

LEAGUE OF OREGON CITIES

WATER CONSERVATION SURVEY REPORT

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Water Conservation Survey Report

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Water Conservation Survey Report

Introduction

Between March 16, 2015 and August 31, 2015, Governor Kate Brown approved drought declarations in 24 of Oregon's 36 counties. Those counties include: Baker, Coos, Crook, Curry, Deschutes, Douglas, Gilliam, Grant, Harney, Hood River, Jackson, Jefferson, Josephine, Klamath, Lake, Lane, Linn, Malheur, Morrow, Sherman, Umatilla, Union, Wasco and Wheeler.¹ These declarations come after a winter without significant snow, a dry spring and record-breaking summer heat.

In response, the League of Oregon Cities surveyed its member cities to determine the state of their water infrastructure and their local water management and curtailment plans. The League analyzed data on water rights, water management strategies, water supply and conservation techniques in 65 respondent cities.

Key Findings

- A majority of cities use a variety of methods to conduct conservation outreach and education.
- Water management and conservation policies vary significantly in Oregon cities.
- Cities with populations less than 10,000 have the highest rates of uncertainty in their forecasted water supply and curtailment strategy.
- Cities with populations less than 10,000 have the highest rates of water conservation incentives such as inclining rate structure.
- Water Management Curtailment Plans share commonalities primarily in actions taken to reduce consumption in times of shortage.

Methodology

The report uses medians instead of means to account for variation in the water rights and management policies from one city to another. A mean is a statistical average and a median is the middle answer in a series of values. This also mitigates data inconsistencies caused by answers respondents left blank or from unusually large or small figures that would skew a calculation of the mean. Additionally, cities are broken down into quintiles (20 percent increments based on population mean) for the analysis of number of water rights held per city and type of rights. This normalizes the population data to reduce extreme responses that may be caused by an unusually small or large city.

¹ Oregon Water Resource Department. <http://www.oregon.gov/owrd/Pages/wr/drought.aspx>

Survey Results

General

As of 2013, there were approximately 85,000 water rights held in Oregon.² Local governments controlled 1,585 water rights of one form or another. Respondent cities (which total 408 water rights) have had more ground water sources (267) than surface water (161). The median number of water sources each city has in these categories is two. Twice as many water rights (224) are used as primary sources than for emergency supply back-up sources (119). The median number of back-up sources per city was only one.

When broken down by quintiles (Figure 1), the data shows that the median number of water rights increases as population increases. This is intuitive, but interestingly the number of secondary sources does not increase relative to the increasing number of primary sources. There appears to be no pattern in the number of ground water and surface water rights by population.

Ninety-five percent of cities surveyed metered residential and commercial properties. Eighty-two percent responded to metering industrial, yet this discrepancy in the two figures is partially due to some smaller cities (defined for this report as cities with populations less than 10,000) lacking industrial properties within city limits, a characteristic several respondents identified. This was clarified by several respondents in the survey.

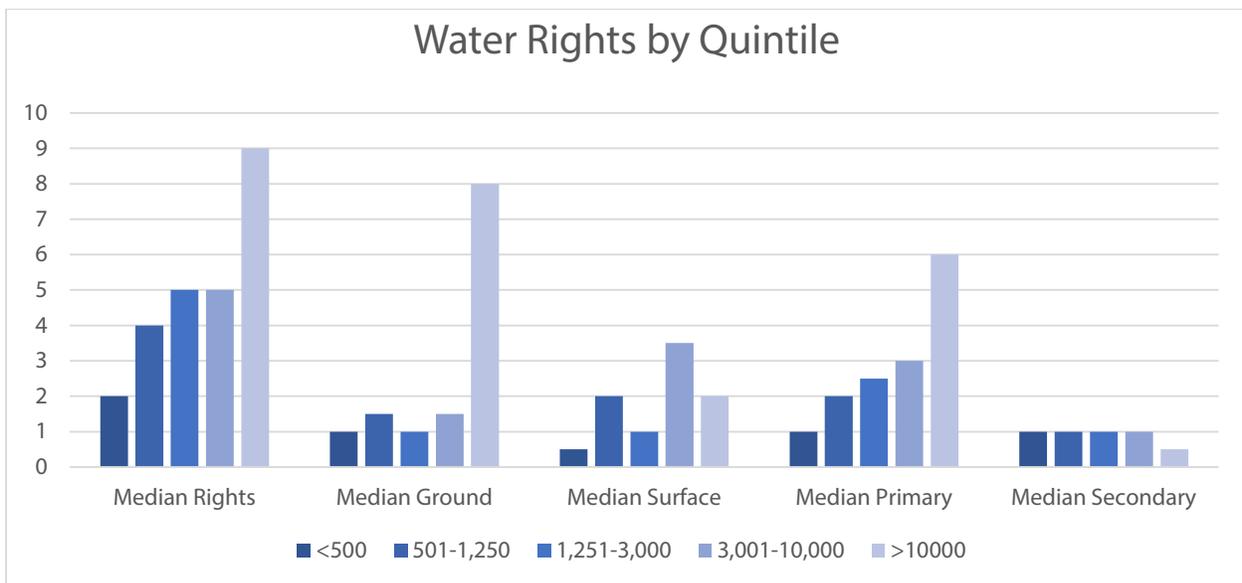


Figure 1: City Water Rights Held by Source Type, and Source Use

Many cities have emergency water purchase agreements, but the majority do not. As Figure 2 shows, 42 percent responded “yes,” 55 percent responded “no” and 3 percent were uncertain. Seventy-eight percent of cities without emergency water purchase agreements have populations less than 10,000. The overwhelming majority of cities with emergency purchase agreements have them with neighboring cities. Other municipalities had agreements with county, private, and public utility entities.

² http://www.martenlaw.com/newsletter/20130116-oregon-water-rights-fee-proposed#_ftn5

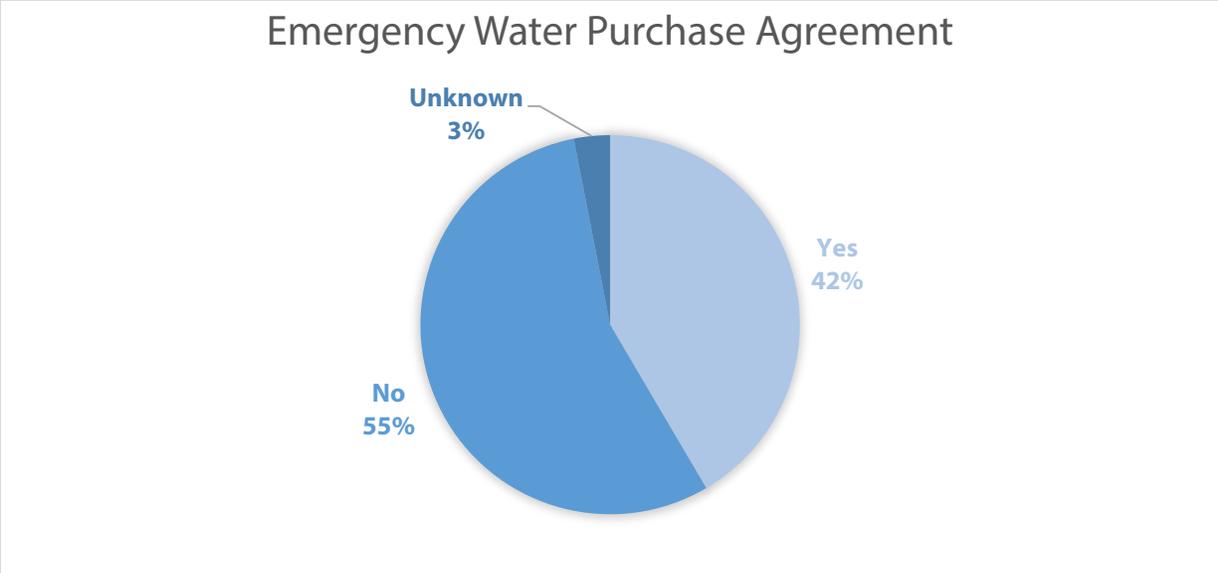


Figure 2: Emergency Water Purchase Agreements in Cities

Water Management Conservation and Curtailment

Fifty-six percent of cities surveyed have a Water Management Conservation Plan approved by the Oregon Water Resources Department (OWRD). Twenty percent responded “no,” and the remaining cities were either unsure if there was a plan or if their plan had been approved by the OWRD. All the respondents without an approved plan have a population less than 10,000. For those cities with updated plans, the median year of last update was 2012.

When asked about their respective city curtailment plans (84 percent having been enacted by ordinance), the degree of variation in plans was significant. The League analyzed curtailment plans and found many commonalities in these strategic documents. Table 1 shows the most common responses to city curtailment plans. The chart highlights common curtailment *levels* (the name of the curtailment stage), *triggers* (conditions in which the given stage is activated), and *actions* taken at those levels. These differences derive from many factors including local available water sources, emergency water agreements, city staffing capacity, etc. While generalization is difficult, there are key similarities in city curtailment plans.

Stage 1 Levels	Stage 2 Levels	Stage 3 Levels	Stage 4 Levels	Stage 5 Levels
Mild Alert Advisory	Moderate Warning / Serious Alert	Critical / Emergency Critical / Severe Severe Alert	Emergency Critical Alert	Emergency
Stage 1 Triggers	Stage 2 Triggers	Stage 3 Triggers	Stage 4 Triggers	Stage 5 Triggers
80% Capacity 90-95% Demand	80-90% Capacity 85-90% Demand County Emergency Declaration	90%+ Capacity 70-80% Demand Governor Emergency Declaration	Failure <70% Demand	
Stage 1 Actions	Stage 2 Actions	Stage 3 Actions	Stage 4 Actions	Stage 5 Actions
Limiting non-essential use including landscaping and outdoor washing of sidewalks and filling pools	Further limiting non-essential use including landscaping and outdoor washing of sidewalks and filling pools		Suspension of all water use not related to fire protection and public health. In some cases and cities, all services are suspended.	
Voluntary Actions	Outright prohibition of outdoor non-essential irrigation and washing of buildings, vehicles and sidewalks			
	Voluntary coordination of largest users and scheduling their consumption	Mandated commercial restrictions on largest users and consumption scheduling	Emergency declarations	
	General all use restrictions. Flow-restriction devices installed in some cases			
No hydrant flushing		No construction use of hydrants	Call for aid and assistance from county and state authorities	
Even/odd schedules for irrigation				
Public outreach and education				

Table 1: Composite Curtailment Plan Common Levels – Triggers and Actions

Stage 1: City on Alert

Commonly, this stage is referred to as “Alert” or “Advisory” and occurs when water treatment plant capacity or demand versus available supply (depending on how the city measures) reaches concerning levels. Other cities measured this by source flow in cubic feet per second or by storage volume. Most

cities choose either to adopt voluntary reduction from consumers, or impose mild restrictions on non-essential water usage. Residential and agricultural irrigation schedules are commonly adopted. Public outreach and education begins and continues throughout all later stages.

Stage 2: Moderate to Serious Curtailment

This stage is triggered by further risk in city water resources and can be triggered by a county drought announcement in certain cities. Non-essential water use (including for landscaping, vehicle and building washing, and lawn irrigation) is further restricted if not outright prohibited. At this point, many cities adopt general usage restrictions as well. Major city commercial and industrial users coordinate with the city to schedule their consumption to certain hours and in some cases to nighttime operation.

Stage 3: Critical and Severe Curtailment

Severe water supply risks lead cities to adopt more stringent curtailment measures. In several cities, a “declaration of drought emergency” by the governor triggers this stage. All uses of public hydrants, including for flushing and construction use, ceases. Non-essential water uses are further restricted, prohibited and curtailed.

