

WMCP Element 2010 Benchmark 2015 Benchmark Status

Water Audit		
	<p>To keep unaccounted-for water at less than 10%. Further benchmarks will be determined once the bureau’s asset management program is completed.</p>	<p>Unaccounted for water generally has remained well below 10%. The past two years has seen this number increase to over 10% and is likely due to several factors:</p> <ul style="list-style-type: none"> • Large-scale flushing events due to water quality issues • Construction of Powell Butte and Kelly Butte Reservoir and leakage in Powell Butte (repaired) • Leak in Washington County supply line (repaired) • Conduit 3 breakage (repaired) • Meter adjustments <p>The bureau is currently implementing the water audit and loss control program as outlined in AWWA Manual M-36. A full water audit is expected to be completed by the next WMCP update.</p>
Metering		
	<p>Bureau customers, both retail and wholesale, are fully metered. All new customers will be metered at 100%.</p>	<p>The bureau meters all new customers and will continue to do so.</p>
Meter Testing and Replacement		
	<p>Replace all small meters (1” or smaller) every 20 years. Test high consumption and wholesale meters every year. Test other meters 3” and greater per newly implemented Asset Management Plan.</p>	<p>The bureau meets this benchmark and will continue to do so.</p>
Rate Structure		
	<p>Review potential conservation rate structures with the goal of</p>	<p>The bureau completed a conservation rate structure study in June 2013. The study results indicated that changes in Portland’s water rate structure were unlikely to produce significant additional reductions in water use by Portland customers. Based on the study results, the</p>

WMCP Element 2010 Benchmark 2015 Benchmark Status

	implementing a new rate structure as one of the 5-year benchmarks for this WMCP.	bureau chose not to recommend any changes to the water rate structure for the purpose of achieving additional conservation among ratepayers. (Rate Study is attached.)
Leak Detection Program		
	Bureau system leakage rate does not exceed 10% so no benchmark was identified. Bureau committed to maintain the ability to respond to leak survey requests within 24 hours and to do scheduled leak surveys in specified areas.	The bureau responds to leak locate requests within 24 hours and regularly surveys the distribution system for leaks. For example, in FY13/14 the bureau responded to 159 leak locate requests, surveyed 783,572 feet of distribution mains for leaks and replaced 2.8 miles of distribution mains.
Public Education		
Website	Continue to maintain and update City of Portland web site with current conservation information for both residential and commercial customers. Support ongoing development of RWPC newsletter and other web communications.	The bureau’s website has an active water efficiency section, with a direct link on the home page. It is updated regularly to keep up with current programs. Water efficiency messages are also published monthly on the bureau’s blog and social media outlets. The bureau’s Water Efficiency Program continues to actively participate with the Regional Water Provider’s Consortium (RWPC) and staff has participated as Chair of the Consortium Conservation Committee.
Public Presentations	Make 10 public presentations about water conservation in Portland each year.	The Water Efficiency program actively makes presentations to the public. FY10/11= 10 external, 3 internal FY11/12 = 11 external, 3 internal FY12/13 = 7 external, 3 internal FY13/14 = 3 external, 14 internal

WMCP Element 2010 Benchmark 2015 Benchmark Status

<p>Bill Insert</p>	<p>Develop annual bill insert to be included in bills from June through August. The insert will include information on reducing outdoor water use by changing behaviors and providing education on new technologies.</p>	<p>Water Efficiency staff prepare a summer bill stuffer each year to include outdoor water efficiency messages in every water/sewer bill.</p>
<p>Summer Media Campaign</p>	<p>Continue to provide input into the RWPC’s media campaign each spring to be broadcast during the summer with an outdoor watering focus. Continue to use PARC and partner with RWPC when appropriate.</p>	<p>The bureau participates in the RWPC’s annual media campaign, which has been broadened to include indoor water conservation messages as well as outdoor messages. The indoor messages are promoted in the winter months to reach multi-family and other group-living customers who would not otherwise get any messages about water use.</p> <p>The Portland Area Radio Council (PARC) has changed their organization structure and is no longer a key partner for radio outreach. The RWPC coordinates radio messages for the region.</p>
<p>Community Outreach</p>	<p>Develop partnerships to reach 1,000 low-income customers each year on water conservation.</p> <p>Staff booths at four summer community events each summer – to reach 1,000 customers with conservation messages.</p>	<p>Partnerships for low-income outreach</p> <p>In 2006, through 2008 the Bureau partnered with the Office of Sustainable Development (now the Bureau of Planning and Sustainability) to develop a pilot outreach program for low-income customers about recycling and water efficiency. Through this <i>Use Less, Pay Less</i> partnership the bureau connected to 840 households in the first year, and 1,000 households in the second year. This program was not renewed after the pilot phase due to challenges with administering the trainings.</p> <p>In 2007 the bureau began a pilot Home Water Assessment program in partnership with the Energy Trust of Oregon to provide direct services to low-income residential customers. The pilot project had a goal of reaching 200 low-income customers each year. This program has successfully reached an average of 136 low-income and other single family customers each year since the pilot began. This program was ended in Jan 2015.</p>

