Water Audit		
	To keep unaccounted-for water at less than 10%. Further benchmarks will be determined once the bureau's asset management program is completed.	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: • 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 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.
Metering		
	Bureau customers, both retail and wholesale, are fully metered. All new customers will be metered at 100%.	The bureau meters all new customers and will continue to do so.
Meter Testing and		
Replacement	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.	The bureau meets this benchmark and will continue to do so.
Rate Structure	l a	
	Review potential conservation rate structures with the goal of	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

WMCP Element	2010 Benchmark	2015 Benchmark Status
	implementing a new rate	bureau chose not to recommend any changes to the water rate structure for the purpose of
	structure as one of the 5-	achieving additional conservation among ratepayers. (Rate Study is attached.)
	year benchmarks for this	
	WMCP.	
Leak Detection Program		
	Bureau system leakage rate	The bureau responds to leak locate requests within 24 hours and regularly surveys the
	does not exceed 10% so no	distribution system for leaks. For example, in FY13/14 the bureau responded to 159 leak
	benchmark was identified.	locate requests, surveyed 783,572 feet of distribution mains for leaks and replaced 2.8 miles
	Bureau committed to	of distribution mains.
	maintain the ability to	
	respond to leak survey	
	requests within 24 hours	
	and to do scheduled leak	
	surveys in specified areas.	
Public Education		
Website	Continue to maintain and	The bureau's website has an active water efficiency section, with a direct link on the home
	update City of Portland	page. It is updated regularly to keep up with current programs. Water efficiency messages
	web site with current	are also published monthly on the bureau's blog and social media outlets.
	conservation information	
	for both residential and	The bureau's Water Efficiency Program continues to actively participate with the Regional
	commercial customers.	Water Provider's Consortium (RWPC) and staff has participated as Chair of the Consortium
	Support ongoing	Conservation Committee.
	development of RWPC	
	newsletter and other web	
	communications.	
Public Presentations	Make 10 public	The Water Efficiency program actively makes presentations to the public.
	presentations about water	
	conservation in Portland	FY10/11= 10 external, 3 internal
	each year.	FY11/12 = 11 external, 3 internal
	, 22	FY12/13 = 7 external, 3 internal
		FY13/14 = 3 external, 14 internal

Bill Insert	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.	Water Efficiency staff prepare a summer bill stuffer each year to include outdoor water efficiency messages in every water/sewer bill.
Summer Media Campaign	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.	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. 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.
Community Outreach	Develop partnerships to reach 1,000 low-income customers each year on water conservation. Staff booths at four summer community events each summer – to reach 1,000 customers with conservation messages.	Partnerships for low-income outreach 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. 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.

WMCP Element	2010 Benchmark	2015 Benchmark Status
		Currently the bureau is in the planning phases of a low-income targeted outreach campaign. 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.
		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.
Water Source and	Deliver approximately 24	The bureau continues to implement it Bull Run watershed tour program for students and the
System Tours	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.	general public. 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
School Assembly Programs	Deliver 20 water conservation assembly programs per year to schools within the Water Bureau's service area, both public and private.	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.

WIVICE LIETHERIC	2010 Delicilliark	2013 Belicilliark Status
Leak Repair and Replacement Program		
	System leakage is less than 10%. No benchmark was proposed.	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. 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: • 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 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.
Technical and Financial Assistance		
Partnerships to Leverage Technical Assistance		
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.
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% 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 B	enchmar	k Statu	S			
RWPC provision of evapotranspiration (ET) data for customers	ET data provided weekly during summer watering season	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.						
Bureau-provided technical assistance to industrial, commercial, institutional (ICI)	40 site visits each year; provide written reports to customers when needed	, , ,						
accounts		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				
Pilot Projects to test new technologies to share with customers	1 pilot project each year	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.						
Educational Workshops	2 workshops each year	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.						
Web Education	Annual updates to web information by staff	page. It is	7 workshops each year with the RWPC. 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.					

WMCP Element	2010 Benchmark	2015 Benchn	nark Sta	tus					
Financial Assistance – rebates for weather-based irrigation controllers/equipment	Targeted commercial and residential large water users.	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. Program marketing has been done primarily through retail partners, bill inserts, and insert into backflow renewal letters.							
		Total Spent =	\$11,581	Total # Rebates	30	Type of Rebate			
		CII Spent = SFR Spent =	\$10,868 \$713	# ICI rebates # SFR rebates	24 6	#Controller rebates = #Nozzle rebates =	28 6		
Supplier-Financed Retrofit/Replacement									
 Distribution of conservation devices toilet displacement bags fill-cycle diverter 1.0 gpm bathroom and 1.5 gpm kitchen faucet aerators (0.5 gpm bathroom aerators for multifamily and others who request) 	20,000 devices distributed/yr.	customers through walk-in center, and In 2012, water efficience or satur determined that the replacements. In Fremoved the online Energy Trust of Ores.	online ord through di ciency staff rating the mane best use Y 12-13 wase device ord egon to ord og the numb	er forms, at communer tect order. determined that the arket with high-efficof the bureau's limite ter efficiency staff lader form from our weer devices, or to our per of water efficience	ener iency ed wa unche ebsite custo	iciency devices available to vents, through the custom gy utilities and the Energy showerheads and aerato oter efficiency dollars was ed a toilet rebate programe. Customers are referred mer service walk-in centerices distributed each year	y Trust of rs. Staff on toilet n, and I to the er. Below is		

WMCP Element	2010 Benchmark	2015 Bei	nchmark S	tatus
 1.5 gpm showerheads 5-minute shower		Fiscal Year Start	TOTALs	
timers		2010	33231	
 Other devices that 		2011	47035	
become available		2012	28171	
		2013	5053	
		2014	4526 1723	
Low-income toilet replacements	100 per year	provided low years. In FY 12-13 a signed up for two fiscal ye	y-income multi I toilet rebate f Ir the bureau's	Vater Efficiency Program offered grants to organizations that family housing for a total of 263 toilet replacements in those two for all customers was implemented, with \$100 to customers low-income assistance program and \$50 for all others. During the EY 12-13, a total of 161 low-income toilet rebates were sent out, a per year.
Rates				
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.	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.	indicated that additional re bureau chos	at changes in Poductions in wa e not to recom	nservation rate structure study in June 2013. The study results ortland's water rate structure were unlikely to produce significant ter use by Portland customers. Based on the study results, the mend any changes to the water rate structure for the purpose of vation among ratepayers. (Rate Study is attached.)

Water Reuse		
Fund and review Green Investment Fund projects, in partnership with OSD for both commercial and residential projects that incorporate water reuse	Track water use reductions projects, which include water reuse.	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).
Work with city-wide team to develop educational materials about water reuse for distribution and web posting	By 2007-2008	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. 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.
Pilot projects to test potential new technologies that can reuse water in various customer settings to reduce peak-season water use	1 pilot test of reuse technology in 5 years.	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. 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.

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	8.7BG	
# 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

⁽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.