#### DIVISION C

WITHDRAWAL, DIVERSION AND STORAGE OF WATER: WATER RIGHTS ALLOCATION

#### CHAPTER 50

# WATER USE, WITHDRAWALS, AND DIVERSIONS

SCOPE OF DIVISION DEFINITIONS FORMS RULES OF PRACTICE

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

**567—50.1(455B) Scope of division.** The department has jurisdiction over the surface and groundwater of the state to establish and administer a comprehensive program to ensure that the water resources of the state be put to beneficial use to the fullest extent possible, that the waste or unreasonable use, or unreasonable methods of use of water be prevented, and that the conservation and protection of water resources be required with the view to their reasonable and beneficial use in the interest of the people.

Any person who proposes to pump or divert by gravity more than 25,000 gallons of water during a period of 24 hours or less from any source of groundwater or surface water, including streams bordering the state<sub>2</sub>; impound surface water<sub>2</sub>; divert surface runoff into a well, sinkhole or excavation or inject water or any material into a well has a duty to review the thresholds in this Chapter 51 and contact the department to resolve any doubt concerning whether a permit is required.

This chapter 54 explains when approval is required for withdrawal, diversion, or storage of water and the-Chapter 52 explains criteria for permitting the withdrawal or, diversion or storage of water. Chapter 53 sets forth
the procedure for designating certain ground and surface water sources as protected sources and explains special
criteria and conditions that which may be applicable to those sources. Chapter 54 describes procedures and
criteria for determining compensation to owners of nonregulated wells for well interference caused by permitted
uses.

567—50.2(455B) Definitions. In addition to the definitions, references, and abbreviations in 567—Chapter 40, the following definitions apply to this title unless otherwise specified in the particular chapter of this title Definitions used in this division of these rules are listed in alphabetical order as follows:

"Adequate groundwater supply" means an aquifer which is capable of providing enough water to satisfy the demands which have been placed on it.

"Administrative resolution" means the settlement of well interference conflicts by the department according to established rules and procedures.

"Agricultural drainage well" means a vertical opening to an aquifer or permeable substratum which is constructed by any means including but not limited to drilling, driving, digging, boring, using an auger, jetting, washing, or coring, and which is capable of intercepting or receiving surface or subsurface drainage water from land directly or by a drainage system.

"Agricultural drainage well area" means an area of land where surface or subsurface water drains into an agricultural drainage well directly or through a drainage system connecting to the agricultural drainage well.

"Apparent well interference" means well interference in a nonregulated well resulting from a permitted use is likely but has not been verified.

"Aquifer" means a water-bearing geological formation—(soil or rock) of sufficient volume, porosity, and permeability to be capable of yielding a usable quantity of water to a well or spring.

"Bulletin No. 23" means Technical Bulletin No. 23 entitled "Guidelines for Well Interference Compensation," March 1986.

"Certified well contractor" means a well contractor who has successfully passed an examination prescribed by the department to determine the applicant's qualifications to perform well drilling or pump services or both pursuant to 567—Chapter 82.

"Community public water supply" or "CWS" means a system for the provision to the public of piped water for domestic use that which has at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.

"Compensation" means payment to the owner of a nonregulated well for damages caused by a lowered water level in the well due to withdrawal of water for a permitted use.

**Commented [1]:** Adequate groundwater supply - now defined in Chapter 54.

**Commented [2]:** Apparent well interference - now defined in Chapter 54.

**Commented [3]:** Bulletin No. 23 - now defined in Chapter 54.

**Commented [4]:** Compensation - now defined in Chapter 54.

"Complainant" means the owner of a nonregulated well who is suspected of being or has been shown to be adversely affected by well interference.

"Complaint" means the formal allegation against a permitted water user who is suspected of causing well interference.

"Confined aquifer" means an aquifer that which contains water under pressure and bounded above and below by confining layers overlain by impermeable formations such as elay or shale. In a well penetrating a confined aquifer, pressure will cause water to rise above the top of the aquifer. If the pressure in a confined aquifer is sufficiently great, water will rise above the ground surface and flow from a well, thus resulting in a "flowing artesian well" or a "naturally flowing well."

"Confining layer" means a body of low permeable geologic material that is located above or below one or more aquifers.

"Conflict" means a dispute between a nonregulated or regulated well owner and a permitted water user regarding the liability of the permitted user for well interference damages to the nonregulated well.

"Consumptive use" means any use of water that which involves substantial evaporation, transpiration, incorporation of water into a product or removal of water from a source without return to the source thereto. Consumptive uses include, but are not limited to, irrigation, evaporative cooling, and flooding of wildlife areas by withdrawals or diversions from watercourses or aquifers.

"Controlled aquifer test" means a test, as approved by the department, for pumping from a well at a controlled rate for a specified duration while water levels are accurately measured at given frequencies in the pumping well and other nearby wells which use the same aquifer.

"Designated agricultural drainage well area" means an agricultural drainage well area in which there is located an anaerobic lagoon or earthen manure storage structure which requires a construction permit under 567—Chapter 65.

"Domestic use" means a use of water for human consumption and sanitation and public safety (fire protection).

"Drainage system" means tile lines, laterals, surface inlets, or other improvements that which are constructed to facilitate landthe drainage of land.

"Drawdown" means the decrease in groundwater level due to well pumping.

"Earthen storage structure" means an earthen cavity, either covered or uncovered, including but not limited to an anaerobic lagoon or earthen manure storage basin which is used to store manure, sewage, wastewater, industrial waste, or other waste as regulated by the department of natural resources, if stored in a liquid or semilipuid state.

"General crop" means hay, commercial field corn, hay, soybeans, oats, grain sorghum, or wheat.

"Industrial use" means a use of water by manufacturing, processing, commercial, and other industrial facilities incidental to provideing a product or a service, excluding domestic use, irrigation use, livestock use, quarry use, nonindustrial power generation use, and recreational and aesthetic use. Examples include but are not limited to manufacturing, food processing, industrial cooling, excavation and processing of rock and gravel products, commercial laundries, cooling of perishables and electrical power generation other than for public consumption.

"Interior stream" means rivers, creeks, or other watercourses located within the interior of Iowa, not forming the borders of the state.

"Informal negotiations" means discussion between a complainant and permittee or applicant regarding settlement of a well interference conflict.

"Informal settlement" means a resolution of a well interference conflict by informal negotiations between a complainant and permittee or applicant without formal action by the department.

"Irrigation use" means a use of water that which is artificially applied to land to aid the growthing of general crops and specialty crops.

"Livestock use" means a use of water in the production of animals, such as for drinking, sanitation, and cooling.

"Nonregulated well" means a well used to supply water for a nonregulated use. (a use of water less than 25,000 gallons per day which is not required to have a water use permit).

**Commented [5]:** Complainant - now defined in Chapter 54.

**Commented [6]:** Complaint - now defined in Chapter 54

**Commented [7]:** Informal negotiations - now defined in Chapter 54.

**Commented [8]:** Informal settlement - now defined in Chapter 54.

"Permanent storage" means the volume of water expressed in acre feet which is stored upstream from a dam or in an impoundment up to the level of the principal outlet works of the structure.

"Permitted use" means a use of water in excess of 25,000 gallons per day that which requires a water use permit pursuant to these rules and 567—Chapters 51 and 52 and Iowa Code chapter 455B, subchapter 111, part 4.

"Pesticide" means (1) any substance or mixture of substances intended tofer preventing, destroying, repelling, or mitigate ing directly or indirectly any insects, rodents, nematodes, fungi, weeds, orand other forms of plant or animal life or viruses, except viruses on or in living persons, which the secretary of agriculture shall declare to be a pest; and (2) any substance intended for use as a plant growth regulator, defoliant, or desiccant.

