

STATE OF NEBRASKA

DEPARTMENT OF NATURAL RESOURCES

ORDER GRANTING PERMIT TO TRANSFER GROUND WATER TO AN ADJOINING STATE AND TO
TRANSFER GROUND WATER FOR INDUSTRIAL USE

The Director of the Department of Natural Resources (Department) approves Application TA-48, submitted by John K. Marquardt and Arthur P. Mortensen (Applicants), for a permit to withdraw and transport ground water to Wyoming for use in exploratory drilling for oil and natural gas.

The Director approves Application I-20, submitted by John K. Marquardt and Arthur P. Mortensen jointly with Application TA-48, for a permit to withdraw and transport ground water for use in exploratory drilling for oil and natural gas in Wyoming and in Kimball County, Nebraska. The considerations for approval described in Neb. Rev. Stat. §§ 46-683(1) and 46-715(3)(c) are specifically met as follows:

1. According to Department records, two surface water rights are located downstream on Lodgepole Creek from the Applicants' well. Water supply to these two rights, A-870 and D-353, is directly affected by seasonal and climatic changes in recharge to the Brule aquifer, which is hydrologically connected to the creek.

The nearest ground water wells are observation wells belonging to the South Platte Natural Resources District. Pumping of well A-004712 is likely reflected in the water-level measurements taken at these wells, because the Brule aquifer is known to fluctuate noticeably during high-pumping seasons. Because these are not supply wells, however, this is not considered a negative impact on these particular wells. Other wells in the area likely experience seasonal water-level declines that are attributable to regional water use and overall recharge conditions. In order to mitigate impacts from the proposed use on the aquifer, all water withdrawn and transferred for industrial purposes will be deducted from the irrigation allocation associated with A-004712.

2. The portion of the South Platte NRD in which the Applicants' well is located was determined to be overappropriated in 2004, but the District had a ground water management area in place before that determination. As a consequence of the overappropriated determination, a new use of ground water must be offset with an existing use in order to maintain a balance. All water transferred for industrial use will be deducted from the available irrigation allocation, so that no additional water quantities will be withdrawn from the area and consumptive use will be offset. In addition, the NRD will collect meter records to ensure compliance with the required deduction. The offset is intended to ensure that no additional impacts to the aquifer will result from the proposed industrial transfer.

Surface water appropriators located on Lodgepole Creek are impacted by any changes in streamflow resulting from declines in the Brule aquifer water table. The proposed offset, however, will ensure that no impacts to surface water will result from the proposed industrial use. Thus, the proposed withdrawal and transfer is expected to have no adverse effects on ground water and surface water supplies in the area.

3. No surface water resources with reliable supply are located in either the proposed withdrawal area or in the area of use. Ground water is not readily available at many of the exploration site(s) in Wyoming. Drilling contractors and local users intend to partner in order to provide water for exploratory drilling in the area. Because the exploratory drilling project extends over a number of counties in multiple states, no single water source or location will be used to supply the drilling. Obtaining water from multiple sources across the whole project area will ultimately have the advantage of spreading any impacts to local aquifers across a very wide area, rather than concentrating withdrawals in a single location.
4. The economic impact of the proposed use is anticipated to be approximately equivalent to use of the water for irrigation. Drilling and oil-exploration contractors working in the area will likely bring a certain amount of economic activity to local businesses in the areas of exploration, in the form of fuel, food, and lodging expenditures, for example. Economic benefits arising from the further development of any oil and natural gas resources in the Panhandle region, however, will depend on the scope and longevity of development, as well as market factors. At this time, the Department has no information to project such development benefits.
5. Existing uses of ground water in the area of the Applicants' well are for domestic and irrigation purposes. Surface water appropriations on Lodgepole Creek are also used for irrigation. Increased demand for water for existing domestic uses is unlikely, because the rural domestic population of the state is declining both in general and in this specific area. Several factors limit increasing demand for irrigation, including local aquifer properties and NRD regulations. Although demand could increase in the future, any such increased demand would have to be balanced by the NRD so as not to result in increased impacts to water supplies, in accordance with the District's integrated management plan and with the basin-wide integrated management plan for the overappropriated area. Thus, any benefits accrued from existing water uses in the area should not be adversely affected by the proposed transfer.
6. No waivers of liability were received in the Department, and no objections were filed regarding the proposed transfer.
7. The Applicants' well is located to the west of the portion of the NRD covered by the Platte River Recovery Implementation Program. Consequently, Nebraska's compliance with any interstate agreements will not be affected by the proposed transfer.

