PUBLIC WORKS



November 30, 2018

Ben Wade Colorado Water Conservation Board 1313 Sherman St., Room 721 Denver, CO 80203

Dear Mr. Wade:

PO: POGG1 PDAA 2015000000000000249: 100% Status report for City of Lafayette grant: City Hall fixture replacement program

As of August 15th, the City of Lafayette has reached its 100% completion benchmark for the City Hall fixture replacement project.

Attached is our final report for the work on this project. To date, we have completed Task 1 – Task 5 at 100%.

This grant funding has allowed City of Lafayette to replace outdated water fixtures, which include toilets, urinals and faucets with current water efficient fixtures.

With the support from CWCB's funding, we feel that we are making an impact on water conservation and will continue to promote water saving programs to our residents by offering the Niagara Stealth 0.8 gpf toilet through our Toilet Upgrade Program. We partnered with ReSource Central to provide our residents a discounted price for the purchase of these toilets. The program also recycles the old toilets for the resident.

Thank you again for your support.

Sincerely

Jenny Conton

Administrative Specialist City of Lafayette - Public Works Department

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100% Final Report Summary:

Per the grant agreement City of Lafayette received funds to replace water fixtures at City Hall, which included toilets, urinals and faucets. This project turned into a much bigger project, resulting in a whole bathroom remodel. This remodel delayed this project from being completed by the time we had originally requested.

Goals:

City of Lafayette's goal was to replace the current toilets with the most efficient toilet that are on the market. After research and with recommendation from ReSource Central, we ordered the toilets from AM Conservation Group, Inc. The toilets we purchased have a flush of 0.8gpf.

The faucets and urinals were ordered from GTS and fit the criteria of Water Sense brand.

City of Lafayette replaced 9 toilets, 6 faucets and 2 urinals

• Assumptions:

Assumptions were made for the water savings per year using the gallons per minute of the new fixtures. There are 20 women and 16 men and our assumptions were calculated as shown in Table 1

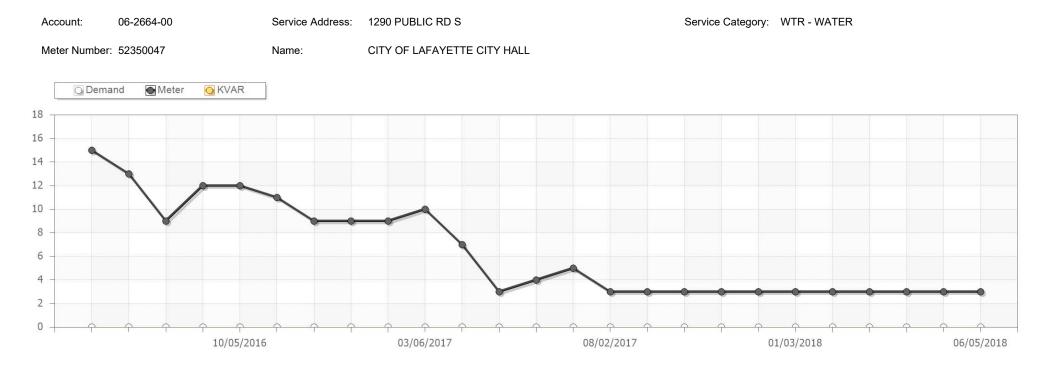
			Current	Current	Retrofit	Retrofit	Daily Savings	Annual Savings
TOILETS	Uses/day	Employees	GPF	use (Gal)	GPF	use (Gal)	(Gal)	(Gal)
Men	1	16	3.5	56	0.8	13		
Women	3.5	20	3.5	245	0.8	56		
Total				301		69	232	60372
URINALS								
Men	3	16	1	48	0.5	24	24	6240
							Daily	Annual
			Estimated	Daily use	Retrofit	Retrofit	Savings	Savings
FAUCETS	Faucets	Gpm flow	use (min)	(Gal)	GPM	use (Gal)	(Gal)	(Gal)
	6	1.0	94	94	0.5	47	47	12220
Total Annual Savings		78,832						

• Impact Analysis:

City of Lafayette performed an impact analysis on water savings after the installation of the water efficient fixtures. The data used is one year pre-install and one year of water usage post-install of the new fixtures. The annual savings was calculated using the same assumptions from the grant proposal. The remodel was completed on May 3, 2017; data used will be from May to May of 2016 and 2018.

Consumption history shows from May 2015 – 2016, the average water consumption for the year to be 11,000 gallons. 2016 – 2017 shows the same average. The bathroom remodel was completed on May 3, 2017 in which you will see from Exhibit A the water savings started right away. After the remodel and installation of water saving fixtures, City Hall has been consistent in the average usage of 3,000 gallons per month to date. Based on actual data, pre-install annual usage was 118,000 and post-install annual usage is 42,000 gallons, showing an annual savings of 76,000 gallons.





Year	Month	Bill Date	Begin Read	End Read	Billed Consumption	Metered Consumption	Demand	KVAR
2018	5	6/5/2018	2,092	2,095	3	3.00	0.00	0.00
	4	5/1/2018	2,089	2,092	3	3.00	0.00	0.00
	3	4/4/2018	2,086	2,089	3	3.00	0.00	0.00
	2	3/7/2018	2,083	2,086	3	3.00	0.00	0.00
	1	2/6/2018	2,080	2,083	3	3.00	0.00	0.00
2017	12	1/3/2018	2,077	2,080	3	3.00	0.00	0.00
	11	12/5/2017	2,074	2,077	3	3.00	0.00	0.00
	10	11/2/2017	2,071	2,074	3	3.00	0.00	0.00
	9	10/4/2017	2,068	2,071	3	3.00	0.00	0.00
	8	9/6/2017	2,065	2,068	3	3.00	0.00	0.00
	7	8/2/2017	2,062	2,065	3	3.00	0.00	0.00
	6	7/5/2017	2,057	2,062	5	5.00	0.00	0.00
	5	6/5/2017	2,053	2,057	4	4.00	0.00	0.00
	4	5/3/2017	2,050	2,053	3	3.00	0.00	0.00
	3	4/4/2017	2,043	2,050	7	7.00	0.00	0.00

2017	2	3/6/2017	2,033	2,043	10	10.00	0.00	0.00
	1	2/1/2017	2,024	2,033	9	9.00	0.00	0.00
2016	12	1/4/2017	2,015	2,024	9	9.00	0.00	0.00
	11	12/7/2016	2,006	2,015	9	9.00	0.00	0.00
	10	11/2/2016	1,995	2,006	11	11.00	0.00	0.00
	9	10/5/2016	1,983	1,995	12	12.00	0.00	0.00
	8	9/6/2016	1,971	1,983	12	12.00	0.00	0.00
	7	8/3/2016	1,962	1,971	9	9.00	0.00	0.00
	6	7/6/2016	1,949	1,962	13	13.00	0.00	0.00
	5	6/7/2016	1,934	1,949	15	15.00	0.00	0.00