

Greg Ellis

From: Dave Conner
Sent: Tuesday, August 14, 2012 11:17 AM
To: Greg Ellis
Cc: Amanda Zeiber; Bob Wengert; Darvin Tramel; Don Steiner; Bruce Shelquist; David Frahm
Subject: Utility Savings
Attachments: canby utility sheets, WWTP.xls

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Greg, this is a brief update (not a full explanation of every detail) on some of the conservation efforts that have been in progress for a while.

In mid-February of this year we made a few operational changes on how we were utilizing city water on a daily basis (here at the plant), we also entered into a lighting upgrade project around March as well. In April Darvin, Bob and I started attending the ACWA Sustainable Energy Management Training to help further reduce electrical usage through other possible operational changes and or equipment upgrades if applicable.

I have attached a utility spread sheet to show the usage difference from the time we started (sometime in February) to almost present, we usually receive Canby Utility bills about 1 month after the billing cycle so I am still waiting for July. If you look at the "usage difference" on the spread sheet it is comparing the current month you are looking at to the same month one year ago, positive numbers represent savings or less usage and negative numbers represent increased usage. The column further to the right marked "Money Saved" is a little more complicated to get perfect accuracy since the billing days may be one or two days different as compared to the same month last year. The price for water has remained the same but the price for electricity rose by a small amount. The money saved or increased spending in that column is fairly close, within 5% depending on billing cycle days.

As you can see on the spread sheet the water usage (1st column #78 under the date) was almost an instant savings. The usage will be dependent upon the time of year so it seems to make more sense comparing to the same month 1 year ago rather than month to month. Although it does not show it right now we would expect higher water usage in the summer due to the use of carrier water for the polymer (when in use), summer watering of the office building yard and weekly cleaning of the effluent filter (when in use). Just for fun we will continue to track the water usage for a period of time to compare our future efforts.

In May most of our lighting upgrade was finished. The majority of lighting is supported by the second column #79 under the date. We really didn't know what kind of savings to expect since we had already been on a mission to turn lights off after we left a room (mostly Bob staying on us to turn them off) and plenty of the lights were either not working or had problems throughout the plant. The net cost of the lighting project was \$5,394 with an estimated annual savings of \$1,598 per year and a project payback time of 3.4 years. With the new efficient lights and simple conservation or trained habit forming conservation we have seen a reduction in electrical usage as well. Since the lighting project is not fully finished (the 4 parking lot lights have not been replaced yet) we are hoping to see a little more reduction from that.

In April Bob, Darvin and I attended the first of four training workshops with 3 other wastewater utility's on "Sustainable Energy Management Systems Training". The cost was \$2000 and we could have as many people as we wanted from our utility attend. Each session had a training objective starting with building an energy team, understanding energy bills, setting baselines, identifying areas of possible energy savings and implementing cost saving operation procedures (the 3rd column #11026 will support the largest part of these efforts). We have implemented a couple operational changes learned from the class and currently have some larger ones in progress. We had "Energy Smart Industrial" attach monitoring meters to our blowers, recording the efficiency of their operation. If we find out that the blowers are extremely inefficient (like the lighting project incentive) there is a certain percent of incentive money through BPA to replace them or any piece of equipment that qualifies. This is kind of a small explanation of the energy training

workshops but we all expect to see a reduction in electricity in this column if and when we are able to implement some of the strategies we learned. One example would be a reduction in the amount of dissolved oxygen we carry in the aeration basin during the winter months and another could possibly be equipment upgrade.

The last of our 4 workshops will be in October and you are invited to attend if you would like. The work shop will be a wrap up of what we have learned, goals we have set, energy we have saved, possible projects we have identified and a 2 year goal on continuing the efforts.

The total savings for water and electricity since March is \$3773.30 we will continue to update you as progress is made.

Dave Conner

Lead Operator
City of Canby
PO Box 930
Canby, Oregon 97013

Phone: (503) 266-4021 ext. 248
connerd@ci.canby.or.us

PUBLIC RECORDS LAW DISCLOSURE

This email is a public record of the City of Canby and is subject to public disclosure unless exempt from disclosure under Oregon Public Records Law. This email is subject to the State Retention Schedule.