Stage 4 & 5: Emergency Measure

At this stage, water use is suspended for all but fire safety, public health and subsistence. Emergency declarations are made in several cities at Stage 4. County and state authorities (including the Oregon Health Authority and the Oregon National Guard) receive request for aid.

Seventy-seven percent of respondent cities haven’t triggered their curtailment plans in the last 10 years. When asked if they would need to trigger this year, cities responded 66 percent “no,” with 23 percent unsure. Eighty percent of unsure responses came from cities less than 10,000 population.

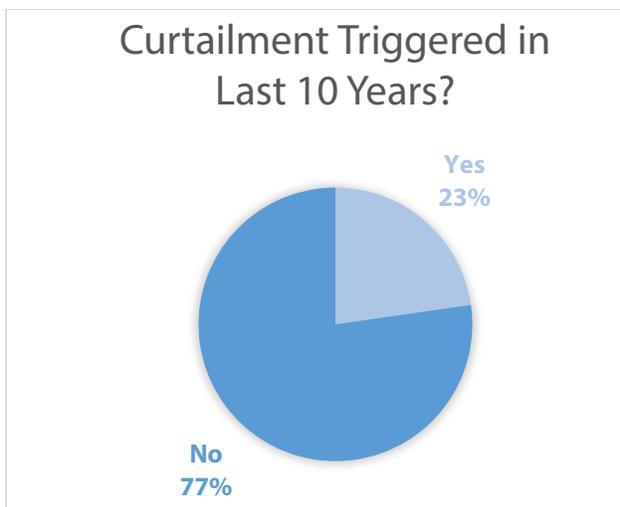


Figure 3: Curtailment Triggered in Last Ten Years?

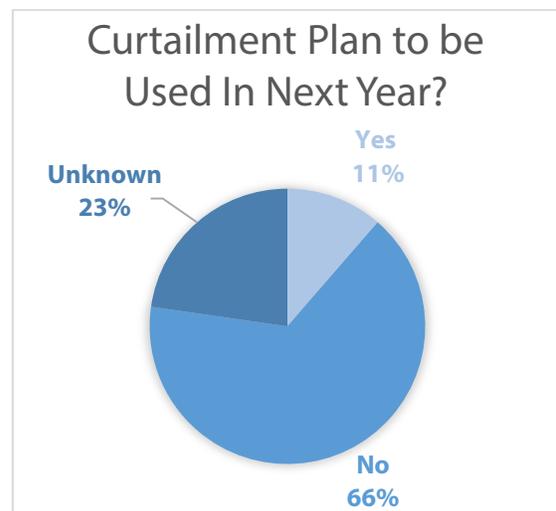


Figure 4: Curtailment Plan to be Used this Year?

Four cities had triggered their curtailment plan at the time this survey was conducted. Spring months were the most common point at which the plans were triggered, and city respondents predicted their plans would be in effect for an average of 4.75 months.

Water Supply and Demand

When asked if city water demands will exceed supply in the next year, only Westfir responded in the affirmative, citing water flow and infrastructure issues as the reasons for the supply issues. Fifteen percent of respondent cities were unsure, all of which were small cities.

Conservation Tools

Responses to questions relating to water conservation methods, including water pricing rate structure, varied greatly. Thirty-two percent of city respondents have flat structures, and 35 percent have inclining structures (see Figure 5). Among inclining rate respondents, 85 percent have less than 10,000 population. Five percent have declining rates and 28 percent have a different rate structure. The most common alternative water rate structure is a base payment plus rate per consumption structure.

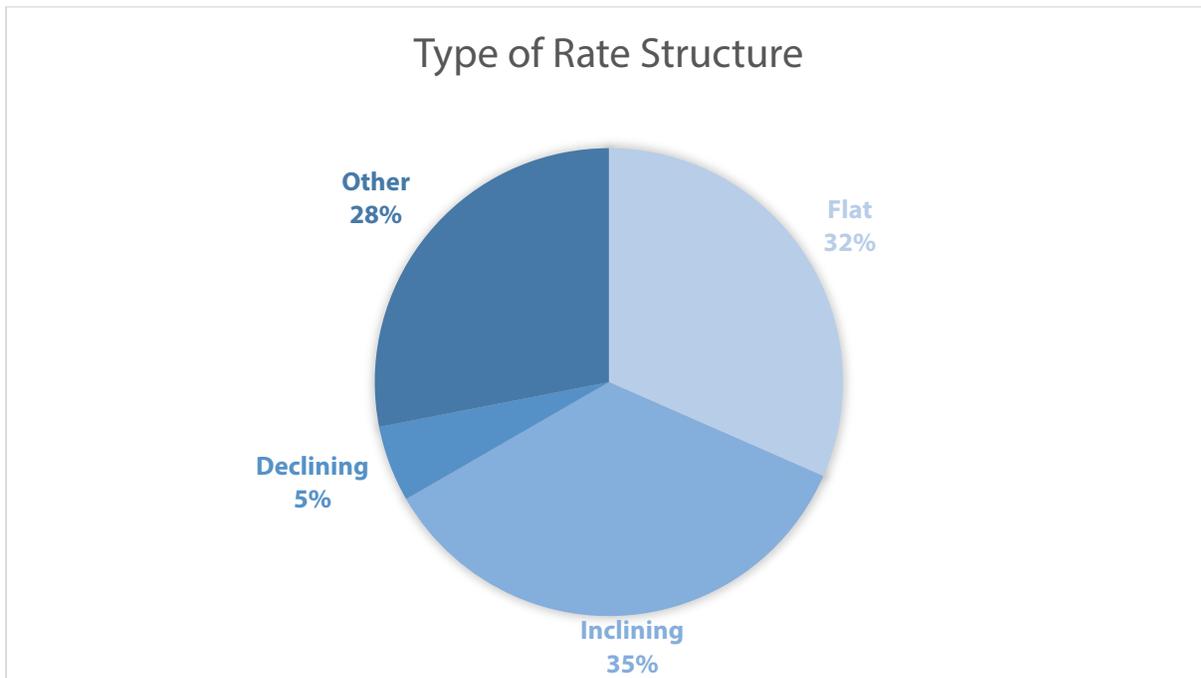


Figure 5: Water Pricing Rate Structure

Price rate structures rarely changed during water curtailment. Eighty-three percent of respondents don't change their structure in drought conditions. Cities have several mechanisms available to enforce curtailment plans, including fines (35 percent), fees (7 percent), service termination (34 percent), and other forms including outreach, education and incarceration (see Figure 6).

Cottage Grove's ordinance (13.05.060) illustrates how enforcement mechanisms can be structured. The ordinance calls for a first penalty warning followed by increasing fines from \$100 to \$500 for additional citations, with disconnecting water service being the final penalty. This example shows that many cities

use a combination of enforcement strategies to maintain water management and conservation during a crisis.

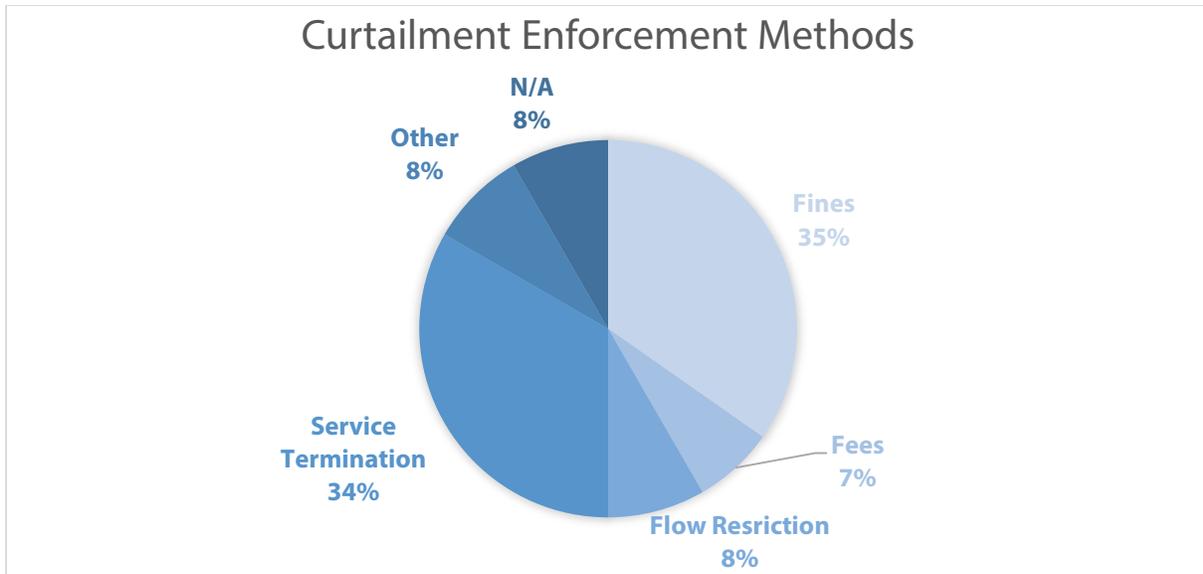


Figure 6: Curtailment Enforcement Methods in Cities

Sixty percent of respondents have conducted public outreach and awareness initiatives in the last five years. Most (90 percent) of those that hadn't were cities with less than 10,000 population. The most common forms of outreach and public awareness included: public meetings, education (both in K-12 schools and among adults), fliers and newsletters (including inserts in citizen utility bills), annual published reports, and online and social media content.

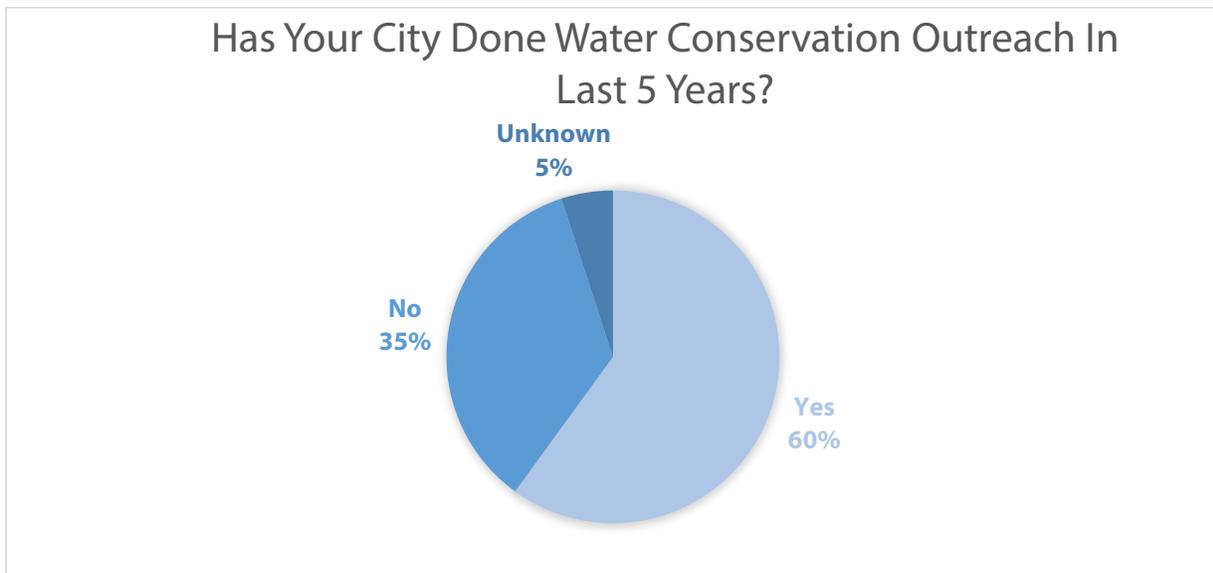


Figure 7: Water Conservation Outreach in Last Five Years

In addition to understanding water conservation methods, it was important for the League to understand risk to commercial and industrial water users that would be affected during restricted water use periods.

