



CITY OF BEVERLY HILLS

PUBLIC WORKS SERVICES DEPARTMENT

MEMORANDUM

TO: PUBLIC WORKS COMMISSION

FROM: Michelle Tse, Planning and Research Analyst
Josette Descalzo, Environmental Compliance & Sustainability Programs Manager
Debby Figoni, Conservation Administrator

DATE: March 10, 2016

SUBJECT: UPDATE ON WATER CONSERVATION EFFORTS AND PENALTY SURCHARGE APPEALS PROCESS

ATTACHMENT:

1. City Council Formal Session Report dated March 1, 2016 – Penalty Surcharge Framework
2. Monthly Report to State Water Resources Control Board
3. Monthly Consumption Report
4. Metropolitan Water District – Water Device Rebate Program
5. Metropolitan Water District – Turf Removal Rebate Program

This report is to provide an update on the staff activities related to the City's Water Conservation and Outreach efforts.

City Water Usage Reductions for February 2016 (preliminary)

Preliminary estimates for the City's conservation performance shows that the City reduced its water usage by approximately 13% for the month of February, 2016. Please note this is subject to verification with the Metropolitan Water District water consumption invoice the City typically receives later this month. Since the water conservation reports are due to the State Water Resources Control Board by the 15th of each month, staff is contacting other cities to inquire about their conservation performance; any additional information will be conveyed to the Commission during the March 10, 2016 meeting.

Public Education Programs and Outreach

- Staff will promote water conservation and Water Tracker at the following City events:
 - **Sunday, March 6, 2016:** Woofstock at Roxbury Park (weather permitting) from 11am to 3pm.
 - **Sunday, April 17, 2016:** City's Earth Day event will occur jointly with the Farmers Market from 9am to 1pm.
 - **Sunday, May 15, 2016:** City's Public Works Services Day will occur jointly with the Farmer's Market from 9am to 1pm.

- To-date, approximately 100 water customers have contacted to schedule appointments for the Garden Guru program. The pilot program included 125 site visits. Staff is reviewing outcomes of these site visits (e.g. reduced water usage) and will work with the Conservation Subcommittee on next steps with overall education and outreach efforts.

Site Visit and Enforcement

In an effort to improve the City’s water conservation target of 32%, staff is conducting site visits which consists of a water audits to those properties that are 1) the highest water users, 2) have been consistently been on the leak list, and 3) as a result of level 2 penalty surcharge appeal. During the month February, the Water Conservation Administrator conducted 64 water audits. As part of these audits, staff provided personalized water reports explaining the cause(s) of their high water use.

Table 1 below summarizes the nature of the site visits.

Table 1: Summary of Staff Site Visits for February 2016

	Leaks	*High Water Use	*Surcharge Issues	Leak & High Water Use	*Leak Resulting to Penalty Surcharge	*Leak & High Water Use Resulting to Penalty Surcharge	*High Water Use Resulting to Penalty Surcharge
Cases	24	6	10	5	6	6	27
Fixed	14	TBD	TBD	TBD	TBD	TBD	TBD

**Compliance determination regarding cases that falls under penalty surcharge and/or a high water use are to yet to be determined (TBD). These types of cases require longer timeframe analysis (e.g., water consumption trends, continuous water use and utility billing data, etc.). Staff is continuously following up on leak cases that are unresolved and will use enforcement mechanism as needed.*

Please note that one site visit may constitute multiple issues. For instance, a site may have a leak and also have a high water use issue. The “fixed” row in Table 1 is staff’s determination that the issue(s) has been resolved by reviewing the site’s water consumption, continuous water use and utility billing data.

Approximately 101 letters were mailed to residents notifying them of leaks during February 2016. Responses from the residents and businesses have been excellent. They are grateful to be notified of leaks and most of the customers repair the leaks within a few days. Staff will also call and follow up with customers with larger water leaks.

Penalty Surcharges and Appeals Process Update

Staff presented the reduced penalty surcharge framework to the City Council during its March 1, 2016 meeting. A copy of the agenda report is included as Attachment 1. The Resolution was approved by the City Council. The reduced multipliers went into effect immediately (March 1, 2016).

As of March 1, 2016, the City has received 1,199 penalty surcharge appeal applications; approximately 240 of these are Level 2 applications, which have been reviewed and/or are pending review by the Hearing Officer.

