NOTICE OF INTENT TO GRANT A PERMIT
AUTHORIZING THE USE OF WATER
FOR MUNICIPAL TYPE PURPOSES
IN MAQUOKETA 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, 6200 Park Avenue, Suite “200” Des Moines, Iowa 50321 an application as described below.

The City of Maquoketa, Iowa DNR Log Number 34,853, requests a modified water use permit authorizing the withdrawal of water from one buried sand and gravel aquifer well, approximately 99 feet deep, located in the NE ¼ of the NE ¼ of Section 24, T84N, R2E, and three existing Cambrian-Ordovician (Jordan Sandstone) aquifer wells, approximately 2,140 to 2,325 feet deep, located in the NE ¼ of the NE ¼ and the SW ¼ of the SE ¼ of Section 24, T84N, R2E, and the SW ¼ of the SW ¼ of Section 19, T84N, R3E, all in Jackson County, Iowa, in the maximum total quantity of 400 million gallons per year at a maximum total rate of 2400 gallons per minute 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. Permittee may withdraw water at a maximum rate of 1,200 gallons per minute from each well during periods of emergency use.

This modification entails the increase in annual total maximum quantity from 350 million gallons of water in a year to 400 million gallons of water per year.

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 for the application 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 **NOVEMBER 23, 2026**, and should be addressed "ATTN.: Water Supply Engineering Section" and should specify the applicant's log number 34,853.

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

IOWA DEPARTMENT OF NATURAL RESOURCES
WATER USE PERMIT SUMMARY REPORT

Applicant: City of Maquoketa

Application Iowa DNR Log No.: 34,853

The City of Maquoketa, Iowa DNR Log Number 34,853, requests a modified water use permit authorizing the withdrawal of water from one buried sand and gravel aquifer well, approximately 99 feet deep, located in the NE ¼ of the NE ¼ of Section 24, T84N, R2E, and three existing Cambrian_Ordovician (Jordan Sandstone) aquifer wells, approximately 2,140 to 2,325 feet deep, located in the NE ¼ of the NE ¼ and the SW ¼ of the SE ¼ of Section 24, T84N, R2E, and the SW ¼ of the SW ¼ of Section 19, T84N, R3E, all in Jackson County, Iowa, in the maximum total quantity of 400 million gallons per year at a maximum total rate of 2400 gallons per minute 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. Permittee may withdraw water at a maximum rate of 1,200 gallons per minute from each well during periods of emergency use.

This modification entails the increase in annual total maximum quantity from 350 million gallons of water in a year to 400 million gallons of water per year.

1. The water source consists of existing wells which will be in the Cambrian and Ordovician Sandstone. The aquifer is very loosely associated in this area with the Maquoketa River drainage basin system. The primary pathways for water movement in these rock formations are secondary fractures, joints, and bedding planes. Under normal conditions the aquifer, being associated with a large drainage basin system, will not be subject to depletion or experience an extended cone of depression as a result of water withdrawals made at this low magnitude and rate.

2. The Jordan well has a temperature below 55^{o} F.

3. Several neighboring water users requiring the diversion of water in sufficiently large proportions to require a water use permits is located in the vicinity of the applicant's withdrawal site and some of them draw water from a similar Jordan aquifer. Whereas these neighboring user uses water for a similar type purposes and the fact the department has no record of any well interference among these users at present, the department does not anticipate any significant negative impacts on these neighboring users as a result of the applicant's proposed use of water.

4. Based on the relatively low amount requested by the applicant, it is unlikely that any persons living in the vicinity of the applicant and having private (non-regulated) wells in a similar Jordan aquifer would experience any significant impacts as a result of the applicant's increased withdrawal of water from the existing wells. 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.

5. As outlined in rule 567 50.4(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.

Maquoketa [1278] Jordan Well Water Levels (percent decline)		
Local Well Name	Well #4	Well #6
Well Drill Date	2/20/1957	1/1/1978
Well Elevation (ft)	664	752
1978 Jordan Water Level Elevation (ft)	544	541
Total Well Depth (ft)	2,140	2,325
Total Casing Depth (ft)	900	980
2025 Static Water Level Depth (ft)*	201	199
2025 Pumping Water Level Depth (ft)*	274	244
1978 Jordan Baseline Level Depth (ft)	120	211
Depth to Top of Jordan Aquifer (ft)	691	800
Jordan Tier 2 Depth (50% of 1978 level)	405.5	505.5
Jordan Tier 3 Depth (75% of 1978 level)	548.25	652.75
Feet Above Tier 2 (Tier 2 – pumping)	+131.5	+261.5
Feet Above Tier 3 (Tier 3 – pumping)	+274.25	+408.75

Maquoketa [1278] Jordan Well Water Levels (feet decline)	
Local Name	Well #5
Drill Date	4/19/1963
Well Elevation (ft)	737
1978 Jordan Water Level Elevation (ft)	543
Total Well Depth (ft)	2,310
Total Casing Depth (ft)	891
2025 Static Water Level Depth (ft)*	210
2025 Pumping Water Level Depth (ft)*	253
1978 Jordan Baseline Level Depth (ft)	194
Jordan Tier 2 Depth (1978 level -300 ft.)	494
Jordan Tier 3 Depth (1978 level -400 ft.)	594
Estimated Feet Above Tier 2 (Tier 2 – pumping)	241
Estimated Feet Above Tier 3 (Tier 3 – pumping)	341

*Water levels from 2025 annual report.