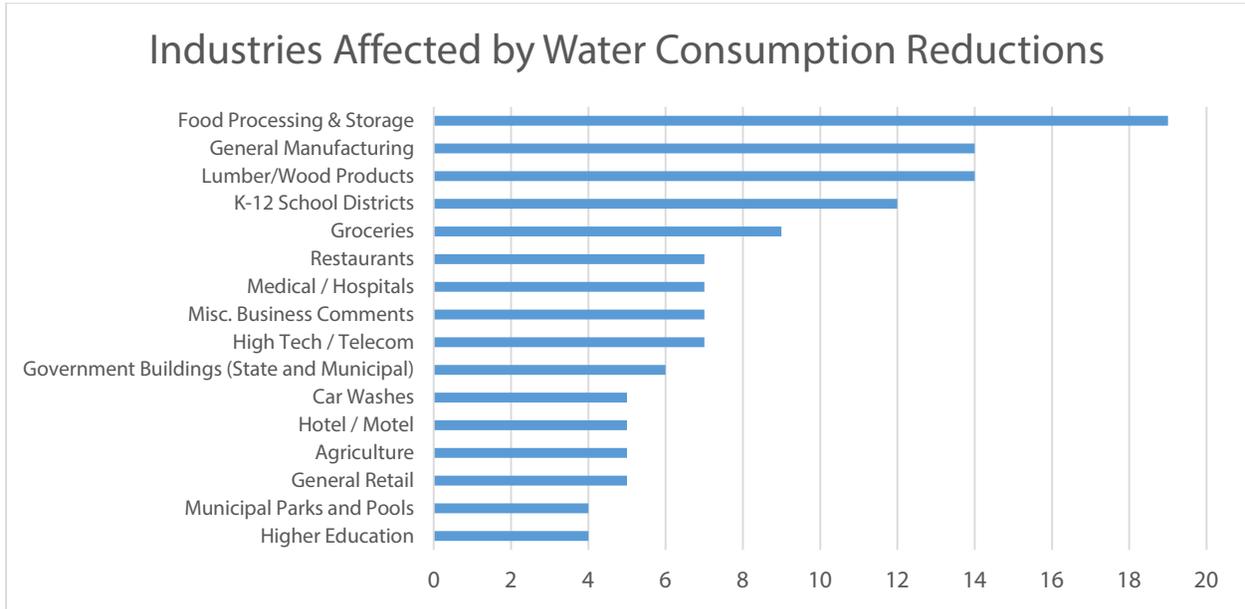


Figure 8: Commercial and Industrial Water Users Likely Affected by Water Supply Reductions (Common Responses)

Among the vast array of answers, the most common were: food processing, miscellaneous manufacturing, lumber and wood products manufacturing, and school districts. Groceries, medical facilities, high tech firms, and restaurants were also mentioned frequently.

Summary

Most notable among the survey’s findings is the abundant variety of water management and conservation policies throughout Oregon. This variability stems from differing conditions, resources and decisions made by cities. While there did not seem to be any response patterns by region of the state, there were significant trends based on population.

Cities with populations less than 10,000 were more likely to respond “unknown” for questions about whether the city would have water supply issues and have to trigger a curtailment plan by the end of the year. These cities were also less likely to have conservation outreach measures. However, smaller cities had the highest rates of inclining water rate structures as well as conservation incentives in all categories (residential, commercial, industrial).

Appendix A: Methods & Survey Respondents

This survey was distributed electronically to city staff from May 21 – June 29, 2015.

Sixty-five cities participated in this survey. This represents 1,523,095 or 36 percent of the municipal population in the state of Oregon.

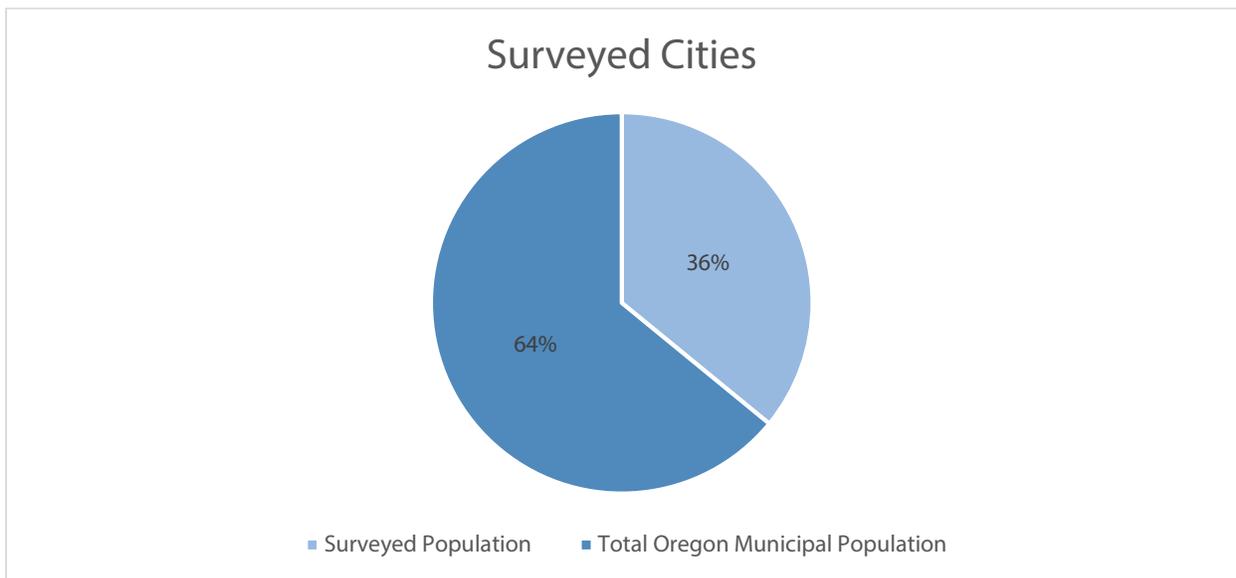


Figure 9: Population of Respondent Cities as Total of Oregon Municipal Population

When comparing the response group to total Oregon city demographics, there was under-representation in the sample of cities with populations less than 5,000 and over-representation in cities with populations between five and ten thousand and greater than 25,000, respectively.

The sample is also over-represented in the “Valley” small cities region and slightly under-represented in the “Eastern Oregon” region.

The report uses medians instead of means to account for the variation in the water rights and management policies from one city to another. This also mitigates data differences caused by answers respondents left blank. Additionally, cities are broken down into quintiles for the analysis of number of water rights held by each city and the types of rights. This normalizes the population data to reduce extreme responses that may be caused by an unusually small or large city.

	General Response Rates	Response Group	Oregon City Total Population	Difference in Sample and Population
Population	#	%	%	Δ
< 5,000	34	52%	69%	-16%
<10,000	14	22%	12%	9%
<25,000	8	12%	11%	2%
>=25,000	9	14%	8%	6%
TOTAL	65	100%	100%	0%
Region				
N. Coast	4	6%	8%	-2%
Metro	15	23%	24%	0%
Valley	16	25%	17%	7%
S. Coast	4	6%	5%	1%
S. Valley	7	11%	13%	-2%
Central Oregon	8	12%	11%	2%
N.E. Oregon	7	11%	12%	-1%
E. Oregon	4	6%	10%	-4%
TOTALs	65	100%	100%	0%

Table 2: Comparison of Responses Versus Statistical City Breakdown

Appendix B: Survey

Water Conservation

Q1 City:

Q2 Name of person responding:

Q3 Title of person responding:

Q9 How many water rights does your city hold (including permits, certificated rights and any registrations)?

Q10 How many of your city's water rights are:

	Number of Water Rights (1)
Ground Water (1)	
Surface Water (2)	

Q27 How many of your city's water rights are used as primary sources, and how many are for emergency supply back-up sources?

- Primary sources: (1) _____
- Emergency supply back-up sources: (2) _____

Q31 Please indicate whether your city meters water use for the following (mark all that apply):

- Residential (1)
- Commercial (2)
- Industrial (3)
- None (4)

Q28 Does your city have any emergency water purchase agreements with other water suppliers?

- Yes (1)
- No (2)
- Unknown (3)

Q29 Who are the emergency water purchase agreements with?

Q33 Water Management Conservation and Curtailment Plans:

Q4 Does your city have a Water Management Conservation Plan approved by the Oregon Water Resources Department (OWRD)?

- Yes (1)
- No (2)
- The city has a plan, unknown if it is approved by OWRD (3)
- Unknown (4)

Q5 When was your Water Management Conservation Plan last updated?

Q6 Does your city have a curtailment plan (may also be called Water Emergency Code Provisions)?

- Yes (1)
- No (2)
- Unknown (3)

Q7 A curtailment plan/element is a required component of a Water Management Conservation Plan--has your curtailment plan been enacted by ordinance?

- Yes (1)
- No (2)
- Unknown (3)

Q8 Per OAR 690-086-0160, the water curtailment element shall include: a list of three or more stages of alert beginning with mild and increasing in severity; a description of water shortage severity levels that will trigger curtailment actions at each stage of alert; and a list of specific standby curtailment actions for

each stage of alert. Please identify your city's stages, and the triggers and actions at each stage. In-lieu of filling out the actions, the curtailment plan may be e-mailed to cconrad@orcities.org.

	Stage 1 (1)	Stage 2 (2)	Stage 3 (3)	Stage 4 (4)	Stage 5 (5)
Level (1)					
Trigger(s) (2)					
Actions (3)					

Q30 Has your city's curtailment plan been triggered within the last 10 years?

- Yes (1)
- No (2)
- Unknown (3)

Q11 Based on your assessment of water supply and demand, between now and the end of this calendar year--do you anticipate your city's curtailment plan going into effect?

- Yes (1)
- No (2)
- Unknown (3)

Q12 Approximately when might the city's curtailment plan go into effect (month)?

Q13 How long do you anticipate the curtailment plan being in effect?

Q21 Does the city's curtailment plan address usage concerns by:

	Yes (1)	No (2)
Residential Users (1)	<input type="radio"/>	<input type="radio"/>
Commercial Users (2)	<input type="radio"/>	<input type="radio"/>
Industrial Users (3)	<input type="radio"/>	<input type="radio"/>

Q34 Water Supply and Demand:

Q14 Do you expect water demand to exceed available supply at some point in time prior to the end of this calendar year?

- Yes (1)
- No (2)
- Unknown (3) _____

Q18 What is the magnitude of the expected difference (mg/day)?

Q15 In approximately what month do you expect demand to exceed supply?

Q16 How long do you anticipate demand exceeding supply?

Q22 Is the anticipated deficiency a result of:

- Mechanical/infrastructure failure (1)
- Lower than anticipated water flows (2)
- Either a reduction in, or cessation of, permitted water due to holding a junior water right. (3)
- Other (4) _____

Q35 Conservation Tools:

Q17 Does your city have a rate structure that incentivizes conservation (such as an inclining block rate structure) for:

	Yes (1)	No (2)
Residential (1)	<input type="radio"/>	<input type="radio"/>
Commercial (2)	<input type="radio"/>	<input type="radio"/>
Industrial (3)	<input type="radio"/>	<input type="radio"/>

Q36 What type of rate structure does your city have?

- Flat (1)
- Inclining block (2)
- Declining block (3)
- Other-please describe (4) _____

Q20 Does your city's rate structure change when the curtailment plan goes into effect?

- Yes (1)
- No (2)
- Unknown (3)
- N/A (4)

Q23 How does the city anticipate enforcing the curtailment plan (mark all that apply)?

- Fines (1)
- Fees (2)
- Installing flow restriction devices (3)
- Terminate water service (4)
- Other (5) _____
- N/A (6)

Q24 Has your city conducted public outreach/awareness with respect to water conservation within the last five years?

- Yes (1)
- No (2)
- Unknown (3)

Q25 Please describe.