Please note that prior to customers submitting an appeal application, the City had reviewed and adjusted 1,960 customer accounts that demonstrated conservation efforts since 2011. Staff has noticed there has been an increase in the number of penalty surcharge appeals (both at Level 1 and Level 2) being submitted by customers.

During its February 11, 2016 meeting, the Commission discussed that the pre-identified conditions originally outlined in the penalty surcharge appeals process did not adequately address the conservation challenges unique to certain multi-family and commercial water customers. The following parameters were discussed during the meeting:

- Previous installation of water efficient fixtures
- Percentage of landscape and pool on property
- Property or lot size

Based on the discussion, the Conservation Subcommittee has been working to develop the criteria for multifamily and commercial customers. Staff and the Conservation Subcommittee will provide an update during the March 10, 2016 Commission meeting.

Attachment 1



STAFF REPORT

Meeting Date: March 1, 2016
To: Honorable Mayor & City Council
From: Trish Rhay, Assistant Director of Public Works Services,
Infrastructure & Field Operations
Caitlin Sims, Senior Management Analyst CS
Subject: b. Penalty Surcharge Framework
Attachments: 1. Resolution 15-R-13045

INTRODUCTION

At its May 5, 2015, Formal Meeting, the City Council approved Resolution 15-R-13037, declaring a Stage D (30%) water use reduction. Stage D allows the City Council to assess a penalty surcharge on water usage in excess of the 70% baseline. At its June 30, 2015, meeting, the City Council adopted Resolution 15-R-13045, which established the penalty surcharge framework. All single-family and multi-family customers not in Tier 1 and all commercial customers are required to reduce their water usage to 70% of their 2013 usage or be subject to penalty surcharges. The penalty surcharge was applied to bills in early November 2015.

The purpose of the penalty surcharge is to change behavior and to incentivize high water users to reduce their consumption and, to the extent that this is not achieved, to cover the City's potential drought-related costs. As such, staff worked with HF&H Consultants LLC ("HF&H"), with input from the Public Works Commission's Conservation Subcommittee, to develop a penalty surcharge framework based on the City's potential risk costs from the State Water Resources Control Board ("State Water Board") and Metropolitan Water District of Southern California ("MWD") if it does not meet its conservation mandates.

Staff now has a better understanding of what the City's risk costs could be from the State Water Board and MWD and, based on this updated information, staff worked with HF&H and the Public Works Commission's Conservation Subcommittee to revise the penalty surcharge. The Public Works Commission and staff are recommending that the penalty surcharge multipliers be reduced, as further described in this report.

DISCUSSION

Under the existing framework, all commercial customers as well as single-family and multi-family customers not in Tier 1 are required to reduce their water usage to 70% of their 2013 usage or be subject to penalty surcharges. The penalty framework relates to

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the City's risk costs if the City's water users fail to meet the City's conservation mandates as established by the State Water Board and MWD.

The penalty surcharge framework is currently designed to account for three potential risk costs as identified by staff:

- 1) City Costs – Accelerated Conservation Measures:
If the City fails to meet the State-ordered conservation goal of 32%, State regulators may require the City to accelerate the current 10-year conservation strategy that is outlined in the Water Enterprise Plan and require such programs to be implemented over Year 1, rather than Years 2-10 as outlined in the Water Enterprise Plan.
- 2) State Water Resources Control Board (“State Water Board”) Fines:
The State Board can fine water providers a penalty of \$10,000 per day for not meeting the 32% conservation target. The potential \$1,000,000 fine assumes that the State Board will begin to impose fines if the City fails to achieve compliance with the conservation target within a reasonable period. In the initial calculation, the projected risk cost for fines from the State Water Board was based on an assumption that the City could be subject to fines of up to \$10,000 per day for 100 days.
- 3) Metropolitan Water District of Southern California (“MWD”) Costs:
MWD required each of its member agencies to reduce water consumption by 15% compared to its 2014 water purchases starting July 1, 2015. Water purchases in excess of the reduction target will be assessed at the MWD Tier 2 rate of \$2,960 per acre-foot. Based on 2014 water use data, if the City fails to reduce consumption, it is projected that 1,291 acre feet of water purchased from MWD will be assessed at the Tier 2 rate. In order for the City to avoid paying the higher MWD Tier 2 rate, the City would need to reduce MWD water use by 12% compared to 2013 water usage.

