

**NOTICE OF INTENT TO MODIFY A PERMIT
AUTHORIZING THE USE OF WATER
FOR COMMERCIAL AGRICULTURAL (DAIRY PRODUCTION-TYPE) PURPOSES
IN POCAHONTAS COUNTY, IOWA**

Notice is hereby given that pursuant to Iowa Code Chapter 455B, there is now on file with the Iowa Department of Natural Resources, Water Supply Section, 6200 Park Ave., Des Moines, IA, 50321 an application as described below.

Dean Duitscher, on behalf of Dutchland Dairy, Iowa DNR Log Number 34,614, requests a modification to their water use permit authorizing withdrawals of withdraw water from four existing Cretaceous Dakota Sandstone formation wells, the wells are approximately 115 feet deep - 180 feet deep, and 119 feet deep; and three proposed Cretaceous Dakota Sandstone wells, all about 122 feet deep, on land generally described as the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 4, T92N, R31W, and also from an existing farm pond located on land generally described as the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 33, T93N, R31W, Pocahontas County, Iowa, in the maximum quantity of 60 million gallons per year at a maximum rate of 185 gallons per minute from the wells, and in the maximum quantity of 3 million gallons per year at a maximum rate of 500 gallons per minute from the farm pond for use at the permittee's dairy operations.

Note: The water being used from the farm pond is only permitted for the lagoon operations and in no way will the farm pond water be used for domestic dairy production or cleansing processes.

This proposed modification represents an increase to the withdrawal quantity from 20 million gallons per year 60 million gallons per year; three new wells are being added as referenced above.

The Department has determined that this use of water conforms to the relevant criteria (Iowa Code Chapter 455B and Iowa Administrative Code Chapter 567) and recommends the permit be granted. A copy of the summary report is available upon a request to the Department at the address listed above. Comments on the report and on this use of water must be received by JULY 02, 2026, and should be addressed "ATTN.: Water Supply Engineering Section" and should specify the applicant's log number.

(By Michael K. Anderson, P.E.)

**IOWA DEPARTMENT OF NATURAL RESOURCES
WATER USE PERMIT SUMMARY REPORT**

Applicant: Dutchland Dairy

IOWA DNR Application Log No.: 34,614

Dean Duitscher, on behalf of Dutchland Dairy, Iowa DNR Log Number 34,614, requests a modification to their water use permit authorizing withdrawals of withdraw water from four existing Cretaceous Dakota Sandstone formation wells, the wells are approximately 115 feet deep - 180 feet deep, and 119 feet deep; and three proposed Cretaceous Dakota Sandstone wells, all about 122 feet deep, on land generally described as the SE $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 4, T92N, R31W, and also from an existing farm pond located on land generally described as the SE $\frac{1}{4}$ of the SE $\frac{1}{4}$ of Section 33, T93N, R31W, Pocahontas County, Iowa, in the maximum quantity of 60 million gallons per year at a maximum rate of 185 gallons per minute from the wells, and in the maximum quantity of 3 million gallons per year at a maximum rate of 500 gallons per minute from the farm pond for use at the permittee's dairy operations.

Note: The water being used from the farm pond is only permitted for the lagoon operations and in no way will the farm pond water be used for domestic dairy production or cleansing processes.

This proposed modification represents an increase to the withdrawal quantity from 20 million gallons per year 60 million gallons per year; three new wells are being added as referenced above.

1. The Department have not received any complaints regarding the permittee's water withdraws since this dairy has been in operation.
2. The Applicant's withdrawal site is located on County Road C26 one quarter mile east of the east city limits of the City of Rolfe, Iowa.
3. The existing wells are each 5-inches in diameter, 115 feet deep and cased to 105 feet with a 10-foot screen. These wells are equipped with a 51 and a 32 gallon per minute pump and each are set at a depth of 80 feet. The intended use of water from these wells is for dairy operations which includes watering of livestock and cleaning. Under normal conditions the aquifer will not be subject to significant depletion or experience an extended cone of depression as a result of water withdrawals made at this magnitude and rate.

Applicant's production wells tap the Cretaceous Dakota sandstone aquifer. The Dakota Formation of the Cretaceous System is loosely associated in this area with the North Raccoon and the Des Moines River drainage basin systems and is recharged by downward movement of water from precipitation and nearby rivers and streams, and by the movement of groundwater, generally from the northwest to southeast. According to the Iowa Geological Survey, the Dakota aquifer comprises the principal bedrock aquifer of northwestern Iowa. The lower portion of the Dakota Formation, termed the Nishnabotna Member, is a highly productive water-bearing sandstone deposit generally ranging in thickness from 200 to 300 feet. Above the sandstone deposits of the lower portion of the Dakota Formation is the Woodbury Member, a unit that has a more variable water-bearing characteristic. This upper unit is comprised of clay shale, mudstone, lignite, and lenticular fine-grained sandstone of mostly local extent and is commonly 100 to 150 feet in thickness. The Dakota aquifer is confined by 200 to 400 feet of glacial drift in nearly all of the northwest part of the state. Water production from wells in the area is generally good with well production of 500 gallons per minute possible in many locations.

