

UPPER ELKHORN The Oracle

"Making Wise Decisions Concerning Our Natural Resources"
<http://www.uenrd.org>

Department of Natural Resources declares UENRD Not to be "Fully Appropriated"!

Water issues have been a very hot topic across the District and the state following the passage of LB 962. LB 962, which was drafted from the recommendations of the Water Policy Task Force instructs the Department of Natural Resources (DNR) to evaluate every river basin in Nebraska and determine whether or not a basin is fully appropriated.

The initial evaluation for the Elkhorn River Basin was due on January 1, 2006; however, DNR was able to announce their findings early.

On October 5, 2005, the Upper Elkhorn NRD received word from the Department of Natural Resources Interim Director, Ann Bleed, that the Elkhorn River Basin would not be designated as "fully appropriated" in 2006. Based on the best available data collected and reviewed by DNR they have determined that there is enough water available in the Elkhorn Basin to meet the current needs. However, DNR will be reviewing Nebraska's water basins annually and when the water needs of the



basin equal the water available that basin or parts of the basin will be labeled "fully appropriated". Once a basin is designated as "fully appropri-

ated" it will be subject to the rules and regulations of LB 962, which will require the development of an integrated management plan.

Happy Holidays from the Upper Elkhorn NRD

Are Your Wells Registered???

As of September 9, 1993, all wells drilled in the State of Nebraska are required to be registered with the Department of Natural Resources (DNR). To find out if your wells are registered you may contact DNR at <http://dnrdata.dnr.state.ne.us/wellssql/default.asp> or contact your local NRD office.

Since the passage of LB 962 it is also important to make sure your wells are registered under the proper name and that any irrigated acres are registered. Both the DNR and NRD will be monitoring wells more closely to ensure compliance with Nebraska State Law. Unregistered wells could possibly be subjected to a cease and desist order, immediate decommissioning without availability for cost-

share, or an increased cost for required registration through the DNR.

Written notice must be provided to the DNR for change of ownership, correction of registration information, modifications of a registered well, and for abandonment of all wells. To obtain these forms go to the DNR website, click on the Ground Water tab, go to the "Ground Water Forms" portion near the top of the page. A list of available forms will be there for printing.

For further information regarding the reasons to register a well, go to the DNR website or if you have any further water well related questions, contact the DNR or Upper Elkhorn NRD.

DNR WEBSITE: <http://www.dnr.state.ne.us/>

Judge Rules Against U.S. Fish & Wildlife Service

In 2003, the Nebraska Habitat Conservation Coalition filed a lawsuit against the U.S. Fish and Wildlife Service. This lawsuit was filed in regard to their designation of critical habitat for the piping plover along several of Nebraska's rivers. As a member of the Coalition, the Upper Elkhorn NRD questioned the U.S. Fish and Wildlife Services procedures in determining these critical habitat areas. The lawsuit focused on a number of concerns expressed by the Coalition and its members some of which included a belief that the process of critical

habitat designation violated the Endangered Species Act and that the U.S. Fish and Wildlife Service failed to complete an Economic Impact Study. As a result of the Coalition's initiative, U.S. District Judge Lyle Strom has ruled that the U.S. Fish and Wildlife Service was wrong in declaring a number of Nebraska river basins as critical habitat for the piping plover. Now, in light of the courts ruling, if a critical habitat designation needs to be made, it can proceed in the proper manner.

Nominate Your Neighbor

Do you know someone who has done outstanding conservation work to help protect and preserve our natural resources? The Upper Elkhorn NRD would like to reward those individuals or groups for their contribution to conservation! Award categories include: Outstanding Grassland; Outstanding Tree Planter; Outstanding Community Conservation; Agri-Business; Wildlife Habitat; and, Honor Farm/Ranch. For more information contact the Upper Elkhorn NRD 301 North Harrison, O'Neill, NE 68763 or 402-336-3867.

UENRD Phase I Water Quality Program Reminders!!!!!! Applies to Entire Upper Elkhorn NRD

- ◆ Anyone applying more than 50 pounds of Nitrogen Fertilizer per acre must be certified in Nitrogen Management through the Upper Elkhorn NRD.
- ◆ Irrigation water samples are Required at least once every four years for Nitrogen Management Re-certification!