The terms and conditions of permits TA-48 and I-20 are as follows:

1. Permits TA-48 and I-20 authorize the Applicants to withdraw and transfer ground water from one existing water well for industrial use. Withdrawal and transfer of ground water under permits TA-48 and I-20 shall not exceed 500 gallons per minute maximum.
2. The maximum daily withdrawal shall not exceed 77,000 gallons.
3. The total amount of ground water that may be transferred in a one-year period to all points of use in Nebraska and Wyoming shall not exceed 87 acre-feet (approximately 28,349,037 gallons).
4. Ground water may be withdrawn and transferred from the existing water well identified as A-004712, located in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 14, Township 14 North, Range 59 West of the 6th P.M. in Kimball County, Nebraska.
5. The water shall be used for exploratory drilling for oil and natural gas in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ of Section 34, Township 14 North, Range 59 West of the 6th P.M. in Kimball County, Nebraska, and in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 3, Township 15 North, Range 60 West of the 6th P.M. in Laramie County, Wyoming, as described in Applications TA-48 and I-20.
6. Approval of this permit is based on the information included and representation made in Applications TA-48 and I-20 by John K. Marquardt and Arthur P. Mortensen. That information and those representations are considered terms of this approval, to which the Applicants must adhere.
7. The amount of ground water withdrawn and transferred may not exceed the amount of water allocated to the certified irrigated acres associated with water well A-004712 by the South Platte Natural Resources District (NRD). Pursuant to the provisions of the South Platte NRD's approved certification of the proposed industrial use, all quantities of water transferred for industrial use will be deducted from the available allocation for water well A-004712.
8. The Applicants shall install a flow meter on the well, such that all ground water withdrawn from the well and transferred to Wyoming and to in-state points of use by any means will be measured. By January 31 of each year, Applicants shall file a completed "Industrial Ground Water Well Report" in the office of the Department, on a form provided by the Department, listing the amount of ground water transferred by month over the course of the exploration project. Applicants shall report separately the quantities of ground water transferred to Wyoming and the quantities transferred for in-state industrial use, respectively.
9. John K. Marquardt and Arthur P. Mortensen must comply with all state and federal laws and the regulations of the Department and the South Platte Natural Resources District, including, but not limited to, the following:
 - A. Prior to the commencement of any transfer of ground water for industrial use, a completed water well modification form shall be

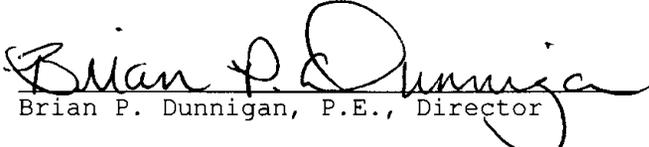
filed in the office of the Department, adding a secondary industrial use to the registration information for water well A-004712, in accordance with Neb. Rev. Stat. § 46-602(7). Failure to file such form will result in water well A-004712 becoming an illegal water well, as defined in Neb. Rev. Stat. § 46-706(5).

- B. Any replacement water well must be registered as required by Neb. Rev. Stat. § 46-602(1).
 - C. John K. Marquardt and Arthur P. Mortensen shall notify the Department of the need for any abandonment or replacement of the permitted well and any changes in the place of use or nature of use, as provided in Neb. Rev. Stat. § 46-683.01.
10. John K. Marquardt and Arthur P. Mortensen shall provide access to the property described herein at reasonable times for purposes of inspection by officials of the South Platte NRD or of the Department.
 11. When deemed necessary, and in accordance with Neb. Rev. Stat. §§ 46-683(1) and 46-715(3)(c), the Department and the South Platte NRD may review these permits in conjunction with the management activities in the joint Department/NRD integrated management plan to ensure that surface water and ground water users have not been negatively impacted and to ensure compliance with the overappropriated Basin-Wide Integrated Management Plan.
 12. These permits shall be valid for three years after the Order date and as long thereafter as the water for which the permits are granted is placed to beneficial use. If John K. Marquardt and Arthur P. Mortensen have not used water for beneficial purposes and in accordance with the terms of these permits for more than three years, the permits may be revoked or modified by the Director pursuant to Neb. Rev. Stat. § 46-684(1).

THIS PERMIT MAY BE REVOKED OR MODIFIED BY THE DEPARTMENT FOR FAILURE TO COMPLY WITH THE TERMS AND CONDITIONS OF THE PERMIT.

DEPARTMENT OF NATURAL RESOURCES

May 24, 2011


Brian P. Dunnigan, P.E., Director

The applicant and any person with sufficient legal interest who has been or may be substantially affected by this Order may request a contested case hearing, in accordance with the Neb. Admin. Procedures Act §§ 84-901 et. seq. RRS and the Department's Rules of Practice and Procedure 454 Neb. Admin. Code Chapter 7. The request must be received by the Department at its Lincoln

office (4th Floor Nebraska State Office Building, 301 Centennial Mall South, P.O. Box 94676, Lincoln, Nebraska 68509-4676) within 30 days of the date of the Approval and be accompanied by a filing fee of \$10.

A copy of this Order granting Permits TA-48 and I-20 was mailed on May 24, 2011, to the Department's field office in Bridgeport, Nebraska, and to the following:

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