Q26 Please list your top five commercial and industrial users that would be economically impacted if water consumption in your city was reduced to that of only water for humans and animals (i.e. cooking, sanitation and drinking).

Q32 Any additional comments:

Appendix C: Responses by Question

*The following questions and responses are in the order in which they were asked in the survey, not numerical order.

Q9 How many water rights does your city hold (including permits, certificated rights and any registrations)?		
	#	%
0 Rights	4	7%
1-4 Rights	23	40%
5-10 Rights	20	34%
11-20 Rights	8	14%
>20 Rights	3	5%
TOTAL	58	

NOTE: Responses to Questions 9, 10 and 27 were categorized based on a range of the number of water rights held by the respondent cities. For example, there are 23 cities with between 1 and 4 rights, which accounts for 40 percent of the respondent cities.

Q10 How many of your city's water rights are:				
	<i>Ground Water</i>		<i>Surface Water</i>	
	#	%	#	%
0 Rights	18	30%	18	30%
1-4 Rights	27	44%	28	46%
5-10 Rights	9	15%	14	23%
11-20 Rights	4	7%	1	2%
>20 Rights	3	5%	0	0%
TOTAL	61		61	

Q27 How many of your city's water rights are used as primary sources, and how many are for emergency supply back-up sources?				
	<i>Primary Source</i>		<i>Backup Source</i>	
	#	%	#	%
0 Rights	5	8%	23	40%
1-4 Rights	38	62%	30	52%
5-10 Rights	15	25%	4	7%
11-20 Rights	2	3%	0	0%
>20 Rights	1	2%	1	2%
TOTAL	61		58	

Q31 Please indicate whether your city meters water use for the following (mark all that apply):								
<i>Residential</i>		<i>Commercial</i>		<i>Industrial</i>		<i>None</i>		
#	%	#	%	#	%	#	%	
62	95%	62	95%	53	82%	2	3%	

Q28 Does your city have any emergency water purchase agreements with other water suppliers?					
<i>Yes</i>		<i>No</i>		<i>Unknown</i>	
#	%	#	%	#	%
27	42%	36	55%	2	3%

Q29 Who are the emergency water purchase agreements with?
Southwest Lincoln Water
Douglas County Natural Resources-Galesville Purchase Water
Milwaukie
Tualatin
Heceta Water PUD
Keizer, Stayton
South West Lincoln County Water District
Fairview, Troutdale
Columbia City; McNulty Water Peoples' Utility District
Portland, Lake Oswego, Joint Water Commission
Monmouth
Independence
Neighboring water utilities
Salem
Malin
Roseburg
Ice Fountain water district
Interconnection with two private water purveyors with our service area.
Port of Morrow
We have an agreement with Lexington Cemetery Dist. We do not have a purchase agreement.
Smith Frozen Foods
Hines
Canyon City

Q4 Does your city have a Water Management Conservation Plan approved by the Oregon Water Resources Department (OWRD)?									
<i>Yes</i>		<i>No</i>		<i>Have Plan, Unknown if Approved</i>			<i>Unknown</i>		
#	%	#	%	#	%		#	%	
36	56%	13	20%	9	14%		6	9%	

Q6 When was your Water Management Conservation Plan last updated?	
1998	1
1999	1
2006	1
2007	2
2008	1
2009	1
2010	5
2011	3
2012	7
2013	6
2014	2
2015	5

Q6 Does your city have a curtailment plan (may also be called Water Emergency Code Provisions)?					
<i>Yes</i>		<i>No</i>		<i>Unknown</i>	
#	%	#	%	#	%
10	37%	13	48%	4	15%

Q7 A curtailment plan/element is a required component of a Water Management Conservation Plan-- has your curtailment plan been enacted by ordinance?					
<i>Yes</i>		<i>No</i>		<i>Unknown</i>	
#	%	#	%	#	%
36	84%	2	5%	5	12%

Question 8 was not included in this appendix due to its complexity. Refer to common responses in the above report (Table 2) or Appendix D.

Q30 Has your city's curtailment plan been triggered within the last 10 years?					
<i>Yes</i>		<i>No</i>		<i>Unknown</i>	
#	%	#	%	#	%
10	23%	34	77%	0	0%

Q11 Based on your assessment of water supply and demand, between now and the end of this calendar year--do you anticipate your city's curtailment plan going into effect?						
<i>Yes</i>		<i>No</i>		<i>Unknown</i>		
#	%	#	%	#	%	
5	11%	29	66%	10	23%	

Q12 Approximately when might the city's curtailment plan go into effect (month)?
May
April
August
May

Q13 How long do you anticipate the curtailment plan being in effect?
5 Months
7 Months
2 Months
5 Months

Q21 Does the city's curtailment plan address usage concerns by:					
<i>Residential Users</i>		<i>Commercial Users</i>		<i>Industrial Users</i>	
Yes	%	Yes	%	Yes	%
38	35%	38	35%	34	31%

Q14 Do you expect water demand to exceed available supply at some point in time prior to the end of this calendar year?						
<i>Yes</i>		<i>No</i>		<i>Unknown</i>		
#	%	#	%	#	%	
1	2%	49	83%	9	15%	

Questions 18, 15, 16 had No Responses.

Q22 Had single response. See: Appendix D.

Q17 Does your city have a rate structure that incentivizes conservation (such as an inclining block rate structure) for:					
<i>Residential Users</i>		<i>Commercial Users</i>		<i>Industrial Users</i>	
#	%	#	%	#	%
24	42%	20	35%	17	33%

Q36 What type of rate structure does your city have?							
<i>Flat</i>		<i>Inclining</i>		<i>Declining</i>		<i>Other</i>	
#	%	#	%	#	%	#	%
18	32%	20	35%	3	5%	16	28%

Q36a Other Responses
Overage fee per each 100 cu.ft.
Fixed monthly capacity charge plus flat monthly customer charge plus uniform commodity rate.
Base + Commodity
What type of rate structure does your city have?
Inclining block for residential customers; flat for commercial customers and schools; we lump industrial users into the commercial class.
Per 1000 gallons
Tiered Rate
Users are allotted a certain amount before being charged for overage.
Combo of flat and inclining block
Basic rate including 750 cu. ft. then .011 per cu. ft. thereafter.
Uniform
Base rate + consumption
by customer class
uniform
None

Q20 Does your city's rate structure change when the curtailment plan goes into effect?							
<i>Yes</i>		<i>No</i>		<i>Unknown</i>		<i>N/A</i>	
#	%	#	%	#	%	#	%
5	11%	38	83%	2	4%	1	2%

Q23 How does the city anticipate enforcing the curtailment plan (mark all that apply)?											
<i>Fines</i>		<i>Fees</i>		<i>Flow Restriction</i>		<i>Termination</i>		<i>Other</i>		<i>N/A</i>	
#	%	#	%	#	%	#	%	#	%	#	%
25	35%	5	7%	6	8%	24	33%	6	11%	6	14%

Q23a Other Responses
Unknown
Incarceration
Adopting Administrative Rules to restrict water use
Currently voluntary measures are in place.
Education
Outreach

Q24 Has your city conducted public outreach awareness with respect to water conservation within the last five years?					
<i>Yes</i>		<i>No</i>		<i>Unknown</i>	
#	%	#	%	#	%
36	60%	21	35%	3	5%

Q25 Please describe.

Discussions in public meetings, school programs, Consumer Confidence Reports and informational flyers

A description of Portland Water Bureau's water efficiency outreach and education efforts can be found in the Water Management and Conservation Plan Five-year Progress Report May 1, 2015, pages 2-4. (<http://www.portlandoregon.gov/water/article/532131>)

Tips included in monthly bill; issue annual consumer confidence report; information on City website; information and materials distributed at various public events; radio and TV spots

Irrigation tips and regulations. Xeriscape guides, water efficient fixtures and Water Conservation awareness in conjunction with the annual Consumer Confidence Report.

Utility billing, web site, and water conservation event.

We provide general water conservation tips in our annual Water Quality Report; provide conservation tips on our website; and provide newsletter articles.

Water conservation education information distributed to customers.

Free outdoor indoor conservation kits, website and Consumer Confidence Report language, 1-inch per week lawn watering campaign

Conservation notices sent out annually

We post articles in our monthly City Newsletter. In 2016 we will be rolling out a low-flow appliance rebate program for existing residential users.

The city's newsletter "The Village News" features articles on water savings, water use, etc. for the public to read. Water-related brochures are available in the city's Public Information Center located in the public works lobby. Information on water-related topics is made available at city events. The Consumer Confidence Report is mailed to all city residences, property owners and business owners annually to provide water quality information compiled by the city. Supply water conservation kit without charge to consumers. The city is always looking at different ways to inform its citizens about water quality and water use. Questions from customers are answered directly or if a broader audience is needed due to the topic. The question will be answered through a newsletter article or mail-out. Because the city is only one square mile in size, a broader media vehicle is not needed to contact citizens.

Member of regional water providers consortium

Information to council that is disseminated on two local Facebook pages; information on and flyers sent with water bills.

The Portland Regional Water Providers Consortium provides conservation advertising and education, city also involved in schools.

Outreach has occurred at community events such as Public Works Day, and the farmers market. Have water conservation information and kits available at city hall. Presentations to middle and elementary schools and to city council.

Water conservation information on city website; various articles in city quarterly newsletter; information in monthly e-newsletter

Newsletters

Q25 Please describe (continued)
On-going public education program stressing water conservation
Education on irrigation and low flow plumbing
Newsletter
Web posting of informational flyer and annual mailer
Water audits, water saving devices, public meetings
The City of Corvallis has a robust water conservation program and has had one since the early 1990s.
Annual water conservation bill inserts; ongoing program participation
Flyers with water bills urging wise use of water.
Inserts with water bills
Website conservation tab, Radio meters with usage and leak data. Complimentary die kits for toilet checks. Bill notifications.
The City of Bend has a comprehensive water conservation program @ www.waterwisetips.org .
We have instructed residences and business with odd house numbers to water on Tuesday, Thursday and Saturday and even house numbers to water on Monday, Wednesday and Friday.

Q26 Please list your top five commercial and industrial users that would be economically impacted if water consumption in your city was reduced to that of only water for humans and animals (i.e. cooking, sanitation and drinking). <Redacted for Privacy Concerns>

Q32 Any additional comments:
For our water system, this survey is very subjective in nature because it is still so early in the year and no one can accurately predict what the weather will do and the impacts to the water supply. Douglas County drought conditions are not severe at this time.
We do not have any industrial facilities.
Based on available storage and capacity in its two drinking water sources and reduced overall consumption by customers despite population growth, Portland does not anticipate facing drought conditions during 2015. The Portland Water Bureau carefully monitors supply and transmission capacity, customer demands, and weather forecasts during the annual summer drawdown of the Bull Run reservoirs and makes operational decisions accordingly. If at any time projected available supplies appear unable to meet anticipated demands, the bureau will take actions to bring demands into conformance with available supplies as outlined in its summer supply plan and water management and conservation plan.
We're pretty unique with the dunal aquifer, and the attenuation does provide us with a buffer. However we are a rain driven system that is interconnected with the lakes and streams. We do monitor the groundwater levels, however we have not seen any dramatic changes in the aquifer this year.
The city of Salem has the following wholesale water customers, all of which would be impacted by curtailment; City of Turner, Orchard Heights Water Association, and Suburban East Salem Water.

Q32 Any additional comments (continued)

Good luck with the survey, Charlie. If you need more information, please let me know. Best Regards, Preston

The City of Rivergrove's water is supplied by Rivergrove Water District which is a completely separate entity from the City.

City of Sheridan has an ordinance addressing a water crisis emergency. The bulk of the ordinance is from 1977. There are curtailment provisions and it gives the city authority to impose an inclining block price structure during the emergency.

Tigard's customer base is generally residential, multiple family with 5% commercial/industrial that is not generally dependent on large amounts of water for manufacturing, etc. Therefore, most restrictions would be based on human and household animal needs, with emphasis on reducing or curtailing irrigation uses.

