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Nez Perce Soil & Water Conservation District
www.nezperceswcd.org

Forever Soil & Water

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Cover photo:
 Old Culdesac Grade by
 Amanda Schwartz

Local Student Named Hutton Scholar

Jaide Wilhelm was chosen as one of the 36 students who participated in the 2007 Hutton Junior Fisheries Biology Program, an innovative education program sponsored by the American Fisheries Society (AFS). Wilhelm, a Junior at Lapwai High School, was working with Conservation District staff at the District office in Culdesac,

The Hutton Junior Fisheries Biology Program is a summer mentoring program for high school students sponsored by the American Fisheries Society.

Idaho and was awarded a scholarship from AFS.

The Hutton Junior Fisheries Biology Program is a summer mentoring program for high school students sponsored by the American Fisheries Society. The principal goal of the Hutton Program is to stimulate interest in careers in fisheries science and management among groups underrepresented in the fisheries professions, including minorities and women. Application to the program is open to all sophomore, junior, and senior high school students regardless of race, creed, or gender. Students selected for the program are matched with a professional mentor in their area for a summer-long, hands-on experience in a

marine or freshwater setting. A scholarship of \$3,000 is awarded to each student accepted into the program.

The Hutton Junior Fisheries Biology Program was named in honor of the late Dr. Robert F. Hutton. Dr. Hutton was the American Fisheries Society's first Executive Director, serving from 1965-72, and the AFS President from 1976-1977. In addition to his significant contributions to AFS, Dr. Hutton was a renowned marine fisheries administrator with the National Marine Fisheries Service and was known for his support of youth education as a dedicated member of the National Conservation Committee of the Boy Scouts of America.



Jaide Wilhelm, 2007 Hutton scholar

For information on the American Fisheries Society and the Hutton Junior Fisheries Biology Program, please visit the AFS website at www.fisheries.org.

Idaho's Wetland Wonders

Wetlands filter out pollutants to improve water quality. Wetlands also reduce the impacts of flooding by acting as natural buffers to slow, absorb, and store significant amounts of floodwater. Their ability to store and filter water helps to protect and replenish surface and underground drinking water sources.

Abundant vegetation and shallow water provide diverse habitats for fish and wildlife. Idaho's wetlands provide critical habitat for many threatened and endangered species including bald eagles, grizzly bears and bull trout. In addition, they provide habitat for various species of concern such as sage grouse, redband trout, sandhill cranes, cutthroat trout, and trumpeter swans.

What Can You Do?

Farmers and ranchers interested in creating, restoring, or enhancing wetlands on their property have the opportunity to receive financial and technical assistance

continued on page 3

Report: Ground Water Pumping Poses Serious Threat to the West's Fish and Wildlife Resources and Senior Surface Water Right Holders

Policymakers must take steps to reduce impact of ground water use on rivers and streams

Boulder, Colo. – A groundbreaking analysis that examines the relationship between ground water and surface water has recommended that state and local policymakers address the unsustainable use of ground water head-on through new programs and management strategies in order to reduce a growing threat to the West's rivers and streams.

The report, *Gone to the Well Once Too Often: The Importance of Ground Water to Rivers in the West*, states that ground and surface water are connected to each other and as a result, pumping ground water can and in many cases is affecting river flows.

It found that the growing reliance of ground water development for irrigation, industrial development and drinking water in the West has caused those sources to be over-appropriated in many regions, resulting in low stream flows and poor water quality. In some states, the problem has become so critical that bans have been implemented on new ground water developments in certain regions.

"In too much of the West, new water users start using ground water because river flows are insufficient. Ground water is seen as a new source to solve their water needs, but ground and surface waters are not separate and will rise and fall together. Ultimately, rivers bear the burden," the report noted.

The 22-page report was prepared by the national conservation organization Trout Unlimited to provide the information necessary for citizens, legislators and others to understand the link between ground and surface water and to address challenges surrounding a growing reliance on ground water.

