



TO: POSTAL CUSTOMER

PRSRT STD ECRWSS

POSTAGE PAID THEDFORD, NE 69166 PERMIT No. 11

Department of Environmental

#### WELL TESTING DATA BASE ASSESSMENT

Upper Loup NRD has been awarded a grant from the Nebraska Department of Environmental Quality to develop a monitoring strategy for assessing trends in water quality conditions. This monitoring will help ULNRD become more effective in managing groundwater quality within the district as well as aid in public education.

The District is asking for your permission to collect and test a water sample from either your domestic or irrigation well. If you agree, Kyle or Jack will drop by approximately once a year to collect the sample and conduct a nitrate test. There is no charge and you will be notified of the test results. Some of you have taken advantage of this testing service in the past and we would like to continue testing your wells. The results will be entered into a data base to assist in assessing trends in water quality conditions. The data will help indicate any vulnerability issues in regards to geology, well characteristics, land-use activities and low levels of detection.

If you would like to be a part of this project please contact the office at your earliest convenience by calling 308-645-2250 or email the office at ulnrd@upperloupnrd.org Thank you for your assistance in gaining this important water quality information and being a

for your assistance in gaining this important water quality information and being a part of sustaining the integrity of our ground water.

#### **Boating Safety Course**

The ULNRD hosted a 6 hour boating safety course on May 29. Instructor Scott Eveland, Boating Safety Officer for the NE Game and Parks certified nine young people. The course is required of all power boat operators under the age of 18, who operate all personal power watercraft including jet skis. The ULNRD plans to host the course again May 2009.





#### **Arbor Day Celebrated**

The Upper Loup NRD once again celebrated Arbor Day by providing grade school students throughout the District with Norway Spruce seedlings. Anna Baum, ULNRD Manger and Sue Pearman, Extension Education Employee visited with over 195 students. The groups learned how to age trees and then had their knowledge tested with a game of jeopardy.

In what ways can the ULNRD better serve you and get the information out to you about ground water issues, educational opportunities, state requirements or just general information. ulnrd@upperloupnrd.org or 308 645-2250 or contact us through the website at www.upperloupnrd.org

Volume 1, Issue 3 July 2008 Upper Loup NRD 39252 Hwy 2 Thedford NE 69166 308 645-2250 ulnrd@upperloupnrd.org

# **Irrigator Acre Certification**



As part of Upper Loup Natural Resources District (ULNRD) rules and regulations, all land owners in the District who are irrigating with groundwater are required to certify their irrigated acres. Certification of irrigated acres will give the NRD and the landowner documentation of irrigated history and water use requirements in the event that the Loup River Basin is declared fully

appropriated by the state. Under state law, the Nebraska Department of Natural Resources (DNR) must conduct an annual evaluation of each of the state's river basins to determine if they are fully appropriated.

Fully appropriated status would mean the maximum level of sustainable development had been reached and no new surface or ground water uses could be granted without offset created by the elimination of a prior water use. Although not declared fully appropriated in 2007, the Loup Basin was close to such a declaration. The very northern parts of the ULNRD in Cherry and Brown County have been determined to be fully appropriated. To producers in the affected area this means no new high capacity wells and no new irrigated acres.

Certification data will also be used in the Elkhorn-Loup Modeling (ELM) study of the upper portion of the Loup Basin and the ULNRD groundwater well monitoring network. Both projects will provide data that will help determine where future ground water development can take place and where development has already reached a maximum level.

Certification entitles a landowner to use groundwater to irrigate existing cropland, hay land or pasture, regardless of whether the land was previously irrigated with a well. Property tax records are the primary source of information that ULNRD uses to determine the number of certifiable irrigated acres. Land must be taxed as irrigated cropland or irrigated grassland to be certified by the ULNRD.



Acres Certified as of June, 2008		
County	% Complete	# of Certified Acres
Blaine	100	9605
Brown	97	3046
Cherry	100	5915
Grant	100	800
Logan	97	23325
McPherson	100	4293
Thomas	100	2400
Hooker	100	2673
Total acres certified		52,057

	Test your water knowledge with Dripial Pursuit
1.	How many seas are there?
2.	About how much snow makes up one inch of water?
3.	Using force of falling water to produce electricity is known as what?
4.	Today, one in how many homes in the US uses bottled water as a
	primary source of drinking water?
5.	Aquifers around the world contain nearly 50 times as much water as do
	lakes and rivers. True or False?
6.	Water is a good conductor of heat. True or False?
7.	About what percentage of the human body is water?
8.	How much irrigation water would typically be applied on an acre of
	irrigated corn?
9.	Groundwater is renewed once every how many years?
10.	Total water use in the world has quadrupled since 1940. True or False?
	(answers are on page 4)

# **Ultra-Sonic Flow Meter Service**

Many producers do not have flow meters, and rely on original well registration information. Over time, flow rates change due to factors like water table fluctuations and normal wear and tear.