Canby Utility Monthly Charges

Vendor 3670

Acct	Address	Desc	Line item
	1480 N,E Territorial (WWTP)		
78	Water Meter	WWTP	306-306-432-6200
79	Electric Meter by Wash Tank 60259810	WWTP	306-306-432-6200
11026	Electric at Blower Building 59713742	WWTP	306-306-432-6200

Jan-12

			Meter Usage Per Day	Same Month 1 Year Ago	Usage Difference	Current Monthly charge	Combined Monthly Total	Money Saved this Month	Total saved This Month Compared to 1 year Ago
78	Water Meter	WWTP	2838	2045	-793	\$1,166.67		-\$305.86	
79	Electric Meter by Wash Tank 60259810	WWTP	782	900	118	\$1,155.43		\$135.17	
11026	Electric at Blower Building 59713742	WWTP	3469	3214	-255	\$4,378.08	\$6,700.18	-\$292.10	-\$462.79

Feb-12

			Meter Usage Per Day	Same Month 1 Year Ago	Usage Difference	Current Monthly charge	Combined Monthly Total	Money Saved this Month	Total saved This Month Compared to 1 year Ago
78	Water Meter	WWTP	2966	3229	263	\$1,334.25		\$111.93	
79	Electric Meter by Wash Tank 60259810	WWTP	695	848	153	\$956.27		\$175.26	
11026	Electric at Blower Building 59713742	WWTP	3290	2828	-462	\$4,421.39		-\$529.22	-\$242.03
							\$6,711.91		

Mar-12

			Meter Usage Per Day	Same Month 1 Year Ago	Usage Difference	Current Monthly charge	Combined Monthly Total	Money Saved this Month	Total saved This Month Compared to 1 year Ago
78	Water Meter	WWTP	2126	2921	795	\$948.55		\$327.78	
79	Electric Meter by Wash Tank 60259810	WWTP	668	1170	502	\$1,112.55		\$634.53	
11026	Electric at Blower Building 59713742	WWTP	2938	2944	6	\$4,194.84	\$6,255.94	\$7.58	\$969.89

Apr-12

			Meter Usage Per Day	Same Month 1 Year Ago	Usage Difference	Current Monthly charge	Combined Monthly Total	Money Saved this Month	Total saved This Month Compared to 1 year Ago
78	Water Meter	WWTP	2039	2697	658	\$831.51		\$245.04	
79	Electric Meter by Wash Tank 60259810	WWTP	732	1208	476	\$1,047.50		\$582.86	
11026	Electric at Blower Building 59713742	WWTP	3239	3053	-186	\$4,419.72	\$6,298.73	-\$227.76	\$600.14

May-12

			Meter Usage Per Day	Same Month 1 Year Ago	Usage Difference	Current Monthly charge	Combined Monthly Total	Money Saved this Month	Total saved This Month Compared to 1 year Ago
78	Water Meter	WWTP	2441	3047	606	\$1,110.81		\$257.91	
79	Electric Meter by Wash Tank 60259810	WWTP	561	1254	693	\$821.01		\$848.58	
11026	Electric at Blower Building 59713742	WWTP	2819	3262	443	\$3,965.40	\$5,897.22	\$542.45	\$1,648.95

Jun-12

			Meter Usage Per Day	Same Month 1 Year Ago	Usage Difference	Current Monthly charge	Combined Monthly Total	Money Saved this Month	Total saved This Month Compared to 1 year Ago
78	Water Meter	WWTP	1956	3084	1128	\$956.53		\$510.08	
79	Electric Meter by Wash Tank 60259810	WWTP	669	1244	575	\$874.42		\$635.95	
11026	Electric at Blower Building 59713742	WWTP	3493	2958	-535	\$4,386.46	\$6,217.41	-\$591.71	\$554.32

Jul-12

			Meter Usage Per Day	Same Month 1 Year Ago	Usage Difference	Current Monthly charge	Combined Monthly Total	Money Saved this Month	Total saved This Month Compared to 1 year Ago
78	Water Meter	WWTP			0			0.00	
79	Electric Meter by Wash Tank 60259810	WWTP			0			0.00	
11026	Electric at Blower Building 59713742	WWTP			0		0.00	0.00	\$0.00

Aug-12

			Meter Usage Per Day	Same Month 1 Year Ago	Usage Difference	Current Monthly charge	Combined Monthly Total	Money Saved this Month	Total saved This Month Compared to 1 year Ago
78	Water Meter	WWTP			0			0.00	
79	Electric Meter by Wash Tank 60259810	WWTP			0			0.00	
11026	Electric at Blower Building 59713742	WWTP			0		0.00	0.00	\$0.00