River Glen School

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Special Interest Articles:

- What Is a Watershed?
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WHAT IS A WATERSHED

By Vincent Trillo

A watershed is an area of land that drains water from creeks and rivers into a certain area or river. They can be very large or fairly small. Unless you live in a boat in the middle of the ocean, you live in a watershed.

To know what a watershed is, first you have to think of what happens at higher elevations. Water flows from natural underground springs and rain and snow melts to form natural headwaters and small streams. These streams move downhill and form successively larger bodies of water such as rivers and lakes. All of these streams, rivers, and lakes make up a watershed.

A watershed is more than an area with streams and rivers around towns, cities, and rural areas. Watersheds provide homes for plants and animals. They provide drinking water for animals and people. They can provide fun and opportunities for recreation such as boating and fishing.

Information from: Wetland and Watersheds, http://www.alaskanativeresources.com and All About Watersheds, http://www.watershedwatch.net/description.htm

MORE ABOUT WATERSHEDS

By Vicente Castellanos

A watershed is an area of land where all of the water under it or that drains off of it goes into a creek, river, lake, wetland, bay, or groundwater aquifer. The size of a watershed can be big or small. We all live in a watershed. Watersheds can be located anywhere.

A watershed is important, because the water we drink comes from the watershed whether we get the water from a reservoir or a well. The water in a watershed can become polluted from fertilizers, pesticides, chemicals, and animal wastes entering streams and rivers in the watershed.

If you want to protect the watersheds, join together with your community. Talk to others that are interested in getting started or find out what is already being done.

Information from: The Clean Water Book, http://www.nj.gov/dep/watershedmgt/cleanwaterbook/waterbook_chp2.htm

Our Local Watershed

By Gabriel Gomez

A watershed depends on where you live. Everyday you cross a few creeks, river branches, gulches, arroyos, or ditches. Those in your local area that eventually run into the Guadalupe River and then into the San Francisco Bay make up the watershed for the downtown San Jose area.

The Guadalupe River watershed drains a 170 square mile area that includes the cities of San Jose, Los Gatos, Monte Sereno, Campbell, and Santa Clara. It includes the following creeks: Guadalupe, Los Gatos, Ross, Alamitos, and Canoas.

In this watershed there are breeding colonies of gulls, terns, and skimmers. The watershed is an important stopover area on the Pacific Flyway for millions of birds during the spring and fall migrations.

Information from: Santa Clara Water District, http://www.valleywater.org/Water/Watersheds__streams_and_floods/Watershed_info_&_projects/Guadalupe/index.shtm

"The Guadalupe River watershed drains a 170 square mile area."

More on Local Watersheds

The Santa Clara County watershed and its basin covers three counties and is the home of 1.7 million people. There are at least six watersheds in this area. Three of the watersheds include San Jose. They are the Guadalupe River, West Valley, and the Coyote watersheds. The downtown area of San Jose is in the Guadalupe River watershed while East San Jose is in the Coyote watershed and West San Jose is in the West Valley watershed.

Housing and other developments around the watersheds have caused a lot of problems such as pollution and loss of habitat for many different kinds of animals. The clapper rail and the salt marsh harvest mouse are two endangered species that live in the wetlands near the San Francisco Bay, which are also part of the watershed. People are told not to eat the fish in the San Francisco Bay because of the mercury that has entered from pollution in the streams entering the bay. There has been other pollution of the waters in the watershed from run-off from farms, chemicals from industry, and pesticides. There are several different organizations that are trying to reduce pollution in our watersheds.

Information from: Regional Initiative Tackles Toxic Legacy by Michael Stanley-Jones http://www.svtc.org/resource/news_let/wmi99.htm

Garbage in creek in San Jose

Protect Our Watersheds

By Jenee Zepeda

Almost 10 million animals die every year from water pollution. Most of the water pollution happens when people dump their garbage in the water. Other ways the water gets polluted is when people dump chemicals in the water. These chemicals come from businesses, farms, homes, and boats. There are hundreds of chemicals that are discharged directly into our water.

Everyone can do something about water pollution. Some of the things that we can do about it are pick up the trash that we see in the water. We can stop people from dumping chemicals in the water. We can also join a team that helps other people understand the importance of keeping our water clean. The more we tell people about water pollution, the more they will help out cleaning the water.

