NOTICE OF INTENT TO
GRANT A PERMIT AUTHORIZING USE OF WATER
FOR MUNICIPAL-TYPE PURPOSES
IN JOHNSON COUNTY, IOWA

Notice is hereby given that pursuant to Iowa Code Chapter 455B, there are now on file with the Iowa Department of Natural Resources, Water Supply Engineering Section, 6200 PARK AVE., Suite 200, Des Moines, Iowa 50321 an application as described below.

The City of Coralville Water Department (Iowa DNR Log No. 34,225) requests a newly modified permit authorizing withdrawal of water from three existing Silurian Dolomite aquifer wells, between 420 and 500 feet deep, located in the NW ¼ of the NE ¼ of Section 6, T79N, R06W; the NE ¼ of the SW ¼ of Section 31, T80N, R06W; and the SW ¼ of the SW ¼ of Section 32, T80N, R06W; from two new Silurian Dolomite wells, each 501 feet deep, located in Section 29, T80N, R06W; from three Cambrian_Ordovician (Jordan Sandstone) aquifer wells, between 1,715 and 1,740 feet deep, located on land generally described as the SE ¼ of the NE ¼ of Section 31, the SW ¼ of the SW ¼ of Section 32, T80N, R06W, and the NW ¼ of the NW ¼ of Section 5, T79N, R06W: and from three buried sand and gravel aquifer wells, between 80 and 90 feet deep, one located in the SE ¼ of the SW ¼ of Section 31, T80N, R06W, and two located in the NW ¼ of the NE ¼ of Section 6, T79N, R06W; all located in the City-established Well Fields in Johnson County, Iowa, in the maximum amount of 1650 million gallons per year at a maximum rate of 5,000 gallons per minute (10.0 cubic feet per second) throughout each year for municipal purposes within and without the permittee's corporate limits consistent with its municipal distribution system and other provisions of law.

The permit modification is designed to accommodate the system's future increased operation. The system is adding two Silurian Dolomite wells as above-described.

The Department has determined that these uses of water conform to the relevant criteria (Iowa Code Chapter 455B and Iowa Administrative Code Chapter 567) and recommends the permits be granted. A copy of the summary report for these applications is available upon a request to the department at the address listed above. Comments on the reports and on these uses of water must be received by February 16, 2026, and should be addressed "ATTN.: Water Supply Engineering Section" and should specify the Applicant's log number.

Michael K. Anderson, P.E.

IOWA DEPARTMENT OF NATURAL RESOURCES
WATER USE PERMIT SUMMARY REPORT

Applicant: City of Coralville

Application Iowa DNR Log No.: 34,225

The City of Coralville Water Department (Iowa DNR Log No. 34,225) requests a newly modified permit authorizing withdrawal of water from three existing Silurian Dolomite aquifer wells, between 420 and 500 feet deep, located in the NW ¼ of the NE ¼ of Section 6, T79N, R06W; the NE ¼ of the SW ¼ of Section 31, T80N, R06W; and the SW ¼ of the SW ¼ of Section 32, T80N, R06W; from two new Silurian Dolomite wells, each 501 feet deep, located in Section 29, T80N, R06W; from three Cambrian_Ordovician (Jordan Sandstone) aquifer wells, between 1,715 and 1,740 feet deep, located on land generally described as the SE ¼ of the NE ¼ of Section 31, the SW ¼ of the SW ¼ of Section 32, T80N, R06W, and the NW ¼ of the NW ¼ of Section 5, T79N, R06W: and from three buried sand and gravel aquifer wells, between 80 and 90 feet deep, one located in the SE ¼ of the SW ¼ of Section 31, T80N, R06W, and two located in the NW ¼ of the NE ¼ of Section 6, T79N, R06W; all located in the City-established Well Fields in Johnson County, Iowa, in the maximum amount of 1650 million gallons per year at a maximum rate of 5,000 gallons per minute (10.0 cubic feet per second) throughout each year for municipal purposes within and without the permittee's corporate limits consistent with its municipal distribution system and other provisions of law.

The permit modification is designed to accommodate the system's future increased operation. The system is adding two Silurian Dolomite wells as above-described.

