

CHAPTER 52
CRITERIA AND CONDITIONS FOR AUTHORIZING WITHDRAWAL,
DIVERSION AND STORAGE OF WATER

[Prior to 12/3/86, Water, Air and Waste Management[900]]

Chapter rescission date pursuant to Iowa Code section 17A.7: 1/1/28

567—52.1(455B) Scope of chapter. This chapter contains criteria for issuance of water permits, permit conditions, and conditions under which the department may modify, cancel, or suspend permits. This chapter includes special criteria applicable to particular types of water uses such as irrigation and criteria applicable to particular types of sources of water such as surface waters and groundwater sources.

567—52.2(455B) Conditions on permitted water uses. This rule includes permit restrictions which apply to various types of permitted water uses. A permitted use may be subject to additional restrictions related to its potential effects on surface or groundwater. Requirements and restrictions which relate to particular types of water sources are found in rules 567—52.3(455B), 567—52.4(455B), 567—52.6(455B), 567—53.6(455B) and 567—53.7(455B). Procedures for determining conditions imposed due to well interference are found in rule 567—54.7(455B).

52.2(1) Irrigation permits.

a. Authorized irrigation season. Permits shall authorize irrigation of any general crop from April 1 to September 30 and any specialty crop from April 1 to October 31 unless the department finds that a different period is justified.

b. Authorized annual amount. Permits shall authorize withdrawals equivalent to 1 acre-foot per acre for a general crop and 2 acre-feet per acre for a specialty crop unless the department finds that a different amount is justified. Factors to be considered in determining whether a different amount is justified include soil types and potential water availability during drought events. Notwithstanding the general criteria in this paragraph, permits for irrigation of general crops from the alluvial aquifers of the Missouri and Mississippi Rivers shall authorize withdrawals of up to 1.5 acre-feet per acre if requested by the applicant unless the department finds that a different amount is justified.

c. Conservation plan for erosion control. When 567—subrule 50.6(2) requires that an applicant for an irrigation permit submit a soil conservation plan, any permit granted to the applicant shall make authorization of irrigation contingent upon compliance with the soil conservation plan.

d. Irrigation scheduling. The department may require that irrigation of a general crop be scheduled according to a method recommended by the department to minimize the potential for waste of water or by an equivalent method selected by the permittee and approved by the department.

e. Irrigation system check valve. Each irrigation permit shall require the permittee to install an adequate check valve and conduct frequent inspections for the proper functioning of the check valve to prevent back-siphoning of contaminants into the water source before a fertilizer, pesticide, herbicide, or other additive is introduced into the irrigation system.

52.2(2) The amount of water authorized for industrial use or power generation use shall be consistent with industrywide usage for the same or similar purposes and types of facilities and shall provide for growth where need is demonstrated by the applicant.

52.2(3) The amount of water authorized for use by a community public water supply shall not exceed 200 gallons per day per capita except additional water may be provided for growth and industrial use where need is demonstrated by the applicant.

52.2(4) Recreational and aesthetic permits.

a. Authorized amount. The amount of water authorized for recreational and aesthetic uses shall be determined on a case-by-case basis.

b. Watering system backflow-prevention valve. Each permit authorizing the use of water for turf or landscape plantings shall require the permittee to install an adequate check valve and conduct frequent inspections for the proper functioning of the check valve to prevent back-siphoning of contaminants into

the water source before a fertilizer, pesticide, herbicide or other additive is introduced into the irrigation system.

This rule is intended to implement Iowa Code section 455B.265.

567—52.3(455B) Conditions on withdrawals from streams.

52.3(1) *Streams draining less than 50 square miles.* Withdrawals of water from streams draining less than 50 square miles shall be subject to the following conditions:

a. Two hundred gallon per minute (200 gpm) restriction. New withdrawals of water for consumptive uses shall not be in excess of 200 gallons per minute (200 gpm) on an aggregate basis. However, the department may authorize withdrawals in excess of 200 gallons per minute (200 gpm) for storage purposes during high stream flows, taking into account other permitted withdrawals on the stream reach.

b. Protected flow restriction. Except as provided in 52.3(1)“c,” withdrawals for consumptive uses, with the exception of community public water supplies, shall cease when the stream flow is below the protected flow designated in rule 567—52.8(455B). When the flow of a stream, or portion thereof designated by the department, is below a flow equal to the protected flow plus the summation of all permitted consumptive withdrawals by permittees whose permits provide for maintenance of a protected flow in such stream or portion thereof, the department may, subject to the provisions of 52.3(1)“c,” order temporary cessation or rotation of all consumptive withdrawals, with the exception of community public water supplies, to ensure that the protected flow is preserved.

c. Replacement water exemption. Paragraphs 52.3(1)“a” and “b” shall not apply to withdrawals for consumptive uses from a stream if the permittee discharges replacement water into such stream at rates sufficient to offset the consumptive withdrawals and the department approves the method and location of discharge.

d. Exemption until July 1, 1991, for certain users. Rescinded IAB 6/7/06, effective 7/12/06.

52.3(2) *Streams draining 50 or more square miles.* Withdrawals of water from streams draining 50 or more square miles shall be subject to the following conditions:

a. Protected flow restriction. Except as provided in 52.3(2)“b,” withdrawals for consumptive uses, with the exception of community public water supplies, shall cease when the stream flow is below the protected flow designated in rule 567—52.8(455B). When the flow of a stream, or portion thereof designated by the department, is below a flow equal to the protected flow plus the summation of all permitted consumptive withdrawals by permittees whose permits provide for maintenance of a protected flow in said stream or portion thereof, the department may, subject to the provisions of 52.3(2)“b,” order temporary cessation or rotation of all consumptive withdrawals, with the exception of community public water supplies, to ensure that the protected flow is preserved.

b. Replacement water exemption. Paragraph 52.3(2)“a” shall not apply to withdrawals for consumptive uses from a stream if the permittee discharges replacement water into such stream or tributary thereto at rates sufficient to offset the consumptive withdrawals and the department approves the method and location of discharge.

c. Exemption until January 1, 1989, for certain water uses. Rescinded IAB 6/7/06, effective 7/12/06.

d. Exemption after December 31, 1988, for certain electric generating facility cooling needs. Rescinded IAB 6/7/06, effective 7/12/06.

e. Exemption until July 1, 1991, for certain users. Rescinded IAB 6/7/06, effective 7/12/06.

