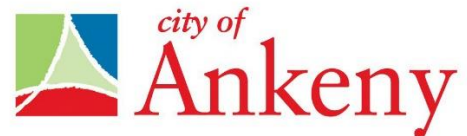


City of Ankeny, Iowa

Water Conservation Plan



The Municipal Code of the City of Ankeny, Iowa, Section 90.20, states that the City of Ankeny (City) may limit the use of water in the event of an emergency wherein the supply of water is limited or needed to meet the emergency. Central Iowa and most parts of the State of Iowa receive sufficient rainfall to meet the needs of residential, business, industry, and government customers during most years and most summer months. Des Moines Water Works (DMWW) and the City have made significant financial investments in treatment plants, pumps, tanks and piping to meet the potable water needs of their customers. These water utility assets can be effectively and efficiently operated during the very hottest of summer days when our customers use water wisely. Wise use of water involves timely detection and repair of leaks, eliminating waste and reducing the need for water.

This Water Conservation or Water Shortage Plan is being adopted by the City to help manage potable water system demand so customers do not experience pressure, quality, and/or availability issues during periods of extreme water demand or when water availability may be limited due to raw water shortage, water quality events, or system failures. The Water Shortage Plan applies to all direct customers of the City. An announcement by the DMWW that they are implementing a water shortage plan automatically triggers the implementation of the City's water shortage plan at the same action level. The establishment of the "rationing factor", as discussed in Stage 4, is to be determined and communicated by the DMWW, and it applies to the City's customers the same as DMWW customers. A public announcement by the DMWW applies to the City's customers the same as if the notice was issued by the City.

The Water Shortage Plan is divided into four stages. The stages are not necessarily consecutive, but each stage is intended to further reduce water demand, with the first three stages applying primarily to periods when turf irrigation demand is high. The four stages can generally be defined as follows:

- Stage 1: Voluntary 25% reduction in turf irrigation
- Stage 2: Voluntary 50% reduction in turf irrigation and other outdoor water use
- Stage 3: Mandatory prohibition of all turf irrigation
- Stage 4: Mandatory water rationing

Turf irrigation typically accounts for approximately 40% of the peak water system demand. Other outdoor water uses typically account for an additional 10% of the peak water system demand. Stages 1, 2 and 3 may each, or all, be skipped if a water shortage occurs during a time of year when irrigation demand and outdoor water use is not significant. The third and fourth stages of the plan are mandatory and will result in enforcement penalties. Limiting water use to a winter average will typically result in a reduction of approximately 60% compared to peak water use.

STAGE 1 – Voluntary 25% Reduction in Turf Irrigation

Stage 1 is triggered when the expected peak water system demand reaches 90% of current capacity, or the water system demand is generating a high number of areas with low pressure, or there are other indications that without the wise use of water, a shortage could occur. The goal of Stage 1 is a 10% reduction in the expected peak water system demand.

Actions:

1. Request a 25% reduction in turf irrigation.
2. Encourage customers to optimize their irrigation systems so water is not directed onto impervious surfaces and turf is not overwatered.
3. Recommend customers irrigate on alternate days, by a system under which even numbered addresses water only on Mondays, Wednesdays and Fridays, and odd-numbered addresses water only on Tuesdays, Thursdays and Saturdays.
4. City suspends fire hydrant flushing program except for water quality purposes.
5. City suspends turf irrigation at the Police Department, Library, and outside the fences at the aquatic facilities.
6. Prairie Ridge Sports Complex changes to irrigating only every other day.
7. Otter Creek Golf Course reduces irrigation of driving range and rough areas.
8. Request City staff minimize water usage activities such as street sweeping and sewer cleaning.

STAGE 2 – Voluntary 50% Reduction in Turf Irrigation and Other Outdoor Water Use

Stage 2 is triggered during a period of substantial water system demand and after implementing Stage 1 has failed to achieve an adequate reduction in water use. The goal of Stage 2 is a 25% reduction in the expected peak water system demand.