The report includes case studies of the Wyoming Powder River Basin, California's North Coast, Colorado's South Platte River Basin, Arizona's Verde River, Montana's

Gallatin Valley, and Nevada's Humboldt River Basin and cited several examples to emphasize the seriousness of the problem, including:

- Arizona's San Pedro River, where ground water pumping has reduced the river's flow by two thirds and only two of thirteen native fishes remain. The river went dry for the first time on record on July 5, 2005, and remained dry for 8 days.
- California's failure to require state permits for ground water as for surface water presents special challenges for protecting a key spring-fed spawning tributary to the hallowed McCloud River from a proposed Nestlé water bottling plant.
- Colorado's San Luis Valley, which supports large concentrations of resident and migratory water birds but has had many of its acres of wetlands disappear due to an increase in ground water use in the valley since the 1960s.
- Montana's South Fork of the Smith River, which has completely dried up during the height of the irrigation season due to ground water pumping for irrigation.
- New Mexico's eastern border playa lakes, which have dried up due to over pumping in the Ogallala Aquifer. The playas provide critical flyway habitat for north-south migratory birds.

- Idaho's Big and Little Lost River basins – where more than half of all irrigation water is pumped from ground water wells – has seen sections of a river that provides important habitat for ESA-listed bull trout and mountain whitefish dry up.

- Wyoming's Powder River Basin, where coal bed methane natural gas development has become prominent during the last decade, the prairie aquatic ecosystems are now at risk because of the deep-aquifer dewatering.

- Eastern Washington's Odessa Aquifer, which has experienced declining water levels of up to ten feet per year that, in turn, is decreasing surface flows

and impacting streams that support threatened fall Chinook salmon and steelhead.

Melinda Kassen, director of Trout Unlimited's Western Water Project said that the problem of excessive ground water depletions can be addressed.

"The bad news is that ground water pumping is inflicting serious damage to surface water sources throughout the West and the problem is only going to get worse if nothing is done. The good news is that there are common sense approaches to this problem that won't cause further damage to the environment and will still allow local economies to flourish," she said.

According to the report, such strategies include wise water use through efficiency, conservation, and reuse; managing ground and surface water resources together in a way that not only shares shortages, but protects river base flows; replenishing ground water supplies through aquifer recharge either by buying water from existing users or injecting water back into the ground during extremely wet years when a system has large quantities of unused and unappropriated water; the creation of water banks especially in conjunction with highly over-appropriated rivers; more effective administration of ground and surface water resources using reliable data and more accurate models; and the reconsideration of existing state regulations and loopholes that exempt thousands of small household wells.

"Everyone has a stake in creating dependable water supplies that won't destroy the environment or the rights of senior water right holders. To achieve that, we need to adopt common sense ground water reforms, conservation measures, and other strategies that will allow the West to grow while protecting our rivers, and the fish, wildlife, and people—all of us—that depend on them," said Kassen.

Gone to the Well Once Too Often: The Importance of Ground Water to Rivers in the West, was reviewed by a number of noted water experts. A full copy can be obtained online at <http://www.tu.org/groundwater>.

Source: Trout Unlimited, <http://www.tu.org>

"In too much of the West, new water users start using ground water because river flows are insufficient. Ground water is seen as a new source to solve their water needs, but ground and surface waters are not separate and will rise and fall together. Ultimately, rivers bear the burden..."

Forever Soil & Water

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Cow Creek Activities Update

The Nez Perce and Latah Soil and Water Conservation Districts have been working with landowners in the Cow Creek watershed to improve water quality. Both Districts contracted with 15 landowners to improve nitrate and phosphorus water quality concerns. The Districts received an Environmental Protection Agency (EPA) Clean Water Act section 319 grant for the identified improvements.

A Total Maximum Daily Load determination was completed for the watershed in 2006. The TMDL listed nutrients, temperature and habitat alteration as the pollutants of concern.

Background

The federal Clean Water Act requires that states and tribes restore and maintain the chemical, physical, and biological integrity of the nation's waters. States and tribes must adopt water quality standards necessary to protect fish, shellfish, and wildlife while providing for recreation in and on the waters whenever possible.

Section 303(d) of the Clean Water Act establishes requirements for states and tribes to identify and prioritize water bodies that are water quality limited (i.e., water bodies that do not meet water quality standards). States and tribes must periodically publish a priority list of impaired waters, currently every two years. For waters identified on this list, states and tribes must develop water quality improvement plans known as total maximum daily loads (TMDLs) that establish allowable pollutant loads set at levels to achieve water quality standards.