To allocate these risk costs across the City's customers and develop multipliers, assumptions were made about the City's overall average water conservation based on the best information available at that time. Staff initially estimated that approximately 50% of customers would reduce water use by 30% compared to 2013 usage, approximately 25% of customers would reduce water use by 15%, and approximately 25% of customers would not reduce their water use. This equated to a City-wide average water use reduction of 18.8%. Over the months since the State's conservation order became effective, the City has averaged a reduction of approximately 19%, which is consistent with the initial assumptions.

The City now has a better understanding of the City's potential risk costs from the State Water Board and MWD and anticipates that the potential risk costs will be lower than previously projected. The City initially projected that it could be subject to the maximum daily penalty of \$10,000 per day from the State Water Board. Based on the State Board's practice over the last several months and conversations with State regulators, the City is not likely to be subject to these maximum daily penalties; State regulators have suggested that the maximum penalties are likely to be levied only against agencies that are not making sufficient efforts to meet their conservation targets. The City also revised its assumptions about how much water it may have to purchase at the higher MWD Tier 2 rate and allocated only the difference between the higher MWD Tier 2 rate and the Tier 1 rate as a potential risk cost, rather than allocating the entire MWD Tier 2

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rate. In addition, the State Water Board has extended the Emergency Water Conservation Regulation and drought regulations through October 2016.

In keeping with the effort to base the penalty surcharge on actual potential risk costs, staff, HF&H, and the Public Works Commission's Conservation Subcommittee have revised the future risk costs as follows:

Risk Costs	Potential Costs	Future Potential Costs
City Costs – Accelerated Conservation Measures	\$1,763,708	\$1,763,708
State Water Board Fines	\$1,000,000	\$600,000
MWD Costs	\$3,821,897	\$1,928,628
TOTAL	\$6,585,605	\$4,292,336

The revised potential costs for the State Water Board fines assume that the City could be subject to fines of up to \$2,500 per day for the period that runs from March 1, 2016, to October 31, 2016. The revised potential risk costs from MWD reflect the assumption that the City will purchase less water at the higher Tier 2 rates than was originally projected and a modified methodology in which only the difference between the MWD Tier 2 rates and the Tier 1 rates (rather than the entire MWD Tier 2 rate) be allocated as a potential risk cost.

Based on these revised potential risk costs, the Public Works Commission recommends that the penalty surcharge multipliers be revised as follows:

Less than 30% Conservation		Less than 12% Conservation	
For excess usage above 70% baseline, the penalty-only multiplier is:		For excess usage above the 88% baseline, the penalty-only multiplier is:	
Current	Proposed	Current	Proposed
0.59 times the Base Rate	0.25 times the Base Rate	Additional 3.08 (Cumulative 3.67 times the Base Rate)	Additional 1.60 (Cumulative 1.85 times the Base Rate)

The example below shows what the bill impact would be to a single-family residential customer that uses 140 units of water in a two-month billing period and has not conserved from its 2013 usage:

Charge	With Current Multipliers	With Proposed Multipliers	Change	
			\$ Reduction	% Reduction
Water Meter Charge	\$75.16	\$75.16	0	n/a
Water Usage Charge	\$1,112.15	\$1,112.15	0	n/a
Level 1 Penalty	\$295.21	\$125.09	\$170.12	57.6%
Level 2 Penalty	\$869.30	\$451.58	\$417.72	48.1%
Total	\$2,351.82	\$1,763.98	\$587.84	25.0%

Penalty surcharges have been used to pay fines from the State Water Board and to accelerate the City's water conservation programs beyond those that were budgeted in FY 2015-16, in an effort to achieve its water conservation targets. For example, the City has supplemented its rebate programs for turf removal and water efficient devices. In

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October 2015, the State Water Board fined the City \$61,000 for not meeting its 32% reduction mandate from June 1, 2015, to September 30, 2015. The State Water Board may also take enforcement action against the City for non-compliance from November 1, 2015, to present. In addition, while the City has not incurred any MWD Tier 2 costs to date, these costs will be assessed based on water purchases for an entire year.

FISCAL IMPACT

The City has updated the risk cost estimates for the period from March 1, 2016, to October 31, 2016, to be \$4,292,336. The funding collected will be used to pay potential fines from the State Water Board, potential MWD Tier 2 rates, and for the accelerated implementation of the City's water conservation programs.

RECOMMENDATION

Staff recommends that the City Council reduce the penalty surcharge multipliers contained in Resolution 15-R-13045. Should the City Council move forward with the recommendation, a resolution is agendized for the March 1, 2016, Formal Session. The new penalty surcharge would be implemented immediately after the March 1, 2016 meeting.