Actions (in addition to 'Actions' listed under Stage 1):

1. Request a 50% reduction in turf irrigation and other outdoor water use.
2. Encourage wise use of water during outdoor activities including washing cars, playing in the sprinkler, playing with water toys, and filling swimming pools.
3. Encourage wise use of water indoors including timely identification and repair of leaking fixtures, washing only full loads in dishwashers and washing machines, shorter showers, etc.
4. Communicate with customers about the importance of alternate day irrigation and make them aware that failure to reduce water use could result in all turf irrigation being prohibited.
5. Request public agencies (city, county or state) set an example by:
 - a. Closing recreational facilities with known water inefficiencies.
 - b. Suspending the operation of decorative fountains.
 - c. Suspending irrigation of non-essential facilities.
 1. Reduce irrigation at the aquatic facilities to every other night.
 2. Prairie Ridge Sports Complex to shut off plaza irrigation, irrigate every third night, apply wetting agents, and curtail irrigation from fields not in season.
 3. Otter Creek Golf Course water fairways every other night and reduce perimeter green heads and clubhouse lawn irrigation.
6. Coordinate any fire hydrant flushing with the City's water utility staff.
7. Suspend sodding, seeding, and planting installations that require watering.
8. Survey water distribution and storage system for possible leaks.

STAGE 3 – Mandatory Prohibition of All Turf Irrigation

Stage 3 is triggered during a period of substantial water system demand and after implementing Stage 1 and Stage 2 have failed to achieve an adequate reduction in water use. The goal of Stage 3 is a 40% reduction in the expected peak water system demand.

Actions (in addition to ‘Actions’ listed under Stages 1 and 2):

1. Require customers to suspend all turf irrigation.
2. City suspends all irrigation at aquatic facilities.
3. Prairie Ridge Sports Complex irrigate only to maintain safe playing surfaces by City Council action.
4. Otter Creek Golf Course irrigate only tees and greens for turf survival.
5. Fire hydrants to be used for fire suppression only. All fire hydrant meters will be recalled.
6. Suspend use of City-owned vehicle wash bays.

Enforcement:

1. Customers observed by City staff irrigating in violation of this policy will be notified by a tag left at the property. If the irrigation is not suspended within 48 hours, water service to the property will be terminated. In order to restore water service to the property, the customer must pay the reconnection fee and comply with the mandatory conservation measures.
2. Any second offense for irrigating, any first offense for fire hydrant usage, or any other unauthorized use of water shall be deemed an illegal use of water which constitutes a municipal infraction, subject to termination of water service and/or civil penalties as set forth in the City’s Code of Ordinances, Section 90.23.

STAGE 4: Mandatory Water Rationing

Stage 4 is triggered after implementing Stage 1, Stage 2, and Stage 3 have failed to achieve an adequate reduction in water use. Stage 4 may also be invoked without first implementing Stages 1 through 3, if the expected peak water system demand exceeds 90% of current capacity for any reason that cannot be addressed by the actions contemplated in Stages 1 through 3. The goal of Stage 4 is a reduction in demand to the lowest level which will meet public health and safety standards.

Actions (in addition to ‘Actions’ listed under Stages 1, 2 and 3):

1. Water rationing measures will be implemented. The City shall set a target level for water system demand consistent with its current capacity and shall use such target to establish a “rationing factor” and determine a Stage 4 monthly water ration for each customer. The “rationing factor” shall be a percentage, which may be above or below 100%.
2. The Stage 4 base usage for each customer will equal their current residential “sewer average” or, for non-residential customers, the average water usage billed on their January, February and March bills. Customers starting service after or during the base usage establishment period will be assigned a base usage calculated on the lowest usage months in their consumption history, with a minimum of one (1) full month and not to exceed three (3) months. New non-residential customers beginning service during the Stage 4 rationing period must comply with the Stage 3 mandatory measures until a base monthly usage is established.

3. The base monthly usage shall be multiplied by the announced “rationing factor” to establish the Stage 4 monthly water ration for each customer.
4. All irrigation and other outdoor water use will be suspended at all City-owned facilities.

Enforcement:

1. While Stage 4 is in effect, all water used beyond the Stage 4 monthly water ration for each customer will be billed at the emergency water shortage rate. The emergency water shortage rate shall be four (4) times the water use rate established in Section 92.04.1.B.(2) of the City's Code of Ordinances.
2. Any customer aggrieved by the application of these procedures, including any person disputing the base monthly usage amount, may file an appeal, in writing, to be considered on a case-by-case basis by the City Manager or designee(s).

Emergency Water Management Plan

The City has an Emergency Water Management Plan that establishes a water rationing protocol. The Emergency Water Management Plan is enacted by declaration of the City Council in response to a natural or manmade disaster or a system failure that affects the City's ability to provide an adequate supply of drinking water for a brief or extended period of time. The Emergency Water Management Plan includes mandatory water use restrictions that range from curtailment of turf irrigation activities to complete shutdown of the water distribution system depending on the severity of the situation. The Emergency Water Management Plan supersedes this Water Shortage Plan.