Overview

Cow Creek is considered to be both a second and third order tributary of the Palouse River in the southern part of Latah County and northern part of Nez Perce County, Idaho. The creek flows primarily southwest for about 18.5 miles before it enters Union Flat Creek. A sewage lagoon facility is located along Cow Creek just downstream of the City of Genesee.

Low flow periods in Cow Creek between July and September coincide with periods of diurnal dissolved oxygen exceedances in both the intermittent and perennial reaches of the watershed. This TMDL is intended to manage in-stream phosphorus concentrations, reduce aquatic plant growth, and enhance dissolved oxygen during the mid- to late-summer critical flow period between July and September.

The Genesee wastewater treatment lagoon is the only point source permitted to discharge in the Cow Creek watershed. In February 2005, the U.S. Environmental Protection Agency (EPA) issued a National Pollutant Discharge Elimination System (NPDES) permit to the City of Genesee allowing discharge year round. Historically, the city only discharged from November to July. The city anticipated the need to discharge year-round due to increasing influent flows and required lining of the

lagoons to eliminate seepage. The new permit requires the city to monitor effluent quality and the receiving surface waters of Cow Creek. Surface water monitoring is required for temperature, pH, total phosphorus, and ammonia.

This TMDL provides a wasteload allocation for the wastewater treatment lagoon for total phosphorus of 0.60 kilograms/day during the annual critical low flow period of June through September.

The primary nonpoint sources of pollutants in the Cow Creek watershed are non-irrigated croplands and grazing lands. The entire length of Cow Creek and its tributaries typically receive pollutants from agricultural fields during rainfall and snow melt. Nutrients

associated with sediment also enter the creek at these times from fields and unstable banks. During the summer low-flow periods, portions of Cow Creek experience temperature increases and low dissolved oxygen concentrations.

A TMDL was developed for nutrients (total phosphorus) for Cow Creek. TMDLs were not developed for temperature or habitat alteration. It is recommended that Cow Creek remain on the §303(d) list for temperature and that a temperature TMDL be deferred until additional data can be collected to determine if a TMDL is needed.

The federal Clean Water Act requires that states and tribes restore and maintain the chemical, physical, and biological integrity of the nation's waters. States and tribes must adopt water quality standards necessary to protect fish, shellfish, and wildlife while providing for recreation in and on the waters whenever possible.

The EPA does not consider habitat alteration to be a pollutant as defined by the Clean Water Act. Since TMDLs are not required for water bodies impaired by pollution but not pollutants, a TMDL was not developed for habitat alteration.

Additional information can be found at:

http://www.deq.state.id.us/water/data_reports/surface_water/tmdls/cow_creek/cow_creek.cfm

Wetland Wonders, *continued from page 1*

through cost-share programs. These programs provide incentive payments to return farmlands that were previously wetlands back to their original state.

Homeowners can help too, by constructing their own backyard wetland to serve as habitat for wildlife and as filters for excess pesticides and nutrients. NRCS' publication "Backyard Conservation" offers a guide to constructing backyard wetlands. Copies are available from your local NRCS office or by visiting www.id.nrcs.usda.gov. NRCS does not offer financial assistance for backyard conservation.

Learn about more ways to protect against wetland loss and degradation in your area. For information contact the Nez Perce Soil and Water Conservation District at 208-843-2931.

Tree Tube Assembly

By Amanda Schwartz

This fall Mrs. Schlee's FFA Class got involved in the Conservation Districts tree tube assembly. Every year the District takes a few weeks to assemble these tubes to keep the seedlings safe from the elements and rodents out on the planting sites. This year we contacted the school to see if they were interested in being involved in our conservation efforts, and to our pleasant surprise, they were, and the students far exceeded our expectations. Dash Dieringer, a District Field Technician, went to the school and taught the class how to assemble the tubes, the students picked it up in no time, and before we knew it, they had put together an estimated 4,000 tree tubes within two weeks time. It was a great learning experience for the students to help raise awareness on conservation, and what is involved in our process for land preservation.

The District looks forward to working with the school in the future in different projects, to help educate the younger generation on doing their part to help preserve our resources for their generation, and the many generations to come.



Pumpkin Patch Kids

By Amanda Schwartz

For the last five years Karen & Ralph Schwartz have been inviting the Summit Academy School children to come down to the Schwartz Farms Pumpkin Patch and pick their very own Pumpkin. This year the field trip included the pre-school class, and the 3rd and 4th grade classes, siblings, and parents.

