



Municipal Water Curtailment

This section satisfies the requirements of OAR 690-086-0160.

Introduction

Water curtailment plans outline proactive measures that water suppliers may take to reduce demand and to find alternative supply during short-term water supply shortages. The intent of water curtailment plans is to minimize the impacts of water supply shortages, which may result from incidents such as: prolonged drought, mechanical or electrical equipment failure in the system, unanticipated catastrophic events (flooding, landslides, earthquakes and contamination), or events not under control of the water supplier (e.g., localized or area-wide power outages and intentional malevolent acts).

History of System Curtailment Episodes

OAR-690-086-0160(1)

The City originally approved water curtailment measures in 1999 and it has needed to implement curtailment measures in the past 10 years. Prior to 2002, the City implemented periodic odd/even water schedules (curtailment) due to a lack of finished water storage. However, in 2002 the City constructed a new 1 MG finished water reservoir and a 300,000 gallon finished water clear well at the City's WTP. This additional in-system storage has decreased the frequency of curtailment, nevertheless it has been required. In 2003, the City declared a Stage 4 Alert due to the combination of a power surge that caused the water treatment plant to backwash the filters continually and community water usage, which together produced a water supply shortage. In the summers of 2008/2009 the City also needed to implement curtailment measures to address a water shortage stemming from the dry conditions that year and the reduced stream flow into Panther Creek Reservoir (believed to be due to the lowering of McGuire Reservoir during dam modification construction). During this curtailment episode, the City used flyers and the newspaper to inform customers of the odd/even outdoor watering schedule.

Curtailment Event Triggers and Stages

OAR-690-086-0160(2) and (3)

The City has developed this updated curtailment plan to describe the standards and procedures that will be employed in the event of a water shortage that requires the City to invoke water curtailment. Scenarios that could trigger curtailment could include droughts, natural disasters, source water contamination, fire, lower than normal reservoir levels, or a system or facility failure.

The City has developed a five-stage curtailment plan to be invoked in the event of a water supply shortage. These stages are designed to be initiated and implemented in progressive steps. Exhibit 4-1 presents the five curtailment stages, as well as their potential initiating conditions (i.e. triggers).

Exhibit 4-1. Curtailment Stages 1 through 5.

Curtailment Stages	Potential Initiating Conditions
Stage 1: Limited Water Shortage Alert	<ul style="list-style-type: none"> • Minor maintenance work or damage repair is required at water mains or reservoirs • A prolonged period of hot dry weather is forecasted
Stage 2: Moderate Water Shortage Alert	<ul style="list-style-type: none"> • Moderate maintenance work or damage repair is required at water pumps, mains, or reservoirs • A prolonged period of hot dry weather has begun
Stage 3: Serious Water Shortage Alert	<ul style="list-style-type: none"> • Minor damage to the water system has resulted from a natural disaster or criminal act • Prolonged period of hot dry weather is ongoing • Failure of minor parts of the water system • Source water flow is much lower than normal • Reservoir levels are much lower than normal • Finished water reservoir levels are much lower than normal
Stage 4: Severe Water Shortage Alert	<ul style="list-style-type: none"> • Serious damage to the water system has resulted from a natural disaster or criminal act • Failure of a significant part of the water system • Serious drought • Source water flow is critically low • Reservoir levels are critically low • Finished water reservoir levels are critically low • Isolated contamination of the water supply
Stage 5: Emergency Water Shortage Alert	<ul style="list-style-type: none"> • Extensive damage to the water system resulting from a natural disaster or criminal act • Failure of a critical water system component • Source water flow is unavailable • Reservoir levels are insufficient • Finished water reservoir levels are insufficient • Potentially harmful contamination of the entire water supply

Authority & Enforcement

The City's Public Works Superintendent has the authority to implement Stage 1 and Stage 2 alerts. The City's Manager has the authority to implement a Stage 3 alert and to determine and enforce reduced hours of usage for watering of lawns. By joint declaration, the City Council and City Manager have the authority to implement a Stage 4 or Stage 5 alert.

Municipal ordinance 608 "Rules for Water System (13.04)" authorizes citations and fines for customers violating curtailment restrictions. The first conviction is punishable by a fine up to \$150. The second conviction is punishable by a fine up to \$300. The third conviction is punishable by a fine of up to \$300 or by imprisonment for up to 30 days, or both.

Municipal code 13.04.580 states that the City may immediately discontinue water service to a customer that violates mandatory curtailment orders or to a customer whose wasteful or negligent water use seriously affects general water service, if that water use is not corrected within five days after receiving a written notice from the City.

Curtailment Plan Implementation

OAR-690-086-0160(4)

Stage 1: Limited Water Shortage Alert

Stage 1 is activated when the City's Public Works Superintendent determines that the potential for a water shortage exists based on the presence of one or more of the previously described triggers. In Stage 1, the City will inform customers of a growing water shortage and of mandatory odd-even day restriction by address for watering of lawns. Public notification of the curtailment stage will be distributed using at least one of the following methods: newspaper, radio, television, City website, and notices delivered to water utility customers.

Stage 2: Moderate Water Shortage Alert

Stage 2 is activated when the City's Public Works Superintendent determines that a moderate water shortage exists based on the presence of one or more of the previously described triggers. In Stage 2, the City will inform customers of the water shortage and of the following mandatory restrictions:

- No outside lawn watering
- No car washing
- No filling outside swimming pools except for the City Pool, if approved by the City Council
- No filling decorative water features, except in limited amounts necessary for maintaining aquatic animal life
- No wetting down impervious surfaces, such as sidewalks, driveways, parking lots, or other hard surfaces except to meet public health or safety requirements

The City will prohibit washing of City-owned vehicles.

Stage 3: Serious Water Shortage Alert

Stage 3 is activated when the City Manager determines that a serious water shortage exists based on the presence of one or more of the previously described triggers. In Stage 3, the City will inform customers of the water shortage and of the following additional mandatory restrictions:

- Odd-even day restriction by address for watering of gardens

The City will reduce water use for irrigation, discontinue fire system flushing activities, and cease washing down impervious surfaced areas except where necessary for public health and safety.

Stage 4: Severe Water Shortage Alert

Stage 4 is activated when the City Council and City Manager jointly determines that a severe water shortage exists based on the presence of one or more of the previously described triggers. In Stage 4, the City will inform customers of the water shortage and of the following additional mandatory restrictions:

- No watering of gardens
- Reduced hours for commercial uses of water

The City will stop issuing permits for hydrant use and establishing new residential and commercial water connections. Method(s) of public notification of the curtailment stage may also include phone/text messages, other print media, and signs.

Stage 5: Emergency Water Shortage Alert

Stage 5 is activated when the City Council and City Manager jointly determines that a severe water shortage exists based on the presence of one or more of the previously described triggers. In Stage 5, the City will inform customers of the emergency water shortage and that water use is only authorized for life support and basic household use. Public notification of the curtailment stage will be distributed using several of the methods described in earlier curtailment stages. The water emergency will be in effect until the City Council and City Manager jointly determine that the water shortage is over and an emergency situation no longer exists.