

Permit Number - ND2016-17573

State of North Dakota
Temporary Water Permit
SWC Project No. 1400A

In response to an application for a temporary water permit dated Jun 22, 2016 as received in this office Jun 22, 2016, authority is hereby granted to:

Jose Hernandez
33126 Magnolia Circle

Magnolia, TX 77354

Contact Person: Jose Hernandez

Telephone (832) 773-8855

A Temporary Water Permit as follows:

Source: Ground Water

Point of Diversion: SW1/4 SW1/4 Sec. 20 Twp. 139 Rng. 090

Nature of Use: Construction

Total Quantity of Water: 12.0 Acre-Feet

Maximum Withdrawal Rate: 28.0 gpm

Period of authorized usage: Jul 1, 2016 through Oct 1, 2016

Conditions

This temporary water permit is granted subject to use from the source by senior appropriators. Permission for access to the source must be obtained from all affected landowners.

1. Failure to comply with any order of the State Engineer may result in forfeiture of this permit. The granting of a temporary water permit does not create a water right. Temporary water permits are not transferrable. Temporary water permits cannot be modified.
2. The well(s) shall be completed within 900 feet of land surface in order to exclude diverting ground water from the Fox Hills-Hell Creek aquifer.
3. The annular space between the casing of the well(s) and the drilled hole shall be sealed in accordance with the Rules of Water Well Construction and Water Well Pump Installation, North Dakota Administrative Code chapter 33-18-01.

Dated: Jun 27, 2016

Garland Erbele, P.E.
State Engineer
ND State Water Commission
900 East Boulevard
Bismarck, ND 58505


Jon C. Patch, P.E.
Director, Water Appropriation Division

cc: Morton WRD

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4. The well(s) shall comply with the North Dakota Department of Health Water Well Construction Rules as outlined in North Dakota Administrative Code chapter 33-18-01.
5. A completion report for the well(s) shall be filed with the State Engineer within 30 days of completion of construction, or before beneficial use of water, whichever occurs first. The report shall include, but not limited to, information on the location, depth, length, and type of casing used, length and type of screen used, depth to which the annular space was sealed, a log of the materials penetrated by drilling, static water level, and pumping water level.
6. Prior to the beneficial use of water, an in-line, continuous recording, totalizing water flowmeter shall be installed on the pump discharge line to measure the quantity of water pumped from the water source. The water flowmeter must meet the following requirements:
 - a. The water flowmeter must be certified by the manufacturer to record neither less than 98% nor more than 102% of the actual volume of water passing the water flowmeter when installed according to the manufacturer's instructions.
 - b. The water flowmeter must have a display that is readable at all times, whether the system is operating or not.
 - c. The water flowmeter must have a totalizer that meets the following criteria:
 - i. Is continuously updated to read directly only in acre-feet, acre-inches, gallons, cubic feet, or barrels (42 U.S. gallons);
 - ii. Has sufficient capacity, without cycling past zero more than once each year, to record the quantity of water diverted in any one calendar year;
 - iii. Has a dial or counter that can be timed with a stopwatch over not more than a 10-minute period to accurately determine the rate of flow under normal operating conditions; and
 - iv. Has a nonvolatile memory if the meter is equipped with an electronic totalizer.
 - d. The water flowmeter must be installed according to manufacturer's specifications and must be properly maintained according to manufacturer's recommendations including proper winterization, such as removal during the winter.
 - e. The water flow meter shall be available for inspection by the representatives of the State Engineer.
7. A report of water pumped for the concrete batching will be submitted to the State Engineer's Office by January 31, 2017 for total water used in the calendar year of 2016.

Dated: Jun 27, 2016

Garland Erbele, P.E.
State Engineer
ND State Water Commission
900 East Boulevard
Bismarck, ND 58505


Jon C. Patch, P.E.
Director, Water Appropriation Division

cc: Morton WRD

**Office of the State Engineer
Recommended Decision**

To: Garland Erbele, P.E., State Engineer
Approved by: Jon Patch, P.E., Director, Water Appropriations Division
Reviewed by: William Schuh, Assistant Division Director
Reviewed by: Andrew Nygren, Co-lead Hydrogeologist, Hydrologist Manager I
From: Abigail Franklund, Hydrologist III
Subject: Temporary Water Permit ND2016-17573, Jose Hernandez
Date: June 27, 2016

JP 6/28/16
WS 6/28/16
AN 6/28/16

Temporary Water Permit Application

The office of the State Engineer received the following temporary water permit application to divert ground water in Morton County, North Dakota as summarized below:

Name	Period of Use	Use	Requested Acre-Feet	Requested Rate, gpm	Point of Diversion (POD)
Jose Hernandez of MBA Construction	7/1/2016 through 10/1/2016	Industrial (concrete batching)	12 acre-feet	28	13909020CC

