Aurora's Water Conservation Calculator:

Building an Educated Community and the Benefits to the Utility

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Your Test

Customer calls asking for advice. Specifically, what retrofit would have the greatest overall cost savings after 1 year?

What other information do you need?

Variables

Age of House: 1983 Family Members: 4

Bathrooms: 2 full, 1 half

INDOOR

Toilets: 1990 (3.5), 1990 (3.5), 1983 (4.0) 12 flushes/day

Showers: 1990 (4), 1990 (3) 25 min/day

Bathroom Sinks: 1990 (3), 1990 (3), 1983 (?) 20 min/day

Add'l Faucets: 1995 (3), 1995 (2.75) 12 min/day

Washer: 1990, Top-Loader (49) 10 loads/week

Dishwasher: 1990 (?) 7 loads/week

OUTDOOR

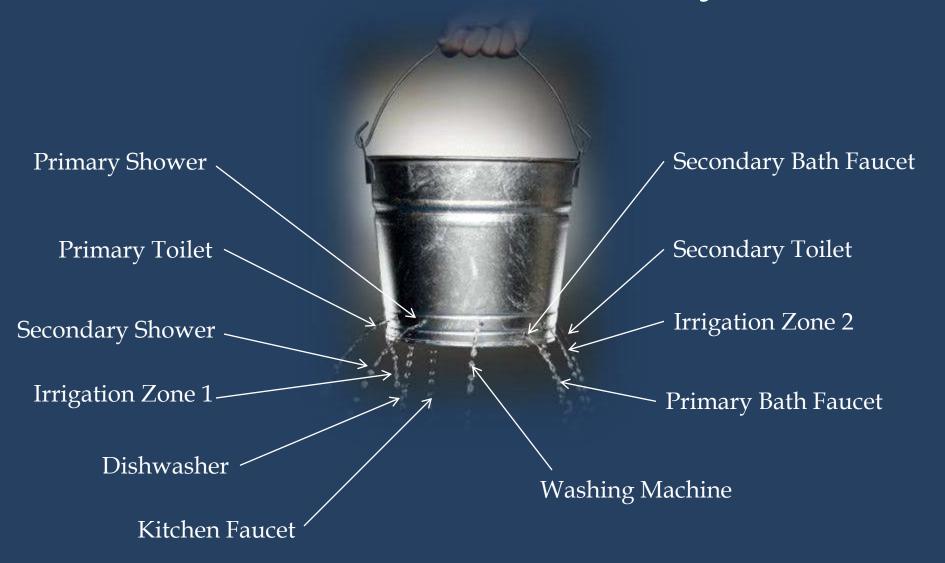
Irrigation: 1 Zone, 1,000 sq. ft., Bluegrass, Full Sun, Loam,

Breezy, Mild Slope, DU = ?,

Watering Time: Total Minutes = 679/year

Watering Rate: 30 gpm

What Is The Priority?



The Problem with Rebates...

Conserving water is an abstract concept for our customers and decisions on how to conserve are often based on the rebates a utility offers.

The Savings - Rebate Programs Only

Primary & Secondary Toilet Washing Machine Xeriscape

For the Customer Cost of \$2650 46,000 gallons = \$242 / year

For the Utility 46,000 gallons for a cost of \$925 or \$6540 per acre-ft

The Variables

Indoor Variables

- •Age of the Home/Fixtures
- •Number of People
- •Behavior and Usage Patterns
- Current Fixtures

Outdoor Variables

- •Zone Information
 - •Square Footage
 - System
 - •Env. Factors
- Current Watering Practices



Retrofit Variables

- •Rebates
- •New Fixtures
- •New Behavior/Usage
- •Cost of Retrofits
- New Watering Practices

Water Conservation Calculator



Calculator

FAQs Contact Us



Welcome Aurora Water Customer,

Understanding where and how much water we use is the first step in beginning to conserve.

The Residential Water Use Calculator serves as an analysis of your current water use and conservation potential, providing you with a long term plan to meet your conservation goals. It is recommended that you review the calculator before using it to determine what data you need to collect. This will be the longest part of the process. The Calculator requires specific information about your property, including:

- Construction Year
- 2. Number of family members
- Indoor appliance usage data (Toilet, shower, faucet, washing machine & dishwasher)
- 4. Zone-by-zone irrigation system details