"Power generation use" means a use of water incidental to the generation of electric power for distribution and sale to the public, including process water (e.g., boiler makeup) and water for cooling purposes.

"Protected flow" means the "established average minimum flow" defined in Iowa Code section 455B.261

"Protected source" means a surface water or groundwater source recognized by rule as needing special protection in order to ensure its long-term availability, in terms of either quality, or both, to preserve the public health and welfare.

"Pump test" means a department-approved test for pumping from a well at controlled rate(s) for a specified duration while water levels are accurately measured at given frequencies in the pumping well and observation well(s).

"Quarry use" means a use of water for the extraction of stone, sand, minerals, or other geologic materials from the earth.

"Recreational and aesthetic use" means a use of water that which can be curtailed and is not essential for the preservation of life, the general welfare, or the state's economic base. Examples include but are not limited to flooding of wildlife areas. filling of pools and fountains. nonessential cooling. car washing. street cleaning. washing of other exterior surfaces such as windows and walls; amusement park-type water rides. turf watering such as lawns, golf courses, and athletic fields; and watering of landscape plantings.

"Seven-day, 1-in-10 year low flow" or "(7Q10)" means the minimum average flow expected to occur during a period of seven consecutive days whichthat has an average recurrence interval of once in ten years. The 7Q10 may be calculated for specific seasonal periods of less than one year when appropriate.

"Specialty crop" means all other crops not listed as a general crop, including but not limited to melons, sod farm or seed corn.

"Stream" means a "watercourse" other than a lake as defined in Iowa Code section 455B.261

"Stream bordering the state" means those reaches of the Missouri, Mississippi, Des Moines, and Big Sioux rivers that mark Iowa's serve as a state boundariesy.

"Sufficient water supply" means a nonregulated well that which is capable of providing enough water for the nonregulated use.

"Surface water" means water occurring on the surface of the ground.

"Surface water intake" means an artificial opening to a drain tile that which drains into an agricultural drainage well, if the artificial opening allows surface water to enter the drain tile without filtration through the soil profile.

"Suspect permittee" means a party possessing a water use permit when the permitted use is suspected of causing well interference in a nonregulated well.

"Test pumping" means a controlled aquifer test for verification of well interference, using the existing wells and pumping systems of the complainant and suspect permittee.

"Verified well interference" means well interference that which has been proven by test pumping or with other substantial evidence to have caused or will cause a nonregulated well to be unable to maintain a sufficient water supply.

"Water use reduction plan" means a planprogram that establishes numeric water reduction goals—(e.g., percent or volume of water per day) on a short-term time frame through either voluntary or mandatory water conservation regulatory requirements\_(e.g., plumbing codes, sprinkling ordinances, et al.) for each customer category (residential, commercial, industrial, landscape irrigation, agricultural, recreational, or other). Such a plan shall include a mechanism for evaluating the system's unaccounted for water (water audit or the equivalent).

**Commented [9]:** Suspect permittee - now defined in Chapter 54.

**Commented [10]:** Change the test pumping definition as (1) test pumping, as discussed in the new 50.2(2) and 50.6(1) is needed for new wells, and (2) the term "suspect permittee" is being struck and moved to Chpt 54.

An industrial permittee water use reduction plan shall examine reduction of the use of water in heat transfer, use of water for washing, and use of water as an incorporated ingredient. Each customer category or use category should be evaluated by the permittee. The permittee will then determine how to meet the water reduction goals.

"Well interference" means the lowering of water level in a well caused by the withdrawal of water at another location (usually a nearby well).

[ARC 2053C, IAB 7/8/15, effective 8/12/15]

#### 567—50.3(17A,455B) Forms for withdrawal, diversion, or storage of water.

**50.3(1)** Application forms. The following application forms are currently in use:

Form 16: Application for a New Water Use Permit or to Modify an Existing Water Use Permit. 542-3106.

Form 18: Application for Permit to Store Water for Beneficial Use. 542-3109.

Form 20: Registration of Minor Nonrecurring Use of Water. 542-3112.

Form 542-1470: Water Supply Section Water Use Permit Renewal.

Form 542-1539: Application for Use of an Agricultural Drainage Well.

**50.3(2)** Supplementary information forms. The following forms are used to obtain additional information to supplement various types of applications:

Form 21: Survey of Land Owners and Occupants. 542-3113.

Form 22: Well Inventory Form. 542-3114.

Form 122: Water Well Inspection Report.

50.3(3) Reporting form. The following form is for reporting permitted activities:

Form 23: Report of Water Use by all Regulated Users. 542-3115.

#### 567 50.4(17A,455B) How to request a permit.567 50.5(17A,455B) Water use permit applications.

50.5(1)50.4(1) Application forms. Department forms for water use permit applications and modifications are listed in 50.3(1) and are located on the water use program website at www.iowadnr.gov/wateruse.

a. Application for approval of a new withdrawal or diversion of water\_unrelated to the use of an agricultural drainage well. For withdrawals or diversions of water\_unrelated to the use of an agricultural drainage well. For withdrawals or diversions of water\_unrelated to the use of an agricultural drainage well, a request for a new permit as distinguished from modification or renewal of an existing permit shall be made on Form 542-3106. An application a water use permit application shallform must be submitted to the department by or on behalf of the owner, lessee, easement holder, or option holder of the source and area where the water is to be withdrawn, diverted, and used. An application shallmust be accompanied by a map portraying the points of withdrawal or diversion points and the land area on which water is to be used, oriented as to section, township, and range. One application normally will be adequate for all uses on contiguous tracts of land involved in the same operation separated only by roads or railroads will be deemed contiguous tracts. For water storage permits, applications will be made in conjunction with dam construction permits as required in rule 567—73.10(455B).

b. Application for diversion of water related to the use of an agricultural drainage well. An application for the diversion of water and any other materials to an aquifer related to the use of an agricultural drainage well shall be made on a form obtained from the department and be submitted by or on behalf of such owners, lessees, easement holders, or option holders of all lands within the agricultural drainage well area. If the agricultural drainage well is part of a legally organized drainage district, the drainage district shall be a joint applicant. Applications for permits for diversions related to the use of an agricultural drainage well that existed prior to February 18, 1998, shall be made by July 1, 1999, with the exception of agricultural drainage wells that must be closed to comply with the provisions of 1997 Iowa Acts, Senate File 473. An application will not have to be riled for wells in a designated agricultural drainage well area which must be closed by December 31, 1999. In addition, the department may grant up to a six month delay in the application date for owners of agricultural drainage wells where it can be shown there is a reasonable expectation that the agricultural drainage well will be voluntarily closed by December 31, 1999.

<u>be</u>. Application for modification or renewal of a <u>water use</u> permit. A request for renewal of a <u>water use</u> permit <u>shall-should</u> be submitted <u>to the department on Form 542 1470</u>. A request to modify an existing <u>water use</u> permit shall be <u>submitted to the department on Form 16 (542-3106)</u> and must include an explanation of the

necessity for the modification.

d. Where to submit application. Reseinded IAB 6/7/06, effective 7/12/06.

50.5(2)50.4(2) Fees.

a. Water use permit application fees. An application to the department for a new water use permit application, modification of an existing water use permit modification request, or a registration of a minor nonrecurring use of water must be accompanied by with the fee listed in the table below. These fees are nonrefundable and are not nontransferable. For any single application, if more than one fee in the table below applies, only the higher fee is required. The fees become effective on July 1, 2009.