ULNRD has a non invasive ultra-sonic flow meter that attaches to the outside of the pipe to measure the water flow of a full flowing pipe on an irrigation system.

Upon request, a technician will bring out the ultra-sonic flow meter to measure the irrigation well flow to help cooperators better schedule their water application. This service is provided free to district producers.

**Spring Water Level Comparison Graph** 



The 0 on the above graph indicates ground level. The graph shows the results of monitoring of 101 wells throughout the District during the last four years.



Jack and Kyle have been busy constructing a water lab in the south west corner of the garage. The lab will give the technicians a dark room to efficiently conduct black light tests and free up room in the meeting area of the office.

#### **NERain Volunteers needed**

If you are a weather enthusiast and would like to volunteer for the NeRAIN Program contact the Upper Loup NRD 308-645-2250 and visit with Kyle!



Volunteers will receive a new quality rain gauge, installation and brief training to record data. Being a volunteer requires just a few minutes each day to report readings from your gauge! You can report by computer, calling into the office or mailing in monthly totals. The District could definitely use volunteers in BROWN and BLAINE Counties.

Plantskydd

If deer or small rodents have been a problem in the past for your new trees or gardens, contact us and ask about Plantskydd. It is 100% natural & lasts up to 4 months in the summer and 6 months in the winter. The granular product works well in controlling smaller critters like rabbits, squirrels, voles, gophers, chipmunks, possum and larger animals like deer. It works by emitting an odor that animals associate with predator activity, repelling the animal before it nibbles on the plants. Plantskydd is economical, user friendly and can be used on and around a wide variety of plant species. Plantskydd also acts as a foliar feed fertilizer for many types of plants increasing nutrient uptake.



The Upper Loup Natural **Resources District now** has a mail box out front. The new address is 39252 Highway 2 Thedford, NE 69166.

### Well Statistics

All registered wells throughout the District, including domestic, livestock and irrigation in 2007 equaled 267. Of that total, there were 33 new and replacement irrigation wells registered.

Total registered wells as of May 1, 2008 is 643. There have been 20 permits issued to drill new irrigation wells so far in 2008.

Plantskydd is available in the following volumes from ULNRD	Price
1 quart Pre-mixed RTU Spray Bottle ~	\$22.00
100 plants 1 foot tall	+ tax
2.2 lb Soluble Powder Concentrate ~	\$24.95
400-600 plants 1 foot tall	+ tax
3 lb Shaker Bag	\$23.00 + tax



#### **Gopher Machine & Bait**

Gopher Machine rental at \$15.00 per day. You may pick up the machine at the Thedford office or we will deliver for \$45.00.Gopher Bait for purchase by certified pesticide applicators. Contact your local Extension Office for information on how to become licensed to apply the bait.



Jack would like to remind all irrigators

& keep track of the hours on your irrigation motors for reporting water use in the fall to the NRD office.

> Hand & Machine Tree **Planting Statistics**

Hand plants in 2007 were 25,721 and in

2007 were 17,900and in 2008 were 17,746.

Total trees sold by the ULNRD to date are

To date donated trees are over 36,300.

To date mulch installed is 2.719.222 feet.

Kyle says that even though we have

received several good rains. The new

trees still need to be watered. It is

recommended 1 gallon a week per tree.

2,179,366.

Need to manage weeds

around your vegetables

the mulch/weed barrier

material offered by

appearance of tightly

or flowers? Consider using

ULNRD. It is a black poly-

woven burlap. 40 cents per

linear foot. A 3'x3' square

able in 500' rolls for \$100.

is \$1.50 and is also avail-

propylene fabric with the

and retain moisture

10 lbs	Oats or Barley	\$22.00 + tax
10 lbs	Milo	\$23.00 + tax
50 lbs	Oats or Barley	\$98.00 + tax

# **Upper Loup NRD Receives Pioneer Grant**

ULNRD has received a \$2,500 grant from Pioneer Hi-Bred, a DuPont business, for assistance with the purchase of a 10' Great Plains No-Till Drill.