567—52.4(455B) Conditions on withdrawals from groundwater sources.

52.4(1) *Withdrawals from unconfined aquifers adjacent to streams draining less than 50 square miles.* Withdrawals of water from unconfined aquifers adjacent to streams draining less than 50 square miles shall be subject to the following conditions:

a. Two hundred gallon per minute (200 gpm) restriction. New withdrawals for a consumptive use at any location within ¼ mile (1320 feet) of a stream shall not be in excess of 200 gallons per minute (200 gpm), except when the applicant can conclusively demonstrate by conducting appropriate tests that withdrawals in excess of 200 gallons per minute (200 gpm) will not reduce the flow of the stream. However, the department may authorize withdrawals in excess of 200 gallons per minute (200 gpm) for storage purposes during high stream flows.

b. Protected flow restriction. Except as provided in 52.4(1)“c” and 52.4(1)“e,” withdrawals for consumptive uses, with the exception of community public water supplies, at any point within 1/8 mile (660 feet) of a stream shall be considered withdrawals from the stream and shall cease when the stream is below the protected flow designated in rule 567—52.8(455B), unless the applicant or permittee can conclusively demonstrate by conducting appropriate tests that the withdrawal will not reduce the flow of the stream.

c. Border stream-interior stream confluence restriction. Withdrawals for consumptive uses, with the exception of community public water supplies, from the alluvial aquifers below the floodplains of streams bordering the state at any point within 1/8 mile (660 feet) of any interior stream shall cease when the flow of such interior stream is at or below the seven-day, one-in-ten year (7Q10) low flow, except as provided in 52.4(1)“d.”

d. Other conditions. Notwithstanding 52.4(1)“a” to 52.4(1)“c,” other conditions may be imposed that are necessary to ensure adequate protection of water supplies for ordinary household, livestock, and domestic uses, for fish and wildlife, for recreational use, for the preservation and enhancement of aesthetic values, and for other uses of a public nature.

e. Replacement water exemption. Paragraphs 52.4(1)“a” to 52.4(1)“c” shall not apply to withdrawals for consumptive uses from an unconfined aquifer if the permittee discharges replacement water into such stream or tributary thereto at rates sufficient to offset the consumptive withdrawals and the department approves the method and location of discharge.

f. Exemption until July 1, 1991, for certain users. Rescinded IAB 6/7/06, effective 7/12/06.

52.4(2) *Withdrawals from unconfined aquifers adjacent to streams draining 50 or more square miles.* Withdrawals of water from unconfined aquifers adjacent to streams draining 50 or more square miles shall be subject to the following conditions:

a. Protected flow restriction. Withdrawals for consumptive uses, with the exception of community public water supplies, at any point within 1/8 mile (660 feet) of a stream shall be considered withdrawals from the stream and shall cease when the stream is below the protected flow designated in rule 567—52.8(455B), except as provided in 52.4(2)“c” to 52.4(2)“f.”

b. Seven-day, one-in-ten-year low flow restriction. Withdrawals for consumptive uses, with the exception of community public water supplies, at any point located between 1/8 mile (660 feet) and ¼ mile (1320 feet) of a stream, other than a stream bordering the state, shall cease when the stream flow is at or below the seven-day, one-in-ten-year low flow (7Q10), except as provided in 52.4(2)“c” to 52.4(2)“f.”

c. Border stream-interior stream confluence restriction. Withdrawals for consumptive uses, with the exception of community public water supplies, from the alluvial aquifers below the floodplains of streams bordering the state at any point within 1/8 mile (660 feet) of any interior stream shall cease when the flow of such interior stream is at or below the seven-day, one-in-ten-year (7Q10) low flow, except as provided in 52.4(2)“d.”

d. Other conditions. Notwithstanding 52.4(2)“a” to 52.4(2)“c,” other conditions may be imposed if they are necessary to ensure adequate protection of water supplies for ordinary household, livestock, and domestic uses, for fish and wildlife, for recreational use, for the preservation and the enhancement of aesthetic values, and for other uses of a public nature.

e. Replacement water exemption. Paragraphs 52.4(2)“a” to 52.4(2)“c” shall not apply to withdrawals for consumptive uses from an unconfined aquifer, if the permittee discharges replacement water into such stream or tributary thereto at rates sufficient to offset the consumptive withdrawals and the department approves the method and location of discharge.

f. Exemptions from low flow restrictions. The restrictions of 52.4(2)“a” to 52.4(2)“d” may be waived if the applicant or permittee can conclusively demonstrate by conducting tests to demonstrate that the withdrawal will not reduce the flow of the adjacent stream. The plan for testing must be approved by the department prior to the applicant’s or permittee’s conducting the tests.

g. Exemption until July 1, 1991, for certain users. Rescinded IAB 6/7/06, effective 7/12/06.