Water Use Permit Application Description	Form	Fees, in dollars
(1) To apply for a new permit to withdraw or divert water	16 (542-3106)	\$350
(2) To renew an existing permit	542-1470	\$0
(3) To modify an existing permit to either add a new source or increase the amount or rate of water withdrawn or diverted from a source or sources	16 (542-3106)	\$350
(4) To modify the conditions of an existing permit that which are not described in Item 3 of this table (see above)	16 (542-3106)	\$0
(5) To apply for an <u>ASR</u> aquifer storage and recovery permit or a protected source designation	N/A	\$700
(6) To apply for a permit to store water	<del>18 (542-3109)</del>	<del>\$75</del>
(67) To register a minor nonrecurring use of water	20 (542-3112)	\$75

- b. Annual water use permit fee. In addition to the application fee, there is an annual permit fee, for a water use permit or an aquifer storage and recovery permit. The annual fee shall be based on the number of active permits. Each water use permitteepermit holder shall pay the same annual fee. The fee is will not be prorated and is nonrefundable. The annual water use permit fee is due December 1 of each year, beginning with December 1, 2009. The department will provide an annual fee notice to each permittee at least 60 days prior to the fee due date. An additional fee of \$100 will be imposed if the fee is not received by December 1. Failure to remit the fee by January 1 may result in the cancellation of the permit termination.
- (1) There is no annual fee for a water storage permit (see (6) of table, paragraph 50.4(2)"a") or for a minor nonrecurring water use registration (see (7) of table, paragraph 50.4(2)"a").
- (12) The annual fee shall be based on the costs for administering the water use permitting program for the previous calendar years and on the anticipated expenses for succeeding fiscal years. The department will review the annual permit fee each year and adjust the fee as necessary to cover all reasonable costs required to develop and administer the water use permitting program. The department shall request commission approval of the amount of the annual fee no later than September 30 of each year.
- (2) Permittees holders that have paid an application fee after December 1, but prior to November 30, will not be required to pay an annual fee until December 1 of the following year. If an applicant remits an annual fee for the 12-month period beginning December 1 and then later submits an application fee for a permit modification, the applicant will be refunded the lesser of the fees. The department shall request commission approval of the amount of the annual fee no later than September 30 of each year.
- 50.5(3)50.4(3) <u>Required sSupporting information required for complete application</u>. An <u>water use permit</u> application shall not be considered complete until the fee specified in this rule and all supporting information requested under <u>rule 567—50.6(17A,455B)</u> hasve been submitted by the applicant or <u>the applicant's agents of the applicant</u>.

[ARC 7694B, IAB 4/8/09, effective 5/13/09; ARC 5052C, IAB 6/17/20, effective 7/22/20; ARC 5899C, IAB 9/8/21, effective 10/13/21]

50.5(4)567 50.5(455B) Initial screening of <u>water use permit</u> applications.

<u>a.50.5(1)</u> General procedure. <u>Upon receipt, e</u>Each application <del>upon receipt</del> shall be <del>promptly e</del>valuated by the department to determine whether adequate information is available to review the project. The department shall then advise the applicant of additional information required <u>forto review the</u> project <u>review</u>.

<u>b.50.5(2)</u> Application to withdraw groundwater. Evaluation of the potential effects of a proposed withdrawal of groundwater requires review of available hydrogeological information. The department may require additional supporting hydrogeological information, which the applicant is responsible for providing.

567—50.6(17A,455B) Supporting information for water use permit applications. As described in this rule,

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applicants shall submit supporting information which is reasonably required to assist the department in conducting the investigation of an application required by Iowa Code sections 455B.264 and 455B.281, and in determining whether granting of a permit issuance would be consistent with the policies and principles of beneficial use policies and principles set forth in Iowa Code section 455B.262. Certain supporting information requirements are described in this rule. This description is intended to identify frequently required information. The department may require additional information relative to applications for the following types of permits application.

**50.6(1)** Application for a permit to withdraw gGroundwater withdrawal permit.

- a. Identification of source and effects of pumping. An applicants for a water use permit to withdraw groundwater shall be required to submit information needed by the department to identify the well location(s) and the aquifer(s) from which water withdrawals of water are proposed, predict the effects of pumping with a reasonable degree of confidence, and determine any permit conditions for well interference pursuant to 567—Chapter 54. In areas of uncertainty, At many locations, the only reliable methods to determine the availability of a water source of adequate quantity and quality and to predict the effects of pumping, the applicants shall perform require test drilling, yield testing pumping, and a controlled aquifer pump testing that includes with measurements in one or more observation wells conducted with prior approval and in a manner-that is acceptable to the department. The aApplicants shall be required to perform each of these exploratory operations to the extent necessary for the department to obtain information from which to determine whether a water use permit should be issuedgranted and to identify conditions which should be imposed in any permit granted. The following requirements apply to exploratory drilling, yield testing, and pump testing and test pumping.
- (1) Test drilling. In cases wwhere test drilling is needed for geological information relevant to the application, anthe applicant shall is responsible for employing a driller towho will collect, bag, and properly label cutting samples at each five-foot interval and at each apparent change in geological formation from a test hole or production well hole at least the approximate depth of the proposed production well. The cutting samples shallmust be saved for collection in sample bags provided by the Iowa Geological Seurvey (IGS). The samples shall be submitted to the IGS and be accompanied by a driller's log showing the well's location and total depth of the hole and a description of the materials encountered at successive intervals.
- (2) Yield testing. An applicant shall be required to construct a well and test pump it for yield to the extent necessary to determine whether water is available at the applicant's proposed rate of withdrawal from the proposed source. A written registration from the department is required before any yield test in which more than 25,000 gallons will be withdrawn in a period of 24 hours or less, as provided in 50.4(4) (see 567 subrule 51.6(5)).
- (3) PumpControlled aquifer testing with supervision. An applicant shall be required to conduct a controlled aquifer pump test with supervision by a certified well contractor, licensed professional engineer, or other department designee of the department as a condition of obtaining a water use permit, if the department finds an aquifer test necessary to determine the effects that which the proposed withdrawal has on other nearby water users. An The applicant may be required to construct, develop, and maintain adequate observation wells for use in an aquifer pump test, and for subsequent water level measurements, or water quality monitoring. An applicant shall be responsible for obtaining a registration for an aquifer pump test as provided in 567 subrule 50.4(4)51.6(5).
- b. Cooperation in obtaining well information-about surrounding wells. An applicant who requestings a permit authorizing groundwater withdrawals of groundwater from a well or reservoir may be required to assist the department in conducting an inventory of nearby wells within a designated radius of the proposed site. The need for an inventory and the appropriate radius will be determined after considering the known characteristics of the aquifer thatwhich isthe applicant proposeds as a source of water and the rate and amount of the proposed withdrawals. The department shall provide the applicant a map specifying the proposed inventory area, within which an inventory is proposed and forms specifying the information to be gathered in the inventory. The department shall also provide to the applicant and a description of regulated uses within the inventory area. The applicant shall make a good\_faith effort to assist the department in obtaining available information from public records to identify landowners and occupants and from drilling contractors or pump installers identified by a landowner or occupant responding to the inventory.

**Commented** [12]: Moved to beginning of this paragraph.

Commented [13]: Reworded.

50.6(2) Application for an ilrrigation permit. An applicant who-proposinges to irrigate crops on land shall submit a conservation plan or describe the conservation system that does not exceed the NRCS compliance-based soil loss limits for the land where crop irrigation is proposed, if the land includes which includes soils more erodible than Capability Subclass IIe as defined by the U.S.D.A. Natural Resources Conservation Service (NRCS<sub>2</sub>), or slopes greater than 6 percent, where a modern NRCS Soil Survey is not available, shall submit a soil conservation plan prepared with the assistance of the NRCS for the land in which crop irrigation is proposed. The application plan shall include abe accompanied by the applicant's written explanation of how operation of the proposed irrigation system will be compatible with the conservation plan or system.