We are fairly prepared for drought conditions at this time.

Thank you for conducting a survey. I look forward to seeing the results.

Surface water (springs) are very low. Ground water is currently holding similar to last year.

We are currently working on a \$3.76 water system improvement plan for the city. Part of the plan is the development of the Water Conservation Plan. We currently produce, on average, 8 million gallons of water per month, while we bill for only 4 million gallons, a 50% loss rate. The city wanted to wait for the conservation plan until after the improvement project. We want to see what the reduction will be because of the improvements before we write a conservation plan. We are also working on the Water Curtailment Plan. Because of the potential for a water bottling plant in the industrial park, we are getting a curtailment plan ready now.

Mosier has a very general emergency water curtailment plan in our Public Water ordinance that gives the City Council the right to impose water restrictions if necessary, and to impose fines or water shut-off on those who do not comply.

Columbia River Surface Water Source by horizontal collector wells.

We have no adopted water conservation plans other than our Water Ordinance which allows the city council to restrict water usage and with 147 connections and 229 residents we can notify all residents quickly.

The city has a very good well, we do not foresee a water shortage and we do not have a curtailment plan. All our industries have their own water source except for two restaurants and a small store.

Our system is designed for double the population that we have now. We take well draw-downs twice per year and have had no difference in over 20 years.

We are currently in the process of developing a Water Management Conservation Plan for the city of John Day and have hired a consultant.

Ranches in the area are not using city water. The city has only 100 hook-ups at present, all located within city limits.

Appendix D: Responses by City

Unless otherwise stated in the charts below, “Yes” responses are coded as a 1, “No” responses are coded as a 2, and “Unknown” answers are coded as a 3.

Questions 9, 10, 27

City	How many water rights does your city hold?	How many of your city's water rights are: Ground Water	How many of your city's water rights are: Surface Water	How many of your city's water rights are used as primary sources, and how many are for emergency-Primary sources:	How many of your city's water rights are used as primary sources, and how many are for emergency-Emergency supply back-up sources:
Albany	2	0	2	2	0
Baker City					
Banks		1	4		
Bend	18	12	6		
Boardman	2	1	1	1	1
Brookings	13	1	6	1	0
Burns	5	5	0	5	0
Cascade Locks		2	2	2	2
Corvallis	15	4	11	10	1
Cottage Grove	7	1	6	5	2
Creswell	5	2	3	2	3
Dallas			6	6	
Detroit	2	0	2	1	1
Eugene	5	1	4	2	0

City	How many water rights does your city hold?	How many of your city's water rights are: Ground Water	How many of your city's water rights are: Surface Water	How many of your city's water rights are used as primary sources, and how many are for emergency-Primary sources:	How many of your city's water rights are used as primary sources, and how many are for emergency-Emergency supply back-up sources:
Florence	4	3	1	3	1
Forest Grove	6	0	6	6	0
Hermiston	7	7	0	6	0
Hood River	5	0	5	2	3
Hubbard	4	4	0	4	0
Independence	8	7	1	5	2
John Day	6	6	0	3	3
Joseph	3	1	2	3	0
Keizer	16	16	0	16	0
Klamath Falls	26	22	4	23	3
Lafayette		8	1	8	
Lakeside	0	0	0	0	0
Lakeview	10	9	1	5	5
Lexington		1		1	1
Long Creek	2	1	1	1	1
Manzanita	7	2	5	2	5
Merrill	1	1	0	0	1
Mill City	1	1	0	1	0
Milwaukie	8	8	0	8	0

City	How many water rights does your city hold?	How many of your city's water rights are: Ground Water	How many of your city's water rights are: Surface Water	How many of your city's water rights are used as primary sources, and how many are for emergency-Primary sources:	How many of your city's water rights are used as primary sources, and how many are for emergency-Emergency supply back-up sources:
Molalla	2	0	2	1	1
Monmouth	11	4	7	2	2
Mosier	2	2		1	1
Myrtle Creek	5	0	5	5	0
Myrtle Point	5	0	5	2	3
Nehalem	4	0	4	1	3
Newberg	16	14	2	8	8
Portland	42	42	1	1	42
Prineville	16	16	0	16	0
Redmond	5	5	0	5	0
Riddle	4		4	3	1
Rivergrove	0	0	0	0	0
Rogue River	5	3	2	4	1
Rufus	2	2	0	1	1
Salem	32	25	7	5	4
Sandy	4	0	4	3	0
Sheridan	11	2	9	5	1
Spray	2	2		2	0
St. Helens	8	2	6	2	2

City	How many water rights does your city hold?	How many of your city's water rights are: Ground Water	How many of your city's water rights are: Surface Water	How many of your city's water rights are used as primary sources, and how many are for emergency-Primary sources:	How many of your city's water rights are used as primary sources, and how many are for emergency-Emergency supply back-up sources:
Sweet Home	4	0	4	3	0
Tigard	Tigard purchases wholesale water from Portland Water Bureau under contract. Groundwater sources are for peak seasonal supply and emergencies. Tigard is limited to 2.35 mgd ground water rights, and operates an Aquifer Storage Recovery (ASR) program to enhance extraction rates up to 4 mgd.	2	0	Peak Seasonal Demand source – not primary water source	2
Turner	0	0	0	0	0
Ukiah	3	3	0	3	
Union	5	3	2	2	1
Waldport	4	0	4	3	1
Waterloo	0	0	0	0	0
Westfir	2	0	2	2	0
Weston	4	3	1	1	1
Wilsonville	9	8	1	1	8

City	How many water rights does your city hold?	How many of your city's water rights are: Ground Water	How many of your city's water rights are: Surface Water	How many of your city's water rights are used as primary sources, and how many are for emergency-Primary sources:	How many of your city's water rights are used as primary sources, and how many are for emergency-Emergency supply back-up sources:
Winston	5	0	5	3	2
Wood Village	4	4	0	4	0
Yachats	4	0	4	1	1

Question 31

City	Please indicate whether your city meters water use for the following (mark all that apply):- Residential (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):-Commercial (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):- Industrial (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):-None (Yes=1)
Albany	1	1	1	
Baker City	1	1	1	
Banks	1	1	1	
Bend	1	1	1	
Boardman	1	1	1	
Brookings	1	1	1	
Burns	1	1	1	
Cascade Locks	1	1	1	

City	Please indicate whether your city meters water use for the following (mark all that apply):- Residential (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):-Commercial (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):- Industrial (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):-None (Yes=1)
Corvallis	1	1	1	
Cottage Grove	1	1	1	
Creswell	1	1	1	
Dallas	1	1	1	
Detroit	1	1		
Eugene	1	1	1	
Florence	1	1	1	
Forest Grove	1	1	1	
Hermiston	1	1	1	
Hood River	1	1	1	
Hubbard	1	1		
Independence	1	1	1	
John Day	1	1	1	
Joseph	1	1	1	
Keizer	1	1		
Klamath Falls	1	1	1	
Lafayette	1	1	1	
Lakeside				1
Lakeview	1	1	1	
Lexington	1	1	1	

City	Please indicate whether your city meters water use for the following (mark all that apply):- Residential (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):-Commercial (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):- Industrial (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):-None (Yes=1)
Long Creek	1	1	1	
Manzanita	1	1		
Merrill	1	1	1	
Mill City	1	1	1	
Milwaukie	1	1	1	
Molalla	1	1	1	
Monmouth	1	1	1	
Mosier	1	1	1	
Myrtle Creek	1	1	1	
Myrtle Point	1	1	1	
Nehalem	1	1		
Newberg	1	1	1	
Portland	1	1	1	
Prineville	1	1	1	
Redmond	1	1	1	
Riddle	1	1	1	
Rivergrove				
Rogue River	1	1	1	
Rufus	1	1	1	
Salem	1	1	1	

City	Please indicate whether your city meters water use for the following (mark all that apply):- Residential (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):-Commercial (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):- Industrial (Yes=1)	Please indicate whether your city meters water use for the following (mark all that apply):-None (Yes=1)
Sandy	1	1	1	
Sheridan	1	1	1	
Spray	1	1		
St Helens	1	1	1	
Sweet Home	1	1	1	
Tigard	1	1	1	
Turner	1	1	1	
Ukiah	1	1		
Union	1	1	1	
Waldport	1	1		
Waterloo				1
Westfir	1	1		
Weston	1	1	1	
Wilsonville	1	1	1	
Winston	1	1	1	
Wood Village	1	1	1	
Yachats	1	1	1	

Questions 28, 29, 4, 5, 6, 7

City	Does your city have an emergency water purchase agreement with other water suppliers?	Who are the emergency water purchase agreements with?	Does your city have a Water Management Conservation Plan approved by the OWRD? (Yes=1, No=2, The city has a plan, unknown if approved=3, Unknown=4)	When was your Water Management Conservation Plan last updated?	Does your city have a curtailment plan (may also be called Water Emergency Code Provisions)?	Has your city curtailment plan been enacted by ordinance?
Albany	2		1	2012		1
Baker City	2		1	2014		1
Banks	2		1	2015		1
Bend	1	Interconnection with two private water purveyors with our service area.	1	2011		1
Boardman	1	Port of Morrow	1	2006		2
Brookings	2		1	2007		1
Burns	1	Hines	3		1	1
Cascade Locks	2		2			
Corvallis	2		1	2012		1
Cottage Grove	2		3		1	1
Creswell	2		3		1	1
Dallas	2		3		1	1
Detroit	2		2		2	

City	Does your city have an emergency water purchase agreement with other water suppliers?	Who are the emergency water purchase agreements with?	Does your city have a Water Management Conservation Plan approved by the OWRD? (Yes=1, No=2, The city has a plan, unknown if approved=3, Unknown=4)	When was your Water Management Conservation Plan last updated?	Does your city have a curtailment plan (may also be called Water Emergency Code Provisions)?	Has your city curtailment plan been enacted by ordinance?
Eugene	1	Neighboring water utilities	1	2012		2
Florence	1	Heceta Water PUD	1	2015		1
Forest Grove	2		1	2010		1
Hermiston	2		1	2011		1
Hood River	1	Ice Fountain water district	3		1	3
Hubbard	2		1	2013		1
Independence	1	Monmouth	1	2015		1
John Day	1	Canyon City	2		2	
Joseph	2		4		2	
Keizer	1	Salem	1	2012		1
Klamath Falls	2		1	2012		1
Lafayette	2		1	2012		1
Lakeside	3		4		2	
Lakeview	2		2		2	

City	Does your city have an emergency water purchase agreement with other water suppliers?	Who are the emergency water purchase agreements with?	Does your city have a Water Management Conservation Plan approved by the OWRD? (Yes=1, No=2, The city has a plan, unknown if approved=3, Unknown=4)	When was your Water Management Conservation Plan last updated?	Does your city have a curtailment plan (may also be called Water Emergency Code Provisions)?	Has your city curtailment plan been enacted by ordinance?
Lexington	1	We have an agreement with Lexington Cemetery Dist. We do not have a purchase agreement.	4		3	
Long Creek	2		3		2	
Manzanita	1		1	2010		3
Merrill	1	Malin	3		1	3
Mill City	2					
Milwaukie	1		3		1	1
Molalla	2		4		3	
Monmouth	1	Independence	2		1	1
Mosier	2		2		2	
Myrtle Creek	1		1	1998		1
Myrtle Point	2		1	1999		1
Nehalem	1		1	2008		1
Newberg	2		1	2007		1