52.4(3) *Withdrawals from the Cambrian-Ordovician (Jordan) aquifer.* Withdrawals of water from the Cambrian-Ordovician (Jordan) aquifer, including the St. Peter sandstone formation, the Prairie du Chien group and the Jordan sandstone formation, shall be subject to the following conditions:

a. *Two-hundred-gallon-per-minute restriction on irrigation, recreational, or aesthetic uses.* New withdrawals of water for irrigation, recreational, or aesthetic uses shall not be in excess of 200 gallons per minute. Existing permits for irrigation, recreational and aesthetic uses that authorize withdrawal rates in excess of 200 gallons per minute may be modified or rescinded by the department if, as determined by the department, any well in the vicinity experiences loss of water due to pumping or if the pumping water level is reduced to or below the levels described in paragraphs “f” and “g” of this subrule.

b. *Two-thousand-gallon-per-minute restriction on industrial or power generation uses.* New withdrawals of water for industrial or power generation uses at one plant location shall not exceed 2,000 gallons per minute. Existing permits for industrial or power generation use that authorize withdrawal rates in excess of 2,000 gallons per minute may be modified or rescinded by the department if any well in the vicinity experiences loss of water due to pumping or if the pumping water level is reduced to or below the levels described in paragraphs “f” and “g” of this subrule.

c. *Limited cooling and geothermal use.* No once-through (single pass with disposal to storm sewer or equivalent) cooling water or geothermal usage is allowed. Withdrawals for geothermal purposes are prohibited unless 100 percent of the withdrawn water is reinjected into the aquifer in accordance with the requirements of the department.

d. *Jordan aquifer high-capacity permits and wells.* Water use permits for the Jordan aquifer shall be issued on a five-year permit cycle. The water use permit for wells expected to pump over 25,000 gallons per day from the Jordan aquifer must be obtained from the department before any water well construction permit is issued. After the water use permit has been obtained, the county may issue a Cambrian-Ordovician (Jordan) aquifer water well construction permit for any nonpublic water supply system unless that well is located in one of the protected-source areas listed in 567—subrules 53.7(2) and 53.7(3). The department may issue a Cambrian-Ordovician (Jordan) aquifer water well construction permit for a public water supply system or a well located in the protected source areas listed in 567—subrules 53.7(2) and 53.7(3). All driller’s logs for water use wells completed in the Jordan aquifer shall be submitted to the department and the Iowa Geological Survey.

e. *Tier 1 Jordan wells.* A Jordan water use well is classified as Tier 1 when pumping water levels have not reached Tier 2 or Tier 3 levels described in paragraphs “f” and “g” of this subrule. Permittees with Tier 1 Jordan wells shall follow standard water use reporting procedures for the Jordan aquifer pursuant to rule 567—52.6(455B).

f. *Tier 2 Jordan wells.* A Jordan well is classified as Tier 2 when the pumping water level measured at the well declines over 300 feet below the 1978 Horick and Steinhilber potentiometric surface or the pumping water level declines over 50 percent from the 1978 Horick and Steinhilber potentiometric surface and the top of the Jordan aquifer, whichever is more conservative. Permittees with Tier 2 wells shall comply with paragraph “h” of this subrule.

g. *Tier 3 Jordan wells.* A Jordan well is classified as Tier 3 when the pumping water level measured at the well declines over 400 feet below the 1978 Horick and Steinhilber potentiometric surface or the pumping water level declines over 75 percent from the 1978 Horick and Steinhilber potentiometric surface and the top of the Jordan aquifer, whichever is more conservative. Permittees with Tier 3 wells shall comply with paragraph “i” of this subrule.

h. *Site-specific water use reduction plan for Tier 2 Jordan wells.* Permittees with Jordan wells that have reached the Tier 2 level pursuant to paragraph “f” of this subrule shall develop a water use reduction plan and submit the plan to the department. The plan must be reviewed and approved by the department. The water use reduction plan shall set a defined usage percent reduction target that will minimize Jordan aquifer withdrawals and prevent the decline of the water level from reaching the Tier 3 category pursuant to paragraph “g” of this subrule. Guidance for writing and implementing water use reduction plans is available in paragraph “k” of this subrule. If the water use reduction plan is not implemented, the department may reduce the permitted water use allocation, pursue enforcement of the permit, or rescind the permit.

i. *Enhanced site-specific water use reduction plan and predictive model for Tier 3 Jordan wells.* Permittees with Jordan wells that have reached the Tier 3 level pursuant to paragraph “g” of this subrule shall develop an aggressive water use reduction plan using an approved predictive model that will lead to

recovery of the pumping water level to elevations above Tier 3 levels. The plan and model predictions shall be reviewed and approved by the department. If water levels continue to decline beyond the Tier 3 level, the department may reduce the permitted water use allocation, pursue enforcement of the permit including aspects of the water use reduction plan, or rescind the permit.

j. Variances. Variances from the restrictions imposed by these rules will be considered by the department through the procedures found in rule 567—50.9(455B) and in 561—Chapter 10.

k. Resources for developing water use reduction plans. The resources suggested by and available from the department as guidance for developing water use reduction plans are listed in paragraph 52.9(3)“d.”

52.4(4) Withdrawals from the Dakota Sandstone formation of the Cretaceous system. The department may issue permits authorizing withdrawals of water from the Dakota Sandstone formation of the Cretaceous system for all beneficial uses under the following conditions:

a. Inventory of nearby wells by applicant. An applicant who requests authorization for withdrawals of water at a maximum rate in excess of 200 gallons per minute shall conduct and submit an inventory of nearby wells as described in 567—paragraph 50.6(1)“b.”

b. Observation wells. In addition to the requirement of 52.6(3) for construction of an access port to allow measurement of water levels in each production well, an applicant or permittee may also be required to construct, maintain, and monitor observation wells as a condition of obtaining or keeping a water permit if the department finds observation wells necessary to monitor the effects of the proposed or authorized withdrawals of water. Observation wells must be properly constructed and responsive to water level fluctuations in the aquifer. Plans for and monitoring of the observation wells must be approved by the department.

c. Prohibition of excessive water level declines. If the department determines that withdrawals of water from the Dakota Sandstone 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, renewals of permits shall be denied, and permits shall be modified or canceled in accordance with procedures in Iowa Code section 455B.271, as necessary to protect the aquifer for sustained use.

d. Priorities in renewal, modification and cancellation of permits. If permit renewals must be denied or if permits must be modified or canceled to prevent or abate water level declines which constitute a significant threat to the public interest in the availability of water for sustained beneficial use of the aquifer, withdrawals of water for community public water supplies shall have priority over withdrawals of water for other regulated uses. The priority list for water use can be found in 52.10(3).