50.6(3) Application for a permit to dewater a rock qQuarry permit. Towa Code section 455B.268 and 567—Chapter 51 requires that a water use permit be obtained before diverting water or material from the surface directly into any underground watercourse or basin. When the department investigates an application for a permit to pump water for dewatering of a quarry excavated in carbonate rock, the department shall consider the potential for pollution of an underground watercourse or basin from drainage of surface water into the quarry. If available information, including topographic and subsurface geological information, supports a finding that drainage of surface water into the quarry would constitute a violation of the permit requirement in Iowa Code section 455B.268 and might cause pollution of an underground watercourse or basin if not controlled, then the department shall require that the applicant to either request a water use permit to authorize a drainage of surface water into the quarry, or construct and maintain a means of controlling surface water which would otherwise drain into the quarry. Examples of suitable methods of controlling surface drainage are low berns or artificial drainage ways constructed as needed to reduce runoff of surface water from adjacent land into the quarry.

**50.6(4)** Application for permit to dDiversiont of water into an aquifer not related to the use of an agricultural drainage well. An applicant for a water use permit to divert water or any other material from the surface into an aquifer not related to the use of an agricultural drainage well shall submit information showing that the requested diversion will not alter the quality of the aquifer.

— 50.6(5) Application for uses that were nonregulated prior to July 1, 1985. Reseinded IAB 6/7/06, effective 7/12/06.

50.6(56) Applications for a permit to withdraw wWater withdrawal from a protected water source. An applicant for a water use permit to withdraw water from a protected water source designated in 567—Chapter 53.7(455B) may be required to provide specific information to support the application as required by rule 567—53.3(455B) or rule 567—53.7(455B).

50.6(7) Application for permit to divert water into an aquifer related to the use of an agricultural drainage well. An applicant for a permit to divert water or any other material into an aquifer by means of an agricultural drainage well shall submit the following information. The locations of the features as listed below shall be shown on a map, drawn to scale submitted with the application.

- a. Location of the agricultural drainage well to at least the nearest quarter quarter section, township and range.
- b. Diameter and depth of the agricultural drainage well, if known.
- c. Description and ownership of the lands which are drained by the agricultural drainage well and the associated drainage system.
- d. Location of tiles which drain to the agricultural drainage well, if known, and the location of any existing surface water intakes.
- e. The location and description of any earthen storage structures, confinement feeding operations, or open feedlots within the agricultural drainage well area.
- f. Information regarding any known connections between the agricultural drainage well or its drainage system and wastewater disposal or storage systems such as septic tanks and the location of such connections.
- g. The nature and extent of any agreements between the well owner and adjacent landowners who have lands which are drained by the agricultural drainage well and associated tile drainage system.
- h. Any available information regarding the economic and physical feasibility of closing the agricultural drainage well. [ARC 4426C, IAB 5/8/19, effective 6/12/19]

567—50.7(17A,455B) Review of complete water use permit applications.

**Commented [14]:** In response to a Reg A comment from IFB, we consulted with the NRCS and updated the language, as it was not consistent with NRCS guidance.

50.7(1) Order of processing. In general, complete applications including all requested supporting information shall be reviewed in the order that complete information is received. However, when there are a large number of pending applications, which precludes the department from promptly processing all applications, the department may expedite review of a particular application out of order if the completed application and supporting documents were submitted at the earliest practicable time and any of the following conditions exist:

- a. Relatively little staff review time (generally less than four hours) is required and delay will cause the applicant hardship:
- b. The applicant can demonstrate that a delay in the permit will result in a substantial cost increase of a large project;
- c. Prompt review of the permit would result in earlier completion of a project that conveys a significant public benefit:
  - d. The need for a permit is the result of an unforeseen emergency or catastrophic event; or
- c. A permit is needed to complete a project that will abate or prevent an imminent threat to the public health and welfare.

50.7(12) Summary report of application review. Before a n initial decision is madeissued on an water use permit application, the department personnel assigned to review an application shall prepare a summary report stating which shall state whether the withdrawal, diversion, or use of water as described in the complete application conforms to relevant criteria. The report shall identify the information used to determine the potential for a proposed use of water to adversely affect other water users. For an application to withdraw groundwater, the report shall describe the anticipated effects on water levels resulting anticipated to occur from the proposed use, indicate if verified well interference has been found, and provide options for resolving any verified well interference in accordance with 567—Chapter 54.

50.7(23) Public notice (PN) of recommendation to issue permit.

- a. New water use permits and permit modifications—of permits. Prior to the issuingance of a permit to withdraw, divert, or inject water, the department shall publish a PNnotice of recommendation to issuegrant a water use permit. AThe notice PN shall summarize the application and the recommendations in the summary report and. The notice shall allow the public 20 days to request a copy of the summary report and submit comments on the report. The department may extend the comment period upon request for good cause. PNsThe notice may be published in a newspaper circulated in the locality of the proposed water source, or the department may use other publication methods—of publishing the notice to ensure adequate notice to the affected public. AThe notice PN shall be sent to any person who has requested a copy of the notice concerning the particular water use under consideration.
- b. Water use pPermit renewals. The PNnotice provisions of 50.7(2) paragraph-"a" of this subrule-shall not apply to water userequests for permit renewals—except that the department need not publish notice of recommendation to grant a renewal permit which does not involve modification of permit conditions.

**50.7(34)** Notice to the applicant of that proposed withdrawal, diversion, or use of water does not conform to criteria violation. If the application review determines discloses that the proposed withdrawal, diversion, or use of water violates one or more criteria and the application should therefore be disapproved, or approved only subject to special conditions to which the applicant has not agreed, the department shall notify the applicant and, when practical, suggest appropriate project modifications. The department shall offer the applicant an opportunity to submit comments before an decision initial decision is made.

- 50.7(5) Applications for uses that were nonregulated prior to July 1, 1985. Reseinded IAB 6/7/06, effective 7/12/06. [ARC 5052C, IAB 6/17/20, effective 7/22/20]

# 567—50.8(17A,455B) Initial dDecision by the department.

50.8(1) Form of decision. The initial-decision by the department on an application shall be either approval or denial of the water use permit applications permit or disapproval issued by the department. Each water use permit shall include appropriate standard and special conditions consistent with lowa Code sections 455B.261 are 455B.274 and 455B.281 and 567—Chapters 50,2 53 and to 54. The decision shall may incorporate by reference orand attachment the summary report described in 50.7(12). Each decision shall include the following:

- a. Determinations as to whether the project satisfies all relevant criteria not addressed in them attached summary reporta
  - b. An explanation of the purpose for imposing each special condition; and-
- c. An eExplanation of consideration given to all comments submitted pursuant to 50.7(32) and 50.7(4) unless the comments are adequately addressed in the attached summary report.

**50.8(2)** *Notice of initial decision.* Copies of the initial decision shall be mailed to the applicant, any person who commented pursuant to 50.7(23), and any other person who has requested a copy of the decision. The decision shall be sent by certified mailaccompanied by a certification of the date of mailing. An initial decision becomes the final decision of the department unless a timely notice of appeal is filed in accordance with 50.8(3)567—50.9(17A.455B). The final decision may be filed with the appropriate county recorder to give constructive notice to future landowners of any conditions or requirements imposed by the final decision.

50.8(3)567—50.9(17A,455B) Appeal of initial decision. Any person aggrieved by an initial decision issued under this rule 567—50.8(17A,455B) may file a notice of appeal with the director. The notice of appeal must be filed within 30 days following the certified mailing date of mailing of the decision unless the appellant shows good cause for failure to receive actual notice and file within the allowed time. The form of the notice of appeal and appeal procedures are governed by 567—Chapter 7. The department shall mail a copy of the notice of appeal to each person who commented on the application. If the appeal is from denial of a permit and a notice of recommendation to grant a permit was not published, the department shall publish the notice of commencement of a contested case and provide an opportunity for interested people to seek intervention in the contested case.