The applied for point of diversion (POD) is approximately 4 miles south of the city of Hebron, ND in the SW1/4SW1/4 of Section 20, Township 139N. and Range 90W. (Figure 1). The temporary water permit application is for a well that will be installed to provide an estimated 40,000 gallons of water per day for three months for the purpose of concrete batching. The concrete is to be used in the construction of a new wind farm sited in Morton County. After concrete batching is completed, the well will provide water for an office and maintenance building associated with the new wind farm. Ground water used to supply the office and maintenance building does not require a water permit from the State Engineer because it is considered domestic use and the amount of water is expected to be less than 12.5 acre-feet. However, temporarily diverting ground water for the purpose of concrete batching is an industrial use and does require a water permit, regardless of the amount of water used.

Existing Water Permits around Application Area

The nearest existing ground water permit (No. 1230P) is 4 to 5 miles to the north and is held by the City of Hebron for municipal supply. No water use has been reported under this permit since 2013 because the city now receives water from Southwest Water Authority.

Effect on Non-Permitted Water Users

Review of aerial photograph indicates that there are no residential properties within a mile radius of the proposed POD. Most of the land in the area is utilized for cattle grazing and unirrigated crop land. Included in the Morton County Ground Water Study are three wells reportedly completed in Section 20. The first

one is an 18-inch-diameter, 60-foot-deep domestic and stock well in the NE1/4SE1/4NE1/4 of Section 20. The second one is a 4-inch-diameter, 438-foot-deep stock well in the SE1/4SE1/4NW1/4 of Section 20. The third one is a 240-foot-deep domestic and stock well drilled in 1929. It is unknown if these wells still exist or are being used. Considering the short amount of time and the small amount of water the temporary water permit application is requesting, no undue impacts upon senior appropriators are expected from the requested appropriation.



Figure 1: Location of temporary permit application.

Area Geology

The largest yield of ground water in Morton County is found in aquifers occurring in the unconsolidated Quaternary deposits created by glacial and alluvial fill located within the valleys of major streams and diversion channels. However, the proposed POD does not overlie any major glacial drift aquifers, rather the proposed POD overlies bedrock deposits of the Paleocene Fort Union Group. At land surface is the Sentinel Butte Formation, which is the upper part of the Fort Union Group and consists of interbedded sand, silt, clay, lignite, and carbonaceous shale of non-marine origin. Below the Sentinel Butte Formation is the Tongue River Formation, which also consists of interbedded sand, silt, clay, lignite, and carbonaceous shale of non-marine origin. Beneath the Tongue River Formation is the Cannonball Formation and Ludlow Formation, which constitute the lower part of the Paleocene Fort Union Group. The Cannonball is a marine, non-lignitic-bearing clastic sequence consisting of alternating units of sandstone and siltstone or mudstone with mudstone the predominant lithology. The Ludlow Formation, the continental equivalent to the Cannonball Formation, is a non-marine, lignite-bearing sequence. In Morton County, it is characterized by drab-colored beds of clay, silt, sand, and lignite. Properly installed wells completed in the Fort Union Group can potentially produce up to 50-100 gpm.

Underlying the Paleocene Fort Union Group is the Hell Creek Formation of the Late Cretaceous age. At the location of the proposed POD, the Fox Hills-Hell Creek aquifer is expected, based on structure contour maps, to be between about 900 or more feet below land surface. The Fox Hills-Hell Creek aquifer is a bedrock aquifer underlying much of western North Dakota that has a flowing head in low-lying areas of the west-central portion of the state. This flowing head is beneficial to farmers and ranchers in rural areas who can access the water without having to provide electrical power to their wells. As such, the State Engineer has often sought to limit permitted water use where alternate water sources are available so as not to further deplete the piezometric surface of the Fox Hills-Hell Creek aquifer. The applicant proposes to install the well at approximately 435 feet below land surface, which suggests ground water will be diverted from the Tongue River Formation, which is far above the estimated level of the Fox Hills-Hell Creek aquifer. However, a condition restricting the depth of the well to 900 feet below land surface would prevent the construction of industrial wells in the Fox Hills-Hell Creek aquifer.

Issuance of Temporary Water Permit

North Dakota Century Code (N.D.C.C.) § 61-04-02.1 Emergency or temporary authorization states the following:

The state engineer may authorize emergency or temporary use of water for periods not to exceed twelve months if the state engineer determines such use will not be to the detriment of existing rights. The state engineer shall establish by rule a separate procedure for the processing of applications for emergency or temporary use. No prescriptive or other rights to the use of water shall be acquired by use of water as authorized herein.