City	Does your city have an emergency water purchase agreement with other water suppliers	Who are the emergency water purchase agreements with?	Does your city have a Water Management Conservation Plan approved by the OWRD? (Yes=1, No=2, The city has a plan, unknown if approved=3, Unknown=4)	When was your Water Management Conservation Plan last updated?	Does your city have a curtailment plan (may also be called Water Emergency Code Provisions)?	Has your city curtailment plan been enacted by ordinance?
Portland	1	Milwaukie	1	2010		1
Prineville	2		1	2009		
Redmond	2		1	2013		1
Riddle	1	Douglas County Natural Resources-Galesville Purchase Water	2		1	1
Rivergrove	2		2		2	
Rogue River	2		1	2015		1
Rufus	2		3		3	
Salem	1	Keizer, Stayton	1	2014		1
Sandy	2		1	2010		1
Sheridan	2		2		2	
Spray	3		4		3	
St Helens	1	Columbia City; McNulty Water Peoples' Utility District	1	2012		1

Sweet Home	2		1	2011	3
Tigard	1	Portland, Lake Oswego, Joint Water Commission	1		1
Turner	2		2		2
Ukiah	2		2		2
Union	2		1	2010	3
Waldport	1	Southwest Lincoln Water	1	2013	
Waterloo	2		2		2
Westfir	2		1	2013	1
Weston	1	Smith Frozen Foods	2		2
Wilsonville	1	Tualatin	1	2013	1
Winston	1	Roseburg	4		1
Wood Village	1	Fairview, Troutdale	1	2013	1
Yachats	1	South West Lincoln County Water District	1	2015	

Question 8: Curtailment Plan Stages

City	Levels: Stage 1	Levels: Stage 2	Levels: Stage 3	Levels: Stage 4	Levels: Stage 5
Albany					
Baker City	Alert Status	Warning Status	Critical Status	Emergency Status	
Banks					
Bend					
Boardman					

City	Levels: Stage 1	Levels: Stage 2	Levels: Stage 3	Levels: Stage 4	Levels: Stage 5
Brookings					
Burns					
Cascade Locks					
Corvallis					
Cottage Grove					
Creswell					
Dallas					
Detroit					
Eugene					
Florence	Water Shortage Alert	Serious Water Shortage	Severe Water Shortage	Critical Water Shortage	N/A
Forest Grove	Water Shortage Alert	Serious Water Shortage	Critical Water Shortage	Emergency Water Shortage	
Hermiston	1	2	3		
Hood River					
Hubbard	Water system Failure or mechanical breakdown	Significant loss of water storage or well production	Shortage of source water due to well failure, decline yield from 1 or more wells	Short or long-term total loss of one or more well sources	
Independence					
John Day					
Joseph					
Keizer					
Klamath Falls	Water Shortage Alert	Serious water shortage	Severe Water Shortage	Critical Water Shortage	

City	Levels: Stage 1	Levels: Stage 2	Levels: Stage 3	Levels: Stage 4	Levels: Stage 5
Lafayette					
Lakeside					
Lakeview					
Lexington					
Long Creek					
Manzanita	Mild	Moderate	Critical		
Merrill					
Mill City					
Milwaukie					
Molalla					
Monmouth					
Mosier					
Myrtle Creek	Phase 1	Phase 2	Phase 3		
Myrtle Point	1	2			
Nehalem					
Newberg					
Portland	See email attachment				
Prineville					
Redmond	Water Shortage Advisory	Moderate Water Shortage Alert	Severe Water Shortage Alert	Critical Water Shortage Alert	Water Shortage Emergency
Riddle	Mild	Moderate		Emergency	
Rivergrove					
Rogue River					

City	Levels: Stage 1	Levels: Stage 2	Levels: Stage 3	Levels: Stage 4	Levels: Stage 5
Rufus					
Salem		will email			
Sandy					
Sheridan					
Spray					
St. Helens					
Sweet Home					
Tigard					
Turner					
Ukiah					
Union					
Waldport	2.5cfs	2 cfs	1.5 cfs		delivery disruption
Waterloo					
Westfir					
Weston					
Wilsonville	Voluntary reduction in water usage	Mandatory water rationing for irrigation		Official declaration of emergency, whereby nonessential uses are prohibited	
Winston					
Wood Village					
Yachats					

Question 8: Curtailment Plan Triggers

City	Triggers: Stage 1	Triggers: Stage 2	Triggers: Stage 3	Triggers: Stage 4	Triggers: Stage 5
Albany					
Baker City	Potential that demand will exceed supply or distribution malfunction		high likelihood of demand exceeding supply, or distribution system malfunction		
Banks		Level of water/water usage			
Bend					
Boardman					
Brookings					
Burns					
Cascade Locks					
Corvallis					
Cottage Grove					
Creswell					
Dallas					
Detroit					
Eugene					

City	Triggers: Stage 1	Triggers: Stage 2	Triggers: Stage 3	Triggers: Stage 4
Florence	General recognition of drought conditions in Lane County; or demand reaches 80% of water supply capacity for a period of 3 or more consecutive days; or water supply approaches the minimum required for fire protection	Governor has declared a drought in Lane County and the continuation of hot, dry weather is predicted, or if the City's water demand is 81 to 90 percent of water supply capacity for 3 or more consecutive days as a result of a natural or human-caused event	Water demand is more than 90% of water supply capacity for 3 or more consecutive days for any reason, whether natural or human-caused	Failure of a system component or non-drought emergency conditions results in an immediate shortage of water. Examples include: failure of main transmission lines, failure of the intake or WTP, chemical spills, or a malevolent attack on the system that introduces a contaminant at some point in the system.
Forest Grove	General Recognition of Drought	Water Supply @ or below 90 percent demand for 3 or more consecutive days	Water Supply @ or below 80 percent demand for 3 or more consecutive days, Wa. Co. Drought Declaration	Water Supply @ or below 70 percent demand for 3 or more consecutive days, Water shortage notification from partner water agency
Hermiston	0.2	20-40%	40-100%	
Hood River				
Hubbard				
Independence				
John Day				
Joseph				
Keizer				

City	Triggers: Stage 1	Triggers: Stage 2	Triggers: Stage 3	Triggers: Stage 4	Triggers: Stage 5
Klamath Falls	General recognition of drought conditions or demand reaches 80% of supply for more than 3 consecutive days or supply reaches minimum required for fire protection.	Governor issued drought declaration for county or water demand is 81%-90% of water supply for 3 or more consecutive days.	Water demand is greater than 90% of supply capacity for 3 or more consecutive days.		A failure of a water system component or non-drought emergency conditions.
Lafayette	0.8	0.85	0.9	0.95	
Lakeside					
Lakeview					
Lexington					
Long Creek					
Manzanita	Use reaches 80% of capacity	Use reaches 90% of capacity		Use reaches 95% of capacity	
Merrill					
Mill City					
Milwaukie					
Molalla					
Monmouth					
Mosier					
Myrtle Creek	demand 150 gal per capita	demand 75 gal per capita		extreme emergency 25 gal per capita	
Myrtle Point	Moderate Drought	Drought	Severe Drought		Disaster/Major equipment failure
Nehalem					
Newberg		See 2007 Plan			

City	Triggers: Stage 1	Triggers: Stage 2	Triggers: Stage 3	Triggers: Stage 4	Triggers: Stage 5
Portland					
Prineville					
Redmond	Shortage of 0-15% of MDD	Shortage of 0-20% of MDD	Shortage of 10-30% of MDD	Shortage of 15-40% of MDD	Shortage of 40% or more of MDD
Riddle	Use reaches 60 % of capacity	Use reaches 85% of capacity		Use reaches 90% of capacity	
Rivergrove					
Rogue River					
Rufus					
Salem					
Sandy					
Sheridan					
Spray					
St. Helens					
Sweet Home					
Tigard					
Turner					
Ukiah					
Union					
Waldport	falls below 2.5 cfs	falls below 2 cfs	falls below 1.5 cfs	delivery disruption	
Waterloo					
Westfir					
Weston					
Wilsonville	ongoing conservation	Storage drops below 50% capacity		Storage drops below 3 million gallons	

Winston
 Wood Village
 Yachats

Question 8: Curtailment Plan Actions

City	Actions: Stage 1	Actions: Stage 2	Actions: Stage 3	Actions: Stage 4	Actions: Stage 5
Albany					
Baker City	Inform public, request voluntary conservation from large users, curtail hydrant flushing	Inform public, contact large users and set schedule for use, yard watering restricted, hydrant flushing ceases			
Banks					
Bend					
Boardman					
Brookings					
Burns					
Cascade Locks					
Corvallis					
Cottage Grove					
Creswell					
Dallas					
Detroit					
Eugene					

City	Actions: Stage 1	Actions: Stage 2	Actions: Stage 3	Actions: Stage 4	Actions: Stage 5
Florence	voluntary reductions	Mandatory restrictions, outdoor watering between 6pm and 10am; odd/even schedules; no water use for washing vehicles, motorbikes, boats, trailers except at a commercial washing facility; no water use to wash sidewalks, driveways, walkways, parking lots or other hard surfaces; no washing of buildings (except for prep for painting); and discourage serving water at restaurants; drinking fountains turned off.	No outdoor watering, no filling or refilling outdoor swimming pools or hot tubs; no water use from hydrants for construction purposes; implement limits on commercial uses	Request assistance from Oregon Health Authority; notify local news media requesting assistance in notifying customers; call an emergency City Council meeting; contact OSP and County Sheriff to obtain help in contacting customers; determine whether to use water system interties with Heceta Water PUD or other providers.	
Forest Grove	Voluntary Curtailment - Reduce demand by 5 percent	Mandatory outdoor water curtailment & non-essential use prohibited - reduce demand by 10 percent	Mandatory outdoor & non-essential water use prohibited - reduce demand by 20 percent	mandatory water use curtailments	
Hermiston	limit non-essential residential use	additional residential	limiting (gallons per day), non-essential commercial & industrial limitations		
Hood River					
Hubbard					
Independence					
John Day					
Joseph					
Keizer					

City	Actions: Stage 1	Actions: Stage 2	Actions: Stage 3	Actions: Stage 4	Actions: Stage 5
Klamath Falls	Voluntarily limit or reduce outdoor irrigation to specific days and time of day.	Outside City limit users mandatory limited outdoor water use schedule. Prohibited water waste as defined in the WMCP system wide.	Restricted outdoor water use as defined in the WMCP system wide. Nonessential water uses as defined in the WMCP prohibited outside City limit users. Prohibited irrigation of outdoor vegetation system wide.	Nonessential water uses as defined in the WMCP prohibited. Outdoor irrigation prohibited	
Lafayette	odd/even days	limits on watering	Prohibition on watering	Additional prohibition on uses	
Lakeside					
Lakeview					
Lexington					
Long Creek					
Manzanita	Activate curtailment plan, provide information to the public on conservation methods, request customers to limit irrigation, avoid flushing hydrants.	Continue "mild" stage measures, request irrigation be minimized to that necessary for plant survival, no lawn irrigation.	Continue "moderate" stage measures, no outdoor irrigation, no vehicle washing, no hosing of paved surfaces.		
Merrill					
Mill City					
Milwaukie					

City	Actions: Stage 1	Actions: Stage 2	Actions: Stage 3	Actions: Stage 4	Actions: Stage 5
Molalla					
Monmouth					
Mosier					
Myrtle Creek	curtail outside water use	curtail outside water use and an advisory to restrict all water use	Permit only essential water use in minimum quantities		
Myrtle Point	Limits water use for landscaping.	Prohibits most irrigation and prohibits water use for vehicle or structure washing.	Restricts water use to minimum household needs only and prohibits new connections to the water system.	City discontinues water distribution through system. Water provided for life sustenance only.	
Nehalem	"water wise" notice	water to all swimming pools suspended	Outdoor water only 2 days per week	service to commercial user restricted	Service to all customers suspended during certain hours
Newberg					
Portland					
Prineville					
Redmond	Voluntary reduction of 10-20%	Declaration to reduce by 10-20%	Declaration for prohibitions and restrictions for 20-30% reduction	Declaration for mandatory cut backs of 30-40% with allotments	Impose reductions of 75% or more, surcharges and termination possible.
Riddle	Voluntary actions	Controlled Outside Use	No outside use		
Rivergrove					
Rogue River					
Rufus					