- The water source consists of Cretaceous Dakota Sandstone as described above. The geology of the northwest Iowa study area is characterized by a sequence of unconsolidated upper Cenozoic (less than about 5 million years) deposits, overlying Mesozoic Cretaceous (about 100 million years) sandstones, shales, and limestones,

Paleozoic (520 million to 280 million years) sandstones, shales, and limestones, and Precambrian (2.8 billion to 1.1 billion years) quartzites, granites, and related rocks. The major sources of groundwater in this area are the sandstones in the Cretaceous Dakota Formation.

- Most of the water-producing sandstones in the Dakota Formation are found in the basal Nishnabotna Member, although scattered sandstones in the overlying Woodbury Member also yield significant amounts of groundwater. IGS geologists have defined the Lower Dakota aquifer as the water-bearing sandstone and conglomerate units of the Nishnabotna Member and the directly adjacent and hydrologically contiguous sandstone bodies in the overlying Woodbury Member. An intensive one-year study of the geology and hydrogeology of this formation was undertaken to provide a more quantitative assessment of the aquifer, and to construct a groundwater flow model that can be used as a planning tool for future water development/beneficial use.
- A numerical groundwater flow model of the Lower Dakota aquifer was developed using four hydrogeologic layers. The model was created using Visual MODFLOW version 4.2. Hydrologic processes include net recharge, hydraulic conductivity, specific storage, flow through boundaries, no flow boundaries, well discharge, river boundary, and groundwater upwelling. Insertion of this water usage into the numerical model indicates that the aquifer can easily support this usage.

If the Department, after consultation with the Iowa Geological Survey, determines that withdrawals from the Dakota formation of the Cretaceous System within a designated geographical area are causing water level declines which constitute a significant threat to the public interest in the availability of water for sustained beneficial use of the aquifer, renewal of this permit shall be denied, and the permit shall be modified or canceled in accordance with the procedures specified in Iowa Code Section 455B.271, as necessary to protect the aquifer for sustained use. This proposed use, however, is relatively small and should have benign impacts.

4. The only neighboring water user, located within 2 miles of the Applicant's property, that requires diversion of water in sufficiently large quantity to require a water use permit is the City of Rolfe (Permit #: 6049). The City of Rolfe has two Mississippian Limestone aquifer wells, one 185 feet deep and the other 212 ft deep, with a maximum permitted withdrawal rate of 245 gpm at an annual maximum quantity of 45 million gallons per year. The Iowa DNR has not received any complaint that the operation of the Applicant's wells has impacted the City wells. It is reasonable to expect this to be the case since withdrawal for the City is from a different aquifer than the Applicant.
5. Duitscher has provided a listing of farm wells that withdraw from the same aquifer and are located within three-eighths of a mile of the withdrawal site. It is unlikely that any private domestic or agricultural well associated with these dwellings will be adversely affected by the proposed withdrawals. In any event, the interests of individuals using water for domestic purposes, as well as those persons benefiting from the permits mentioned above, are amply protected, in the event of substantial injury, pursuant to Section 455B.271, Code of Iowa.

Whereas the Department has received no allegations of public or private damage resulting from the use of water authorized under the predecessors to this permit since the original permit was granted in May, 2008, the increased amount is justified by law, barring compelling circumstances that mitigate to the contrary.

6. The applicant is devoting a reasonable amount of water to a beneficial use (commercial dairy production). It also represents a long-standing use of water in the area for a beneficial economic purpose.

7. There is no evidence that the use of water pursuant to a permit granted in accordance with the conclusions contained herein will constitute a waste of the water resources of the State, will be incompatible with the state comprehensive plan for water resources, will impair the effect of pollution control laws of this State or the navigability of and navigable watercourse, or will be detrimental to the public interest or to the interests of property owners with prior or superior rights who might be affected. The requested amount of water use is also justified by law, barring compelling circumstances that mitigate to the contrary.

THEREFORE:

The requested use of water conforms to the relevant criteria in Division III, Part 4, Chapter 455B, Code of Iowa and Chapter 50 of Part 567, Iowa Administrative Code. No substantial adverse effect upon other water users is foreseen at this time. Following publication of notice and subject to revisions in response to comments that may be submitted, the attached draft permit should be issued for a period of ten years.

Water Supply Engineering

Date: June 05, 2026

**IOWA DEPARTMENT OF NATURAL RESOURCES
WATER USE PERMIT**

Permit issued to: DUTCHLAND DAIRY DEAN DUITSCHER 30495 465 TH STREET ROLFE IA 50581-8553	Permit Number: Effective: Expires:	9340-M5 YYYYY YYYYY
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The permittee is authorized to:

withdraw water from three existing Cretaceous Dakota Sandstone formation wells, the wells are approximately 115 feet deep - 180 feet deep, and one new 119 feet deep Cretaceous Dakota Sandstone well, on land generally described as the SE ¼ of the NW ¼ of Section 4, T92N, R31W, and from a farm pond located on land generally described as the SE ¼ of the SE ¼ of Section 33, T93N, R31W, Pocahontas County, Iowa, in the maximum quantity of 20 million gallons per year at a maximum rate of 100 gallons per minute from the wells, and in the maximum quantity of 3 million gallons per year at a maximum rate of 500 gallons per minute from the farm pond for use at the permittee's dairy operations.