These rules are intended to implement lowa Code sections 17A.3, 455B.105, 455B.171, 455B.262. 455B.264 through 455B.274, 455B.278, and 455B.281 and ehapter 460.

[Filed - 12/2/83, Notices 6/22/83, 7/20/83 - published 12/21/83, effective 1/25/84]
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[Filed ARC 7694B (Notice ARC 7307B, IAB 11/5/08), IAB 4/8/99, effective 5/13/09]
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[Filed ARC 5899C (Notice ARC 4919C, IAB 2/12/20), IAB 6/17/20, effective 7/22/20]
[Filed ARC 5899C (Notice ARC 5677C, IAB 6/16/21), IAB 9/8/21, effective 10/13/21]

At its meeting held 2/9/98, the Administrative Rules Review Committee delayed 50.2, eight definitions, 50.3(1), 50.4, 50.6(4), 50.6(7), 50.7(2), 50.7(4) and 50.8(2) until adjournment of the 1998 Session of the General Assembly.

#### **CHAPTER 51**

#### WATER PERMIT OR REGISTRATION WHEN REQUIRED

[Prior subject matter INRC rule 3.1]

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

567—51.1(455B) Scope of chapter. This chapter contains thresholds which explain when a water <u>use permit or</u> registration is required for withdrawal, diversion or storage of water.

567 51.2(455B) Storage (surface). Rescinded ARC 5899C, IAB 9/8/21, effective 10/13/21. See rule 567 73.11(455B).

567—51.3(455B) Diversion from surface into aquifer. A permit is required for diversion of water or any other material from the surface directly into any aquifer, including diversion by means of an agricultural drainage well. Diversion by tile or ditch into a sinkhole or quarry excavated in carbonate rock is presumed to be a diversion from the surface directly into an aquifer in the absence of convincing evidence to the contrary.

567 51.4(455B) Drain tile lines. Water in drain tile lines shall be considered surface water.

567—51.5(455B) Cooling/heating systems. A permit for the withdrawal of groundwater for use as a heat exchange media in a heating/cooling system may be granted, allowing such groundwater to be discharged into sanitary or storm sewers (when the use is complete). However, a permittee that has such a system shall make plan and design provisions to the permittee's system to allow the groundwater to be returned directly (i.e., reinjected) to the aquifer from which it was originally pumped. The department reserves the right to order such direct return as part of its water conservation plan responsibility as described in 567—subrule 52.9(3) (chiefly incorporating mandated emergency conservation measures), and its priority allocation plan responsibility as described in 567—subrule 52.10(3).

567—50.451.6(17A,455B) When a water use permit is required, Miscellaneous uses. Unless otherwise provided herein, a water use permit shall be required for the use, withdrawal, or diversion of more than 25,000 gallons of water per day for any purpose.

- 51.6(1) Reserved 50.4(1)51.6(2) Drainage at construction sites. A permittee may obtain permit coverage through registration as described in 50.4(4)51.6(5) for athe withdrawal of water to lower the water table as necessary at a construction site.

50.4(2)51.6(3) Pump tTest—pumping. The department may authorize by registration; as described in 50.4(4)51.6(5) test pumping of sources of water to determine adequacy of the source's adequacy and the effects of watersuch withdrawals on other users and the natural environment. The department may require anthe applicant to submit the pump test results to the department. No such registration for a pump test pumping shall be for a period of more than one year. A registration must be obtained from the department for any pump test pumping in which more than 25,000 gallons of water will be withdrawn in a period of 24\_hours\_period.or

50.4(3)51.6(4) Rural water districts. A water use permit shall be required for withdrawals of water by any rural water district having its own source of water, and such a withdrawal shall be classified as a use by a community public water supply CWS.

50.4(4)51.6(5) Permit coverage obtained by registration for minor, nonrecurring uses. Any use of water that which is a minor, nonrecurring use, including but not limited to highway construction and maintenance, charging of lagoons, drilling wells, orand hydrostatic testing of pipelines, shall require permit coverage that may be obtained through registration. The permit

<u>a. An</u> applicant may register <u>a</u> minor, nonrecurring water use by submitting the registration form provided by the department Form 20 (542 3112). Such registrations shall be for up to one year.

<u>b.</u> After an investigation of any withdrawal allegedly causing material damage, the department shall require prompt, appropriate action for the alleviation of damages. Where agreement cannot be reached on the action necessary for the alleviation of damages, withdrawal of water shall cease immediately upon notification by the department and an application for a water use permit application shall be submitted.

Commented [1]: Old 51.3 - moved to new 50.4(7)

Commented [2]: Old 51.4 - moved to new 50.4(9).

Commented [3]: Old 51.5 - moved to new 50.4(8).

50.4(5)51.6(6) Research contracts. The withdrawal of wWater withdrawals for research purposes by the Iowa Ggeological Survey through its agents, employees, or contractees may be authorized by registration under 50.4(4)51.6(5) and may be subject to conditions set by the department.

[ARC 446C LAR 5/8/19, effective 6/12/19]

50.4(6)567—51.7(455B) Excavation and processing of rock and gravel products. A water use permit is required for withdrawal of more than 25,000 gallons of surface water or groundwater in one day for dewatering, washing, pugging, or use of a hydraulie dredge-in connection with removal or processing of rock or gravel products. A water use permit is not required for the following: This permit requirement is subject to the following exceptions:

<u>a.1.A permit is not required for oOperation of a hydraulic dredge that which</u> returns all water used as a transport medium directly back into the pit from which it is withdrawn by the dredge; <u>and</u>

<u>b.2.A permit is not required for wWater withdrawal of water</u> from a gravel pit or rock quarry sump pit for material washing if the wash water is discharged directly back into the pit from which it is withdrawn.

**50.4(7)** Diversion from surface into aquifer. A water use permit is required for diversion of water or any other material from the surface directly into any aquifer, including diversion by means of an agricultural drainage well. Diversion by tile or ditch into a sinkhole or quarry excavated in carbonate rock is presumed to be a diversion from the surface directly into an aquifer in the absence of convincing evidence to the contrary.

50.4(8) Cooling/heating systems. A water use permit to withdraw groundwater for use as a heat exchange media in a heating/cooling system may be granted, allowing such groundwater to be discharged into sanitary or storm sewers when the use is complete. However, a permittee that has such a system shall make a plan and design provisions to the permittee's system to allow the groundwater to be reinjected to the aquifer from which it was originally pumped. The department reserves the right to order such direct return as part of its water conservation plan responsibility described in 50.16(3) and its priority allocation plan responsibility described in rule 567—50.17(455B).

50.4(9) Drain tile lines. Water in drain tile lines shall be considered surface water.

567—51.8(159) Agricultural drainage wells. All agricultural drainage wells must be registered by the owner with the department by September 30, 1988, on the form provided by the department. Registration of an agricultural drainage well is not considered a permit as required under rule 567—51.3(455B) or subrule 51.6(5).

These rules are intended to implement Iowa Code sections 455B.262, 455B.264 through 455B.274, and 455B.278 and chapter 460.

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[Filed 10/2/87, Notice 6/17/87 published 11/21/85, effective 1/25/87]
[Filed emergency 10/23/87 published 11/18/87, effective 10/23/87]
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[Filed 47/106, Notice 3/15/06 published 6/10/6, effective 7/12/80]
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[Filed ARC 5899C (Notice ARC 5677C, IAB 6/16/21), IAB 5/8/19, effective 10/13/21]

Commented [4]: New 50.4(7) - moved from old 51.3.

Commented [5]: New 50.4(8) - moved from old 51.5.

Commented [6]: New 50.4(9) - moved from old 51.4

<sup>+</sup> See Delays, IAB 6/28/78, p.194.