WMCP Element 2010 Benchmark 2015 Benchmark Status

		<p>Currently the bureau is in the planning phases of a low-income targeted outreach campaign.</p> <p>In addition to the specific programs mentioned above, each year the bureau has a booth and teaches workshops at three events called, Fix-It Fairs. Through FY 13-14, Water Efficiency staff participated in events targeted to support low-income residents, directly interacting with an average of 890 customers per year.</p> <p>Community Events For the past few years, the bureau’s Efficiency Program has been partnering with other bureaus in the city to provide a cohesive voice from the various city programs fostering sustainable life styles. The group, called Your Sustainable City, participates in events like home owner fairs, neighborhood events, and Sunday Parkways which are city-wide events celebrating the park system and alternative transportation in Portland. Staff participated in an average of 5.4 events annually, through the summer of 2014, reaching an average of 807 people annually with conservation messages.</p>												
<p>Water Source and System Tours</p>	<p>Deliver approximately 24 water source tours to more than 550 students and 26 tours to other groups. The bureau will continue to integrate water conservation information on each tour.</p>	<p>The bureau continues to implement it Bull Run watershed tour program for students and the general public.</p> <table border="0"> <tr> <td>Oct 1, 2009-Sept 30, 2010</td> <td>78 tours, 1,765 participants</td> </tr> <tr> <td>Oct 1, 2010-Sept 30, 2011</td> <td>77 tours, 1,879 participants</td> </tr> <tr> <td>Oct 1, 2011-Sept 30, 2012</td> <td>65 tours, 1,511 participants</td> </tr> <tr> <td>Oct 1, 2012-Sept 30, 2013</td> <td>69 tours, 1,550 participants</td> </tr> <tr> <td>Oct 1, 2013-Sept 30, 2014</td> <td>69 tours, 1,700 participants</td> </tr> <tr> <td>5-Year Total for Oct 1, 2009-Sept 30, 2014</td> <td>358 tours, 8,405 participants</td> </tr> </table>	Oct 1, 2009-Sept 30, 2010	78 tours, 1,765 participants	Oct 1, 2010-Sept 30, 2011	77 tours, 1,879 participants	Oct 1, 2011-Sept 30, 2012	65 tours, 1,511 participants	Oct 1, 2012-Sept 30, 2013	69 tours, 1,550 participants	Oct 1, 2013-Sept 30, 2014	69 tours, 1,700 participants	5-Year Total for Oct 1, 2009-Sept 30, 2014	358 tours, 8,405 participants
Oct 1, 2009-Sept 30, 2010	78 tours, 1,765 participants													
Oct 1, 2010-Sept 30, 2011	77 tours, 1,879 participants													
Oct 1, 2011-Sept 30, 2012	65 tours, 1,511 participants													
Oct 1, 2012-Sept 30, 2013	69 tours, 1,550 participants													
Oct 1, 2013-Sept 30, 2014	69 tours, 1,700 participants													
5-Year Total for Oct 1, 2009-Sept 30, 2014	358 tours, 8,405 participants													
<p>School Assembly Programs</p>	<p>Deliver 20 water conservation assembly programs per year to schools within the Water Bureau’s service area, both public and private.</p>	<p>Through FY 13-14, an average of 24 youth education assemblies were sponsored by the bureau annually. The bureau has contracts with local theater and educational groups to provide these services.</p>												