Don Rhoads
Finance Approval



George Chavez
Approved By

Attachment 1

RESOLUTION NO. 15-R- 13045

RESOLUTION OF THE COUNCIL OF THE CITY OF
BEVERLY HILLS ESTABLISHING A PENALTY
SURCHARGE FOR WATER USAGE CONTRARY TO THE
PROVISIONS OF THE STAGE D WATER CONSERVATION
MEASURES

RECITALS

WHEREAS, during calendar year 2014, the Governor declared a drought in the State of California and the State Water Resources Control Board enacted emergency water conservation measures. As a result, the City of Beverly Hills declared the Stage B shortage, which is currently in effect, mandating a 10% reduction in potable water use.

WHEREAS, in April 2015, the Governor issued an Executive Order directing the State Water Board to impose restrictions to achieve an aggregate statewide 25% reduction in potable urban water use through February 2016. As a result, the State Water Board released a preliminary framework, outlining reduction targets from 8% to 36% for each water supplier, with Beverly Hills having a reduction target of 36%. Upon additional review of information submitted by the City of Beverly Hills, the State Water Board reduced the reduction target to 32%.

WHEREAS, on May 5, 2015, the City Council adopted its resolution No. 15-R-13037 declaring and implementing Stage D water conservation measures pursuant to Beverly Hills Municipal Code Section 9-4-304 and authorizing a penalty surcharge for water usage contrary to the provisions of the Stage D water conservation measures.

WHEREAS, pursuant to Beverly Hills Municipal Code Section 9-4-302, the City Council desires to establish a penalty surcharge for water usage contrary to the provisions of the Stage D water conservation measures.

NOW THEREFORE, the City Council of the City of Beverly Hills does hereby resolve as follows:

Section 1. The City Council hereby establishes a penalty surcharge for water usage contrary to the provisions of Stage D as follows:

- a. For a customer who reduces water use by less than thirty percent (30%) of the amount in the baseline period, the penalty surcharge is 1.59 times the basic water rate for water usage in excess of seventy percent (70%) of the amount in the baseline period.
- b. For a customer who reduces water use by less than twelve percent (12%) of the amount in the baseline period, the penalty surcharge is an additional 3.08 times the basic water rate for water usage in excess of eighty-eight percent (88%) of the amount in

the baseline period (for a cumulative 4.67 times the basic water rate for water usage in excess of eighty-eight percent (88%) of the amount in the baseline period).

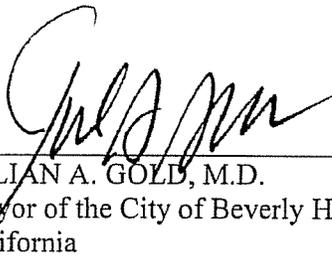
c. The baseline period shall be the days in the 2013 calendar year against which water use is compared for those same days in the current year (for example, the baseline period is July 1, 2013 through August 31, 2013 for determining the amount water use reduction for July 1, 2015 through August 31, 2015).

d. The penalty surcharge established by this section shall be effective October 15, 2015.

Section 2. In accordance with Beverly Hills Municipal Code Section 9-4-303, the City Council hereby directs the City Clerk to publish this Resolution within 10 days of its adoption at least once in a newspaper of general circulation within the city and to post this Resolution in at least three (3) public places and continue to post this Resolution until such time as the restrictions set forth herein are repealed by resolution of the City Council.

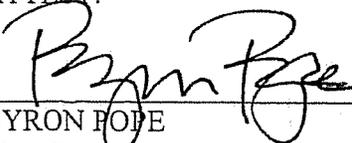
Section 3. The City Clerk shall certify to the adoption of this resolution and shall cause this resolution and his certification to be entered in the Book of Resolutions of the Council of the City.

Adopted: June 30, 2015



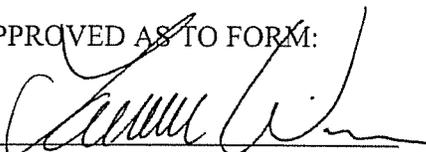
JULIAN A. GOLD, M.D.
Mayor of the City of Beverly Hills,
California

ATTEST:



BYRON FOPE (SEAL)
City Clerk

APPROVED AS TO FORM:



LAURENCE S. WIENER
City Attorney

APPROVED AS TO CONTENT:



GEORGE CHAVEZ
Director of Public Works Services

Attachment 2

State Water Resources Control Board
January 2016

Hello Caitlin Sims,

Thank you for your Monitoring Report. Below is the information you have submitted for the month of 0116. If this information is incorrect, please re-submit your report for the month with the corrected information. We use your most recently submitted monthly report in our calculations.

