



HOME ENERGY CHRONICLE

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There is a pot of gold at the end of the rainbow



Dwayne Wohlgenuth of the Rainbarrel Demonstration Project is shown here with some of the rainbarrel choices

Summer is here... Money is falling from the sky, and it will grow in your garden, if you plant one! The money is in the form of solar energy and rainwater, and also in the form of the fruits of your labor in the garden. After all, you reap what you sow.

This edition of the Home Energy Chronicle features the Rainbarrel Demonstration Project. This is a project about harvesting your rainwater and conserving your treated water.

In Edmonton, our average water consumption is 260 L per day per person, according to EPCOR. In other jurisdictions, it is considerably less. Frankfurt Germany, for example, has an average water consumption of 130 L per day, per person.

The summer season brings an increase in treated water demand for our water utility, which in Edmonton is EPCOR. "Residential irrigation represents the largest single contribution to "above median" demand during 1992" 1. This is something the homeowner has control over. Building a new water treatment plant is an expensive proposition, and the costs will be relayed to the consumer - you. Edmonton and area residents can avoid this by reducing their peak demand. We have provided the "Peak Demand Worksheet" for you to fill out to determine your peak demand for water, which usually occurs in summer, and your base water usage,

which is the amount of water one generally uses in winter. You will need to analyze your EPCOR bill to do this. If you bring in your worksheet, you are entitled to one of a number of free courses we are offering to project participants!

Why would you want to harvest your rainwater? First of all, it is free! And it is not treated with chlorine and fluoride, which is better for your plants and lawn. Not to mention that your plants will appreciate the warmer water temperature - getting blasted with icy cold water on a hot day doesn't make your plants any happier than it does you!

Another benefit to harvesting your rainwater is that no pumping is required - hence, no electricity cost, which is reflected in our cost of water. With less electricity being used, there will be less greenhouse gas emissions, which will assist us in honoring our global commitment to the Kyoto Protocol.

1 "Rain Catchment for Lawns and Gardens-A strategy to reduce peak water demands" M. Fraser Parsons, P. Eng. Water Conservation Engineer, The City of Edmonton Public Works, Gordon Johnston, M. Eng., P. Eng. Stanley Associates Engineering Ltd., Albert Kwan, M.Sc. P. Eng. Stanley Associates Engineering Ltd.

The Home Energy Chronicle is a series that will bring you important information and ideas on using gas, water and electricity in a more sustainable way, as well as some great solar applications. This issue will investigate the possibility of harvesting rainwater, the resource that is currently flowing down the drain when it is raining. Additionally, there are some cost effective, easy ways to significantly reduce your water consumption. Eating locally grown foods results in significant transportation savings. Keep this chronicle to add to the series that we started with the NorthSun99 Conference held in Edmonton. We are planning more for the future!

The Home Energy Chronicle is taking an easy-to-read look at saving energy, saving money and helping

Canada meet its obligations under the Kyoto protocol. At meetings in Kyoto Japan, Canada agreed, by 2012, to reduce carbon dioxide (CO₂) emissions levels by 6% from 1990 levels. Since Alberta's energy relies primarily on fossil fuels, a reduction in CO₂ means a reduction in energy consumption. Significant levels of energy efficiency and green energy from Alberta's emerging renewable energy industry would combine to achieve our Kyoto commitment, and ensure a prosperous economy and jobs.

We can easily lower our water bills by changing at least one lifestyle choice, appliance or piece of equipment in our house or apartment.

Read on and find out how many changes you could find easy to do. You might be surprised!

NOT EVERYTHING IS BLACK AND WHITE

The combined sewer system in Edmonton's older, more established neighborhoods creates a problem during medium to heavy rainfalls. All of the rainwater is drained from our street and alley system in the same sewer as our homes' drain lines. The sewage referred to as black water comes from our toilets, and grey water comes from our sinks, showers and washing machines. This sewage makes up the drainage from our homes. The sewage treatment plant cannot handle the volume of both rainwater and home drainage water together, so it discharges both directly to the river without any treatment. By disconnecting our downspouts, especially in the areas of the combined sewer system, we can reduce the amount of water directly entering the house drainage system. By addition of a rain barrel, we can actually delay and eliminate this drainage water from entering the system - or our basement!

You will note on your utilities bill, that there is now a drainage charge based on your lot area, development intensity, runoff coefficient and rate.

Question: Should we get a reduction of this charge if we collect our rainwater and keep it from the sewer system? Hmmmm...

Additional benefits go to the wastewater treatment plant, which uses electricity for its operations, if we can keep as much rain resource as possible on our property.