

Sowing the Seed

Published by the North Platte Natural Resources District

www.npnrd.org/education

Vol. I, No. 1

Upcoming Events

• Monthly Board Meeting

Second Tuesday at 3:00 pm
at the NRD office
in Scottsbluff

• 2016 NPRND Photo Contest

January - June 30
July - December 31st

Youth category,
For more info

<http://www.npnrd.org/north-platte-nrd-photo-contest/>

• National Ground Water Week

March 6-12

• Great American Cleanup

Months of March and April

• Earth Day

April 22

• Arbor Day

April 29th

• Let's Rock

May 10th - 11th

Where Does Our Water Come From?

When children are asked “where does our water comes from”, we get a variety of answers such as: lakes, the river, underground, and from the faucet. Even many adults do not know where our water comes from. The answer is very simple, our water comes from the mountains.

March 22 was World Water Day, and earlier in March was Groundwater week, so it is important to get a perspective on how much water there is in the world, and how little we get to use. Of all the water in the world, only three percent is freshwater, and two-thirds of the freshwater is locked up in the polar ice caps. That just leaves one percent of all the Earth's water available for drinking water, irrigation, industrial use, and many others. About ninety-nine percent of the available freshwater is located underground.

Nebraska is blessed to have an abundance of water resources. It has the most miles of rivers than any state in the continental United States. Seven major river systems flow through Nebraska. They are the Platte, Loup, Elkhorn, Blue, Niobrara, Republican, and Missouri. Because of river systems, Nebraska also boasts one of the most extensive aquifer systems in the world.

The panhandle of Nebraska is a little different. A semi-arid climate does not provide the

Water, continued on Page 2



One of many canals that meander through our District



Wolf explains to students about the importance of recycling.

Earth Day and Arbor Day Presentations

April is a very important month for conservation. The North Platte NRD believes that education about important issues such as pollution, recycling, water contamination, and others will only strengthen our mission of protecting and managing our natural resources.

David Wolf, Information/Education Coordinator, talks about how important it is to get the younger generations involved in protecting nature.

Trees, continued on Page 3

Natural Resources Science Camp Opportunities

Nebraska's Natural Resources Districts are asking all interested students to sign up for the third annual Adventure Camp about the Environment (ACE). ACE is for middle school students who have completed sixth, seventh or eighth grades in the 2015-2016 school year and are interested in having fun and learning about Nebraska Natural Resources. ACE is hosted at the State 4-H Youth Camp near Halsey, June 12th - 15th, and is organized by the Nebraska Natural Resources Districts (NRDs) and the Nebraska Association of Resources Districts (NARD).

The four-day adventure camp focuses on water resources, soil and land, forestry, range and grassland, and wildlife, while educating campers through hands-on activities on the importance of protecting our natural resources. During ACE, campers have the opportunity to roll up their sleeves and dig into nature and form a new understanding of the environment through interactive participation.

In addition, campers have the chance to experience nature through other activities such as tubing, archery, zip line, water rock-

ets, the water slide and other adventures. Campers will learn about possible careers in the area of natural resources from the professionals who work in it every day. This is a great opportunity for youth to learn about natural resources through hands-on activities with experts who are excited about natural resources.

Fees and registration are \$190.00 dollars per camp-



Student learn about a variety of natural resource topics. Here students learn the difference in soil types from soil scientist Angie Elg.

er. ACE is sponsored by Nebraska NRDs, NARD, Hooker County Turner Youth Initiative, the Nebras-

ka Environmental Trust and Nebraska Academy of Science, Inc. Nebraska NRDs and the NARD partnered with several organizations to help make the camp a success, including the University of Nebraska, Nebraska Natural Resources Conservation Service, Nebraska National Forest, Nebraska State 4-H Camp, and Nebraska Pheasants Forever.

Applicants that wish to apply for a scholarship must complete the registration form and submit a letter of recommendation by May 13th to the North Platte NRD office, P.O. Box 280, Scottsbluff, NE 69363-0280. The scholarships are open to students that live in Scotts Bluff, Banner, Morrill, Garden, and southern Sioux counties. The approved applications will then be forwarded to the appropriate camp headquarters by May 29th. The applications who do not receive a scholarship will be contacted in time for the students to submit it to the camp. For more information, contact David Wolf at (308) 632-2749.

Water continued from page 1

necessary recharge for the shallow aquifers in our area. There is no doubt that when pioneers first came to the area, they referred to it as the "Great American Desert." Settlers that braved the environmental challenges to raise both crops and livestock were at the mercy of the amount of precipitation that nature would provide them.

Because of the droughts in the 1800's, producers had to improvise. Small irrigation ditches were built off the North Platte River and its tributaries to supplement water for crops. Irrigation allowed producers to supplement the crops with water when the rains did not come. It helps mitigate the risks associated with dryland farming and increased yields.

This phenomenon was happening all over the country. The Bureau of Reclamation was created to help build storage reservoirs and delivery infrastructure for irrigation, which will catch snow runoff from the mountains, store it in reservoirs, and then delivered to the fields when it is needed. The purpose was to keep the water in places where water was limited and use it when rainfall was insufficient.

Starting in northern Colorado, the North Platte River runs through southern and central Wyoming before it comes into Nebraska near Henry. The river has seven reservoirs on it and one on the Laramie River that provide water for irrigation, hydropower, and recreation. Over the years, irrigation water has provided recharge for the aquifers through flood irrigation and water seeping out of the bottom of the canals.

Our area is unique to the rest of the state because over half of the irrigation districts and canal companies in the state are located along the North Platte River. With very little naturally occurring ground water, the surface water development allowed for a reliable source for recharge of ground



Above - Seminole Reservoir is the upmost reservoir on the North Platte River.