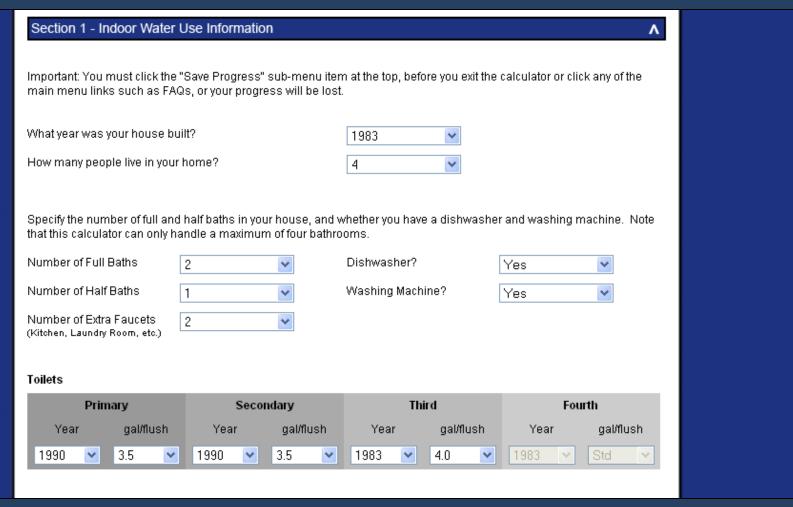
Once this information is entered, determine which retrofit actions you are interested in taking under the retrofit options pulldown menus. Based on your decisions, your 'Ranked Conservation Plan' will be produced. As you complete these steps, you will be able to view your changes graphically on the following spreadsheet as your water use approaches your conservation goals. Finally, the Water Use Calculator will produce an 'Irrigation Calendar' based on your plant material, environmental factors, and irrigation system information.

Please be sure to save your progress frequently as the calculator will time out after 15 minutes of inactivity.

Section 1

Indoor Water Use Information

Fixture Information

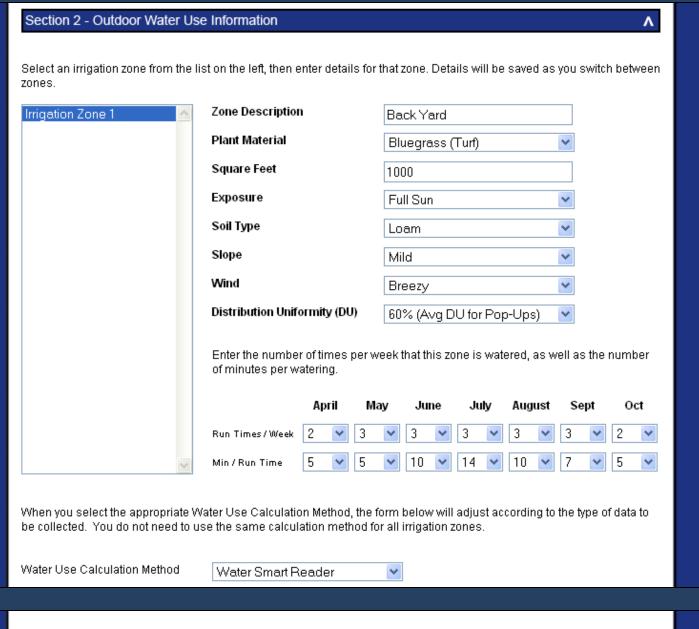


Usage Information

Total Use: How much does your family use each item per day? If unknown, national averages will be assumed. Total Total Total Total Toilet Use Shower Use **Bathroom Faucet Use** Additional Faucet Use 25 20 12 Flushes Minutes Minutes Minutes

Section 2

Outdoor Water Use Information



Section 3

Water Bill Information

Please enter your water use information for the past 14 months using your most recent water bill. If you do not have your most recent water bill, please click on the link below to view a copy. Enter each month's water consumption as it appears on your water bill, working from right to left on the graph on your water bill. After you enter your water bill numbers, click the update graph link to display the data.

What is your Aurora Water account number?

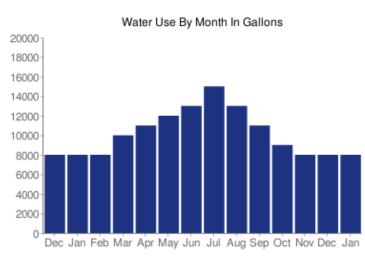
What is the street number of your billing address?

What is the month of your most recent bill?

Get a copy of your water bill.