Reporter	Caitlin Sims
Urban Water Supplier/Number	Beverly Hills City of (640)
Reporting Month	0116
Stage/Mandatory	Stage D Yes
Days Outside Irrigation	2
Total Potable Water Production	638.8 AF
2013 Same Month Production	862.2 AF
CII Water	134.1 AF
Commercial Agricultural Water	0 AF
Commercial Agricultural Water 2013	0 AF
Recycled Water	AF
Non-revenue Water	44.7 AF
Residential Use Percentage	72 %
Population	42157
Estimated R-GPCD	114.6
Number Complaints	3
Number Follow-ups	17
Number Warnings	9
Rate Penalties	1500

Other Penalties	0
Enforcement Actions	<p>In January, water conservation enforcement transitioned from Community Development (Code Enforcement) back to Public Works Services. There were a total of 9 water conservation cases and 1 resulting in the issuance of a Notice of Violation (NOV). Please note that an NOV is a prerequisite to the issuance of a criminal misdemeanor citation. The number of written warnings is minimal during this time because there were staff, coverage and strategy changes in the program. Going forward, water conservation enforcement will focus its efforts in evaluating the highest water users and properties that have large potential leaks. Water customers that are identified will be subject to educational outreach visit(s) and given guidelines to achieve their conservation goal of at least 30%. During this transitional month, Public Works Services hired a retired Beverly Hills police officer on a part-time schedule to be the enforcement officer. The enforcement officer will continue to enforce outdoor watering use (i.e. watering schedule, building and vehicle washing restrictions, leaks, etc.) and will issue a Notice of Violation for non-compliance. The enforcement officer will continue to monitor the entire City for all outdoor watering violations, especially the high water use areas. The new Water Conservation Administrator began work on January 20, 2016 and conducted 3 site visits to some of the highest water users and communicated with 5 large potential leak customers. The Water Conservation Administrator will review the highest water user list, evaluate it and schedule site visits for consultation. The site visit includes water use evaluation, investigating potential water leaks and providing additional water conservation guidelines to achieve their conservation target. Penalty surcharges remain in effect. Customers that did not reduce their water consumption by 30% compared to the same period in 2013 were assessed penalties at 1.59 times their base water rates for usage between 71% and 88% of their 2013 usage (Level 1 Surcharge) and 4.67 times their base water rates for usage greater than 88% of their 2013 usage (Level 2 Surcharge). **An estimated 1,500 Level 2 penalty surcharges were assessed during December. This estimate does not reflect Level 1 surcharges**. This Enforcement Comments section has been updated on March 3, 2016 to indicate that the City estimates it assessed 1,500 Level 2 penalty surcharges, whereas the original report submitted on February 12, 2016 indicated 1,500 Level 1 penalty surcharges.</p>
Actions Taken	<p>Raised rates, Instituted surcharges, Reduced allowed outdoor irrigation days, Restricted allowed outdoor irrigation times, Instituted new prohibitions on specific water uses, Instituted stricter prohibitions on specific water uses, Instituted use of behavioral modification programs, Instituted use of SmartMeters for data tracking and enforcement, Increased penalties for water waste, Increased leak detection and repair actions, Increased conservation</p>

	personnel, Increased conservation program budget, Increased conservation program scope
Implementation Comments	Hosted Water Quality & Conservation Workshop with Rain Barrel Distribution on January, 24th.
Qualification	<p>Monthly production is calculated from local production and Metropolitan Water District (MWD) purchases. The percentage of residential use is calculated using the volume of water consumed by residential accounts compared to monthly production. Because the City of Beverly Hills uses a 60-day billing cycle, percentage of residential use reflects consumption based on the January 2015 ratio. Commercial, industrial, and institutional use is calculated as a percentage of monthly production, using the formula $100 - [\text{Percent Residential Use in January 2015}] - [\text{Percent Non-Revenue Water}]$. Non-revenue water is estimated to be 7% of total monthly production. This report has been updated on March 3, 2016 to indicate that estimated percent residential use was 72% during January 2015, which updated the CII estimate to 134.1 AF and the Non-revenue water estimate to 44.7 AF. This percent residential use estimate will be updated once January 2016 data becomes available.</p>

State Water Resources Control Board
Office of Research, Planning & Performance

Attachment 3

All Accounts, Volume Consumed

Table 1, below, details total volume of consumption per month for every account in the entire Beverly Hills and West Hollywood service area, comparing the current year to a 2013 baseline. The percent change is calculated to show increases or decreases in consumption per account type. A negative percentage indicates a reduction in consumption whereas a positive percentage indicates an increase. Volume is represented in acre feet units.