City	Actions: Stage 1	Actions: Stage 2	Actions: Stage 3	Actions: Stage 4	Actions: Stage 5
Salem					
Sandy					
Sheridan					
Spray					
St. Helens					
Sweet Home					
Tigard					
Turner				0	
Ukiah					
Union					
Waldport	limit usage	limit usage	limit usage	Provide potable water at no cost	
Waterloo					
Westfir					
Weston					
Wilsonville	code required efficient fixtures	Curtailment notices posted and announcement in the newspaper	Prohibit landscape irrigation, water for washing vehicles, pavement, buildings and equipment.		
Winston					
Wood Village					
Yachats					

Questions 30, 11, 12, 21, 14

City	Has your city's curtailment plan been triggered within the last 10 years?	Based on your assessment of water supply and demand, between now and the end of this calendar year?	Approximately when might the city's curtailment plan go into effect (month)?	How long do you anticipate the curtailment plan being in effect?	Does the city's curtailment plan address usage concerns by: Residential Users (Yes=1)	Does the city's curtailment plan address usage concerns by: Commercial Users (Yes=1)	Does the city's curtailment plan address usage concerns by: Industrial Users (Yes=1)	Do you expect water demand to exceed available supply at some point in the next year?
Albany	2	2			1	1	1	2
Baker City	1	1						
Banks	1	3						
Bend	1	1	May	5	1	1	1	2
Boardman	2	2			1	1	1	2
Brookings	2	3			1	1	1	3
Burns	2	2			1	1	1	2
Cascade Locks								2
Corvallis	2	2			1	1		2
Cottage Grove	2	2			1	1	1	2
Creswell	2	2			1	1	1	2
Dallas	2	3			1	1	1	2
Detroit								2
Eugene	2	1	August	2	1	1	1	2
Florence	2	2			1	1	1	2

City	Has your city's curtailment plan been triggered within the last 10 years?	Based on your assessment of water supply and demand, between now and the end of this calendar year?	Approximately when might the city's curtailment plan go into effect (month)?	How long do you anticipate the curtailment plan being in effect?	Does the city's curtailment plan address usage concerns by: Residential Users (Yes=1)	Does the city's curtailment plan address usage concerns by: Commercial Users (Yes=1)	Does the city's curtailment plan address usage concerns by: Industrial Users (Yes=1)	Do you expect water demand to exceed available supply at some point in the next year?
Forest Grove	2	2			1	1	1	2
Hermiston	2	2			1	1	1	2
Hood River	2	2			1	1	1	2
Hubbard	2	2			1	1	1	2
Independence	2	2			1	1		2
John Day								2
Joseph								2
Keizer	2	2			1	1	1	2
Klamath Falls	1	1	May	5	1	1	1	2
Lafayette	1	2			1	1	1	2
Lakeside								2
Lakeview								2
Lexington								3
Long Creek								2
Manzanita	2	3			1	1	1	3
Merrill	1	3			1	1	1	2
Mill City								

City	Has your city's curtailment plan been triggered within the last 10 years?	Based on your assessment of water supply and demand, between now and the end of this calendar year?	Approximately when might the city's curtailment plan go into effect (month)?	How long do you anticipate the curtailment plan being in effect?	Does the city's curtailment plan address usage concerns by: Residential Users (Yes=1)	Does the city's curtailment plan address usage concerns by: Commercial Users (Yes=1)	Does the city's curtailment plan address usage concerns by: Industrial Users (Yes=1)	Do you expect water demand to exceed available supply at some point in the next year?
Milwaukie	2	2			1	1	2	2
Molalla								2
Monmouth	1	2			1	1	1	2
Mosier								2
Myrtle Creek	2	2			1	1	1	2
Myrtle Point	2	3			1	1	1	3
Nehalem	2	2			1	1	1	2
Newberg	2	2			1	1	1	2
Portland	2	2			1	1	1	2
Prineville								
Redmond	2	2			1	1	1	2
Riddle	2	3			1	1	1	3
Rivergrove								3
Rogue River	2	3			1	1	1	3
Rufus								2
Salem	1	3			1	1	1	3
Sandy	1	2			1	1	1	2

City	Has your city's curtailment plan been triggered within the last 10 years?	Based on your assessment of water supply and demand, between now and the end of this calendar year?	Approximately when might the city's curtailment plan go into effect (month)?	How long do you anticipate the curtailment plan being in effect?	Does the city's curtailment plan address usage concerns by: Residential Users (Yes=1)	Does the city's curtailment plan address usage concerns by: Commercial Users (Yes=1)	Does the city's curtailment plan address usage concerns by: Industrial Users (Yes=1)	Do you expect water demand to exceed available supply at some point in the next year?
Sheridan								2
Spray								3
St Helens	2	2			1	1	1	2
Sweet Home	2	2			2	2	2	2
Tigard	2	2						2
Turner								2
Ukiah								2
Union	2	2						2
Waldport	2	2			2	2	2	2
Waterloo								2
Westfir	1	1	April	7	1	1	2	1
Weston								2
Wilsonville	2	2			1	1	1	2
Winston	2	3			1	1	1	3
Wood Village	2	2			1	1	1	2
Yachats								

Question 18, 15, 16, 22

City	Do you expect water demand to exceed available supply at some point in time prior to the end of the next year?	What is the magnitude of the expected difference (mg/day)?	In approximately what month do you expect demand to exceed supply?	How long do you anticipate demand exceeding supply?	Is the anticipated deficiency a result of: Mechanical/ infrastructure failure	Is the anticipated deficiency a result of: - Lower than anticipated water flows	Is the anticipated deficiency a result of: reduction in, or cessation of, permitted water due to holding a junior water right.	Is the anticipated deficiency a result of: - Other	Is the anticipated deficiency a result of: - Other-
Albany									
Baker City									
Banks									
Bend									
Boardman									
Brookings									
Burns									
Cascade Locks									
Corvallis									
Cottage Grove									
Creswell									
Dallas									
Detroit									

City	Do you expect water demand to exceed available supply at some point in time prior to the end of the next year?	What is the magnitude of the expected difference (mg/day)?	In approximately what month do you expect demand to exceed supply?	How long do you anticipate demand exceeding supply?	Is the anticipated deficiency a result of: Mechanical/ infrastructure failure	Is the anticipated deficiency a result of: - Lower than anticipated water flows	Is the anticipated deficiency a result of: reduction in, or cessation of, permitted water due to holding a junior water right.	Is the anticipated deficiency a result of: - Other	Is the anticipated deficiency a result of: - Other-
Eugene									
Florence									
Forest Grove									
Hermiston									
Hood River									
Hubbard									
Independence									
John Day									
Joseph									
Keizer									
Klamath Falls									
Lafayette									
Lakeside									
Lakeview									

City	Do you expect water demand to exceed available supply at some point in time prior to the end of the next year?	What is the magnitude of the expected difference (mg/day)?	In approximately what month do you expect demand to exceed supply?	How long do you anticipate demand exceeding supply?	Is the anticipated deficiency a result of: Mechanical/ infrastructure failure	Is the anticipated deficiency a result of: - Lower than anticipated water flows	Is the anticipated deficiency a result of: reduction in, or cessation of, permitted water due to holding a junior water right.	Is the anticipated deficiency a result of: - Other	Is the anticipated deficiency a result of: - Other-
Lexington									
Long Creek									
Manzanita									
Merrill									
Mill City									
Milwaukie									
Molalla									
Monmouth									
Mosier									
Myrtle Creek									
Myrtle Point		Depends on stream flows at municipal intake.							
Nehalem									
Newberg									
Portland									
Prineville									

Redmond		
Riddle		
Rivergrove		
Rogue River		
Rufus		
Salem		
Sandy		
Sheridan		
Spray		
St. Helens		
Sweet Home		
Tigard		
Turner		
Ukiah		
Union		
Waldport		
Waterloo		
Westfir	Mechanical/infrastructure failure	Lower than anticipated water flows
Weston		
Wilsonville		
Winston		
Wood Village		
Yachats		

Question 17, 36, 20, 23

City	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) –Residential	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) – Commercial	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) – Industrial	What type of rate structure does your city have? (Flat=1, Inclining =2, Declining=3, Other=4)	What type of rate structure does your city have?- TEXT	Does your city's rate structure change when the curtailment plan goes into effect?
Albany	2	2	2	3		2
Baker City						
Banks						
Bend	2	2	2	1		2
Boardman	2	2	2	4	7K base w/overage charges	2
Brookings	2	2	2	4	Base + usage	2
Burns	2	2	2	1		2
Cascade Locks	2	2	2	1		
Corvallis	1	2		4	Inclining block for residential customers; flat for commercial customers and schools; we lump industrial users into the commercial class.	2
Cottage Grove	2	2	2	4	per 1,000 gallons	2

City	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) –Residential	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) – Commercial	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) – Industrial	What type of rate structure does your city have? (Flat=1, Inclining =2, Declining=3, Other=4)	What type of rate structure does your city have?- TEXT	Does your city's rate structure change when the curtailment plan goes into effect?
Creswell	2	2	2	4	Overage fee per each 100 cu.ft.	2
Dallas	2	2	2	1		1
Detroit	2	2		1		
Eugene	1	2	2	2		2
Florence	1	2	2	2		2
Forest Grove	1	1	1	4	Tiered Rate	3
Hermiston	2	2	2	3		2
Hood River	2	2	2	2		3
Hubbard	1	1	1	2		2
Independence	1	1	1	2		2
John Day	2	2	2	2		
Joseph	1	1	1	4	Users are allotted a certain amount before being charged for overage.	
Keizer	2	2	2	1		2

City	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) –Residential	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) – Commercial	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) – Industrial	What type of rate structure does your city have? (Flat=1, Inclining =2, Declining=3, Other=4)	What type of rate structure does your city have?- TEXT	Does your city's rate structure change when the curtailment plan goes into effect?
Klamath Falls	2	2	2	4	Fixed monthly capacity charge plus flat monthly customer charge plus uniform commodity rate	2
Lafayette	1	1	1	4	Combo of flat and inclining block	2
Lakeside						
Lakeview	2	2	2	4	Basic rate including 750 cu.ft. then .011 per cu. ft. thereafter	
Lexington	2	2	2	2		
Long Creek	2	2	2	1		
Manzanita	1	1	1	2		2
Merrill	2	2	2			4
Mill City						
Milwaukie	2	2	2	1		2
Molalla	2	2	2	1		
Monmouth	2	2	2	1		2
Mosier	1	1	1	2		

Myrtle Creek	2	2	2	1		1
Myrtle Point	1	1	1	2		2
Nehalem	1	1	1	2		2
Newberg	2	2	2	1		2
Portland	2	2	2	4	Uniform	1
Prineville						
Redmond	2	2	2	4	Base rate + consumption	1
Riddle	2	2	2	2		2
Rivergrove						
Rogue River	2	2	2	1		2
Rufus	1	1	1	2		
Salem	2	2	2	4	by customer class	2
Sandy	1	1	1	4	uniform	2
Sheridan	2	2	2	1		
Spray	1	1		2		
St Helens	2	2	2	1		2
Sweet Home	1	1	1	4	Base + Commodity	2
Tigard	1	1	2	2		2
Turner	1	1	1	2		
Ukiah	2	2		1		
Union	1	1	1	3		2
Waldport	1	1		2		1
Waterloo	2	2	2	4	None	
Westfir	1	1		2		2