Below - Whalen Dam located near the Nebraska/Wyoming border provides diversions for Interstate and Fort Laramie Canals.



Continued on page 3

Trees, continued from page 1

"Most students know what they can recycle, but they do not know what products the recyclables are turned into. It is also good to remind them that effects of pollution has on our natural environment."

Earth Day and Arbor Day are celebrated all over the world, and the NRD has a variety of presentations on a variety of topics related to trees and recycling and can be modified to fit any particular topic the teacher desires.

Trees are an amazing resource that humans continue to use, and our world would look very different without them. Trees provide us food, shelter, heat, and are in many of the products we use every day. The NRD provides a variety of presentations on trees that includes a general tree presentation, how to plant trees, products from trees, and more.

The NRD has sold over 5.2 million conservation trees in the past 42 years and are committed to providing conservation trees to landowners and producers.

Last year, we visited over 12 schools and 79 classrooms. Time slots will fill up quickly, so please contact Wolf at dwolf@npnrd.org or call him at 632-2749. Tree samplings are available for students. The NRD has partnered with Keep Scottsbluff/Gering Beautiful to provide recycle bins for each classroom. Please let Wolf know if you would like trees or if you need a recycle bin.



Wolf talks to students about household products which come from trees.

Water Presentations Available

The North Platte NRD also provides a variety of water presentations for all grade levels. The presentations cover a wide range of topics.

The NRD utilizes a ground water model that helps demonstrate how ground water flows underground, interconnectivity with surface water, and how pollution can infiltrate into the ground. We also utilize a stream water table to help simulate river and stream flows and talk about the North Platte River system.

Each presentation is very interactive and some are hands on. Wolf likes to engage the students by asking a variety of questions and injects humor to make it fun. All presentations are free of charge and can be modified to meet specific specifications.

Contact David Wolf at dwolf@npnrd.org to schedule a presentation.

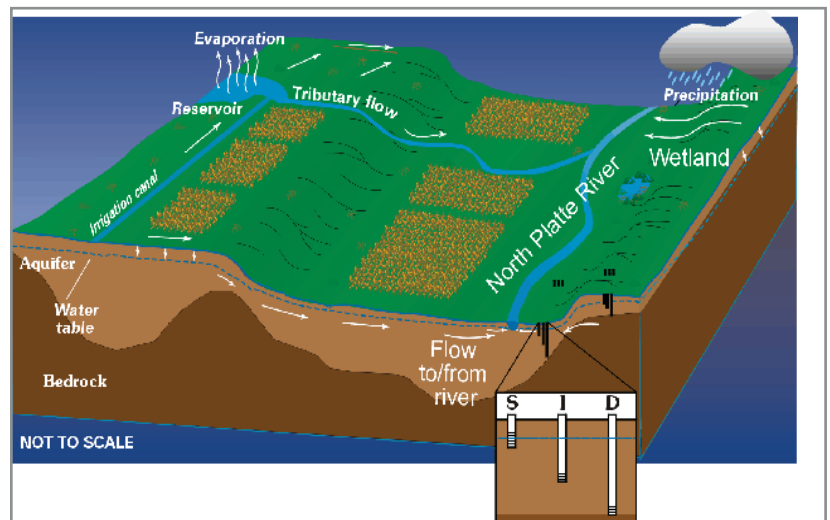
water, and the aquifers began to grow.

Much like the development of surface water, ground water is often used when surface water or precipitation is not available. Surface water deliveries can change depending on many different factors including: water in storage, precepitation, and need. Ground water can also provide a source of water that surface water canals cannot reach. It is also less time and labor intensive to turn the pivot on instead of laying tubes or setting pipes. If not intercepted by crops or other plants, ground water eventually makes it way to streams or back to the river.

Water is one of our most precious resources. Our water system is very dynamic, but it depends on the runoff we get from the mountains. We are able to sustain agriculture, because we store water in our reservoirs. We get into trouble when we experience long term drought and little snowpack.

The North Platte NRD is responsible for managing and protecting the District's natural resources. Some of their responsibilities are protecting ground water from nonpoint-source pollution (such as the leaching of chemicals from a large area). The NRD has set up a ground water quality Management sub-area to prevent and mitigate contamination of ground water by nitrates. They extract and test samples throughout the district to ensure that contaminates are not being added to the ground water supply.

They also record data from 800 monitoring wells, three times a year, to record water levels. The data is then incorporated into a very sophisticated model that helps evaluate water management decisions. NRDs also have the power to respond to conflicts between users of ground water and surface water, help prevent erosion of top soil, flood control, forestry, range management, wildlife habitat, soil conservation, and much more. Go to www.npnrd.org for more information about the North Platte NRD.



Sowing the Seed

Published monthly by the North Platte Natural Resources District,
100547 Airport Road, Scottsbluff.

Mailing: P.O. Box 280, Scottsbluff, NE 69363

Phone: 308-632-2749

Fax: 308-632-4346

E-mail: dwolf@npnrd.org

World Wide Web: <http://www.npnrd.org>

Board of Directors: Gerald Dillman, Gary Darnall, David Ostdiek, Pete Lapaseotes, Jr., Dave Deines, Dan Weinreis, Chuck Henkel, Roger Eirich, and Kent Andreas

District Manager: John Berge

Editor: Dave Wolf



Top left: Student helping Wolf demonstrate ground water pollution with the ground water model. Top right: Wolf explains how much water we have in the world, and how much is actually available to humans. Near below: Roy Lyles demonstrates how to plant a tree. Below left: Wolf uses a stream table to explain how rivers form and how flooding effects cities, farm land, and natural spaces. Far below: Wolf answer questions about recycling.