This rule is intended to implement Iowa Code sections 455B.261, 455B.264, 455B.266, 455B.271 and 455B.272.

[ARC 2053C, IAB 7/8/15, effective 8/12/15; ARC 4426C, IAB 5/8/19, effective 6/12/19]

567—52.5(455B) Duration of permits for withdrawal or diversion of water.

52.5(1) General. A permit granted shall remain as an appurtenance of the land described in the permit through the date specified in the permit and any extension of the permit or until an earlier date when the permit or its extension is canceled under 567—52.7(455B). Upon application for a permit prior to the termination date specified in the permit, a permit may be renewed by the department.

52.5(2) Permits for withdrawal or diversion of surface water. Permits for withdrawal or diversion of surface water shall be issued for ten years.

52.5(3) Permits for withdrawal of groundwater. Permits for withdrawal of groundwater shall be issued for a maximum period of ten years and may be granted for less than ten years if geological data on the capacity of the aquifer and the rate of its recharge are indeterminate.

This rule is intended to implement Iowa Code section 455B.265.

567—52.6(455B) Monitoring, recording and reporting of water use and effects on water source.

52.6(1) Water use reports. Each permittee shall submit to the department, at least annually, as prescribed by the department, reports of water used, diverted, or stored and any other information deemed necessary by the department.

52.6(2) Reserved.

52.6(3) *Requirement of access port for measurement of water levels in a regulated well.* All new water permits which authorize withdrawals from wells shall require that each authorized production well be equipped with an access port having a minimum diameter of $\frac{3}{4}$ inch. 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.

52.6(4) *Aquifer tests and observation wells.* A permittee may be required to conduct a controlled aquifer test as a condition of keeping a water permit if the department finds an aquifer test to be necessary to determine the effects which the authorized withdrawals have on other water uses. A controlled aquifer test, authorized by the department and supervised by a certified well contractor, licensed professional engineer or other designee of the department, may be required for an administrative resolution of a well interference conflict pursuant to 567—Chapter 54. The permittee may be required to construct, develop, and maintain adequate observation wells for use in an aquifer test and for subsequent water level measurements or water quality monitoring.

This rule is intended to implement Iowa Code sections 455B.261, 455B.264, 455B.266, 455B.268(1) and 455B.281.

[ARC 4426C, IAB 5/8/19, effective 6/12/19]

567—52.7(455B) Modification, cancellation, and emergency suspension of permits.

52.7(1) *General.* Except as provided in subrule 52.7(2), after at least 30 days' written notice mailed to the permittee's last-known address by certified mail and an opportunity for the permittee to be heard in an evidentiary hearing conducted according to the contested case provisions of Iowa Code chapter 17A, the department may modify or cancel a water permit or any condition of a permit, notwithstanding any other rule, for any of the following:

a. *Breach of permit condition or law.* A condition of the permit has been breached or the law pertaining to the permit has been violated by the permittee or permittee's agent, tenant, or consultant.

b. *Nonuse.* The permittee has failed for three consecutive years to use the water, and the permittee has not demonstrated adequate plans to use water within a reasonable time. Nonuse due to adequate rainfall shall not be a justification for cancellation of a permit. However, authorization to withdraw water from a proposed well may be canceled after notice to the permittee if the permittee has failed to construct the proposed well within three years after issuance of the permit.

c. *Public health and safety.* Modification or cancellation is necessary to protect the public health and safety, to protect the public interests in lands and waters, or to prevent any manner of substantial injury to persons or property.

d. *Addition of conservation provisions.* Modification to include conservation provisions is deemed necessary by the department.

e. *Allocated amount.* For three consecutive years, annual water use has exceeded the amount of water allocated in the permit.

52.7(2) *Emergency suspension or restriction.* Notwithstanding any other rule or permit conditions, if the department finds that it is imperatively necessary in an emergency to protect from imminent danger or substantial injury the public health, welfare or safety, the public or private interest in lands or water, or to implement the priority allocation system pursuant to rule 567—52.10(455B), and these findings are incorporated into a written emergency order to the permittee, then the department may immediately suspend or restrict operations under a permit and require the permittee to take measures necessary to prevent or remedy the injury. The emergency order shall state an effective date appropriate to the situation which invoked the suspension or restriction and shall be immediately effective on that date unless stayed, modified, or vacated at a hearing before the commission or by the court. The emergency order shall remain in effect until a date specified in the order, unless the order is revoked or the expiration date modified, due to a change in the situation giving rise to the order or a decision following appeal.

This rule is intended to implement Iowa Code sections 455B.271, 455B.272 and 17A.3.

567—52.8(455B) Designated protected flows of streams.

52.8(1) *Purpose.* The protected flow is designed to protect and maintain adequate water supplies for ordinary household and livestock use; for fish and wildlife use; for recreational use; for in-stream

wasteload assimilation and pollution control; for beneficial water use needs in the watershed; for preservation of aesthetic values; and for other uses of a public nature.