See back page for Phase II Reminders

Natural
Resources
District

Spring & Summer 2005

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Upper Elkhorn NRD Report Card for FY 04-05

- ◆ Planted 54,035 machine plant seedlings
- ◆ Distributed 21,302 hand plant seedlings
- ◆ Tilled 144,900 feet or 27.5 miles of ground in preparation for weed mulch
- ◆ Installed 255,918 feet or 48.5 miles of conservation weed mulch
- ◆ Sold 413 weed mulch squares
- ◆ Sold 460 feet of drip irrigation hose
- ◆ Sold 270 pounds of grass seed
- ◆ Sold 366.20 acres of grass seed mix
- ◆ Sold 7,708 pounds of poison barley
- ◆ Distributed \$176,116 in NSWCP/NRD Cost Share
 - ◆ 110 Cooperators received \$70,585 for Windbreaks
 - ◆ 13 Cooperators received \$19,327 for Planned Grazing Systems
 - ◆ 39 Cooperators received \$71,435 for Irrigation Water Management
 - ◆ 6 Cooperators received \$5,973 for Pasture Planting & Range Seedings
 - ◆ 3 Cooperators received \$6,486 for Windbreak Renovation
 - ◆ 1 Cooperator received \$2,310 for Water and Sediment Control Basin
- ◆ Distributed \$6,272 in Water Well Decommissioning funds to properly abandon 21 wells
- ◆ Distributed \$3,948 to 22 cooperators participating in the Deep Soil Sampling Program
- ◆ Distributed \$3,430 to cooperators through the Domestic Water Quality Program
- ◆ Distributed \$900 to cooperators participating in the Liquid/NH3 Application Program
- ◆ Distributed \$26,940 to cooperators participating in the Buffer Strip Program on 255.5 acres
- ◆ Maintain weather stations in the Brunswick, Elgin, O'Neill and now Newport areas
- ◆ Work with Game & Parks to maintain the water level at Goose Lake
- ◆ Designated Phase II Groundwater Management Areas (GWMA) January 1, 2003
- ◆ Issued 151 water well permits due to the GWMA
- ◆ Certified 102 cooperators in nitrogen management
- ◆ Sampled approximately 480 irrigation wells for water quality parameters & 115 for pesticides
- ◆ The District maintains 43 dedicated monitoring wells at 18 different locations
- ◆ The District maintains a vadose zone sampling program to analyze nitrates in the soil

2005 Chemigation Update

Last season, the Upper Elkhorn NRD approved 2020 applications for chemigation. District personnel inspected 196 new chemigation sites and 912 renewal sites.

There was a total of 15,910,477 pounds of nitrogen applied to 149,979 acres for an average of 106 pounds of nitrogen per acre. Chemigators applied approximately 4,721 gallons of pesticides and herbicides on 57,023 acres of cropland for an average of 11 ounces of chemicals per acre.

The annual chemigation deadline is June 1. All renewal applications must be submitted to the NRD on or before June 1. Applications may be picked up at the Upper Elkhorn NRD office, the Neligh NRCS office and the RC&D in Bassett. Remember, due to the tremendous number of application sites which change from year to year the Upper Elkhorn NRD does not mail out applications. However, applications may be downloaded from the internet at the Upper Elkhorn NRD website at www.uenrd.org.

Area Schools Compete in Annual Water Program

The 16th annual Wonderful World of Water Festival was celebrated September 21 at the Willow Creek State Recreational Area near Pierce. Twenty-six teams of ninth and tenth grade students from 16 schools across Northeast Nebraska competed in the day long program vying for championship honors.

The day began with registration and a brief overview of the Willow Creek State Recreational Area by Park Superintendent Dan Sutherland. Then each team competed in a track of hands-on activities focusing on water quality and other water related issues. The teams were then quizzed regarding those sessions to accumulate points for the competition. Following the educational sessions, the teams were given one last chance to extend their point totals by participating in the Water Wheel of Fortune Game. Then while the final totals were being calculated each team was given the opportunity to participate in the Wonderful World of Water special project.

