

567—52.9(455B) Water conservation.

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 The purpose of water conservation requirements is to preserve the availability of water which is withdrawn for use, as opposed to protected flow provisions in rules 567—52.3(455B), 567—52.4(455B), and 567—52.8(455B) which preserve in stream flows.

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

Only general provisions for routine conservation will be included in a permit, unless water is to be withdrawn from a protected water source designated in 567—Chapter 53 which has specific requirements for routine conservation.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

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

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

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

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

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

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

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

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

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

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

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

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

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

- (1) A description of each source of water withdrawal (i.e., well or surface water intake) including the location, well depth, pumping rate, and date of installation.
- (2) A description of wastewater discharge including the location and discharge frequency.
- (3) Monthly withdrawal amounts from each source for the past five years.
- (4) Monthly total water withdrawal amount for the past five years.
- (5) Monthly total wastewater discharge amount for the past five years.
- (6) A quarterly breakdown, by the water use categories in subrule 52.10(3), of total water use and estimated consumptive water use over the past five years.
- (7) A description of any previous water shortage problems, including the cause, frequency, other affected parties, and how they were resolved.
- (8) Identification of nearby water supplies which are potentially affected by or could potentially affect the proposed or permitted withdrawal.
- (9) A means of identifying impending water shortage problems (e.g., water level in wells or a reservoir decline to a certain level or stream flows fall to a certain rate).

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

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

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

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

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

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

(3) Irrigation water use. Emergency water conservation plans for irrigation water uses shall limit irrigation water use to the equivalent of one inch per irrigated acre per week for general crops and specialty

crops, unless the water conservation plan contains other mitigating provisions such as those listed in 52.9(3) “c”(1) above.

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

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

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

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

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

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

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

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

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