Note: The water being used from the farm pond is only permitted for the lagoon operations and in no way will the farm pond water be used for domestic dairy production or cleansing processes.

This authorization to withdraw water has been granted pursuant to the provisions of Part 4 of Division III of Chapter 455B, Code of Iowa, and Chapters 50 of Part 567, Iowa Administrative Code, and is further subject to the general permit conditions within this permit.

Conditions of this permit may be appealed as provided in rule 567--50.9, Iowa Administrative Code. Appeal must be in writing and must be received at the Department of Natural Resources; Drinking Water Section; 6200 Park Avenue, Suite "200"; Des Moines, Iowa 50321 within thirty days of the date of the certification of the mailing of the permit.

FOR THE DIRECTOR:

By: _____ Date Executed: _____
(mka)

cc: Field Office#: 3, Spencer
File: Water Use Permit No. 9340m5

CERTIFICATE OF MAILING

On the date shown below, a copy of the foregoing permit was mailed to the Permittee and to each person entitled to receive a copy as provided by rule 567--50.8(2), Iowa Administrative Code.

Certified by (initials): _____ Date: _____

GENERAL PERMIT CONDITIONS

1. Permittee shall maintain accurate and up-to-date records of water use from said sources by means of water meters and submit them annually to the department. Additional records on pumping rated from said sources,

water levels in said wells, and other data related to the regulation of this use of water shall be maintained and submitted as directed by the department.

2. Permittee is responsible for compliance with all applicable provisions of state law and the rules and regulations of this department and of federal and local health and water pollution control agencies in the operation of its dairy operations, and in the disposal of its wastes.
3. Permittee shall be responsible for securing such other permits or approvals as may be required by this department, federal, or local governmental agencies for the operation of said dairy facilities or the discharge of water or other materials due to this operation.
4. Permittee shall construct, maintain, and monitor observation wells, as directed by the department to define the effects of permittee's water withdrawals on groundwater resources or on other water users who might be affected by the withdrawals authorized herein.
5. Existing wells shall not be replaced without notifying the Iowa Department of Natural Resources. Changes to the location, depth, source aquifer, or other physical features of said well may require that this permit be modified to accommodate the changes.
6. Each proposed or replacement well authorized as a source of water in this permit must be equipped with an access port having a minimum diameter of three-fourths inch. The access port must be equipped with a threaded cap or plug. The access port must be located to allow insertion of a steel tape or electric probe into the well casing for measurement of water levels.
7. With respect to each proposed or replacement well authorized as a source of water in this permit, withdrawals of water may be made only after the permittee has made the following information available to the Iowa Geological Survey: well location, well log, casing and grouting schedule, results of yield tests, and cutting samples.
8. Permittee shall provide screening on water intakes as required in Section 109.14, Code of Iowa, to protect fish and other aquatic life.
9. Permittee shall cooperate with representatives of the department to determine that the authorized withdrawals do not violate the flow restriction imposed herein.
10. If the Department determines that withdrawals from the Dakota Formation of the Cretaceous System within a designated geographical area are causing water level declines which constitute a significant threat to the public interest in the availability of water for sustained beneficial use of the aquifer, renewal of this permit shall be denied, and the permit shall be modified or canceled in accordance with the procedures specified in Iowa Code Section 455B.271, as necessary to protect the aquifer for sustained use.
11. Once each spring prior to March 31, the permittee shall be responsible for accurately measuring the distances to water (static water level) from the access port in all permitted wells. The distance to water shall be submitted to the department annually as part of the records of water use.
12. Permittee must apply to renew this water use permit using the appropriate DNR form prior to the expiration date of the current permit version.
13. Permittee shall submit to the Department within 90 days of being notified by the Department or no later than the expiration date of this permit, whichever first occurs, a plan for implementing routine day-to-day water conservation measures and for implementing emergency water conservation measures during periods of water

shortage. Until such a plan has been submitted to and approved by the Department, Permittee shall implement those emergency water conservation measures determined to be necessary by the Department pursuant to Iowa Code Sections 455B.265 and 455B.266.

14. This permit supersedes DNR Water Allocation Permit 9340 – M4.

CAVEAT

Permittee is advised that pursuant to Section 455B.271, Code of Iowa, the authority to withdraw water provided by this permit may be modified, canceled or suspended in case of any breach of the terms or conditions herein, in case of any violation of state law pertaining to the permit, or if found necessary to prevent substantial injury to private or public interests.