Effective date of 51.2 [NRC 3.1(4)] delayed 70 days by the Administrative Rules Review Committee; published IAC 6/23/82. Effective date of 51.3 [NRC 3.1(4)] delayed by the Administrative Rules Review Committee 45 days after convening of the next General Assembly pursuant to §17A.8(9); published IAC 8/18/82.

<sup>\*\*</sup> At its meeting held 2/9/98, the Administrative Rules Review Committee delayed 51.3 until the adjournment of the 1998 Session of the General Assembly.

#### **CHAPTER 52**

# CRITERIA AND CONDITIONS FOR AUTHORIZING WITHDRAWAL, DIVERSION AND STORAGE OF WATER

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

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—50.952.2(455B) Conditions on permitted water uses. This rule includes permit restrictions that 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). Procedures for determining conditions imposed due to well interference are found in rule 567—Chapter 54.7(455B).

50.9(1)52.2(1) Irrigation water use 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 one4 acre-foot per acre for a general crop and 2two 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. Where When 567 subrule 50.6(2) requires the submission of that an applicant for an irrigation permit submit a soil conservation plan, anany irrigation water use 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 department-recommended 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 water use permit shall require the installation of permittee to install an adequate check valve and conduct frequent inspections of for the proper valve functioning of the check valve to prevent contaminants from back-siphoning of contaminants into the water source before a fertilizer, pesticide, herbicide, or other additive is introduced into the irrigation system.

50.9(2)52.2(2) The amount of water authorized for industrial use or power generation use shall be consistent with industry\_wide usage for the same or similar purposes and types of facilities and shall provide for growth where need is demonstrated by the applicant.

50.9(3)52.2(3) The amount of water authorized for use by a community public water supplyCWS shall not exceed 200 gallons per day per capita, except that additional water may be authorized provided for growth and industrial use where need is demonstrated by the applicant.

50.9(4)52.2(4) Recreational and aesthetic water use 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. Water use Each permits authorizing the use of water for turf or landscape plantings shall require the installation of permittee to install an adequate check valve and conduct frequentannual inspections of for the proper valve functioning of the check valve to prevent contaminants from 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—50.1052.3(455B) Conditions on withdrawals from streams.

52.3(1) Streams draining less than 50 square miles. Water 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.

50.10(1)b. Protected flow restriction. Except as provided in 50.10(2), 52.3(1)°e," withdrawals for consumptive uses, with the exception of CWSscommunity public water supplies, shall cease when the stream flow is below the protected flow designated in 50.15(3) 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 50.10(2), 52.3(1)°e," order temporary cessation or rotation of all consumptive withdrawals, with the exception of CWSscommunity public water supplies, to ensure that the protected flow is preserved.

50.10(2)e- Replacement water exemption. Subrule 50.10(1) 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 or tributary thereto 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 preceived.

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. Reseinded 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—50.1152.4(455B) Conditions on water withdrawals from groundwater sources.

50.1152.4(1) Withdrawals from unconfined aquifers adjacent to streams draining less than 50 square miles. Water 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.

ab. Protected flow restriction. Except as provided in 52.4(1)"c" and 52.4(1)"c,", wWithdrawals for consumptive uses, with the exception of CWSscommunity public water supplies, at any point within 1/8 mile

**Commented [1]:** New 50.11(1) - combines old 52.4(1) and 54.2(2).

(660 feet) of an <u>interior</u> stream shall be considered withdrawals from the stream and shall cease when the stream is below the protected flow designated in rule 567—50.1552.8(455B) except as provided in 50.11(1)"c" to "f." unless the applicant or permittee can conclusively demonstrate by conducting appropriate tests that the withdrawal will not reduce the flow of the stream.

- b. Seven-day, one-in-ten-year low flow (7Q10) restriction. Withdrawals for consumptive uses, with the exception of CWSs, at any point located between 1/8 mile (660 feet) and ¼ mile (1,320 feet) of a stream, other than a stream bordering the state, shall cease when the streamflow is at or below the 7Q10 as determined at the nearest downstream USGS gage, except as provided in 50.11(1) "c" to "f."
- c. <u>Missouri/Mississippi RiverBorder stream-interior stream confluence restriction</u>. Withdrawals for consumptive uses, with the exception of <u>CWSscommunity public water supplies</u>, 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 <u>seven day, one in ten year (7Q10) low flow</u>, except as provided in <u>50.11(1)"d."</u> <u>52.4(1)"d."</u>
- d. Other conditions. Notwithstanding 50.11(1) "a" to "c," 52.4(1) "a" to 52.4(1) "c," other conditions may be imposed asthat are necessary to ensure adequate protection of water supplies for ordinary household, livestock, and domestic uses; for fish and wildlife use; for recreational use; for the preservation and enhancement of aesthetic values; orand for other uses of a public nature.
- e. Replacement water exemption. Paragraphs 50.11(1) "a" through "c" 52.4(1) "a" to 52.4(1) "e" 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. Reseinded 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 restrictions. 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) "e" 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) "e" 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 50.11(1)"a" through "d" 52.4(2)"a" to 52.4(2)"d" may be waived if the applicant or permittee can conclusively demonstrate, by conducting pump testing, so to demonstrate that the withdrawal will not reduce the flow of the adjacent stream. The pump testing plan for testing\_must be approved by the department prior to the applicant's or permittee's conducting the testings.

**Commented [2]:** New 50.11(1)"b" - moved from old 52.4(2)"b".

**Commented [3]:** Old 54.4(2) - combined with old 54.4(1) in new 50.11(1).

Commented [4]: Old 52.4(2)"b" - moved to new 50.11(1)"b".

- g. Exemption until July 1, 1991, for certain users. Reseinded IAB 6/7/06, effective 7/12/06.
- 50.11(2)52.4(3) Withdrawals from the Cambrian-Ordovician (Jordan) aquifer. Water 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 (gpm) restriction on irrigation, recreational, or aesthetic uses. New withdrawals of water for irrigation, recreational, or aesthetic uses shall not exceed be in excess of 200 gpmgallons per minute. Existing permits for irrigation, recreational, and aesthetic uses that authorize withdrawal rates in excess of 200 gpmgallons per minute may be modified or rescinded by the department of the department, as determines by the department, that 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 50.11(2) "f"(1) and 50.11(2) "g"(1). "f" and "g" of this subrule.
- b. Two-thousand-gallon-per-minute (gpm) restriction on industrial or power generation uses. New water withdrawals for industrial or power generation uses at a singleone plant location shall not exceed 2,000 gpmgallons per minute. Existing permits for industrial or power generation use that authorize withdrawal rates in excess of 2,000 gpmgallons per minute may be modified or rescinded by the department if the department determines that any well in the vicinity experiences a loss of water due to pumping or if the pumping water level is reduced to or below the levels described in paragraphs 50.11(2) "f"(1) and 50.11(2) "g"(1). "f" and "g" of this subsule.
- 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 department 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. AThe water use permit for wells expected to pump over 25,000 gallons per day from the Jordan aquifer shallmust be obtained from the department before any water well construction permit is issued. After athe water use permit has been obtained, athe 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 53.57(2) and 53.57(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 53.57(2) and 53.57(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 the Tier 2 or Tier 3 levels described in paragraphs. 50.11(2) "f"(1) and 50.11(2) "g"(1). "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—50.1352.6(455B).
  - f. Tier 2 Jordan wells.
- (1) 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.
- (2) Permittees with Jordan wells that have reached the Tier 2 level shall develop a site-specific water use reduction plan and submit it to the department for review and approval. 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 50.11(2) "g"(1). If the water use reduction plan is not implemented, the department may reduce the permitted water use allocation, pursue permit enforcement, or rescind the permit.
  - g. Tier 3 Jordan wells.
- (1) 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.

