

City of Ashland

**Water Conservation & Reuse Study (WCRS) &
Comprehensive Water Master Plan (CWMP)**

**Technical Memorandum 4
Level of Service Goals**

FINAL

October 2010



City of Ashland

Water Conservation & Reuse Study (WCRS) & Comprehensive Water Master Plan
(CWMP)

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1.0 INTRODUCTION

The City of Ashland is developing a Water Conservation and Reuse Study (WCRS) and Comprehensive Water Master Plan (CWMP) to identify needed improvements to the City's water supply system. As part of the WCRS and CWMP, the City established both an Ashland Water Advisory Council (AWAC) and a Technical Review Committee (TRC). This technical memorandum describes these two groups, the overall process for selecting a water supply package, and the establishment of level of service (LOS) goals.

2.0 ORGANIZATIONAL OVERVIEW

The organizational structure for the WCRS and CWMP is shown in Figure 1. As shown in the figure, final decision making authority for selecting a water supply package remains with the Ashland City Council. The role of the AWAC is to serve as an advisory group to the Council and the City's water staff, providing a link with the community and involving impacted persons and interest groups with the WCRS and CWMP. The TRC is intended to provide technical review and input to the consultant's work, supporting the AWAC and Council in their decision making processes. Finally, the Consultant Team (led by Carollo Engineers) is responsible for conducting the majority of the technical work to support the WCRS and CWMP, in accordance with the Consultant's contract scope of work.

The AWAC was established in accordance with the City of Ashland's committee policies and is intended to be in existence throughout development and implementation of the water supply program. The AWAC's authority is limited to collecting information, conducting analyses and making recommendations. All position statements or recommendations of the Committee are to be transmitted by its Chairman to the City Council.

The role of the AWAC within the WCRS and CWMP is shown in Figure 2. The AWAC role includes the following:

- Establishing level of service (LOS) goals to be used to define the water supply packages.
- Providing ongoing feedback to the TRC and Consultant Team.
- Evaluating the water supply packages developed by the Consultant Team according to the criteria established by the AWAC.
- Selecting the AWAC's Preferred Water Supply Package and conveying the AWAC recommendation to City Council.



Figure 1 Organizational Structure for the WCRS and CWMP

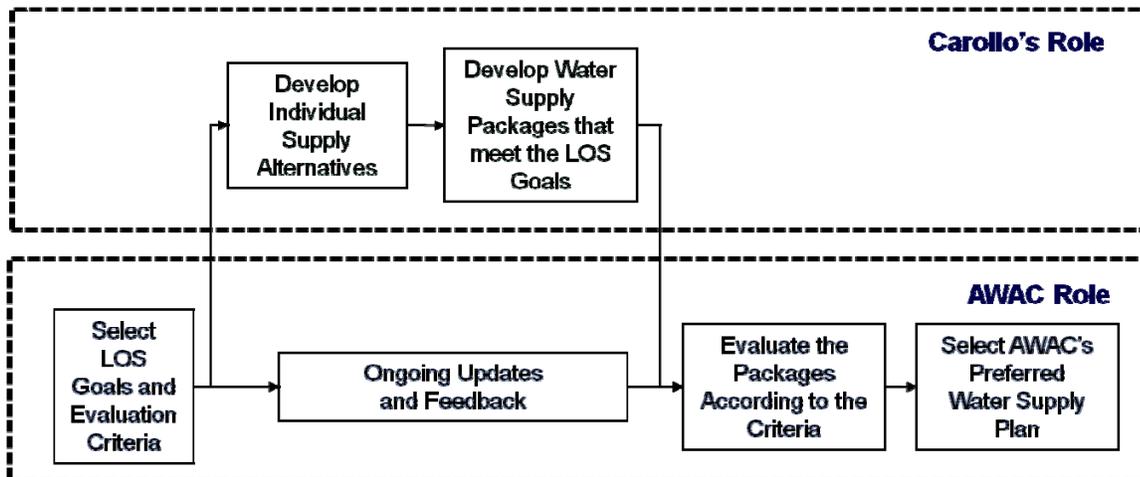


Figure 2 Summary of the AWAC's Role

The AWAC has a total of eleven members, as listed in alphabetical order in Table 1. At the first AWAC meeting, the decision was made to have Richard Whitley, a member of the Consultant Team, serve as a non-voting AWAC chairperson.