1. The nearest neighboring water user requiring the diversion of water in sufficiently large proportions to require a water use permit is the Brown Deer Golf Course, Inc. (Water Use Permit #6853) located approximately of 0.7 miles east of the applicant's withdrawal site and involves the use of water from streams or reservoirs, for irrigation of a golf course. Whereas there is a significant distance between the two users, and Coralville's nearest wells draw from the Silurian and Jordan aquifers, there can be no negative impacts upon water supply for processing operations of the Brown Deer Golf Course, Inc. resulting from the City of Coralville's increased withdrawals of groundwater at the site in question

2. The next-nearest neighboring water user requiring the diversion of water in sufficiently large proportions to require a water use permit is the Iowa Medical and Classification Center (Oakdale Sanatorium), (Water Use Permit #2484) located approximately 1.0 miles northwest of applicant's withdrawal site, and involves the use of water from wells drawing from the Jordan aquifer for municipal type purposes. Whereas there is a significant distance between the two users, whereas the Jordan aquifer produces high yields, it is unlikely that there will be negative impacts created by said increased annual allowance on this distant neighboring user.

3. Based on the relatively low pumping rate requested by the permittee, for each well, it is unlikely that persons utilizing private (non-regulated) water wells in the vicinity of the applicant and utilizing a similar aquifer would experience any significant impacts from the proposed withdrawal increases by the applicant. 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.

4. 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, the increased amount is justified by law, barring compelling circumstances that mitigate to the contrary.

5. The Department has supported increased study/modeling of the aquifer/s in the area. A cooperative study in conjunction with other Silurian Aquifer stakeholders (U.S. Geological Survey, IDNR Geological and Water Survey, City of Iowa City, City of Coralville, City of North Liberty, City of Tiffin, City of Solon) set up a groundwater flow model for the Silurian Aquifer in the northern half of Johnson, County, Iowa. This was intended to assess the ability of the Silurian Aquifer to continue to provide sustainable yields to wells, particularly in time of less than normal precipitation and as withdrawals for the aquifer increase. This model should be available to test these conclusions and so further confirm that the proposed increased withdrawal in question is not an appreciable one. However, it's practical utility for well siting and aquifer characterization could best be described by this reviewer as "incomplete" and of less than ideal adequacy, so the Department has also attempted to construct local-scale MODFLOW models of the Silurian and Devonian aquifer in the vicinity using updated water usage data. The two new wells that the City of Coralville proposes were optimized as far as siting, using this model and in consultations with IGWS's primary modeler. The Department uses a variation of MODFLOW (Visual MODFLOW) as described below:

TECHNICAL NOTE: Visual MODFLOW is a three-dimensional groundwater flow model widely uses in the professional groundwater modeling community. Visual MODFLOW (VMF or Visual MODFLOW Pro) is a graphical interface for MODFLOW. The original version of Visual MODFLOW was first released in August 1994. It was based on the USGS MODFLOW-88 and MODPATH codes.

- A two-layered three-dimensional groundwater flow model was constructed by the Department's Geological and Water Survey staff based on DNR data sources and data provided by the applicant's engineering and water supply utility staff. The reader is referred to the file for full details of the model initial setup, calibration, and steady-state simulation/s.

As referenced above, the applicant (City of Coralville) was able to utilize these results to "optimize" their Silurian Dolomite well placement/spacing.

- Permittee is responsible for accurately measuring depth to water under non-pumping (static) conditions, depth to water under pumping conditions, and pumping rate(s) for all active wells listed in this permit, at a minimum of one measurement per year. These records are submitted annually to the Department.

- As outlined in rule 567 52.4(3)., the Permittee may withdraw from the Jordan aquifer only when well pumping levels are above three hundred (300) feet from the baseline, or 50% of the 1978 water level, as determined from available Department records. The following table expresses specific conditions for Jordan aquifer wells listed in this permit.

Table 1: Jordan Aquifer permitted well conditions

Coralville [Permit# 2446] Jordan Well Water Levels			
Local Name	**Well #1**	**Well #10**	**Well #12**
Drill Date	6/8/1965	8/1/1990	9/17/2003
Well Elevation (ft)	769	789	755
1978 Jordan Water Level Elevation (ft)	550	550	550
Total Well Depth (ft)	1,677	1,710	1,740
Total Casing Depth (ft)	1,135	1,177	1,119
2021 Static Water Level Depth (ft)*	n.a.	513	482

Coralville [Permit# 2446] Jordan Well Water Levels			
Local Name	**Well #1**	**Well #10**	**Well #12**
2021 Pumping Water Level Depth (ft)*	n.a.	600	545
1978 Jordan Baseline Level Depth (ft)	n.a.	239	205
Jordan Tier 2 Depth (1978 level -300 ft.)	n.a.	539	505
Jordan Tier 3 Depth (1978 level -400 ft.)	n.a.	639	605
Feet Above Tier 2 (Tier 2 – pumping)	n.a.	-61	-40
Feet Above Tier 3 (Tier 3 – pumping)	n.a.	+39	+60

*Water levels from 2025 annual report.