Table 1, All Accounts

		Water Consumption by Account Type												Units: AF		Prepared: 2/29/2016	
Accounts	Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec				
Single-Family Residential Accounts	2013	345.6	362.4	446.6	496.1	556.7	579.2	620.3	637.2	603.2	556.3	483.3	456.5				
	2015	348.3	361.6	436.1	449.2	454.9	435.1	456.9	476.5	449.9	432.6	394.0	N/A				
	% Change	1%	0%	-2%	-9%	-18%	-25%	-26%	-25%	-25%	-25%	-18%	N/A				
Multi-Family Residential Accounts	2013	202.9	185.8	209.0	205.7	215.2	210.7	222.5	223.9	216.7	221.8	207.3	208.9				
	2015	190.7	174.3	194.7	186.8	186.3	177.4	186.2	189.5	184.0	188.5	174.2	N/A				
	% Change	-6%	-6%	-7%	-9%	-13%	-16%	-16%	-15%	-15%	-15%	-16%	N/A				
Commercial Accounts	2013	171.2	160.3	181.0	178.6	195.7	197.6	212.9	212.8	199.9	199.3	178.4	178.6				
	2015	182.1	169.3	192.6	186.3	188.3	182.6	201.9	209.9	199.7	198.7	168.4	N/A				
	% Change	6%	6%	6%	4%	-4%	-8%	-5%	-1%	0%	0%	-6%	N/A				
Municipal Accounts	2013	25.0	26.9	36.5	40.4	42.9	44.6	49.2	51.2	47.6	42.6	34.2	31.8				
	2015	23.4	24.0	28.3	28.2	27.4	25.3	28.0	29.9	28.9	29.3	24.8	N/A				
	% Change	-6%	-11%	-22%	-30%	-36%	-43%	-43%	-42%	-39%	-31%	-27%	N/A				
Fire Service Accounts	2013	-	-	0.2	0.6	0.7	0.7	0.8	1.1	1.3	1.4	1.4	1.3				
	2015	1.4	1.3	1.4	1.7	1.7	1.8	1.8	1.0	0.9	0.9	1.0	N/A				
	% Change	N/A	N/A	787%	169%	126%	142%	129%	-10%	-31%	-34%	-32%	N/A				
Estimated Non-Revenue Water	2013	117.6	27.6	59.2	47.8	36.1	44.4	79.9	58.1	87.1	80.1	34.6	11.4				
	2015	60.2	51.6	42.8	68.6	11.0	19.5	54.3	69.8	55.1	47.3	52.3	N/A				
	*2013 Total	862.2	762.9	932.4	969.3	1,047.3	1,077.4	1,185.5	1,184.4	1,156.0	1,101.5	939.2	888.6				
*2015 Total	806.0	782.0	895.9	920.8	869.6	841.7	929.0	976.6	918.5	897.4	814.7	779.3					
% Change	-7%	3%	-4%	-5%	-17%	-22%	-22%	-22%	-18%	-21%	-13%	-12%					

*Data for final three rows do not come from City of Beverly Hills billing data, but rather Metropolitan Water District invoices, the same official conservation data submitted to the State each month. Aggregate data for State reporting and parsed data for internal system analysis rely on different sources and methodologies. As such, monthly totals by year in the bottom rows do not equal the sum of consumption in the rows above, that difference is determined to be non-revenue water.

All Accounts, Consumption as a Percentage of Total

Table 2, below, indicates consumption as a percentage of total per month for all accounts in the entire Beverly Hills and West Hollywood service area.