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(2) Permittees with Jordan wells that have reached the Tier 3 level 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 department shall review and approve the plan and model predictions. If water levels continue to decline beyond the Tier 3 level, the department may reduce the permitted water use allocation; pursue permit enforcement, including aspects of the water use reduction plan; or rescind the permit.

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.

it. 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.

hj. Waivers Variances. Waivers 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.

ik. Resources for developing water use reduction pPlan resources. The rResources suggested by and available from the department as guidance for developing water use reduction plans are listed in paragraph 52.9(3)50.16(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 <u>use</u> 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. Prioritics 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]

Commented [6]: Moved from old 52.4(3)"i".

Commented [7]: Moved to new 50.11(2)"f"(2).

Commented [8]: Moved to new 50.11(2)"g"(2).

Commented [9]: Restatement of new 50.16(3)"d"(1).

#### 567—50.1252.5(455B) Duration of water use permits for withdrawal or diversion of water.

50.1252.5(1) General. A water use permit granted shall remain as an appurtenance of the land described in the permit through the date specified in the permit and any permit extension of the permit or unless until an earlier date when the permit or its extension is terminated eanceded under rule 567—50.1452.7(455B). Upon application for a permit prior to the termination date specified in the permit, a water use permit may be renewed by the department if an application is submitted prior to the termination date specified in the permit.

50.1252.5(2) Permits for wWithdrawal or diversion of surface water. Water use pPermits for withdrawal or diversion of surface water shall be issued for ten years.

50.1252.5(3) Permits for wWithdrawal of groundwater. Water use Ppermits for groundwater 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 itsthe rate of its recharge are indeterminate.

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

### 567—50.1352.6(455B) Monitoring, recording, and reporting of water use and effects on water sources.

50.1352.6(1) Water use reports. Each permittee shall submit to the department, at least annually, or 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.

50.1352.6(23) Access ports. Requirement of access port for measurement of water levels in a regulated well.

All new water use permits which authorizinge withdrawals from wells shall require that each authorized production well be equipped with an access port withdrawals from wells shall require that each authorized production well be equipped with an access port withdrawing a minimum diameter of ¾ inch. AThe access ports must be located to allow insertion of a steel tape or electric probe into the well casing for measurement of water levels.

50.1352.6(34) Pump Aquifer tests and observation wells. A permittee may be required to conduct a pumpeontrolled aquifer test as a condition of keeping a water use permit if the department finds an aquifer pump test isto be necessary to determine the effects that which the authorized withdrawals have on other water users. A pumpeontrolled aquifer test, authorized by the department and supervised by a certified well contractor, licensed professional engineer, or other department designee of the department, may be required for an administrative resolution of a well interference conflict pursuant to 567—Chapter 54. AThe permittee may be required to construct, develop, and maintain adequate observation wells for use in an aquifer pump test and for subsequent water level measurements or water quality monitoring.

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

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

# 567—<u>50.14</u>52.7(455B) Modification, <u>termination</u>cancellation, and emergency suspension of <u>water use</u> permits.

50.1452.7(1) General. Except as provided in subrule 50.1452.7(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 in accordanceing to the contested case provisions with of lowa Code chapter 17A, the department may modify or terminatecancel a water use permit or any permit condition of a permit, notwithstanding any other rule, for any of the following reasons:

- a. <u>ViolationBreach</u> of permit condition or law. <u>Violation of aA permit condition of the permit has been breached</u> or the law pertaining to the <u>water use permit has been violated</u> 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 the water within a reasonable time. Nonuse due to adequate rainfall shall not be a justification for permit termination eancellation of a permit. However, authorization to withdraw water from a proposed well may be terminated eanceled after notice to the permittee if the permittee has failed to construct the proposed well within three years after permit issuance of the permit.
- c. Public health and safety. Modification or terminationeancellation 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 water use permit.

50.1452.7(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, or the public or private interest in lands or water, or to implement the priority allocation system pursuant to rule 567—52.1050.17(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 water use 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 that 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 is 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—50.1552.8(455B) Designated protected flows of streams.

50.1552.8(1) Purpose. A The protected flow is designed to protect and maintain adequate water supplies for ordinary household, and livestock, and domestic uses; 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 or enhancement of aesthetic values; and for other uses of a public nature.

50.1552.8(2) Protected flow basis. The Perotected flows are 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>USGSU.S. Geological Survey</u> Open-File Report 98-176 (1998)."

#### 50.1552.8(3) Protected flow levels.

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

The Protected Flow at USGS U.S.C.S. Stream Gaging Locations

River or Stream	Gage Location	USGS Gage Number	Protected Low Flow (CFS)
Beaver Creek	New Hartford	5463000	18
Big Creek	Mount Pleasant	5473450	2
Black Hawk Creek	Hudson	5463500	4.5
Boone River	Webster City	<u>5481000</u>	24
Boyer River	Logan	<u>6609500</u>	41
Cedar River	Conesville	5465000	1240
Cedar River	Cedar Rapids	5464500	937
Cedar River	Waterloo	<u>5464000</u>	710
Cedar River	Janesville	5458500	185
Cedar River	Charles City	5457700	100
Chariton River	Rathbun	6903900	2.9
Des Moines River	Keosauqua	<u>5490500</u>	350
Des Moines River	Ottumwa	5489500	300
Des Moines River	Tracy	5488500	300
Des Moines River	Des Moines (14th St.)	5485500	300
Des Moines River	Saylorville	<u>5481650</u>	200
Des Moines River	Stratford	<u>5481300</u>	310
Des Moines River	Fort Dodge	5480500	220
East Fork Des Moines River	Dakota City	5479000	42

**Commented [10]:** Matches new 50.11(1)"d" (old 52.4(1)"d").

**Commented** [11]: Matches new 50.11(1)"d" (old 52.4(1)"d").

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River or Stream	Gage Location	USGS Gage Number	Protected Low Flow (CFS)
East Nishnabotna River	Red Oak	6809500	37
East Nishnabotna River	Atlantic	6809210	18
Floyd River	James	6600500	22
Iowa River	Wapello	5465500	1390
Iowa River	Lone Tree	5455700	150
Iowa River	Iowa City	5454500	150
Iowa River	Marengo	5453100	204
Iowa River	Marshalltown	<u>5451500</u>	104
Iowa River	Rowan	5449500	21
Little Cedar River	Ionia	5458000	28
Little Sioux River	Turin	<u>6607500</u>	200
Little Sioux River	Correctionville	6606600	106
Little Sioux River	Linn Grove	6605850	42
Maple River	Mapleton	6607200	50
Maquoketa River	Maquoketa	5418500	372
Middle Raccoon River	Panora	5483600	20
Middle River	Indianola	5486490	14.6
Monona-Harrison Ditch	Turin	6602400	27
Nishnabotna	Hamburg	6810000	128
Nodaway	Clarinda	<u>6817000</u>	15
North Raccoon River	Jefferson	5482500	82
North Raccoon River	Sac City	5482300	14
North River	Norwalk	5486000	5.6
North Skunk River	Sigourney	5472500	35
Raccoon River	Van Meter	5484500	190
Rock River	Rock Valley	6483500	26
Shell Rock River	Shell Rock	<u>5462000</u>	147
Skunk River	Augusta	5474000	287
Soldier River	Pisgah	6608500	20
South Raccoon River	Redfield	<u>5484000</u>	58
South River	Ackworth	5487470	4.1
South Skunk River	Oskaloosa	5471500	94
South Skunk River	Ames (below Squaw Creek)	5471000	23
South Skunk River	Ames	5470000	4.8
Thompson River	Davis City	<u>6898000</u>	13
Turkey River	Garber	5412500	210
Upper Iowa River	Decorah	5387500	80
Walnut Creek	Hartwick	<u>5452200</u>	2
Wapsipinicon River	DeWitt	5422000	150
Wapsipinicon River	Independence	5421000	17
West Fork Cedar River	Finchford	5458900	66
West Fork Ditch	Hornick	6602020	12
West Nishnabotna River	Randolph	6808500	67
West Nishnabotna River	Hancock	6807410	49
White Breast Creek	Dallas	<u>5487980</u>	3.2

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

5459500

39

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

Mason City

# 567—<u>50.1652.9</u>(455B) Water conservation.

Winnebago River

50.1652.9(1) General. The purpose of these water conservation requirements is to preserve the availability of water that 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 that preserve in\_stream flows.

a. Each water use permit granted after July 1, 1986, including any permit granted to a CWScommunity

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public water supply, will include conditions requiring routine (day-to-day) conservation practices and requiring emergency conservation practices after department notification by the department. Existing permits may be modified to include conservation conditions pursuant to 50.14(3) 52.7(1)"d," if deemed necessary by the department.