6. The applicant is devoting a reasonable amount of water to a beneficial use (municipal-type uses including drinking and human sanitation). 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.

THEREFORE:

The requested use of water conforms to the relevant criteria in Division III, Part 4, Chapter 455B, Code of Iowa and Chapter 52 of Part 567, Iowa Administrative Code. No adverse effect upon other water users is foreseen at this time. No well interference has been noted. 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 Section

Date: January 13, 2026

IOWA DEPARTMENT OF NATURAL RESOURCES
WATER USE PERMIT

Permit issued to:

CITY OF CORALVILLE
WATER TREATMENT PLANT
PO BOX 5127
CORALVILLE IA 52241-0127

Permit Number: 2446-M8

Effective: xxxx

Expires: xxxx

The Permittee is authorized to:

withdraw water from three existing Silurian Dolomite aquifer wells, between 420 and 500 feet deep, located in the NW ¼ of the NE ¼ of Section 6, T79N, R06W; the NE ¼ of the SW ¼ of Section 31, T80N, R06W; and the SW ¼ of the SW ¼ of Section 32, T80N, R06W; from two new Silurian Dolomite wells, each 501 feet deep, located in Section 29, T80N, R06W; from three Cambrian-Ordovician (Jordan Sandstone) aquifer wells, between 1,715 and 1,740 feet deep, located on land generally described as the SE ¼ of the NE ¼ of Section 31, the SW ¼ of the SW ¼ of Section 32, T80N, R06W, and the NW ¼ of the NW ¼ of Section 5, T79N, R06W: and from three buried sand and gravel aquifer wells, between 80 and 90 feet deep, one located in the SE ¼ of the SW ¼ of Section 31, T80N, R06W, and two located in the NW ¼ of the NE ¼ of Section 6, T79N, R06W; all located in the City-established Well Fields in Johnson County, Iowa, in the maximum amount of 1650 million gallons per year at a maximum rate of 5,000 gallons per minute (10.0 cubic feet per second) throughout each year for municipal purposes within and without the permittee's corporate limits consistent with its municipal distribution system and other provisions of law.

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 Iowa Department of Natural Resources, Water Supply Engineering 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: xxxxx

cc: Permit File

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 monthly water use from each authorized source and submit them annually to the Department.

2. Permittee may be required to submit other information related to the regulation of this use of water as directed by the Department.

3. Permittee shall be responsible for securing and complying with all applicable provisions of state law, the rules and regulations of this Department, and of all federal and local health and water pollution control agencies in the operation of this facility.

4. Permittee shall be responsible for notifying the Department when there are changes to any conditions and authorizations given in this permit, including additional water source(s), well(s), intake(s), an expansion of the facility, or any other listed condition.

5. 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.

6. Each well authorized as a source of water in this permit must be constructed to allow for accurate measurement of water levels.

7. Withdrawals from permitted wells may be made only after the Permittee has made the following information available to the Department: well location(s), well log(s), and results of yield tests. Required chip samples shall be submitted to the Iowa Geological Survey.

8. Permittee shall be responsible for accurately measuring depth to water under non-pumping (static) conditions, depth to water under pumping conditions, and pumping rate(s) for all active wells listed in this permit, at a minimum of one measurement per year. These records shall be submitted annually to the Department.

9. As outlined in rule 567 52.4(3)., the Permittee may withdraw from the Jordan aquifer only when well pumping levels are above three hundred (300) feet from the baseline, or 50% of the 1978 water level, as determined from available Department records. The following table expresses specific conditions for Jordan aquifer wells listed in this permit.

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Local Name	**Well #1**	**Well #10**	**Well #12**
Feet Above Tier 2 (Tier 2 – pumping)	n.a.	-61	-40
Feet Above Tier 3 (Tier 3 – pumping)	n.a.	+39	+60

*Water levels from 2025 annual report.

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.

10. This permit supersedes Water Use Permit No. 2446-R7.

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.