City	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) –Residential	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) – Commercial	Does your city have a rate structure that incentivizes conservation (such as an inclining block rates) – Industrial	What type of rate structure does your city have? (Flat=1, Inclining =2, Declining=3, Other=4)	What type of rate structure does your city have?- TEXT	Does your city's rate structure change when the curtailment plan goes into effect?
Weston				1		
Wilsonville	1	2	1	2		2
Winston	1	1	1	2		2
Wood Village	1	1	1	1		2
Yachats						

Questions 23

City	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Fines (Yes=1)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Fees (Yes=2)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Installing flow restriction devices (Yes=3)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Terminate water service (Yes=4)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Other (Yes=5)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Other-	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- N/A (Yes=6)
Albany	1		3	4			
Baker City							

City	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Fines (Yes=1)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Fees (Yes=2)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Installing flow restriction devices (Yes=3)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Terminate water service (Yes=4)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Other (Yes=5)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Other-	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- N/A (Yes=6)
Banks							
Bend	1				5	education	
Boardman				4	5	Outreach	
Brookings	1						
Burns				4			
Cascade Locks							
Corvallis	1			4		0	
Cottage Grove	1			4			
Creswell							6
Dallas	1	2	3	4			
Detroit							
Eugene							6
Florence	1			4			
Forest Grove	1			4			
Hermiston	1			4			
Hood River	1	2		4			
Hubbard	1						

City	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Fines (Yes=1)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Fees (Yes=2)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Installing flow restriction devices (Yes=3)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Terminate water service (Yes=4)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Other (Yes=5)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Other-	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- N/A (Yes=6)
Independence	1	2		4			
John Day							
Joseph							
Keizer	1			4			
Klamath Falls					5	Currently voluntary measures are in place.	
Lafayette	1			4			
Lakeside							
Lakeview							
Lexington							
Long Creek							
Manzanita					5	unknown	
Merrill							6
Mill City							
Milwaukie	1			4			
Molalla							
Monmouth	1			4			
Mosier							

City	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Fines (Yes=1)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Fees (Yes=2)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Installing flow restriction devices (Yes=3)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Terminate water service (Yes=4)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Other (Yes=5)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?-Other-
Myrtle Creek	1				5	incarceration
Myrtle Point	1					
Nehalem	1		3	4		
Newberg	1					
Portland					5	Adopting administrative rules to restrict water use
Prineville						
Redmond	1		3	4		
Riddle				4		
Rivergrove						
Rogue River	1		3	4		
Rufus						
Salem				4		
Sandy						6
Sheridan						
Spray						
St Helens	1					
Sweet Home						6

City	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Fines (Yes=1)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Fees (Yes=2)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Installing flow restriction devices (Yes=3)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Terminate water service (Yes=4)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Other (Yes=5)	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- Other-	How does the city anticipate enforcing the curtailment plan (mark all that apply)?- N/A (Yes=6)
Tigard			3	4			
Turner							
Ukiah							
Union							
Waldport	1	2		4			
Waterloo							
Westfir		2					
Weston							
Wilsonville	1			4			
Winston				4			
Wood Village							6
Yachats							

Question 24, 25, 26, 32

City	Has your city conducted public outreach awareness with respect to water conservation within the last 5 years?	Please describe.	Please list your top five commercial and industrial users that would be economically impacted if...	Any additional comments:
Albany	1	water audits, water saving devices, public meetings		
Baker City				
Banks				
Bend	1	The City of Bend has a comprehensive water conservation program @ www.waterwisetips.org .		
Boardman	2			Columbia River Surface Water Source by Horizontal collector wells.
Brookings	1			
Burns	2			Our system is designed for double the population that we have now, We take well draw-downs twice per year and have had no difference in over 20 years.

City	Has your city conducted public outreach awareness with respect to water conservation within the last 5 years?	Please describe.	Please list your top five commercial and industrial users that would be economically impacted if...	Any additional comments:
Cascade Locks	2			We are currently working on a \$3.76 water system improvement plan for the city. Part of the plan is the development of the Water Conservation Plan. We currently produce, on average, 8 million gallons of water per month, while we bill for only 4 million gallons, a 50% loss rate. The city wanted to wait for the conservation plan until after the improvement project. We want to see what the reduction will be because of the improvements before we write a conservation plan. We are also working on the Water Curtailment Plan. Because of the potential for a water bottling plant in the industrial park, we are getting a curtailment plan ready now.
Corvallis	1	The City of Corvallis has a robust water conservation program and has had one since the early 1990s.		
Cottage Grove	1	On-going public education program stressing water conservation		
Creswell	1	education on irrigation and low flow plumbing		
Dallas	1			

City	Has your city conducted public outreach awareness with respect to water conservation within the last 5 years?	Please describe.	Please list your top five commercial and industrial users that would be economically impacted if...	Any additional comments:
Detroit	2			
Eugene	1	Annual water conservation bill inserts; ongoing program participation		Thank you for conducting a survey. I look forward to seeing the results.
Florence	1	We provide general water conservation tips in our annual Water Quality Report; provide conservation tips on our website; and provide newsletter articles.		We're pretty unique with the dunal aquifer, and the attenuation does provide us with a buffer. However we are a rain driven system that is interconnected with the lakes and streams. We do monitor the groundwater levels, however we have not seen any dramatic changes in the aquifer this year.
Forest Grove	1	utility billing, web site, and water conservation event		
Hermiston	2			
Hood River	2			
Hubbard	1			
Independence	1	newsletter		We are fairly prepared for drought conditions at this time.
John Day	2			We are currently in the process of developing a Water Management Conservation Plan for the city of John Day and have hired a consultant.
Joseph	2			
Keizer	2			

City	Has your city conducted public outreach awareness with respect to water conservation within the last 5 years?	Please describe.	Please list your top five commercial and industrial users that would be economically impacted if...	Any additional comments:
Klamath Falls	1	Water conservation education information distributed to customers		
Lafayette	1	We post articles in our monthly City Newsletter. In 2016 we will be rolling out a low-flow appliance rebate program for existing residential users.		Good luck with the survey, Charlie. If you need more information, please let me know. Best Regards, Preston
Lakeside	2			
Lakeview	1	Flyers with water bills urging wise use of water.		Surface water (springs) are very low. Ground water is currently holding similar to last year.
Lexington	1	We have instructed residences and business with odd house numbers to water on Tuesday, Thursday and Saturday and even house numbers to water on Monday, Wednesday and Friday.		
Long Creek	2			Ranches in the area are not using city water. The city has only 100 hook-ups at present, all located within city limits.
Manzanita	1			
Merrill	2			
Mill City				
Milwaukie	1	The Portland Regional Water Providers Consortium provides conservation advertising and education, city also involved in schools.		
Molalla	2			

City	Has your city conducted public outreach awareness with respect to water conservation within the last 5 years?	Please describe.	Please list your top five commercial and industrial users that would be economically impacted if...	Any additional comments:
Monmouth	2			
Mosier	2			Mosier has a very general emergency water curtailment plan in our Public Water ordinance that gives the city council the right to impose water restrictions if necessary, and to impose fines or water shut-off on those who do not comply.
Myrtle Creek	3			We do not have any industrial facilities.
Myrtle Point	2			
Nehalem	1	Conservation notices sent out annually		
Newberg	1	Outreach has occurred at community events such as Public Works Day, and the farmers market. Have water conservation information and kits available at city hall. Presentations to middle and elementary schools and to city council.		

City	Has your city conducted public outreach awareness with respect to water conservation within the last 5 years?	Please describe.	Please list your top five commercial and industrial users that would be economically impacted if...	Any additional comments:
Portland	1	A description of Portland Water Bureau’s water efficiency outreach and education efforts can be found in the Water Management and Conservation Plan Five-year Progress Report May 1, 2015, pages 2-4. (http://www.portlandoregon.gov/water/article/532131)		Based on available storage and capacity in its two drinking water sources and reduced overall consumption by customers despite population growth, Portland does not anticipate facing drought conditions during 2015. The Portland Water Bureau carefully monitors supply and transmission capacity, customer demands, and weather forecasts during the annual summer drawdown of the Bull Run reservoirs and makes operational decisions accordingly. If at any time projected available supplies appear unable to meet anticipated demands, the bureau will take actions to bring demands into conformance with available supplies as outlined in its summer supply plan and water management and conservation plan.
Prineville				
Redmond	1	Irrigation Tips and Regulations. Xeriscape guides, water efficient fixtures and Water Conservation awareness in conjunction with the annual Consumer Confidence Report.		

City	Has your city conducted public outreach awareness with respect to water conservation within the last 5 years?	Please describe.	Please list your top five commercial and industrial users that would be economically impacted if...	Any additional comments:
Riddle	1	Discussions in public meetings, school programs, Consumer Confidence Reports and informational flyers		For our water system, this survey is very subjective in nature because it is still so early in the year and no one can accurately predict what the weather will do and the impacts to the water supply. Douglas County drought conditions are not severe at this time.
Rivergrove	2			The City of Rivergrove's water is supplied by Rivergrove Water District which is a completely separate entity from the city.
Rogue River	1	Inserts with water bills		
Rufus	2			
Salem	1	Free outdoor indoor conservation kits, website and Consumer Confidence Report language, 1-inch per week lawn watering campaign		The City of Salem has the following wholesale water customers, all of which would be impacted by curtailment; City of Turner, Orchard Heights Water Association, and Suburban East Salem Water.
Sandy	1	Member of regional water providers consortium		

City	Has your city conducted public outreach awareness with respect to water conservation within the last 5 years?	Please describe.	Please list your top five commercial and industrial users that would be economically impacted if...	Any additional comments:
Sheridan	1	Information to council that is disseminated on two local Facebook pages; information on and flyers sent with water bills.		City of Sheridan has an ordinance addressing a water crisis emergency. The bulk of the ordinance is from 1977. There are curtailment provisions and it gives the city authority to impose an inclining block price structure during the emergency.
Spray	3			
St Helens	1	Water conservation information on city website; various articles in city quarterly newsletter; information in monthly e-newsletter		
Sweet Home	1	Web posting of informational flyer and annual mailer		
Tigard	1			Tigard's customer base is generally residential, multiple family with 5% commercial/industrial that is not generally dependent on large amounts of water for manufacturing, etc. Therefore, most restrictions would be based on human and household animal needs, with emphasis on reducing or curtailing irrigation uses.
Turner	2			

City	Has your city conducted public outreach awareness with respect to water conservation within the last 5 years?	Please describe.	Please list your top five commercial and industrial users that would be economically impacted if...	Any additional comments:
Ukiah	2			We have no adopted water conservation plans other than our Water Ordinance which allows the City Council to restrict water usage and with 147 connections and 229 residents we can notify all residents quickly.
Union	1			
Waldport	3			
Waterloo	1	Newsletters		
Westfir	1			
Weston	2			The city has a very good well, we do not foresee a water shortage and we do not have a curtailment plan. All our industries have their own water source except for two restaurants and a small store.
Wilsonville	1	Tips included in monthly bill; issue annual consumer confidence report; information on city website; information and materials distributed at various public events; radio and TV spots		
Winston	1	Website conservation tab, radio meters with usage and leak data. Complimentary die kits for toilet checks. Bill notifications.		

City	Has your city conducted public outreach awareness with respect to water conservation within the last 5 years?	Please describe.	Please list your top five commercial and industrial users that would be economically impacted if...	Any additional comments:
Wood Village	1	<p>The city’s newsletter “The Village News” features articles on water savings, water use, etc. for the public to read. Water-related brochures are available in the city’s Public Information Center located in the public works lobby. Information on water-related topics is made available at city events. The Consumer Confidence Report is mailed to all city residences, property owners and business owners annually to provide water quality information compiled by the city. Supply water conservation kit without charge to consumers. The city is always looking at different ways to inform its citizens about water quality and water use. Questions from customers are answered directly or if a broader audience is needed due to the topic. The question will be answered through a newsletter article or mail-out. Because the city is only one square mile in size, a broader media vehicle is not needed to contact citizens.</p>		

Yachats