The festivities start with a "pick your own pumpkin" extravaganza, followed by hot cider, hotdogs and a bag of chips. Karen says that she really enjoys this event, and she is glad that she can do it. It is free of charge to the school, the pumpkins, the meal and the unforgettable Fall Memories.



Soil Facts

- *Soil by any other name is still soil.*
- *Did you know that there are more living individual organisms in a tablespoon of soil than there are people on the earth?*
- *Did you know that putting clay on your face in the form of a "mud mask" is done to cleanse the pores in the skin?*
- *Did you know that about 70% of the weight of a text book or glossy paged magazine is soil?*
- *Did you know that 75% of the earth's crust is made up of two elements, silica and oxygen?*
- *Did you know that almost all of the antibiotics we take to help us fight infections were obtained from soil microorganisms?*
- *Did you know that of all the water on the earth only about 2% is fresh water?*
- *Did you know that agriculture is the only essential industry on earth?*
- *Did you know that the amount of pore space in natural soils everywhere on the earth is about 50%?*
- *Did you know that soil is a non-renewable natural resource?*
- *Did you know that the best china dishes are made from soil?*

Origin of Wheat

Adapted from an article by Lance Gibson and Garren Benson, Iowa State University, Department of Agronomy

History and Origin of Wheat

Wheat is grown on more land area worldwide than any other crop and is a close third to rice and corn in total world production. Wheat is well adapted to harsh environments and is mostly grown on wind swept areas that are too dry and too cold for the more tropically inclined rice and corn, which do best at intermediate temperature levels.

Wheat is believed to have originated in southwestern Asia. Some of the earliest remains of the crop have been found in Syria, Jordan, and Turkey. Primitive relatives of present day wheat have been discovered in some of the oldest excavations of the world in eastern Iraq, which date back 9,000 years. Other archaeological findings show that bread wheat was grown in the Nile Valley about 5,000 B.C. as well as in India, China, and even England at about the same time. Wheat was first grown in the United States in 1602 on an island off the Massachusetts coast. Man has depended upon the wheat plant for himself and his beasts for thousands of years. A global wheat failure would be a disaster that few nations could survive for even one year.

Although the so-called bread wheats are common to most of us, there are many uncertainly related species that make up the genus *Triticum*. This likely was due to a number of natural crossings with wild species during its early evolution. Some of the species closely related to our common wheats would be einkorn, emmer, durum, and spelt.

Predominant Growing Areas for Wheat

In 2000, world wheat production was approximately 21 billion bushels. This was grown on approximately 520 million acres. About 36 percent of the world production is in Asia with about 17 percent in Europe Union countries and 16 percent in North America. World leaders in order of wheat production are the China, India, United States, France, and Russia. Marked increases in wheat production in China and India since the early 1960's is one of the greatest success stories of modern agriculture.

The United States grew just over 62 million acres of wheat in 2000 with an average yield of 41.9 bushels per acre. The top states in acreage grown are Kansas, North Dakota, Montana, Oklahoma, and Washington. Other leading producers are Texas, Colorado, Nebraska, South Dakota and Minnesota.

About 70 percent of the wheat planted in the United States is winter wheat (fall seeded). Of the remaining wheat acreage, 24 percent is planted to spring wheat (spring seeded) and 6 percent to durum (spring seeded). Although five major classes of wheat are grown in the United States, the two major wheats are hard-red spring and hard-red winter, and both are bread wheats. Iowa is a very minor producer, having only 20,000 acres in 2000, compared with 500,000 acres in 1910. A major processing plant for making pasta products from durum wheat is located in Ames, Iowa.



Primitive relatives of present day wheat have been discovered in some of the oldest excavations of the world in eastern Iraq, which date back 9,000 years.

Uses of Wheat

Although useful as a livestock feed, wheat is used mainly as a human food. It is nutritious, concentrated, easily stored and transported, and easily processed into various types of food. Unlike any other plant-derived food, wheat contains gluten protein, which enables a leavened dough to rise by forming minute gas cells that hold carbon dioxide during fermentation. This process produces light textured bread.

Wheat supplies about 20 percent of the food calories for the world's people and is a national staple in many countries.

Wheat supplies about 20 percent of the food calories for the world's people and is a national staple in many countries.