52.8(2) *Protected flow basis.* The protected flow is based in part on statistical information contained in “Low-Flow Characteristics of Iowa Streams,” (INRC Bulletin No. 9 (1958)), “Low-Flow Characteristics of Iowa Streams through 1966,” (INRC Bulletin No. 10 (1970)), “Annual and Seasonal Low-Flow Characteristics of Iowa Streams,” (INRC Bulletin No. 13 (1976)), and “Statistical Summaries of Selected Iowa Streamflow Data Through September 1996, U.S. Geological Survey Open-File Report 98-176 (1998).”

52.8(3) *Protected flow levels.*

a. At stream gaging stations. The protected flow, expressed in cubic feet per second (cfs) at points on a stream with an official U.S. Geological Survey stream flow gage are listed in the table below.

The Protected Flow at U.S.G.S.
Stream Gaging Locations

River or Stream	Gage Location	Protected Low Flow (CFS)
Beaver Creek	New Hartford	18
Big Creek	Mount Pleasant	2
Black Hawk Creek	Hudson	4.5
Boone River	Webster City	24
Boyer River	Logan	41
Cedar River	Conesville	1240
Cedar River	Cedar Rapids	937
Cedar River	Waterloo	710
Cedar River	Janesville	185
Cedar River	Charles City	100
Chariton River	Rathbun	2.9
Des Moines River	Keosauqua	350
Des Moines River	Ottumwa	300
Des Moines River	Tracy	300
Des Moines River	Des Moines (14th St.)	300
Des Moines River	Saylorville	200
Des Moines River	Stratford	310
Des Moines River	Fort Dodge	220
East Fork Des Moines River	Dakota City	42
East Nishnabotna River	Red Oak	37
East Nishnabotna River	Atlantic	18
Floyd River	James	22
Iowa River	Wapello	1390
Iowa River	Lone Tree	150
Iowa River	Iowa City	150
Iowa River	Marengo	204
Iowa River	Marshalltown	104
Iowa River	Rowan	21
Little Cedar River	Ionia	28
Little Sioux River	Turin	200
Little Sioux River	Correctionville	106
Little Sioux River	Linn Grove	42
Maple River	Mapleton	50
Maquoketa River	Maquoketa	372
Middle Raccoon River	Panora	20
Middle River	Indianola	14.6
Monona-Harrison Ditch	Turin	27
Nishnabotna	Hamburg	128

River or Stream	Gage Location	Protected Low Flow (CFS)
Nodaway	Clarinda	15
North Raccoon River	Jefferson	82
North Raccoon River	Sac City	14
North River	Norwalk	5.6
North Skunk River	Sigourney	35
Raccoon River	Van Meter	190
Rock River	Rock Valley	26
Shell Rock River	Shell Rock	147
Skunk River	Augusta	287
Soldier River	Pisgah	20
South Raccoon River	Redfield	58
South River	Ackworth	4.1
South Skunk River	Oskaloosa	94
South Skunk River	Ames (below Squaw Creek)	23
South Skunk River	Ames	4.8
Thompson River	Davis City	13
Turkey River	Garber	210
Upper Iowa River	Decorah	80
Walnut Creek	Hartwick	2
Wapsipinicon River	DeWitt	150
Wapsipinicon River	Independence	17
West Fork Cedar River	Finchford	66
West Fork Ditch	Hornick	12
West Nishnabotna River	Randolph	67
West Nishnabotna River	Hancock	49
White Breast Creek	Dallas	3.2
Winnebago River	Mason City	39

b. At stream locations other than gaging stations. The protected flow for points on a stream, other than at a U.S. Geological Survey gaging station, shall be established, as the need arises, by comparison of available stream flow data and basin characteristics.

This rule is intended to implement Iowa Code sections 455B.261, 455B.262 and 455B.267.

567—52.9(455B) Water conservation.

52.9(1) General. The purpose of water conservation requirements is to preserve the availability of water which is withdrawn for use, as opposed to protected flow provisions in rules 567—52.3(455B), 567—52.4(455B), and 567—52.8(455B) which preserve in stream flows.

Each permit granted after July 1, 1986, including any permit granted to a community public water supply, will include conditions requiring routine (day-to-day) conservation practices and requiring emergency conservation practices after notification by the department. Existing permits may be modified to include conservation conditions pursuant to 52.7(1)“d,” if deemed necessary by the department.

Only general provisions for routine conservation will be included in a permit, unless water is to be withdrawn from a protected water source designated in 567—Chapter 53 which has specific requirements for routine conservation. Permit conditions requiring routine conservation are primarily intended to raise awareness of water usage, develop a preparedness for periods of water shortages, and minimize waste of water.

General conditions involving emergency conservation will be included in all permits. Specific emergency conservation conditions may be included in a water use permit pursuant to subrule 52.9(2). If specific emergency conservation permit conditions are required, they will be based on a water conservation plan developed by the permittee or applicant, in accordance with subrule 52.9(3), and approved by the department.

The purpose of emergency conservation is to minimize consumptive use of water from a source experiencing a temporary shortage. Emergency conservation restrictions will be imposed only when water shortages are imminent or actually exist, in accordance with rule 567—52.10(455B). Long-term water shortages may be dealt with in the protected source rules, 567—Chapter 53.

52.9(2) *Applicability of emergency conservation.* Specific emergency conservation requirements may be made a condition of a water withdrawal permit if the proposed or permitted withdrawal could result in a significant consumptive use of water from a source which is likely to experience a short-term shortage.