- <u>b.</u> Only general provisions for routine conservation will be included in a <u>water use</u> permit; unless water is to be withdrawn from a protected water source designated in <u>567—Chapter 53 that which</u> has specific requirements for routine conservation. <u>Such Ppermit conditions requiring routine conservation</u> are primarily intended to raise awareness of water usage, develop a preparedness for periods of water shortages, and minimize waste of water.
- c. General conditions involving emergency conservation will be included in all <u>water use</u> permits. Specific emergency conservation conditions may be included in a <u>water use</u> permit pursuant to <u>subrule 52.9(2)50.16(2)</u>. If specific emergency conservation permit conditions are required, they will be based on a <u>department-approved</u> water conservation plan developed by the permittee or applicant; in accordance with <u>subrule 50.16(3)52.9(3)</u>, and approved by the department.
- <u>d.</u> 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—50.1752.10(455B). Long-term water shortages are addressed may be dealt with in the protected source rules, 567—Chapter 53.
- 50.1652.9(2) Applicability of emergency conservation. Specific emergency conservation requirements may be made a condition of a water <u>usewithdrawal</u> permit if the proposed or permitted withdrawal could result in a significant consumptive use of water from a source that 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 rule 567—50.15(455B) 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 that 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 that 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 (West Okoboji, East Okoboji, Big Spirit, Little Spirit, Upper Gar, Lower Gar, and Lost Island 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.
- 50.1652.9(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 renewal application, for permit renewal, the department will notify the permittee at least 120 days prior to expiration of the water use permit. Water conservation plans shall describe the measures to be used to achieve water conservation and estimate the 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

Commented [13]: These need to be listed.

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location, well depth, pumping rate, and date of installation.

- (2) A description of the 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) 50.17(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 that 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 that 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.
- 1. The consumptive nature of a water use, as described in—subrule 50.16(2)52.9(2) and determined—in accordance with this subrule, 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. Justification shall which must include documentation that an activity involving water use is essential and that thedemonstration of use of best commercially available technology is being used. The department may then grant waivers variances on a case-by-case basis.
- 2. Measures that which will be credited for emergency conservation include, but are not limited to, the following:
  - <u>dD</u>ocumented water savings resulting from routine water conservation measures;
  - Shutdown, postponement, or curtailment of nonessential water use activities involving water use;
  - Sewitching to nonaffected sources for water supply;
- Mmitigation of consumptive uses by directly discharginge of stored water or water from a nonaffected source to the affected water source:
- Aecquisition 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 (PWSs). At a minimum, emergency water conservation plans for PWSspublic water supplies must include provisions for restricting outside, consumptive water use.
  - (3) Irrigation water use.
- 1. 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 above in 50.16 52.9(3) "c"(1) above.

- 2. 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 sScheduling 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:
- "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.
- "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. ARC 2853C. IAB 7/8/15, effective 8/12/15]

#### 567—50.1752.10(455B) Priority allocation restrictions.

- 50.1752.10(1) General. After any triggering event described in subrule 50.17(2) 52.10(2) has occursred, the department will investigate and, if appropriate, may restrict water use according to the priority allocation plan as described in subrule 50.17(3)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.
- <u>a.</u> The department will notify existing permittees of any emergency restriction or suspension of water use by written order pursuant to <u>subrule 50.14(2)</u>52.7(2). A permittee will be required to maintain daily <u>records of</u> water withdrawal and wastewater discharge <u>records</u>, if any, while the emergency order is in effect. These records shall be available for <u>department</u> inspection <u>by the department</u> to verify compliance with the order.
- <u>b.</u> Suspension or restriction of water usage applicable to otherwise nonregulated water users shall be by emergency order of the director <u>thatwhich</u> 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.
- c. The department will lift the suspension or restriction of water usage, as deemed appropriate, when evidence of sustained, improved conditions is available.
- d. 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 50.1752.10(3) "bg" (6) through (8), "i" or on uses of water pursuant to a contract with the state as provided in lowa Code sections 455B.263(5) and 455B.263(6) unless the governor has issued a proclamation, as described in paragraph 50.1752.10(2) "b." Notwithstanding such proclamation, in the case of water use under a contract with the state pursuant to lowa Code sections 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.
- 50.1752.10(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 to implement 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 Ppublic Defense of a local crisis that 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 7010 seven day, one in ten year low flow level.

50.1752.10(3) Priority allocation plan. Notwithstanding a person's possession of a permit or athe person's use of water being a nonregulated use, the department may suspend or restrict water useage of water by use category of use on a local or statewide basis in the following order:

- a. Water conveyed across state boundaries.
- b. Water used for: Water used primarily for r
- (1) Recreational or aesthetic purposes.
- <u>c.</u> (2) Uses of water for the iIrrigation of any general crops.
- d. (3) Uses of water for the iIrrigation of any specialty crops.
- e. (4) Uses of water for mManufacturing or other industrial processes.
- f. (5) Uses of water for gGeneration of electrical power for public consumption.
- g. (6) Uses of water for Livestock production.
- h. (7) Uses of water for hHuman consumption and sanitation supplied by rural water districts, municipal water systems, or other public water supplies.
  - i. (8) Uses of water for hHuman consumption and sanitation supplied by a private water supply.

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

567—50.1852.11(455B) Well pPlugging of abandoned wells. When a water use well is no longer used, or is in a state of disrepair or neglect. When authorization for withdrawals of water from a well expires without renewal, the permittee shall be responsible for plugging the well in accordance with lowa Code section 455B.190, 567—Chapter 39, and lowa Geological Survey Public Information Circular #1, "Well Plugging Procedures," or by an alternate method approved by the department for prevention of groundwater pollution. The well plugging form Form 542 1226 (Abandoned Water Well Plugging Record) must be completed and submitted as specified on the form. However, the department shall grant a waivervariance from the well plugging requirement that the well be plugged-if athe 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 lowa Code sections 455B.262 through 455B.279(2) 567 52.12 to 52.19 Reserved.

567 52.20(455B) Water storage permits. Reseinded 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).

Commented [15]: lowa Code section 460.202, Preventing surface water drainage into ag drainage wells, does not allow this to happen.

- 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.
- c. 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.
- I. 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
- 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.

considered an agricultural drainage well by the department.

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[Filed 10/9/75, Notice 8/25/75 published 10/20/75, effective 11/24/75]
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      [Filed 12/2/83, Notices 6/22/83, 7/20/83 published 12/21/83, effective 1/25/84]
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[Filed 12/19/97, Notice 9/10/97 published 1/14/98, effective 2/18/98]
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    Filed ARC 4426C (Notice ARC 4277C, IAB 2/13/19), IAB 5/8/19, effective 6/12/19
  [Filed ARC 5899C (Notice ARC 5677C, IAB 6/16/21), IAB 9/8/21, effective 10/13/21]
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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.