6. The City of Maquoketa is in compliance with this rule provisions. No Jordan restrictions are necessary.

7. 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, 1962, the increased amount is justified by law, barring compelling circumstances that mitigate to the contrary. The City has consistently been obtaining ~10,000,000 gallons per year from the Jordan formation since the 1950s.

8. The amount and rate requested by the Applicant thus appear to be justified by law, barring compelling circumstances that mitigate to the contrary. The applicant is devoting a reasonable amount of water to a beneficial use (human drinking water consumption and associated sanitation and such types of uses). 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 50 of Part 567, Iowa Administrative Code. No 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 Section

Date: October 27, 2026

IOWA DEPARTMENT OF NATURAL RESOURCES
WATER USE PERMIT

Permit issued to:

CITY OF MAQUOKETA
WATER PLANT OPERATOR
110 PERSHING RD
MAQUOKETA IA 52060-2456

Permit Number: 1278-M8

Effective: xxxxx

Expires: xxxxx

The Permittee is authorized to:

withdraw water from one buried sand and gravel aquifer well, approximately 99 feet deep, located in the NE ¼ of the NE ¼ of Section 24, T84N, R2E, and three existing Cambrian_Ordovician (Jordan Sandstone) aquifer wells, approximately 2,140 to 2,325 feet deep, located in the NE ¼ of the NE ¼ and the SW ¼ of the SE ¼ of Section 24, T84N, R2E, and the SW ¼ of the SW ¼ of Section 19, T84N, R3E, all in Jackson County, Iowa, in the maximum total quantity of 400 million gallons per year at a maximum total rate of 2400 gallons per minute 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. Permittee may withdraw water at a maximum rate of 1,200 gallons per minute from each well during periods of emergency use.

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: _____

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 50.4(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.

Maquoketa [1278] Jordan Well Water Levels (percent decline)		
Local Well Name	Well #4	Well #6
Well Drill Date	2/20/1957	1/1/1978
Well Elevation (ft)	664	752
1978 Jordan Water Level Elevation (ft)	544	541
Total Well Depth (ft)	2,140	2,325
Total Casing Depth (ft)	900	980
2025 Static Water Level Depth (ft)*	201	199
2025 Pumping Water Level Depth (ft)*	274	244
1978 Jordan Baseline Level Depth (ft)	120	211
Depth to Top of Jordan Aquifer (ft)	691	800
Jordan Tier 2 Depth (50% of 1978 level)	405.5	505.5
Jordan Tier 3 Depth (75% of 1978 level)	548.25	652.75
Feet Above Tier 2 (Tier 2 – pumping)	+131.5	+261.5
Feet Above Tier 3 (Tier 3 – pumping)	+274.25	+408.75

Maquoketa [1278] Jordan Well Water Levels (feet decline)	
Local Name	Well #5
Drill Date	4/19/1963
Well Elevation (ft)	737
1978 Jordan Water Level Elevation (ft)	543
Total Well Depth (ft)	2,310
Total Casing Depth (ft)	891
2025 Static Water Level Depth (ft)*	210
2025 Pumping Water Level Depth (ft)*	253
1978 Jordan Baseline Level Depth (ft)	194
Jordan Tier 2 Depth (1978 level -300 ft.)	494
Jordan Tier 3 Depth (1978 level -400 ft.)	594
Estimated Feet Above Tier 2 (Tier 2 – pumping)	241
Estimated Feet Above Tier 3 (Tier 3 – pumping)	341

*Water levels are garnered from 2025 annual report.

The afore-mentioned chart indicates that Maquoketa is in compliance with this rule and no Joran restrictions are necessary.

10. Permittee must apply to renew this water use permit using the appropriate DNR form prior to the expiration date of the current permit version.

11. If water withdrawals or uses authorized under this permit are determined by the Department, based on available monitoring data, field observations, or other credible evidence, to be the cause of adverse effects on surface water streams, springs, or ponds, or the ecosystems attached or adjacent thereto, then the Department shall notify the Permittee in writing and may require the Permittee to reduce withdrawal rates, conduct additional hydrogeologic investigations, or take other corrective measures deemed necessary to protect the

ecological integrity of those surface waters. The Permittee shall respond to any such notice within 30 days with a proposed corrective action plan, subject to Department approval. For purposes of this condition, "adverse effects" include but are not limited to reductions in baseflow, degradation of cold-water or other designated uses, or harm to species or their habitat.

12. 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.

13. This permit supersedes Water Use Permit No. 1278-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.

SUMMARY REPORT

Permittee has applied to renew an existing permit that presently authorizes the requested withdrawals of water. The requested use of water conforms to the relevant criteria in Part 4 of Division III of Chapter 455B, Code of Iowa, and the relevant criteria and conditions in Chapter 50 of Part 567, Iowa Administrative Code.