This years special project was Water Rockets which is a program taught through the Jr. Academy of Sciences. Each team was invited to build a water rocket and demonstrate their knowledge of mass, velocity and engineering. The rockets were judged on



Winning Team from Clearwater High School

distance, time in the air and creativity. Several rockets were launched Wednesday with prizes being awarded to Orchard, Lutheran High NE and Wausa.

Following the presentation of the special projects the winners of the 2005 Northeast Nebraska Wonderful World of Water were announced. The winner of the South Track was Clearwater High School. Team Members included; Jennifer Duff, Autumn Kuester, Tony Hoelsing, Kyle Kerkman, Eric Kruger and Derek Thiele. The winning team from the North Track was Lutheran High Northeast consisting of Jesse Peters, Patrick Meyer, Laura Awe, Amber Skoglund, Paula Winkelbauer and Marissa Domsch. Both First Place teams were awarded Wonderful World of Water T-shirts.

The Wonderful World of Water program would not be possible without our many natural resources professionals from across the area who volunteer their time each year to share their expertise and work with students who might be interested in a career related to natural resources. They come from a variety of agencies including: The Natural Resources Conservation Service; Nebraska Department of Natural Resources; UNL Conservation & Survey Division; Nebraska Public Power District; University of Nebraska Cooperative Extension; and, Nebraska Game & Parks Commission. The Wonderful World of Water is sponsored by: the Upper Elkhorn NRD; Lower Elkhorn NRD; Lower Niobrara NRD; and, Lewis and Clark NRD.

UENRD Offers Scholarships to Graduating High Seniors

Each year, the Upper Elkhorn Natural Resources District offers three \$500 scholarships to graduating High School Seniors from the District. These scholarships are available for students who are planning to further their education in a field related to natural resources or agriculture. Seniors who are interested should contact the Upper Elkhorn NRD or visit the website at www.uenrd.org/education.html for further information, eligibility requirements and applications. The deadline for all scholarship applications is April 7, 2005.

UENRD Welcomes New Staff

The Upper Elkhorn NRD Board of Directors have hired Marsha Hart as the new Administrative Secretary to fill the vacancy left by the resignation of Denise Pribil. Some of Marsha's responsibilities will include maintaining the financial records for the District, processing cost share and working with the tree program.



Mary Zakrzewski has been hired as the Holt County Natural Resources Conservation Service (NRCS) Clerk. Mary will be working in the O'Neill office where she will be responsible for executing the day-to-day clerical duties and assisting other NRCS staff implementing federal, state and local conservation programs. She will also work as a liaison for the Upper Elkhorn NRD in Holt County.



Upper Elkhorn NRD Programs

Sign Up Underway for NRD Cost Share Programs

Anyone wishing to participate in an Upper Elkhorn NRD cost share program should contact the Upper Elkhorn NRD office or their local NRCS office. Cost share is available for the installation of the practice itself and will not include any sales tax on the materials or labor. Cost share programs available include:

NSWCP/NRD: The UENRD in conjunction with the Department of Natural Resources offers cost share practices to landowners wishing to install conservation practices. Some practices included in the program are: windbreaks; planned grazing systems; irrigation water management; pasture planting and range seeding; grade stabilization; and, windbreak renovation. Cost share is available at a rate of 50%.

Water Well Decommissioning: The UENRD in conjunction with the Department of Natural Resources offers cost share funds at a rate of 75% to landowners who wish to properly decommission an abandoned well.

Domestic Water Quality: The UENRD offers cost share to cooperators whose drinking water is contaminated with nitrates over the federal health standard of 10 parts per million. Cost share is available at a rate of 50% or a maximum of \$800.

Anhydrous Ammonia Application: The UENRD offers 50% cost share to landowners for the purchase of a flow control monitor not to exceed \$900; and, \$200 for the purchase of a vertical dam manifold.

Livestock Manure Analysis: The UENRD offers 50% cost share not to exceed \$200 for manure analysis to credit useful materials into the soil.

Nitrogen Management: The UENRD offers 50% cost share not to exceed \$200 to cooperators to encourage producers to manage fertilizer application better by accounting for residual nitrate-nitrogen which already exists in the soil root zone and irrigation water.