North Dakota Administrative Code (N.D.A.C.) § 89-03-01-10 Emergency or temporary authorization states the following:

Application for a temporary appropriation must be made on the form provided by the state engineer. In that request, the applicant must indicate the purpose for which water will be used, quantity of water needed, proposed point of diversion, type of use, place of use, rate of withdrawal, source of water, dates of proposed use, and applicant's address. The state engineer will evaluate the request, and if it is granted, the state engineer will list on the temporary authorization conditions that govern the appropriation.

An applicant for emergency use of water, if the situation warrants, may call the office of the state engineer requesting immediate use of water. Following an oral request and oral approval by the state engineer for authorization, a temporary application form must be submitted.

The applicant for temporary or emergency appropriations is responsible for all damages that may be caused to other appropriators or any other individual because of the emergency or temporary use of water.

Recommendation

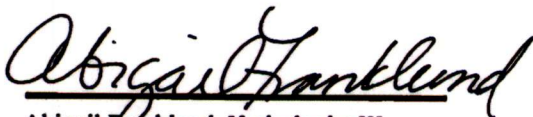
It is recommended that Jose Hernandez of MBA Construction be granted Temporary Water Permit ND2016-17535 for 12 acre-feet at a pumping rate of no more than 28 gpm from the point of diversion in the SW1/4SW1/4 of Section 20 in Township 139N. and Range 90W. The period of use will be July 1, 2016 through October 1, 2016.

The following conditions will be applicable:

1. The well(s) shall be completed within 900 feet of land surface in order to exclude diverting ground water from the Fox Hills-Hell Creek aquifer.
2. The annular space between the casing of the well(s) and the drilled hole shall be sealed in accordance with the Rules of Water Well Construction and Water Well Pump Installation, North Dakota Administrative Code chapter 33-18-01.
3. The well(s) shall comply with the North Dakota Department of Health Water Well Construction Rules as outlined in North Dakota Administrative Code chapter 33-18-01.
4. A completion report for the well(s) shall be filed with the State Engineer within 30 days of completion of construction, or before beneficial use of water, whichever occurs first. The report shall include, but not limited to, information on the location, depth, length, and type of casing used, length and type of screen used, depth to which the annular space was sealed, a log of the materials penetrated by drilling, static water level, and pumping water level.

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 - ii. Has sufficient capacity, without cycling past zero more than once each year, to record the quantity of water diverted in any one calendar year;
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 - iv. Has a nonvolatile memory if the meter is equipped with an electronic totalizer.
 - d. The water flowmeter must be installed according to manufacturer's specifications and must be properly maintained according to manufacturer's recommendations including proper winterization, such as removal during the winter.
 - e. The water flow meter shall be available for inspection by the representatives of the State Engineer.

6. A report of water pumped for the concrete batching will be submitted to the State Engineer's Office by January 31, 2017 for total water used in the calendar year of 2016.


Abigail Franklund
Abigail Franklund, Hydrologist III

2016 Temporary Permit Annual Water Use Report
(Return all pages of this form even if no water was used)

ND2016-17573

Permit Number:ND2016-17573

Make Name and/or Address corrections below:

Jose Hernandez
33126 Magnolia Circle

Magnolia, TX 77354

Phone: (832) 773-8855

Report the total in : Gallons or Barrels or Acre-Feet Please circle the units used (gallons, barrels, acre-feet)

Report the total amount of water per month if applicable:

JANUARY	_____	JULY	_____
FEBRUARY	_____	AUGUST	_____
MARCH	_____	SEPTEMBER	_____
APRIL	_____	OCTOBER	_____
MAY	_____	NOVEMBER	_____
JUNE	_____	DECEMBER	_____

TOTAL ANNUAL USE _____

I. INFORMATION ABOUT WELLS, PUMPS, OR POINTS OF DIVERSION

Report the following information for the Point of Diversion SW1/4 SW1/4 Sec. 20 Twp. 139 Rng. 090

Water Source: Ground Water or Surface Water (Circle one)

Pumping Rate: _____ (Circle: Barrels, Acre-Feet, Gallons) PER (Circle : Second, Minute, Hour, Day)

Total Water Use from this Point of Diversion : _____ (Circle: Barrels, Acre-Feet, Gallons)

WATER PERMIT CRITERIA:

Source: Ground Water

Nature of Use: Construction

Total Quantity of Water: 12.00 Acre-Feet

Maximum Withdrawal Rate: 28.0 gpm

Period of authorized useage: Jul 1, 2016 through Oct 1, 2016

II. MAKE ANY ADDITIONAL REMARKS BELOW:

Note: 1 Acre-Foot = 325,851 gallons.

E-Mail: depotreporting@nd.gov

Please return to:
North Dakota Office of the State Engineer
State Office Building
900 East Boulevard
Bismarck, ND 58505
Phone (701) 328-2754

Signature _____

Date : _____