Table 2, All Accounts

Accounts	Year	Water Consumption by Account Type											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Single-Family Residential Accounts	2013	40%	47%	48%	51%	53%	54%	52%	54%	52%	51%	51%	51%
	2015	43%	46%	49%	49%	52%	52%	49%	49%	49%	48%	48%	N/A
Multi-Family Residential Accounts	2013	24%	24%	22%	21%	21%	20%	19%	19%	19%	20%	22%	24%
	2015	24%	22%	22%	20%	21%	21%	20%	19%	20%	21%	21%	N/A
Commercial Accounts	2013	20%	21%	19%	18%	19%	18%	18%	18%	17%	18%	19%	20%
	2015	23%	22%	21%	20%	22%	22%	22%	21%	22%	22%	21%	N/A
Municipal Accounts	2013	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
	2015	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	N/A
Fire Service Accounts	2013	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%
	2015	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	N/A
Estimated Non-Revenue Water	2013	14%	4%	6%	5%	3%	4%	7%	5%	8%	7%	4%	1%
	2015	7%	7%	5%	7%	1%	2%	6%	7%	6%	5%	6%	N/A
2013 Total		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
2015 Total		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A

Units: AF Prepared: 2/29/2016

City of Beverly Hills Water Accounts, Volume Consumed and Percent Reduced

Table 3, below, details the total volume of consumption per month for all accounts where the City of Beverly Hills is a customer, comparing the current year to a 2013 baseline. The percent change is calculated to show increases or decreases in consumption per account type. A negative percentage indicates a reduction in consumption whereas a positive percentage would indicate an increase. Volume is represented in acre feet units.

Table 3. Accounts Where City of Beverly Hills is a Customer

Accounts	Year	Water Consumption by Account Type											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov*	Dec**
City of Beverly Hills Accounts	2013	17.0	19.0	27.6	31.2	32.3	33.7	37.3	38.9	35.9	32.2	24.7	21.9
	2015	14.9	15.2	18.7	19.5	19.1	17.9	19.9	20.7	19.4	19.7	16.4	13.4
	% Change	-12%	-20%	-32%	-37%	-41%	-47%	-47%	-47%	-46%	-39%	-34%	-39%

Units: AF Prepared: 2/29/2016

* November 2015 consumption estimates have been updated to reflect billing data rather than live meter read data. As such, the consumption estimate for accounts where the City of Beverly Hills is a customer has been updated to 16.4 AF from 15.0 AF as listed in the February 2016 Water Consumption Update.

** December 2015 estimates are currently determined using data from live meter reads whereas data for January through November is determined using billing data for completed billing cycles. Once all cycles have completed, these estimates will be updated to reflect billing data only. As the data source is updated, these estimates are also subject to variation.

Total Water Consumption, Purchased and Produced

Table 4, below, summarizes total consumption since January of 2013. Column 3, Percent Change Compared to Same Month 2013, compares 2015 and 2016 consumption data to a 2013 baseline. 2014 consumption data has been omitted in this report, but is available in the February 2016 Water Consumption Update. Negative percentages represent a reduction in consumption whereas positive percentages represent an increase. Volume is represented in acre feet units.

Table 4, Water Consumption Summary

Date	Consumption (Acre Feet)	Percent Change Compared to Same Month 2013	Residential Gallons Per Day Per Capita
Jan 2013	862.2		161.2
Feb	762.9		158
Mar	932.4		174.4
Apr	969.3		187.3
May	1047.3		185.4
Jun	1077.4		208.2
Jul	1185.5		221.7
Aug	1184.4		221.5
Sep	1156		223.4
Oct	1101.5		206
Nov	939.2		181.5
Dec	888.6		166.2
Jan 2015	806	-6.52%	142.7
Feb	782	2.50%	153.3
Mar	895.9	-3.91%	158.6
Apr	920.8	-5.00%	154.2
May	869.6	-16.97%	140.9
Jun	841.7	-21.88%	147.5
Jul	929	-21.64%	157.5
Aug	976.6	-17.54%	163.1
Sep	918.5	-20.54%	160.9
Oct	897.4	-18.53%	152.2
Nov	814.7	-13.26%	146.9
Dec	779.3	-12.30%	155.4
Jan 2016	633.8	-25.91%	106.7

Attachment 4

Attachment 5

METROPOLITAN WATER DISTRICT - Beverly Hills

Turf Removal Rebate Program - February 2016

RESIDENTIAL	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Total
Pending Applications	25	29	18	10	5	5	3	2	1	98
Total SF of Projects	41,750	45,548	24,716	11,816	4,378	5,399	5,635	2035	1786	143,063
Building Type										
Single Family Detached	23	27	16	10	5	5	3	2	0	91
Multi-tenant	2	2	2	0	0	0	0	0	1	7