WMCP Element 2010 Benchmark 2015 Benchmark Status

Leak Repair and Replacement Program		
	System leakage is less than 10%. No benchmark was proposed.	<p>The bureau responds to leak locate requests within 24 hours and regularly surveys the distribution system for leaks. For example, in FY13/14 the bureau responded to 159 leak locate requests, surveyed 783,572 feet of distribution mains for leaks and replaced 2.8 miles of distribution mains.</p> <p>Unaccounted for water has historically remained well below 10% which is why no benchmark was proposed. The past two years has seen this number increase to over 10% and is likely due to several factors:</p> <ul style="list-style-type: none"> • Large-scale flushing events due to water quality issues • Construction of Powell Butte and Kelly Butte Reservoir and leakage in Powell Butte (repaired) • Leak in Washington County supply line (repaired) • Conduit 3 breakage (repaired) • Meter adjustments <p>The bureau is currently implementing the water audit and loss control program as outlined in AWWA Manual M-36. A full water audit is expected to be completed by the next WMCP update.</p>
Technical and Financial Assistance		
Partnerships to Leverage Technical Assistance		
<ul style="list-style-type: none"> • One-stop Shop – partnership with the City’s Office of Sustainable Development (OSD) 	Receive 12 referrals/yr	Since FY 2011-12, an average of 7 customers were referred to the Water Efficiency Program each year. Bureau staff do not control referrals. Sustainability at Work staff are the ones who recommend services to their customers, and it is up to the customer to follow up.
<ul style="list-style-type: none"> • Energy Trust Home Assessment 	100 assessments each year by end of program (pilot program)	An average of 136 home water assessments were conducted by the Energy Trust of Oregon in the past 4 ½ years. The program was terminated by the Energy Trust in January 2015, and the bureau cannot continue the audits without the partnership from the Energy Trust.

WMCP Element 2010 Benchmark 2015 Benchmark Status

<ul style="list-style-type: none"> • RWPC provision of evapotranspiration (ET) data for customers 	<p>ET data provided weekly during summer watering season</p>	<p>The RWPC continues to offer Evapo-transpiration (ET) data weekly to interested customers. This information is called the “weekly watering number” and can be found at www.conserveh2o.org/weekly-watering-number.</p>																														
<ul style="list-style-type: none"> • Bureau-provided technical assistance to industrial, commercial, institutional (ICI) accounts 	<p>40 site visits each year; provide written reports to customers when needed</p>	<p>Through December 31, 2014, an average of 57 site visits were conducted by Water Efficiency staff each year for ICI accounts. Written reports were provided to all customers. An average of 111 ICI customers contacted staff for assistance each year.</p> <table border="1"> <thead> <tr> <th>Fiscal Year</th> <th>Total Surveys Completed</th> <th>Significant Contacts</th> </tr> </thead> <tbody> <tr> <td>2006/07</td> <td>40</td> <td>74</td> </tr> <tr> <td>2007/08</td> <td>30</td> <td>77</td> </tr> <tr> <td>2008/09</td> <td>26</td> <td>83</td> </tr> <tr> <td>2009/10</td> <td>46</td> <td>85</td> </tr> <tr> <td>2010/11</td> <td>46</td> <td>81</td> </tr> <tr> <td>2011/12</td> <td>56</td> <td>97</td> </tr> <tr> <td>2012/13</td> <td>63</td> <td>123</td> </tr> <tr> <td>2013/14</td> <td>64</td> <td>115</td> </tr> <tr> <td>2014/15</td> <td>69 projected</td> <td>134 projected</td> </tr> </tbody> </table>	Fiscal Year	Total Surveys Completed	Significant Contacts	2006/07	40	74	2007/08	30	77	2008/09	26	83	2009/10	46	85	2010/11	46	81	2011/12	56	97	2012/13	63	123	2013/14	64	115	2014/15	69 projected	134 projected
Fiscal Year	Total Surveys Completed	Significant Contacts																														
2006/07	40	74																														
2007/08	30	77																														
2008/09	26	83																														
2009/10	46	85																														
2010/11	46	81																														
2011/12	56	97																														
2012/13	63	123																														
2013/14	64	115																														
2014/15	69 projected	134 projected																														
<p>Pilot Projects to test new technologies to share with customers</p>	<p>1 pilot project each year</p>	<p>In 2010-2012 Water Efficiency staff conducted a pilot project on soil moisture sensors. A condensate recovery project began in 2012 and was completed in 2014. In 2014 staff started piloting the implementation of Advanced Metering Analytic devices and software. This project is scheduled to be completed by end of 2015.</p>																														
<p>Educational Workshops</p>	<p>2 workshops each year</p>	<p>Through FY 13-14, Water Efficiency staff offered 3 Do-It-Yourself Fixture Repair Workshops at the Fix It Fairs each year. Additionally, Water Efficiency staff participated in an average of 7 workshops each year with the RWPC.</p>																														
<p>Web Education</p>	<p>Annual updates to web information by staff</p>	<p>The bureau’s website has an active water efficiency section, with a direct link on the home page. It is updated regularly to keep up with current programs. Water efficiency messages are also published monthly on the bureau’s blog and social media outlets.</p>																														

