

STATE OF NEBRASKA
DEPARTMENT OF WATER, ENERGY, AND ENVIRONMENT

APPLICATION FOR A PERMIT TO APPROPRIATE NATURAL FLOW FOR INDUCED GROUND WATER RECHARGE

INSTRUCTIONS

Complete items 1 through 5 by printing in ink or typing the appropriate information. The following information shall be submitted with this form and made a part hereof. All information shall be compiled and submitted in a loose-leaf binder with maximum dimensions of 11 inches by 11 inches by 4 inches. Maps, plans and drawings must be of a size sufficient to clearly depict the subject matter, but must be folded to dimensions not to exceed 11 inches by 11 inches. A complete table of contents shall be provided. When using a model, supply justification for the applicability of the model to the actual geological conditions of the well or well field. List all assumptions. Give results of any performed sensitivity analysis.

- A. A table of all existing and proposed production wells included under the application, identifying (if applicable) well registration numbers; exact location by 40-acre subdivision, section, township and range; total depth; pumping capacity; and date each was completed.
- B. Quantification of aquifer properties and how each was determined, including but not limited to, recharge rate, transmissivity, hydraulic conductivity, saturated thickness, depth to water, type of aquifer (confined/unconfined).
- C. Assuming that combination of wells expected to create the greatest induced recharge, a tabulation showing computed drawdown and induced recharge and how it was determined.
- D. A geologic log, to include an indication of static water level, for each production and test well.
- E. For each production well, a log showing the size and vertical placement of each pump, all plain casing and screened sections and any artificial gravel pack.
- F. A table that illustrates the times of year when induced recharge is expected to occur, and that quantifies the expected rates (gpm) and volumes (ac-ft) of induced recharge.
- G. A narration of the minimum flow necessary within that stream reach where induced recharge is intended, to sustain satisfactory operation of the well field facilities.
- H. A narration of the period of time that well field facilities would continue to meet minimal essential needs of the public water supplier if there were no flow in the source of supply.
- I. Scaled maps showing:
- 1) All production and test wells and the stream reach where induced recharge is intended.
 - 2) A depiction of the aquifer piezometric surface under nonpumping conditions and for pumping conditions assuming that combination of wells expected to create the greatest induced recharge.
 - 3) The areal extent and a cross-section of that portion of the aquifer analyzed for this application.
 - 4) Location and identification of use of any wells not included in this application with a cone of depression that may intersect applicant's well field.
 - 5) Existing surface water users within the area of the stream reach where induced ground water recharge occurs.
- J. List alternative sites explored and justification for chosen site over another site which might have less impact on the stream.

For Department Use Only

Filed in the office of the
Department of Water, Energy, and Environment
at: _____ a.m./p.m. on
_____, 20 ____
Application No. _____
Water Division _____

Applications for wells constructed on or after September 9, 1993, shall include information on public interest factors described in § 46-235(3b) and (4b), R.R.S., 1943, as amended.

The following information may be submitted at the discretion of the applicant:

- A. A statement indicating rate and volume of induced ground water recharge presently used and the anticipated use for the next 25 years.
- B. A statement indicating rate and volume of ground water use anticipated from well field during the next 25 years.

1. Name of applicant: _____ Telephone Number (_____) _____
Address _____
City _____ State _____ Zip Code _____

(over)

2. Name of contact person _____ Telephone Number (____) _____

Address _____

City _____ State _____ Zip Code _____

3. Identify the source of water (name of stream):

4.(a) State estimated time required for completion of all water diversion facilities:

(b) State the earliest date when water will have been used for beneficial purposes:

5. The information given in sections C and F should be used to determine the amount of appropriation desired, state desired amount of appropriation _____.

6. Does this project involve a federal nexus? Yes _____ No _____

7. I certify that I am familiar with the information contained in this application, and that to the best of my knowledge and belief such information is true, complete and accurate.

Date

Signature of Public Water Supplier's Authorized Agent/Title

This form must be completed in full. An incomplete or defective application will be returned with 90 days being allowed for resubmission. Failure to resubmit a corrected application within this time period shall cause dismissal of the application and consequent loss of priority.

Forward this application to:

Nebraska Department of Water, Energy, and Environment
245 Fallbrook Blvd., Suite 100
Lincoln, NE 68521-6729

Phone: (402)471-2186