

Pinery Pipeline

May/June 2007

Pinery Water & Wastewater District – 303.841.2797

www.pinerywater.com



What exactly is “Xeriscaping”?

Xeriscaping is defined as an environmentally friendly form of landscaping that uses a variety of native and drought-tolerant plants, shrubs, and ground cover.

Xeriscaping does not:

- o Mean “Zero”scaping; there are 1000’s of plants (trees, shrubs & perennials), rocks, and whimsical accessories to choose from!
- o Lack color, personality or flowers! Enjoy blues, purples, yellows, reds, and oranges throughout the summer! For ideas and demo gardens, see <http://www.ext.colostate.edu/ptlk/1904.html>.
- o Require large amount of water to thrive! Efficient use of water doesn’t mean “no water”; it means being responsible for the water you use and reducing waste.

Lush and colorful landscaping is what xeriscaping is all about, while saving maintenance time and water!

Within a 60-minute drive from the Pinery, you can experience many wonderful xeriscape demonstration gardens:

- The No-Water Garden at the Cheyenne Mountain Zoo includes 2,200 sq ft. The plants in this garden have received *zero* supplemental water since they were planted!
- Aurora’s 3.4 acres at 15151 E. Alameda Pwky include 10 “package gardens” by *Beautiful By Design* and 4 specialty gardens.
- Black Forest’s Fire Station No. 1 occupies 11 acres of incredible gardens, including a memorial garden with benches.
- Located near The Garden of the Gods in Colorado Springs, check out the 600 species of trees, shrubs and perennials!
- Denver’s Botanic Gardens brings 55 years of gardening expertise . . . Don’t miss this one!

Many of the gardens provide brochures and interpretive signage so that you can pick and choose what might look great in your landscaping plan!

Also check out www.xeriscape.org for recommended books, garden tour schedules, composting tips, as well as planning and design seminars held throughout the Colorado Front Range!

Everyday Tips to conserve water . . .

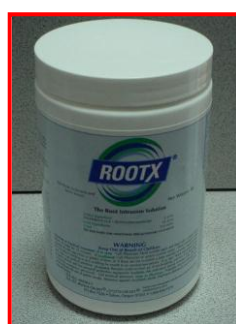
- Save 80 gallons of water by sweeping your driveway, instead of hosing it down!
- Keep a pitcher of water in the refrigerator instead of running the tap for a cool, refreshing glass of H₂O!
- Save 50 gallons of water a week by turning off the water while shampooing/conditioning your hair!
- Turn off the water when brushing your teeth; it will save nearly 4 gallons per minute!
- Turn the water off when shaving, that will save another 100 gallons a week.
- Save up to 20 gallons per load by choosing water-saving appliances, like front-load washing machines.
- Leftover ice in your fast food drink cup? Don’t throw it in the trash; dump it on your lawn!
- Save up to 1000 gallons each month by only washing clothes & dishes when you have full loads.
- Listen for dripping faucets and toilets . . . fixing that leak can save 500 gallons each month, or more!
- Also think about weeding your lawn . . . yes, those pesky weeds steal nutrients and water from the plants you want growing in your yard!



Whether indoors or outdoors, always be conscientious of ways that you can save and recycle water!

Annoying Roots Sneaking About?

For those Pinery residents living in areas with mature trees, roots can become a real problem if they



penetrate your sewer lines! *RootX* is a product that kills roots in the sewer line and prevents their re-growth for up to one year. Most importantly, it will *not* harm your trees!!! *RootX* can be purchased at the District office. Or, you can purchase similar products from your plumber, but **DO NOT PURCHASE PRODUCTS**

THAT CONTAIN COPPER SULFATE. The EPA has approved *RootX* for use in all fifty states. Please call the office at (303) 841-2797 for additional information.

Remember, We All Live Downstream . . .

Rain, snowmelt and over-watering move household pollutants to rivers, lakes and streams. Even actions taken around your home can impact water quality!

Auto Maintenance

- Never dump motor oil, petroleum products, antifreeze, transmission fluids, engine cleaners or battery acid down storm drains or on the ground.
- Recycle automotive maintenance products.
- If a spill occurs, do not rinse that area with water and don't ignore it! Use kitty litter or sawdust to soak up the fluid, then put it in the trash.

Yard and Garden

- Carefully read and follow label directions for use and disposal of pesticides, herbicides and fertilizers. Do not apply these chemicals if rain is likely since most will be washed away.
- Select pest-resistant plants to reduce the need for garden chemicals.
- Go "natural" whenever possible. Use natural fertilizers such as compost or bone meal. Hand pull weeds before they go to seed. Also, remove insects by hand; try insecticidal soap or a water hose.

Pet Waste

- Take a plastic bag or pooper scooper along when walking your pet at parks or around the neighborhood.
- Flush pet waste down the toilet -or- wrap pet waste securely and dispose of it in the trash.



Thanks to the League of Women Voters of Colorado Education Fund for these great tips!

A day in the life of a Lead Operator at the Wastewater Facility . . .



If you look up the word "multi-tasking" in the dictionary, you'll find a definition of a day in the life of Lead Operator, Shannon Wirtjes, at the Pinery Wastewater Treatment Facility.

The wastewater that comes in from the District's customers is treated through a biological process that naturally breaks down the sewage. Daily monitoring of the system is a must! For 10 years now, Shannon's day begins at 7AM with her daily lap around the facility collecting data from the various meters and analytical equipment, assessing how the plant ran over the previous 24-hour period and what needs to be done today to keep things running into tomorrow.

From each of the 12 (soon to be 24) tanks, samples are collected. Back in the Lab, the samples are filtered, sorting out liquids from the solids. Shannon weighs and dries the solid samples in an oven. She runs a number of tests from the filtered clearer liquid samples to verify that the "bugs" are healthy and that the "pollutants" are being removed in compliance with our discharge permit.

Testing then begins with sample preparation. The ammonia test takes an hour of sample distillation prior to testing. Phosphorous requires a sample "cooking" time of 35 minutes, then chemical additions before testing is complete. While these two tests are "cooking", Shannon is testing for nitrates and sulfates. Another test for the strength of the wastewater coming in and leaving the plant is started. This one requires a two hour acid digestion process and a 30 minute cool down before completion. There are timers everywhere!

Meanwhile, the ammonia and phosphorous are done "cooking". Chemicals are added to the samples and 10 minutes later color indicators evolve. This color change indicates the concentration of "pollutant" presence: ammonia turns yellow, phosphorous becomes blue. Color intensity is determined using a spectrophotometer and concentration calculated from the readings. Time to clean up glassware from the morning tests and a quick lunch!

In the afternoon, Shannon collects final effluent samples from the UV disinfection channel to begin the 24-hour coliform bacteria test. Effluent samples are also filtered for suspended and dissolved solids evaluation. Next, a titration test for chloride and the final reading on the COD test. Finally, the dried solids samples are removed from the oven and re-weighed so Shannon can calculate the quantity of "bugs" in the process. She determines how many to remove or leave in the process to balance with the amount of "food" coming into the plant to treat. From these calculations she makes pumping adjustments to balance the process out each day. And it's only one o'clock! But, before heading off to a kickboxing class at 4PM, Shannon has time to get caught up on data entry, calibrate a pH probe or two, order supplies, check to see if she is scheduled for weekend "on-call" duty (a 24/7 requirement every 4th week), or pull weeds in the garden. And always...get ready for another day at the WWTP.