WMCP Element 2010 Benchmark 2015 Benchmark Status

<p>Financial Assistance – rebates for weather-based irrigation controllers/equipment</p>	<p>Targeted commercial and residential large water users.</p>	<p>The bureau delayed launching rebates for weather-based irrigation controllers until WaterSense developed a national standard in 2013. The bureau launched the outdoor rebate in fall of 2013. In fiscal year, 2013-14, 30 rebates were paid to 24 commercial customers and 6 residential customers. The program is continuing.</p> <p>Program marketing has been done primarily through retail partners, bill inserts, and inserts into backflow renewal letters.</p> <table border="1"> <tr> <td>Total Spent =</td> <td>\$11,581</td> <td>Total # Rebates</td> <td>30</td> <td>Type of Rebate</td> </tr> <tr> <td>CII Spent =</td> <td>\$10,868</td> <td># ICI rebates</td> <td>24</td> <td>#Controller rebates = 28</td> </tr> <tr> <td>SFR Spent =</td> <td>\$713</td> <td># SFR rebates</td> <td>6</td> <td>#Nozzle rebates = 6</td> </tr> </table>	Total Spent =	\$11,581	Total # Rebates	30	Type of Rebate	CII Spent =	\$10,868	# ICI rebates	24	#Controller rebates = 28	SFR Spent =	\$713	# SFR rebates	6	#Nozzle rebates = 6
Total Spent =	\$11,581	Total # Rebates	30	Type of Rebate													
CII Spent =	\$10,868	# ICI rebates	24	#Controller rebates = 28													
SFR Spent =	\$713	# SFR rebates	6	#Nozzle rebates = 6													
<p>Supplier-Financed Retrofit/Replacement</p>																	
<ul style="list-style-type: none"> • Distribution of conservation devices <ul style="list-style-type: none"> ○ toilet displacement bags ○ fill-cycle diverter ○ 1.0 gpm bathroom and 1.5 gpm kitchen faucet aerators (0.5 gpm bathroom aerators for multi-family and others who request) 	<p>20,000 devices distributed/yr.</p>	<p>Over the past five years, the bureau has made water efficiency devices available to customers through online order forms, at community events, through the customer service walk-in center, and through direct order.</p> <p>In 2012, water efficiency staff determined that the energy utilities and the Energy Trust of Oregon were saturating the market with high-efficiency showerheads and aerators. Staff determined that the best use of the bureau’s limited water efficiency dollars was on toilet replacements. In FY 12-13 water efficiency staff launched a toilet rebate program, and removed the online device order form from our website. Customers are referred to the Energy Trust of Oregon to order devices, or to our customer service walk-in center. Below is a table summarizing the number of water efficiency devices distributed each year (these numbers do not include toilet rebates).</p>															