Specific emergency conservation requirements will not normally be included in a water use permit under any of the following conditions:

a. The proposed or existing permitted water use involves a consumptive use of less than 25,000 gallons per day from any water source during periods of substantial water shortage.

b. The proposed or permitted use is subject to protected stream flow conditions pursuant to rules 567—52.3(455B), 567—52.4(455B), and 567—52.8(455B).

c. The water source for the proposed or permitted use is from a surface water impoundment or purchased storage owned by the applicant or permittee.

d. The proposed or permitted use is unable to conserve water without substantially disrupting or ceasing an essential activity which requires water, such as operating a steam electric generating plant, watering livestock, or operating a commercial laundry.

e. The proposed or permitted withdrawal is from a source of water which is not likely to experience a substantial short-term water shortage including, but not limited to, the Missouri and Mississippi Rivers and adjacent alluvial aquifers, the Jordan Sandstone Aquifer, and the Iowa Great Lakes.

f. The source of water is or will be utilized by only the permitted or proposed water user and withdrawal from the source for the permitted or proposed use has no potential for affecting other water uses.

52.9(3) *Water conservation plans.* Unless specific emergency conservation permit conditions are not required in accordance with subrule 52.9(2), the applicant or permittee shall submit a water conservation plan with an application for a new water use permit or renewal of an existing permit. The department may also require a water conservation plan to be submitted by any existing permittee after a minimum of 90 days' notice. If an applicant is in doubt as to whether or not the application requires a water conservation plan, the department should be contacted and provided with a description of the proposed source of water, intended use, and desired amount and rate of withdrawal. The department will then make a determination of whether or not a conservation plan is necessary. If a water conservation plan is required with an application for permit renewal, the department will notify the permittee at least 120 days prior to expiration of the permit.

Water conservation plans shall describe the measures to be used to achieve water conservation and estimate water savings from each measure. Water conservation plans must contain the following information, as applicable, to be approved by the department.

a. General provisions. The following information shall be included in all water conservation plans:

(1) A description of each source of water withdrawal (i.e., well or surface water intake) including the location, well depth, pumping rate, and date of installation.

(2) A description of wastewater discharge including the location and discharge frequency.

(3) Monthly withdrawal amounts from each source for the past five years.

(4) Monthly total water withdrawal amount for the past five years.

(5) Monthly total wastewater discharge amount for the past five years.

(6) A quarterly breakdown, by the water use categories in subrule 52.10(3), of total water use and estimated consumptive water use over the past five years.

(7) A description of any previous water shortage problems, including the cause, frequency, other affected parties, and how they were resolved.

(8) Identification of nearby water supplies which are potentially affected by or could potentially affect the proposed or permitted withdrawal.

(9) A means of identifying impending water shortage problems (e.g., water level in wells or a reservoir decline to a certain level or stream flows fall to a certain rate).

b. Routine conservation provisions. Consideration of routine conservation is encouraged although it is not normally required in a water conservation plan. Documented water savings from routine conservation measures will be credited towards emergency conservation requirements. Suggested routine conservation measures include:

- (1) Use of water-saving plumbing devices or required use of these devices in building codes.
- (2) Scheduling irrigation to minimize peak water use.
- (3) Use of efficient irrigation techniques.
- (4) Implementing programs to minimize lost water, such as distribution system leaks.
- (5) Use of metered water billing by public water supplies.
- (6) Utilizing best commercially available technology to optimize efficiency of water use.
- (7) Implementing recycling and reuse practices.
- (8) Developing alternative water sources which are not susceptible or are less susceptible to shortages.
- (9) Increasing rates charged for water or eliminating reduced rates for large users.

c. Emergency conservation provisions. Water conservation plans shall contain emergency conservation provisions in accordance with the following criteria.

(1) General. The consumptive nature of a water use, as described in subrule 52.9(2) and determined from information required in 52.9(3) "a," shall be reduced by at least 50 percent over similar periods of normal use. This criterion does not apply to irrigation use. If this requirement cannot be met, justification for nonattainment shall be provided which must include documentation that an activity involving water use is essential and demonstration of use of best commercially available technology. The department may then grant variances on a case-by-case basis.

Measures which will be credited for emergency conservation include, but are not limited to, the following: documented water savings resulting from routine water conservation measures; shutdown, postponement, or curtailment of nonessential activities involving water use; switching to nonaffected sources for water supply; mitigation of consumptive uses by direct discharge of stored water or water from a nonaffected source to the affected water source; acquisition and retirement of existing consumptive uses from the affected water source (credit for retirement of existing consumptive uses will be given only for the amount authorized during periods when emergency conservation is required); and imposing surcharges on water use during periods of shortage.

(2) Public water supplies. At a minimum, emergency water conservation plans for public water supplies must include provisions for restricting outside, consumptive water use.

(3) Irrigation water use. Emergency water conservation plans for irrigation water uses shall limit irrigation water use to the equivalent of one inch per irrigated acre per week for general crops and specialty crops, unless the water conservation plan contains other mitigating provisions such as those listed in 52.9(3) "c"(1) above.

Water conservation plans shall also address irrigation scheduling. Irrigation scheduling should attempt to provide approximately equal water use on each day of an irrigation cycle. Irrigation scheduling may be done in cooperation with other nearby irrigators who utilize the same water source.

d. Resources for water conservation and water use reduction planning.

(1) The following resources are suggested by and available from the department as guidance for the development of water conservation plans and water use reduction plans:

1. "Water Wise—Efficiency Planning and Water Conservation Plan Workbook for Water and Wastewater Utilities," Iowa Association of Municipal Utilities, 2013 (available online through the department's website).

2. "Water Conservation Programs—A Planning Manual," Manual of Water Supply Practices M52, American Water Works Association, 2006.

3. "Handbook of Water Use and Conservation," Amy Vickers, Waterplow Press, Amherst, Massachusetts, 2001.