In eastern Europe and Russia, over 30 percent of the calories consumed come from wheat. The per capita consumption of wheat in the United States exceeds that of any other single food staple. Besides being a

high carbohydrate food, wheat contains valuable protein, minerals, and vitamins. Wheat protein, when balanced by other foods that supply certain amino acids such as lysine, is an efficient source of protein.

Various classes of wheat are used for different purposes. The major classes used for bread in the United States are hard-red spring and hard-red winter. These are the major wheats grown in the Great Plains of the United States. The dominant hard-red spring wheat states are North Dakota, Montana, Minnesota, and South Dakota. The major hard-red winter producing states are Kansas, Oklahoma, Texas, Colorado, and Nebraska. In recent years, some production of hard white wheat has begun in the hard red winter region. These wheats are of higher quality than red wheats, but have been prone to preharvest sprouting. Extensive crop breeding efforts have created modern cultivars that are less susceptible to sprouting than those available in the past.

Durum wheat is produced mainly in very limited areas of North Dakota and surrounding states. Common foods produced from durum wheat are macaroni, spaghetti, and similar products.

Soft red winter wheat is grown principally in the eastern states. Ohio, Missouri, Illinois, Indiana, and Arkansas lead in production of these wheats. Soft wheats are softer in texture and lower in protein than hard wheats. Wheats of this class are generally used in the manufacture of cakes, biscuits, pastry, and other types of flours.

Soft white wheats are soft wheats grown mainly in the northwest areas of the country. Washington, Oregon, Idaho, and Michigan are leading producers. Soft white wheats are used principally for pastry flours and shredded and puffed breakfast foods.

In summary, wheat is the major ingredient in most breads, rolls, crackers, cookies, biscuits, cakes, doughnuts, muffins, pancakes, waffles, noodles, pie crusts, ice cream cones, macaroni, spaghetti, puddings, pizza, and many prepared hot and cold breakfast foods. It is also used in baby foods, and is a common thickener in soups, gravies, and sauces. Germ, bran, and malt are additional types of wheat products.

Much of the wheat used for livestock and poultry feed is a by-product of the flour milling industry. Wheat straw is used for livestock bedding. The green forage may be grazed by livestock or used as hay or silage. In many areas of the southern Great Plains, wheat serves a dual purpose by being grazed in the fall and early spring and then harvested as a grain crop. Industrial uses of wheat grain include starch for paste, alcohol, oil, and gluten. The straw may be used for newsprint, paperboard, and other products.

A bushel of wheat weighs 60 pounds.

USDA, DOI, and AFWA Sign Habitat Credit Trading Agreement

USDA Natural Resources Conservation Service Chief Arlen Lancaster, DOI Fish and Wildlife Service Director Dale Hall, and Association of Fish and Wildlife Agencies' Executive Director Matt Hogan signed a partnership agreement to evaluate endangered species habitat credit trading as supplemental way to preserve endangered species habitat. Through cooperative conservation efforts, the signing agencies will explore ways to coordinate related programs and activities to assist habitat credit trading markets as way to increase the conservation of endangered or at-risk species habitat.

Conservation banking creates an opportunity for landowners to generate income for their contribution to the preservation of endangered or at-risk species habitat. Habitat credit banks act a lot like a savings account but instead of money, credits are earned for land preservation of the habitat. The credits can then be sold to land use industries or others, who are required to mitigate the loss of habitat by the Endangered Species Act and other laws that restrict or prohibit development.



Partnership to preserve endangered species habitat. NRCS Chief Arlen Lancaster, DOI Fish and Wildlife Service Director Dale Hall, and Association of Fish and Wildlife Agencies' Executive Director Matt Hogan agree to evaluate endangered species habitat credit trading as supplemental way to preserve endangered species habitat. USDA image

Source: <http://www.nrcs.usda.gov/NEWS/>

USDA Proposes Market-Based Conservation



USDA proposes market-based conservation. Under Secretary Mark Rey (center), Michael Jenkins (left) of Forest Trends, and Clyde E. 'Skip' Rankin of the Baker & McKenzie law firm were part of an April 12th briefing on the future of market-based conservation. NRCS image.

