Section 4.0 - Water Curtailment Element

This section outlines past events, if any, that have resulted in curtailment being required. This section also presents the City of Hermiston's Curtailment Plan, which outlines stages of curtailment and an implementation program to enact curtailment items.

Past Water System Curtailment Events

The City has never experienced a deficiency in supply that required the curtailment of use by customers. The City makes use of multiple groundwater supplies and a surface water source, which helps prevent the occurrence of shortages. Due to the redundancy in the City's water sources, supply has historically exceeded peak demands. The City has experienced planned outages due to breaks, but these have been insignificant.

Objectives of Curtailment Program

The City of Hermiston is planning to adopt the Curtailment Plan outlined in this Water Management and Conservation Plan (WMCP) Update. The objectives of the Curtailment Plan are to recognize various levels of water supply alert status and provide steps and procedures for City staff to utilize during curtailment scenarios.

Curtailment Plan

Reduced levels of supply, increased demands, or capacity limitations of the water system can cause water shortages. A sustained problem in any of these three areas, or a combination of problems, would necessitate conservation or curtailment of water use; therefore, it is important to identify events that trigger activation of the alert stage and subsequent curtailment actions. The alert stages, trigger criteria, curtailment actions, and an approach for enforcement are presented on Table 4-1.

TABLE 4-1
WATER CURTAILMENT PLAN

Alert Level	Alert Level Triggers		Notification	Curtailment Action	Enforcement Action
	Supply	Capacity (gpm)			
Normal Operation	Wells and RWS are fully functional	10,307	N/A	N/A	N/A
Moderate	Distribution pipe break	Variable	Distribution of instructional flyers. Personal contact with larger commercial users.	No unnecessary water uses. Rotating schedule for limits on irrigation use based on address numbers (odd/even).	City staff monitoring and reminding customers.
	Temporary loss of shallow aquifer (Well No. 5)	6,307			
	Loss of RWS	8,781			
	Local power failure expected to last for greater than 24 hours	Varies 3,307 to 7,000			
High	Shallow aquifer contamination (Well No. 5)	6,307	Notification actions for high alert, plus distribution of instructional flyers. Personal contact with large water users.	Daily residential use allotments, commercial use limited to 75 percent of average historic use.	City staff enhanced monitoring and notifications to customers.
	Drought conditions impacting alluvial well performance	6,307			
Emergency	Contamination or loss of deep aquifer supply sources (Wells No. 2, 4, and 6)	5,526	All notifications above, plus door-to-door communication.	Water use limited to health, sanitation, and safety.	City staff and City police monitoring. Issuance of fines as approved by Curtailment Ordinance.

RWS = Regional Water System

The City currently monitors well static water levels. Static water levels are taken into consideration related to water supply capacity but are not included in the Water Curtailment Plan.

Loss of Water Supply Scenarios

Possible scenarios that could result in the City losing its water supply are limited. Some scenarios include a prolonged regional power outage, contamination of the shallow alluvial well (Well No. 5), contamination or unanticipated decline of water level in the deep basalt wells (Wells No. 2, 4, and 6), loss of capacity from the RWS (power, pipe break, etc.), prolonged drought, or earthquake.

The City relies heavily booster pumps operating 24 hours a day to supply water throughout the City. These booster pump stations rely on utility electrical power to pressurize the distribution system. The City's various booster pump stations are provided with power from Pacific Power & Light, Umatilla Electric Co-Op, and Hermiston Energy Services. Having power provided by three

different power utilities provides the City with some confidence that all power sources to all booster pump stations should not experience power outages at the same time.

In the event of a prolonged power outage, this could cause a major shortfall in water supply. Two storage reservoirs in Pressure Zone 1 use gravity for water supply; all other storage reservoirs use booster pump stations to supply water. Currently, none of the booster pump stations are equipped with standby power. However, the City plans to implement the installation of standby power generators at selected booster pump stations in the next five years.

In the event of contamination of the shallow alluvial well (Well No. 5), the remaining deep basalt wells (Wells No. 2, 4, and 6) along with the RWS would be able to provide the City with water. Well No. 5 provides approximately 65 to 75 percent of the total production from the City's wells. Contamination or temporary loss of use of any one of the deep basalt wells would not result in a severe water shortage.

A break in a large distribution system pipe could result in a significant loss of water temporarily. A severe earthquake could result in damage to wells, storage tanks, and other facilities.

Shortfalls Triggering Community Action

The City of Hermiston has adequate water supply provided by five different sources to meet its needs. It is unlikely that all sources would be out of service or unavailable simultaneously. However, City's storage capacity is below the recommended storage volume. The City is working to implement water storage capacity improvements. If all water sources were out of service, the current storage capacity would not last more than a few hours operating at peak daily demand.

Curtailment Plan Implementation Program

The City intends to follow the Curtailment Plan outlined in this section of the WMCP Update. The City has a Curtailment Ordinance in place (see Appendix F). The City's current ordinance has only two stages of curtailment activities. For the City to comply with OAR 690-086-0106(3), it is recommended the City amend their Curtailment Plan to align with the three stages outlined in this WMCP Update.

Authorization to activate the curtailment plan and levels of alert as outlined herein rests with the city manager or other assigned City personnel. Once the Curtailment Plan is activated, the City should notify the Oregon Health Authority - Drinking Water Services, county sheriff, all water system customers, and others, as appropriate.