12345-98756 1341 January





Update Graph

Section 4

Indoor Retrofits

Fixture Information

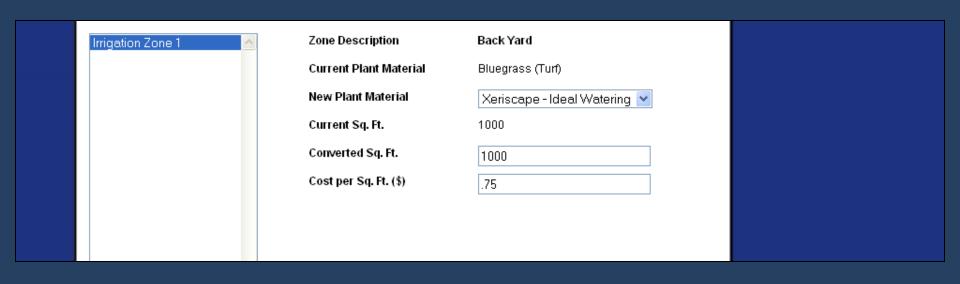
Section 4 - Indoor Retrofits and Behavior Changes ٨ You may choose to retrofit each item by choosing a retrofit option from each pull down menu. Rows that are disabled are not applicable to your property. Aurora Water offers rebates on high-efficiency toilets, washing machines, and Bluegrass to Xeriscape conversions. Click here to learn more about rebates. Toilets Cost per toilet is assumed to be \$150 for a 1.6 gpf toilet and \$250 for a 1.2 gpf toilet if left blank. Install Cost is assumed to be \$80 if left blank. New gal/flush Cost / Unit (\$) Install Cost (\$) Rebate* Current Primary 3.5 \$150.00 v 1.28 250.00 80.00 Secondary 3.5 \$ 0.00 1.6 150.00 80.00 Third 4 1.28 80.00 \$150.00 250.00 Fourth 0 No Change ✓ \$ 0.00

Usage Information

	Current Use	New Use	
Toilets	12.0	12	Flushes Per Day
Showers	25.0	25	Minutes Per Day
Bathroom Faucets	20.0	20	Minutes Per Day
Other Faucets	12.0	12	Minutes Per Day
Dishwasher	7.0	7	Loads Per Week
Washing Machine	10.0	10	Loads Per Week

Section 5

Outdoor Retrofits



Results

Totals and Savings Options

Total Cost & Total Savings

Total Upgrade Costs - Rebates

Total Gallons Saved / Yr

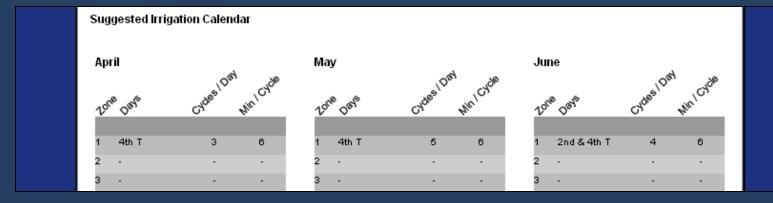
Total Money Saved / Yr

\$2075.00

94912

\$680.44

Description of Savings After 1 Year	Amount (\$)
Primary Shower Changes	\$ 118.11
Primary Bathroom Sink Changes	\$ 44.14
Secondary Bathroom Sink Changes	\$ 44.14
Kitchen Faucet Changes	\$ 29.40
Third Bathroom Sink Changes	\$ 19.57
Secondary Shower Changes	\$ 13.00
Secondary Extra Faucet Changes	\$ 7.29
•	\$ 0.00
•	\$ 0.00
-	\$ 0.00



How Did You Do?

Calculator

- 1. Primary Shower
- 2. Primary Bath Sink
- 3. Secondary Bath Sink

Your Results

- 1. ?
 - 2. ?
 - 3. ?

Rebates

Primary & Secondary Toilet Washing Machine Xeriscape

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Conservation Calculator

Primary & Secondary Showers Bathroom Faucets Kitchen and Extra Faucet Washing Machine

For the Customer Cost of \$600 53,000 gallons = \$279 / year

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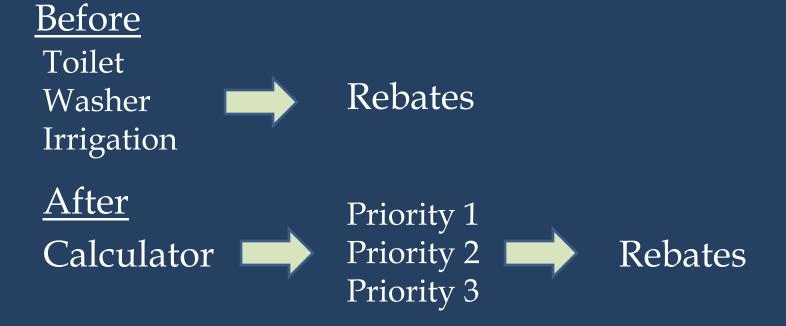
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Directing Conservation

Reinventing Customer Service



Customers become their own managers

Further Potential

When Drought Strikes

- Customers already using the calc will be able to manage their water more effectively and receive individualized updates
- Customers wanting to conserve will be able to quantify their savings as a result of their actions
- If necessary more field teams could be mobilized and the utility can quantify the savings

Conclusions

Although this analysis is for only one customer, the numbers challenge us to take another look at how we design and implement conservation programs. Providing customer service based on data collection and informed action could be a win for our customers and the utility.

QUESTIONS?

www.aurorawater.org/ConservationCalculator