(2) Water conservation plans and water use reduction plans shall comply with the standards of the American Water Works Association or a reasonable equivalent as determined by the department.

This rule is intended to implement Iowa Code sections 455B.262 and 455B.265.

567—52.10(455B) Priority allocation restrictions.

52.10(1) General. After any event described in subrule 52.10(2) has occurred, the department will investigate and, if appropriate, may restrict water use according to the priority allocation plan as described in subrule 52.10(3). Prior to imposing the priority allocation plan, the department will normally require emergency conservation measures to be taken by existing permittees. The department will not normally require emergency conservation until a shortage of water is imminent and will not normally impose the priority allocation plan until an actual impairment of water usage exists.

The department will notify existing permittees of any emergency restriction or suspension of water use by written order pursuant to subrule 52.7(2). A permittee will be required to maintain daily records of water withdrawal and wastewater discharge, if any, while the emergency order is in effect. These records shall be available for inspection by the department to verify compliance with the order.

Suspension or restriction of water usage applicable to otherwise nonregulated water users shall be by emergency order of the director which the department shall cause to be published in local newspapers of general circulation and broadcast by local media. The emergency order shall state an effective date of the suspension or restriction and shall be immediately effective on that date unless stayed, modified or vacated at a hearing before the commission or by a court.

The department will lift the suspension or restriction of water usage, as deemed appropriate, when evidence of sustained, improved conditions is available.

The department will not impose a suspension of water or a further restriction, other than emergency conservation, on the uses of water provided in paragraphs 52.10(3) “g” through “i” or on uses of water pursuant to a contract with the state as provided in Iowa Code subsections 455B.263(5) and 455B.263(6) unless the governor has issued a proclamation, as described in paragraph 52.10(2) “b.” Notwithstanding such proclamation, in the case of water use under a contract with the state pursuant to Iowa Code subsections 455B.263(5) and 455B.263(6) and in effect prior to March 5, 1985, restriction or suspension measures will be limited to emergency conservation.

52.10(2) Triggering events. The department may implement the priority allocation plan following the occurrence of any of the following:

a. Receipt of a petition by a governmental subdivision or 25 persons that the priority allocation plan be implemented due to a substantial local water shortage adversely affecting their water supply.

b. Issuance by the governor of a proclamation of a disaster emergency due to a drought or other event affecting water resources of the state.

c. Determination by the department in conjunction with the homeland security and emergency management division of the Iowa department of public defense of a local crisis which affects availability of water.

d. Receipt of information from a state or federal natural resource, research or climatological agency (including the National Drought Monitor) indicating that a drought of local or state magnitude is imminent. As a general guideline, emergency conservation or priority allocation restrictions will not be imposed on withdrawals from a surface stream or adjacent alluvial aquifer when stream flow is above the seven-day, one-in-ten-year low-flow level.

52.10(3) Priority allocation plan. Notwithstanding a person’s possession of a permit or the person’s use of water being a nonregulated use, the department may suspend or restrict usage of water by category of use on a local or statewide basis in the following order:

a. Water conveyed across state boundaries.

b. Water used primarily for recreational or aesthetic purposes.

c. Uses of water for the irrigation of any general crop.

d. Uses of water for the irrigation of any specialty crop.

e. Uses of water for manufacturing or other industrial processes.

f. Uses of water for generation of electrical power for public consumption.

g. Uses of water for livestock production.

h. Uses of water for human consumption and sanitation supplied by rural water districts, municipal water systems, or other public water supplies.

i. Uses of water for human consumption and sanitation supplied by a private water supply.

This rule is intended to implement Iowa Code section 455B.266.

567—52.11(455B) Plugging of abandoned wells. When authorization for withdrawals of water from a well expires without renewal, the permittee shall be responsible for plugging the well in accordance with Iowa Code section 455B.190, 567—Chapter 39, and Iowa Geological Survey Public Information Circular #1, “Well Plugging Procedures,” or by an alternate method approved by the department for prevention of groundwater pollution. Form 542-1226 (Abandoned Water Well Plugging Record) must be completed and submitted as specified on the form. However, the department shall grant a variance from the requirement that the well be plugged if the permittee demonstrates an intent to maintain the well as a source of water for a nonregulated use or if the department determines that the well should be maintained as an observation well.

This rule is intended to implement Iowa Code sections 455B.262 to 455B.279(2).

567—52.12 to 52.19 Reserved.

567—52.20(455B) Water storage permits. Rescinded **ARC 5899C**, IAB 9/8/21, effective 10/13/21. See rule 567—73.11(455B).

567—52.21(455B) Permits to divert water to an agricultural drainage well.

52.21(1) Approval criteria. An application for a permit to divert water or other material to an aquifer by means of an agricultural drainage well shall not be approved if the agricultural drainage well is located within a designated agricultural drainage well area or the drainage well is to be constructed after February 18, 1998. An initial permit for the diversion of water or any material to an aquifer by means of an agricultural drainage well shall be based on a finding that the following criteria are satisfied. Renewal of such a permit shall be made only upon a finding that such owners, lessees, easement holders, or option holders are in compliance with the conditions of the initial permit or any permit issued thereafter and that the agricultural drainage well meets applicable approval criteria, including paragraph 52.21(1) “c.”

a. The application for the permit has been submitted by or on behalf of all owners, lessees, easement holders, or option holders of all lands which are drained by the agricultural drainage well.

b. There is reasonable assurance that the applicant(s) can minimize the contamination potential to the aquifer through closure of surface water intakes, elimination of any septic system connections, and other appropriate management practices including nutrient and pesticide management as required under subrule 52.21(2).

c. There are no economically and physically viable alternatives to the use of the agricultural drainage well. The department will consult with the division of soil conservation and water quality, department of agriculture and land stewardship, and other parties with drainage expertise as necessary to determine if viable alternatives exist. In determining whether a viable alternative exists, the department will consider all relevant factors, including the following:

(1) The impact that closure of the ADW would have on lands drained by the agricultural drainage well if an alternative drainage system is not provided.