WMCP Element 2010 Benchmark 2015 Benchmark Status

<ul style="list-style-type: none"> ○ 1.5 gpm showerheads ○ 5-minute shower timers ○ Other devices that become available 		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #d9e1f2;"> <th style="text-align: left;">Fiscal Year Start</th> <th style="text-align: left;">TOTALs</th> </tr> </thead> <tbody> <tr> <td>2010</td> <td>33231</td> </tr> <tr> <td>2011</td> <td>47035</td> </tr> <tr> <td>2012</td> <td>28171</td> </tr> <tr> <td>2013</td> <td>5053</td> </tr> <tr> <td>2014</td> <td>4526</td> </tr> <tr> <td>2015</td> <td>1723</td> </tr> </tbody> </table>	Fiscal Year Start	TOTALs	2010	33231	2011	47035	2012	28171	2013	5053	2014	4526	2015	1723
Fiscal Year Start	TOTALs															
2010	33231															
2011	47035															
2012	28171															
2013	5053															
2014	4526															
2015	1723															
<ul style="list-style-type: none"> ● Low-income toilet replacements 	<p>100 per year</p>	<p>In FY 10-11 and 11-12 the Water Efficiency Program offered grants to organizations that provided low-income multi-family housing for a total of 263 toilet replacements in those two years.</p> <p>In FY 12-13 a toilet rebate for all customers was implemented, with \$100 to customers signed up for the bureau’s low-income assistance program and \$50 for all others. During the two fiscal years beginning FY 12-13, a total of 161 low-income toilet rebates were sent out, or an average of 81 rebates per year.</p>														
Rates																
<p>Portland will retain a single consumption-based rate for five years during which a study of different conservation rate structures will be conducted. Any changes will be enacted and reported upon at the 5-year benchmark.</p>	<p>The rate structure study will be completed and recommendations for the future rate structure for the Portland retail service area will be made within 5 years of the Final Orders approving the WMCP.</p>	<p>The bureau completed a conservation rate structure study in June 2013. The study results indicated that changes in Portland’s water rate structure were unlikely to produce significant additional reductions in water use by Portland customers. Based on the study results, the bureau chose not to recommend any changes to the water rate structure for the purpose of achieving additional conservation among ratepayers. (Rate Study is attached.)</p>														

WMCP Element 2010 Benchmark 2015 Benchmark Status

Water Reuse		
<p>Fund and review Green Investment Fund projects, in partnership with OSD for both commercial and residential projects that incorporate water reuse</p>	<p>Track water use reductions projects, which include water reuse.</p>	<p>This program was over by the time our Water Management and Conservation Plan was approved. No evaluations were provided by the Bureau of Planning and Sustainability (formerly OSD).</p>
<ul style="list-style-type: none"> • Work with city-wide team to develop educational materials about water reuse for distribution and web posting 	<p>By 2007-2008</p>	<p>In 2008 water efficiency staff facilitated a committee of city staff working on rainwater harvesting issues. That committee developed a brochure for the general public called Resources for Rainwater Harvesting.</p> <p>Water Efficiency staff did not develop materials for other forms of water reuse, because the State of Oregon DEQ developed information about graywater reuse. The bureau refers to DEQ documents. The bureau did however host a workshop on graywater use in 2010.</p>
<ul style="list-style-type: none"> • Pilot projects to test potential new technologies that can reuse water in various customer settings to reduce peak-season water use 	<p>1 pilot test of reuse technology in 5 years.</p>	<p>Staff has been working with Parks Bureau staff to determine if splash pad water can be reused for irrigation. At this time the Parks Bureau has not been able to identify a suitable site for pilot testing a reuse project.</p> <p>Water Efficiency staff also developed a condensate recovery system in the Portland Building to use condensate to use for cooling tower make-up water in the summer. The pilot project did not save nearly as much water as engineering estimates assumed, but the permitting process, etc. was set for those who want to consider this in Portland in the future.</p>

Other Programs		
Wholesale Contracts	Update of the wholesale customer’s Conservation Plans and estimated water savings will be done by 2014 under the specifications in Section 13 of the wholesale contracts. Reports on implementation of Conservation Plans are required annually.	All but 3 of the smallest wholesale utilities provided updates of their conservation plans and activities, as well as savings in past 5 years in 2014. Each utility who reported data had reductions in water use over the 5 years; system-wide reductions ranged from 7.6 to 18.2%; residential per capita reductions ranged from 7.8 to 13.7%.
Water Audit Data	Description of the results of water audit – previous 5 years	See attached FYs 2008-2014 Demand and Consumption Information.
Water Use by Customer Category	Comparison of quantities of water used in each sector with the quantities used in each sector for the previous 5 years	See attached FYs 2008-2014 Demand and Consumption Information.