Mark Rey, Under Secretary for Natural Resources and Environment, conducted a briefing on market-based conservation, a component of the Conservation Title in the Administration's proposal for the 2007 Farm Bill. The goal of market-based conservation is to take conservation beyond the boundaries of the farm, ranch, and forest and develop a system that will make environmental credit trading mainstream. USDA's proposal for market-based conservation starts by establishing a board to develop and agree upon uniform standards for environmental credit trading. USDA has taken an initial step by signing partnership agreements with EPA to develop water quality credit standards, and with the U.S. Fish and Wildlife Service to develop habitat credit trading standards.

Other elements of market-based conservation that will improve environmental performance include:

- Modifying certain conservation and forestry programs to include market mechanisms that provide additional incentives for greater environmental returns on federal and landowner investments;
- Linking buyers and sellers of environmental credits by defining and identifying who the players and how to bring them together; and
- Expanding green labeling options by promoting the creation and marketing of conservation-friendly labels for producers who meet a certain minimum environmental threshold.

USDA Readies \$257 Million in Conservation Security Program Contract Payments



CSP rewards producers who practice good stewardship and offers incentives to increase conservation on agricultural operations. This voluntary program, established as part of the 2002 Farm Bill, supports ongoing conservation stewardship on private agricultural working lands.

Agriculture Department Acting Secretary Chuck Conner announced that nearly \$257 million in Conservation Security Program (CSP) payments are being readied for all 19,393 contracts with eligible landowners and producers. The payments are for current contracts in all 280 CSP watersheds. CSP contract holders will receive payment in full for the current Fiscal Year 2008 contract obligations and will be given the option of receiving their payment in calendar year 2007 or 2008.

USDA's Natural Resources Conservation Service anticipates the next CSP sign-up to take place in early 2008 in the 51 eligible watersheds announced in September 2006. These watersheds include more than 64,500 potential-

ly eligible farms and ranches in nearly 24 million acres of cropland and grazing land throughout the United States, the Pacific Islands, and the Caribbean Area.

Source: <http://www.nrcs.usda.gov/NEWS/>

Nitrate; Why worry?

Sources of Nitrate in our drinking water supply may come from fertilizers used in urban landscapes, golf courses, and agricultural cropland. Other sources include septic tanks and drain fields, livestock manure, nitrogen fixing plants and other natural processes. Although the exact contribution of individual sources of nitrate to water pollution is difficult to establish, observed levels of nitrate contamination are usually attributed to the source most readily identifiable.

Human health concerns are associated with the consumption of water containing high levels of nitrate. The national standard for nitrate in drinking water is 10 ppm. A condition referred to as "blue baby syndrome" can occur in infants under six months of age from consuming water with high nitrate levels. This condition is characterized by a loss of oxygen carrying capacity in the blood. Adults and children over 1 year of age are not at risk for this problem. However, epidemiological studies have suggested that long term consumption of water high in nitrate may be associated with a higher incidence in stomach and esophageal cancer in humans, but studies are inconclusive.

Nitrates found in well water serve as indicators that lead to concerns for other possible substances in the water. If nitrate is present, we might assume other water soluble, highly mobile chemicals or bacteria might be a potential risk to our water supplies.

Cool Soil Facts

- » Soil makes up the top layer of the earth.
- » Five tons of topsoil spread over an acre is only as thick as a dime.
- » It takes 100 years for nature to create one inch of topsoil.
- » There are more than 70,000 kinds of soil in the United States.
- » Between five and ten tons of animal life can live in one acre of soil.