(2) The cost and feasibility of providing an alternative outlet. Alternative drainage systems constructed under the provisions of the alternative drainage system assistance program administered by the division of soil conservation and water quality will be considered as a viable alternative to the use of the agricultural drainage well.

(3) The availability of public assistance for the construction of an alternate outlet or for compensation for loss of productivity on lands drained by the agricultural drainage well.

(4) The results of the engineering study provided for under 52.21(2) “l.”

52.21(2) Approval conditions. Permits granted for the diversion of water or any material to an aquifer by means of an agricultural drainage well shall be subject to the following conditions as appropriate.

a. Surface water intakes. All surface water intakes shall be removed by December 31, 2001. Additional tile lines may be added to compensate for removal of surface water intakes provided the replacement tile does not increase the size of the agricultural drainage well area. Replacement tiles shall

generally conform with the Natural Resources Conservation Services Tile Intake Replacement Interim Standard 980.

b. Cisterns. Cisterns shall be sealed or otherwise modified as necessary by December 31, 2001, to prevent direct entry of surface water. Compliance with the Natural Resources Conservation Services Wellhead Protection Interim Standard 981 will be considered as complying with this condition. Alternatives to the interim standard may be allowed with department approval.

c. Access/ventilation. The agricultural drainage well or its cistern shall be provided with a locked cover to prevent unauthorized access. If the agricultural drainage well and the related drainage system is ventilated, ventilation shall be accomplished in a manner that will not allow surface water to enter the agricultural drainage well.

d. Repair and maintenance. The agricultural drainage well and the associated drainage system may be repaired and maintained as needed to maintain drainage efficiency. The drainage well and associated tile drainage system shall be maintained in a condition so as to prevent surface water which has not filtered through the soil profile from entering the drainage well.

e. Modifications of drainage well. The agricultural drainage well shall not be modified without department approval. The related drainage system may be modified without department approval providing the modifications do not enlarge the agricultural drainage well area. Construction of new surface water intakes is not allowed.

f. Closure. If the permittee discontinues use of the agricultural drainage well, the department shall be notified and closure shall be made in accordance with 567—Chapter 39 or by an alternative method approved by the department. The permit will be revoked upon submission of proof that the drainage well was properly closed.

g. Modification or cancellation of permit. As provided in 567—52.7(455B), the department may modify or cancel the permit or require the permittee to take other actions to protect the public health and safety, to protect the public interest in lands and waters, or to prevent any manner of substantial injury to persons or property.

h. Waste systems. Effluent from wastewater treatment or storage systems, including on-site wastewater treatment and disposal systems such as septic systems, shall not be allowed to directly enter the agricultural drainage well or associated tile drainage system. Runoff controls consistent with Chapter 65 requirements and guidance may be required for feedlots that discharge across lands drained by an agricultural drainage well to control manure nitrogen and to eliminate the potential for direct entry of animal wastes into an agricultural drainage well or its drainage system.

i. Nitrogen management. The application of nitrogen from all sources, including manure, legumes, and commercial fertilizers, on lands within an agricultural drainage well drainage area shall not exceed the nitrogen use levels necessary to obtain optimum crop yields for the crop being grown.

j. Application of liquid animal wastes. Application of liquid animal waste to lands drained by the agricultural drainage well shall be done in a manner that will not result in a discharge of the waste to the drainage well or associated drainage system.

k. Application of pesticides. The application of pesticides on lands within the agricultural drainage well area shall be in accordance with the provisions of Iowa Code chapter 206 and rules adopted pursuant to chapter 206.

l. Alternatives to the use of the agricultural drainage well. Prior to reissuance of a permit for the continued use of an agricultural drainage well, the permittee(s) shall conduct an engineering study of the physical and economic feasibility of alternatives to the continued use of the agricultural drainage well. The study shall comply with the provisions of Iowa Code chapter 542B regarding certification by a licensed professional engineer. The results of the study shall be submitted to the department at least one year prior to a request to renew a permit.

52.21(3) *Closure of existing agricultural drainage wells.*

a. Agricultural drainage wells within a designated agricultural drainage well area. A permit shall not be granted for the diversion of water or other material into an aquifer by means of an agricultural drainage well if the drainage well is located within a designated agricultural drainage well area. All existing agricultural drainage wells within a designated agricultural drainage well area shall be closed by December

31, 1999. Closure shall be in accordance with 567—Chapter 39, Requirements for properly plugging abandoned wells, or by an alternative method approved by the department. Cisterns shall be filled in or removed and filled in with earth or other suitable material and any tile lines shall be removed for a distance of 10 feet around the wellhead or, alternatively, be replaced with nonperforated pipe. The owner of the land on which the agricultural drainage well is located shall provide the department with notice that the well has been closed in accordance with the requirements of this paragraph. Agricultural drainage wells that have been properly closed will no longer be considered an agricultural drainage well by the department.

b. Other agricultural drainage wells. Existing agricultural drainage wells that have not been authorized by permit by December 31, 1999, shall be closed by that date unless the department has granted a waiver to the closure requirements. The closure procedures shall be as specified in 52.21(3) “a.”

This rule is intended to implement Iowa Code chapter 455I.

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[Filed ARC 5899C (Notice ARC 5677C, IAB 6/16/21), IAB 9/8/21, effective 10/13/21]

¹ At its meeting held February 9, 1998, the Administrative Rules Review Committee delayed 52.5 and 52.21 until the adjournment of the 1998 Session of the General Assembly.