Information from: Water Genius, http://www.watergenius.com/waterinfo/water_pollution.htm

Wastewater Management

By Heidy Ayala

Bicycle in a creek

Wastewater management is important to cities today. Wastewater management is the treatment of water from houses and businesses, so that when it goes into the ground or the bay it doesn't pollute the environment. Wastewater management protection begins in the watersheds. There must be good sewage treatment in all parts of the watershed.

Sewage treatment is the process that removes most contaminants from wastewater and produces a liquid that can be released into the natural environment and a sludge that goes through further treatment before it is deposited in a landfill. There are five different processes that happen in a wastewater treatment plant:

1) Sedimentation where the heavy particles settle to the bottom and the clear water moves to filtration;
2) Filtration which helps remove small particles;
3) Coagulation which removes dirt and other particles suspended in the water (alum and other chemicals are added to water to form sticky particles which attract dirt particles and sink to the bottom);
4) Disinfection where a small amount of chlorine is added or some other disinfection method is used to kill any bacteria. The clear water is then pumped into the bay or allowed to filter into the ground.
5) The sludge that remains is then treated using anaerobic digestion, aerobic digestion, and/or composting.

Information from: Water Education, http://www.sbwater.org/WaterTreatment.htm

Water Quality Reports

By Liliana Paniagua

The water we drink in San Jose has met all the water standards set by the EPA."

Each water district puts out a water quality report that lets people know whether the drinking water has met government standards or not. The San Jose water quality report states that the water that we drink in San Jose has met all drinking water standards set by the U.S. Environmental Protection Agency (EPA) and the California Department of Health Services. (DHS). The water district makes sure that our water is safe from contamination and is aesthetically pleasing to use.

Our drinking water comes from many sources. In San Jose much of it comes from wells. However, in other parts of America, water might come from rivers, lakes, streams, ponds, reservoirs, and springs in addition to wells. Water is tested at various locations in the distribution system by a private state-certified laboratory to make sure that it is safe. All water, including bottled water might contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate a health risk.

The water quality reports gives information about San Jose's water system. For example, in San Jose the annual water production is 7,312 million gallons of water and the maximum daily production is 36 million gallons. The water mains cover 329 miles.

The water quality report also gives the advice that we should save water during a drought. Water conservation is a cost-effective way to ensure a reliable water source.

Information from: San Jose Municipal Water Quality Report, http://www.sjmuniwater.com/waterqualityreport.htm

Water Conservation

Bv Martin Lomeli and Albert Ricardez

Saving water is important in today's world. There are many ways to conserve water. Some of them are:

1. You can save water by filling the sink with water when you are washing dishes. You wash the dishes with soap and then wash the dishes off with the water in the sink.
2. To save water you can keep a pitcher of water in the refrigerator instead of running the tap for a cold drink, so every drop goes down you and not the drain.
3. You can collect the water from rinsing vegetables and reuse it to water plants around the house.
4. You should turn off the water while you are bushing your teeth. That can save 200 gallons a week for a family of four people.
5. When the food you are cooking has to be boiled in water, just use a little bit of water.
6. If you turn the water off while you shampoo and condition your hair, you can save 50 gallons of water a week for each person.
7. If you turn off the water while shaving, you can save more than 100 gallons of water a week.
8. Bathe your pets outdoors on an area that needs to be watered such as your lawn.
9. When you give your pet fresh water, don't throw the old water down the drain or on the cement. Use it to water your trees, bushes, and grass.
10. Use a broom instead of a hose to clean your driveway or sidewalk.
11. Install low-volume toilets.
12. Wash your clothes when you have a full load.
13. Don't wash your car on your driveway. Take it to a car wash that recycles the water.
14. Plant during the spring and fall, instead of summer.
15. Install an irrigation system in your yard that lets you put the water exactly where it is needed.

Information from: Save Water, Money, Energy Now, http://www.wateruseitwisely.com/100ways/sw.html

Turn off the faucet.

Middle school students in the RSP class at River Glen School wrote the articles in this newsletter. The pictures were taken by Mary Howland or downloaded from Clipart.com.