<http://www.alabamaaitc.org/soil/soilfacts.htm>

Nez Perce Soil and Water Conservation District's Word Search

By Amanda Schwartz

C A B E C A B C A B C A C C T W C A B W T C A B W I C C
 I O C D I O C I O C I O I I I C I O C E T I O C E S I I
 F H N F F H N F H N F H F L T I F H N G A F H N G A F F
 F N P S W C D F N P F N D C A F F N P G M F N P G C F F
 W N H G E P B W N H K L T I O F W N H U M W N H U N W I
 E Y A S R R P E Y A I C T F H L I N D S A Y C R E E K M
 G F D D G F V B B F U I S F N C C A B W N C A B E C A P
 C R C A V H I A E N U F C A B I I O C E Y I O C D I O L
 I P I O D N Y A T F H F I C L F F H N G C F H N F F H E
 A E G D G D S D Y I H W F I C M F N P G R F N P S F N M
 F E L G D W D L H S O E F F I C O T C A E W N H G W N E
 C C A C A B W I H H E N W F F I F N I O E E Y A S E Y N
 I I P I O C E B U B E L E W O O P S F H K G F D D G F T
 F F W F H N G N P S W C D E K K L S F F C C B N C A B A
 F F A F N P G B R Y R T J F U T C D C D I I B T I O C T
 W B I G C A N Y O N A T F F J T T V C M F F R I F H N I
 E C A C A B W I C T E T J N C A W C I Y F E N R F N P O
 C I O I O C E S I T D S H A I O A I F U E T W E W N H N
 R F H F H N G A F T G T R I F H T F F S C A B W E Y A C
 E F N F N P G C F N A G R R F N E F W U I O C E G F D I
 S W N N C A C R O P S F D A W N R W E K F H N G C A B F
 T E Y O I O C A B S C A B P E Y C A B C F N P G I O C F
 O C A T F H I O C W I O C I C A I O C C O K F B F H N W
 R I O I F N F H N C F H N R I O F H N I C W O H F N P E
 A F H L W N F N P D F N P F F H F N P F I C C K W N H C
 T F N L E Y W N H W A O L B F N W N H F F I M R E Y A I
 I W N C C A E Y A N P L D A E H L E E T S C A B E K C F
 O E Y I I O V W I C A B C A B W I V T T B I O C C E I F
 N C A F F H V M C I O C I O C E S C G T S F H N I C K W
 C A B W I V A C I F H N F H N G A H D M N F N P F I C E
 I O C E S L C I F F N P F N P G C C R D O W N H F F I C
 F H N G A C I F D W N H W N H U N I C U T E Y A W N F I
 F N P G C I F E G E Y A E Y A Y V F I C B G F D E P F F
 W N H U N F H L M C A B G F D C A F F I C S C A B S W F
 E Y A Y V S M A M M A L C A B I O W F F I M I O C W E W
 C A A Q R P C A B W I C A B D F H E W F F M F H N C C E
 I O F E C A I O C E S I O C W D N A L T E W F N P D I C
 F H T D I O F H N G A F H N C A B W I C A O W N H C F I
 W A E D F H F N P G C F N P I O C E S I O O E Y A I F F
 W N E T F N W N H U N W N H D C W S P N S P C A B F W F

- Words to Find:**
- Conservation
 - Watershed
 - Tammany Creek
 - Trees
 - Shrubs
 - Wetland
 - Water
 - Crop
 - Restoration
 - Fish
 - NoTill
 - Lindsay Creek
 - Animal
 - Riparian
 - Cow Creek
 - Mammal
 - Wildlife
 - Big Canyon
 - Salmon
 - Lapwai
 - Steelhead
 - Implementation
 - NPSWCD (5 Times)

Did you know...

Glass produced from recycled glass instead of raw materials reduces related air pollution by 20%, and water pollution by 50%.

Homeowners use up to 10 times more toxic chemicals per acre than farmers.

One ton of carbon dioxide that is released in the air can be prevented by replacing every 75 watt light bulbs with energy efficient bulbs.

The grasslands cover one-fifth of the land on Earth. The majority of grasslands are found around the tropics. Natural grasslands are; the savannahs of Africa, the North American prairies, and in southern USSR-the dry steppes. Semi-natural grasslands are where the forest has been cleared and grazing, cutting or burning maintains the grass cover. Tending to be more productive most South and South-East Asian grasslands are semi-natural grasslands. The temperate grassland soil contains a lot of organic material (more than the tropical).

Source of information: <http://library.thinkquest.org>



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Forever Soil & Water

Winter 2008

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Landowner Appreciation Breakfast

By Amanda Schwartz

We want to thank all of the landowners that were able to make it to our appreciation breakfast on November 29th. Despite the snow, it was a great turnout. We had a great time visiting with all of you and learning about the projects that you would like to accomplish.

We received a lot of great feedback about the different projects that we have going on in the area, and are very excited to work with the landowners in the future to help preserve our land and water.

The District wants the local landowners to be able to utilize our resources in their different projects, and be aware of all of the ranges of abilities we have to offer.



Thank you for your support, cooperation, and contributions to the Conservation District. Your efforts make it possible for us to function. We could not sustain without it.