No-till drills save energy and conserve water by reducing tillage passes and reduce soil erosion while they leave a protective layer of crop residue on the soil surface. The District has 2 ten foot Great Plains minimum till drills available for rent at \$6.00 an acre. Rental is for the drills only, no tractor or operator offered.



### **Education Opportunities**

The Upper Loup NRD will provide classroom presentations to students K-12, interested adults groups and organizations on a variety of topics including conservation, pollution, water, trees and wild life. Go to the Education page under Resources on www.upperloupnrd.org. Some adult informational sessions also available are No Till Drill Conservation Practices, Chemigation and It's Effects on our Ground Water, Cost Share Programs Offered From ULNRD, The Care of Trees & Benefits of Mulch and Getting Licensed to use Gopher Bait through your Extension Office. The District is planning a "get to know your NRD" event in the fall. Please go to www.upperloupnrd.org and fill out a short survey to help us decide what to offer and the best date for attendance. September 20, September 27, October 4, or October 11th.

#### World Water Monitoring Day

www.upperloupnrd.org

Check out our web site to learn about

NRD services and programs, to

download permits and applications plus

take in the latest news.

**Dripial Pursuit Answers** 

6) false

7) 66%

8) about

9) 1,400

10) true

400,000 gallons

1)7

2) 10 inches

3) hydro-

electricity

4) 60%

5) true

Each year since 2002, on October 18, monitoring volunteers celebrate the conclusion of a month-long effort designed to collect data and educate people about water monitoring while involving them in personal stewardship of their local water resources. September 18th, ULNRD will start going to the District's schools to present & help the students test samples.

World Water Monitoring Day<sup>™</sup> is an international education and outreach program that aims to bring public attention to the role the world's citizens must play in ensuring a sustainable supply of clean, usable water in each and every country. Participants test the quality of rivers, lakes and other water bodies using a simple monitoring kit. All the water quality data from around the world is collected in the WWMD database for unique snapshot of the state of the world's water.

## Services offered by Upper Loup NRD

- $\Rightarrow$  Tree planting & weed barrier (mulch)
- $\Rightarrow$  Well Decommissioning cost share
- $\Rightarrow$  Soil Testing Cost Share
- $\Rightarrow$  Water Testing
- $\Rightarrow$  Chemigation Inspection
- $\Rightarrow$  Leafy Spurge Cost Share
- $\Rightarrow$  Wildlife Habitat Cost Share
- $\Rightarrow$  Soil & Water Conservation
- $\Rightarrow$  NSWCP Cost Share
- $\Rightarrow$  No Till Drill Rental
- $\Rightarrow$  Gopher Machine Rental & Bait
- $\Rightarrow$  Camp & Workshop Scholarships
- ⇒ Educational Adult & Student Seminars



	Upper Loup	NRD Board of Directors
-	Subdistrict 1	Ginger Fouse & Eric Storer
	Subdistrict 2	Steve Boyer & Judy Ridenour
	Subdistrict 3	Gary Schaeffer & Wayne Eatinger
	Subdistrict 4	Byron Cox & Gordon Simonson
	Subdistrict 5	Louis Jacobson & Travis Hansen
	At Large	Wynn Wiens

Upcoming E	vents
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- July 2008
- 4 Holiday/Office Closed
- 10 ULNRD Board Mtg (Thedford)
- 17-20 McPherson Co. Fair
- 26-27 Thomas & Blaine Co. Fair
- 31– Hooker Co. Fair
- August 2008
- 1-3– Hooker Co. Fair
- 14 ULNRD Board Mtg (Thedford)
- 14-17– Cherry Co. Fair
- 17-19- Grant Co. Fair
- 21-23– Logan Co. Fair
- 29-30 Brown Co. Fair
- September 2008
- 1-Holiday/Office Closed
- 9-11 Hustker Harvest Days (G.I.)
- 11 ULNRD Board Mtg (Thedford)

18 - World Water Monitoring Day		
Upper Loup NRD Staff		
Anna Baum	General Manager	
Jack Brummet	Resource Technician	
Kyle Yrkoski	Resource Technician	
Leslie Reiser	Administrative Secretary	
Sandy Booth	Information & Education	
Cleo Jacobs	Thedford Field Office	