Table 1 Ashland Water Advisory Council Members <i>City of Ashland – Level of Service Goals</i>	
AWAC Member	Affiliation
Pat Acklin	At large member (Southern Oregon University Geography Department)
Lesley Adams	Rogue Riverkeeper - Klamath/Siskiyou Wildlands Center
Alex Amarotico	Chamber of Commerce Board
Darrell Boldt	City System Development Charge Committee Member
Kate Jackson	City Councilor
Donna Mickley	United States Forest Service
Don Morris	At large member
Amy Patton	Interested Citizen
Donna Rhee	At large member
Carol Voisin	City Councilor
John Williams	Forest Lands Committee

3.0 LEVEL OF SERVICE GOALS OVERVIEW

LOS goals were established in four areas, as follows:

- Water system capacity;
- Water system reliability;
- Water system redundancy; and
- Regulatory requirements.

The LOS goals were selected by the AWAC through a number of meetings, as follows:

- **April 15, 2010.** The LOS concept was presented to the AWAC with examples of potential LOS goals.
- **May 5, 2010.** The AWAC received input from the public at an open listening session.

- **June 2, 2010.** Potential LOS goals in the four areas were presented to the AWAC along with supporting information. The AWAC was directed that they could select either one of the proposed LOS goal levels, or develop an alternative LOS goal in each of the four goal areas.
- **June 10, 2010.** Three of the four LOS goals were selected at a supplementary AWAC meeting, consisting of those for water system reliability, water system redundancy, and regulatory requirements.
- **July 19, 2010.** The final LOS goal, for water system capacity, was selected by the AWAC, based on additional information provided on the capacity of existing supplies.

Additional information on the four specific LOS goal areas is provided herein.

3.1 Water System Capacity

The final selected LOS goal for water system capacity is as follows:

“Have sufficient supply to meet projected demands that have been reduced based on 5 percent additional conservation.”

Potential levels presented to the AWAC for consideration consisted of 5, 10 and 15 percent additional conservation. However, the AWAC was not limited to these levels. The AWAC decided that a 5 percent conservation level, in addition to conservation already being achieved by the City, was appropriate for water supply planning. However, the AWAC also recommends that the City set a goal of achieving 15 percent additional conservation. This compromise was developed based on the range of conservation levels preferred by the various AWAC members, with preferences including the proposed 5, 10 and 15 percent additional conservation levels.

The water system capacity LOS goal was established based on background information provided on the following:

- Conservation levels already achieved by the City.
- Comparison of per capita usage in Ashland compared to other communities; and
- Resulting projected shortages in raw water supply and water treatment plant capacity for the various potential conservation levels.

3.2 Water System Reliability

The final selected LOS goal for water system reliability is as follows:

“Community will accept curtailments of 45 percent during a severe drought.”

A severe drought was defined as an approximately 1-in-100 year event. Potential levels presented to the AWAC for consideration included 30, 40 and 50 percent curtailments. AWAC

members were generally divided between preferences for a 40 or 50 percent curtailment goal; the selected 45 percent goal was reached as a compromise.

The water system reliability LOS goal was established based on background information provided on the following:

- Historical variation in flows available from the Ashland Creek/Reeder Reservoir supply.
- Projected climate change impacts.
- Residential per capita usage corresponding to the potential curtailment goal levels; and
- Comparison to the City's existing curtailment plan.

3.3 Water System Redundancy

The final selected LOS goal for water system redundancy is as follows:

“Implement redundant supply project to restore fire protection and supply for indoor water use shortly after a treatment plant outage.”

Potential levels presented to the AWAC for consideration consisted of the following:

- Have sufficient redundant supplies to meet restricted indoor water usage requirements during a WTP outage.
- Have sufficient redundant supplies to meet average day demands during a WTP outage.
- Have sufficient redundant supplies to have no reduction in service during a WTP outage.

The final wording identified by the AWAC represents the AWAC's desire to improve water system redundancy, while not unnecessarily limiting the water supply alternatives being considered.

The water system redundancy LOS goal was established based on background information provided on the following:

- Vulnerability of the existing water treatment plant to natural disasters, including floods, landslides, and fire.
- Limitations of existing finished water storage.
- Impacts of loss of pressure in the distribution system.

3.4 Regulatory Requirements

The final selected LOS goals for regulatory requirements is as follows:

“Meet or exceed all current and anticipated regulatory requirements.”

No alternatives were provided to the AWAC for this LOS goal and no alternate levels were suggested by the AWAC.

4.0 SUMMARY

The LOS goals, as selected by the AWAC, are summarized in Table 2.

Goal Area	Goal
Water System Capacity	Have sufficient supply to meet projected demands that have been reduced based on 5 percent additional conservation.
Water System Reliability	Community will accept curtailments of 45 percent during a severe drought.
Water System Redundancy	Implement redundant supply project to restore fire protection and supply for indoor water use shortly after a treatment plant outage.
Regulatory Requirements	Meet or exceed all current and anticipated regulatory requirements.