46	584.46	5,175.31	4,883.17
Year 2050	9,687	5,327.85	4,988.81	2,058	629.75	629.75	5,957.60	5,618.56

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ADDENDUM – Application to Appropriate Water for Diversion Only under
Permits 29433, 39110, 49060, 49422, 49423, 49595, and 78451
Basin 10-187 Goshute Valley
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Currently the Cities divert approximately 2,200 acre-feet/year from Groundwater Basin 10-187 and have an approved duty of 4,335 acre-feet under Permits 29433, 39110, 49060, 49422, 49423, 49595, and 78451. Adding the diversion from Johnson Spring (724 acre-feet/year), a total of 5,059 acre-feet/year can be diverted from Basin 10-187 by the Cities under approved permits and certificates which is sufficient to provide drinking water to the year 2045 (AQUA, 2013). Following is a tabulation of those permits and certificates.

**West Wendover, Nevada and Wendover, Utah
Groundwater Basin 187 Water Rights**

Source	Diversion Type	Status	Permit No.	Certificate No.	Diversion Balance (cfs)	Duty Balance (AFA)
Shafter Well #1	Groundwater	C	29433	15159	1.47	323.799
Shafter Well #2	Groundwater	C	39110	15160	0.53	148.535
Shafter Well #3	Groundwater	C	49060	17190	1.46	733.500
Shafter Well #4	Groundwater	C	49422	17191	1.25	497.210
Shafter Well #5	Groundwater	C	49595	17192	1.56	276.740
Shafter Well #6	Groundwater	A	78451		2.00	1,445.000
Test Well #9	Groundwater	A	49423		2.00	1,445.000
Total						4,869.784
Allowable Duty Limit (All Groundwater Permits)						4,335.00
Johnson Spring	Surface Water	C	28527	12918	1.00	723.954
Duty Balance (All Sources)						5,058.95

A = Approved, C = Certificated

Once diverted, ground water is conveyed to the Cities via 24-inch and 20-inch transmission pipeline. This pipeline stretches 28 miles from Johnson Spring on the west side of the Goshute Valley to the City of West Wendover. The peak flow capacity of the transmission pipeline is approximately 20 second-feet. Thus, using a peaking factor of 2, approximately 7,000 acre-feet/year can be conveyed in the transmission system and placed to beneficial use. The capacity to transmit the approved duty of 5,059 acre-feet is confirmed.

The importation of water to the Wendover community began with the U.S. military in the 1940s. The development of local drinking water resources is not practicable given the high cost of treating underground water from the Great Salt Lake basin where TDS concentrations are well above 1000 mg/L.

The Cities maintain conservation plans per the requirements of their respective states. All of the wastewater generated in West Wendover, Nevada is reclaimed and used for irrigation at the recreation district's golf course and playing fields. The wastewater facility was recently upgraded to ensure continued reuse of all treated wastewater effluent.

By Order 842, dated April 30, 1984, State Engineer Peter G. Morros designated the northern portion of Basin 10-187 for the preferred uses of Municipal, Quasi-Municipal, and Domestic. The Cities assert that this application for a diversion only appropriation would not interfere with existing water rights and is consistent with the policies of the Nevada Division of Water Resources for Basin 10-187.

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