FYs 2008-2014 Demand and Consumption Information Portland Water Bureau

SYSTEM-WIDE PRODUCTION DATA	FY 13-14	FY 12-13	FY 11-12	FY 10-11	FY 09-10	FY 08-09
Total Bull Run water produced	35.9 BG	36.8 BG	34.5 BG	34.4 BG	35.8 BG	37.0 BG
Total well field water produced	0.0 BG	0.0 BG	1.1 BG	1.3 BG	1.1 BG	0.6 BG
Total water produced	35.9 BG	36.8 BG	35.6 BG	35.7 BG	36.9 BG	37.6 BG
Less total water consumed	32.0 BG	33.0 BG	32.9 BG	32.9 BG	34.3 BG	35.2 BG
Total non-revenue water	3.9 BG	3.8 BG	2.7 BG	2.8 BG	2.6 BG	2.4 BG
Percent of non-revenue water to total produced	10.9%	10.4%	7.6%	7.8%	7.0%	6.4%
Winter Flow Average in MGD (November through March)	86	86	84	84	87	87
Summer Flow Average in MGD (June through	119	124	120	122	126	131
Peak Day Flow	148 MG	152 MG	143 MG	164 MG	178 MG	162 MG
Average Annual Production in MGD	98	101	97	98	101	103
Total water consumed	32.0 BG	33.0 BG	32.9 BG	32.9 BG	34.3 BG	35.2 BG
Total people served (a)	951,324	944,999	937,398	931,912	913,678	883,067
System annual per capita consumption in Gallons	33,600	34,900	35,100	35,300	37,500	39,900
System daily per capita consumption in Gallons	92	96	96	97	103	109
TOTAL RETAIL CUSTOMERS						
Total annual consumption	18.5 BG	19.1 BG	19.0 BG	19.1 BG	20.4 BG	20.7 BG
Retail Population (a)	580,224	572,999	568,898	565,812	562,478	556,967
# of services (c)	183,150	182,900	180,600	181,200	184,300	183,300
Retail daily consumption per service in Gallons	277	289	287	289	303	309
Retail daily per capita consumption in Gallons	87	91	91	92	99	102
Residential Single Family						
Total annual consumption	7.5 BG	7.9 BG	7.7 BG	7.8 BG	8.5 BG	8.5 BG
# of services	152,800	152,700	150,700	150,700	153,500	152,700
Average daily consumption per service in Gallons	134	142	140	142	152	153
Residential Multifamily						
Total annual consumption	3.2 BG	3.3 BG	3.3 BG	3.3 BG	3.4 BG	3.5 BG
# of services	10,700	10,650	10,500	10,600	10,600	10,600
Residential Customers Total						
Total annual consumption	10.7 BG	11.2 BG	11.0 BG	11.1 BG	11.9 BG	12.0 BG
Residential population (b)	562,175	555,073	551,227	548,396	545,186	539,929
Residential daily per capita consumption in Gallons	52	55	55	55	60	61
Commercial, Industrial, & Institutional						
Total annual consumption	7.8 BG	7.9 BG	8.0 BG	8.0 BG	8.5 BG	8.7 BG
# of services	19,650	19,550	19,400	19,900	20,200	20,000
# of Fireline services	3,600	3,500	3,500	3,700	3,700	3,600
Average daily consumption per service (adjusted to exclude fireline services) in Gallons	1,330	1,350	1,380	1,350	1,410	1,450
TOTAL WHOLESALE CUSTOMERS						
Total annual consumption (c)	13.5 BG	13.9 BG	13.9 BG	13.8 BG	13.9 BG	14.5 BG
Wholesale consumption (as a % of total consumption)	42%	42%	42%	42%	41%	41%
Population served (a)	371,100	372,000	368,500	366,100	351,200	326,100
Wholesale daily per capita consumption in Gallons	100	103	103	103	108	122

BG = Billion Gallons, MG = Million Gallons, MGD=Million Gallons per Day

(a) Population figures are based on PSU Population and Research Center forecasts prepared for the Regional Water Providers Consortium (RWPC). FY 13-14 is the first year with data from this special report. Fiscal year retail population numbers for all years has been updated based on this PSU data. Wholesale population is adjusted to exclude an estimate for customers receiving water from sources other than Portland.

(b) Residential Population includes only people living in single family or multifamily buildings and excludes people living in hospitals or institutions.

(c) Total annual wholesale consumption for FY 13-14 includes adjustments to TVWD WCSL meter which was not included in prior FY. Wholesale demand is lower in part because during October and November 2013 TVWD and City of Tigard had reduced demands as compared to prior FY.