Cost share applications are approved by the Upper Elkhorn NRD Board of Directors and available on a first come first serve basis and does not include sales tax.

Potential Tree Shortage, Place Orders Early

As a result of the hail storm which struck the Halsey National Forest and Bessey Nursery in May of 2004, there will be a shortage of certain tree species for the upcoming spring planting. The Upper Elkhorn NRD will be taking orders for conservation trees until March 1st. Trees are available on a first come first serve basis and are available in a variety of species consisting of conifers, broadleaves and shrubs. Hand plant trees should be ordered in bundles of 25 while machine plant orders will be based on the windbreak design. The NRD can also provide technical assistance to cooperators who would like help designing a new windbreak or renovating an old one. The technician will suggest the type of trees best suited for your soil type and design a layout beneficial to your area.

The NRD also offers two practices to help increase the survival rate of new seedlings, drip irrigation and conservation weed mulch. Drip irrigation is a flat hose installed at the time the trees are planted and is used when there is a water source at the site. Conservation weed mulch is installed over the seedlings to help control weeds and retain moisture. Both practices can be very beneficial to young windbreaks and should be considered when placing your order.

There are two attractive cost share programs available for tree planting this year. One involves the continuous CRP program administered by the USDA Farm Service Agency. This program offers 90% cost share and annual payments to cooperators who want to plant trees in cropland. The second program offers cost share assistance through the Nebraska Soil and Water Program and is available to cooperators at a rate of 50% with a minimum hand plant order of 200 trees or 150 machine plant trees. Cost share information for the continuous CRP program can be obtained by contacting your local NRCS office; while, NSWCP cost share information can be obtained through the Upper Elkhorn NRD or local NRCS office. To receive cost share all forms must be completed and returned to the NRD office along with full payment for the trees before the request can be approved.

Remember, the Upper Elkhorn NRD is also your one-stop shop to order trees and weed mulch. The NRD can plant and install the trees and fabric as we have for the past 30+ years. To be eligible for local or state funds, trees and mulch must be purchased from the Upper Elkhorn NRD. For further information or to place an order contact your local NRCS office or the Upper Elkhorn NRD at 301 N. Harrison Street, O'Neill or (402) 336-3867.

Species Available

Conifers

Eastern Red Cedar
Rocky Mountain Juniper
Austrian Pine
Ponderosa Pine
Jack Pine
Colorado Blue Spruce
Scotch Pine

Caragana
Sumac
Honeysuckle
Chokecherry
Willow
Sandcherry
Elderberry
Redosier Dogwood

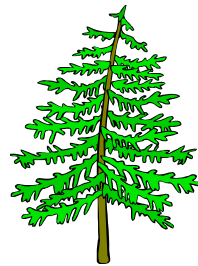
Cotoneaster
American Plum
Golden Current
Lilac
Crabapple
Black Cherry
Buffaloberry

Broadleaves

Native Cottonwood
Green Ash
Hackberry
Swamp White Oak
Honeylocust
Bur Oak
Silver Maple
Black Walnut

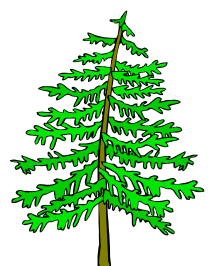
UENRD Continues Responsible Spending

On September 15, 2005 the Upper Elkhorn NRD Board of Directors adopted the fiscal year 2005-2006 budget. As you can see from the chart, the UENRD continues to respect the concerns of our taxpayers by continuing to find other funding mechanisms to maintain your NRD! The total budget for the 2005-2006 fiscal year is \$1,443,001 with a tax asking of \$391,189 or 2.47 cents per \$100 of property valuation.



Cost of Trees & Material

Trees-Storage-Tax	\$75.55/100
Machine Planting	\$42.60/100
Pull in Charge - less than 150 trees	\$75.00
Drip Irrigation	\$0.12/foot plus tax
Weed Mulch (Installed)	\$0.55/foot plus tax
Weed Mulch (by the Roll)	\$100/300 feet plus tax
Weed Mulch Squares	\$1.50 each plus tax

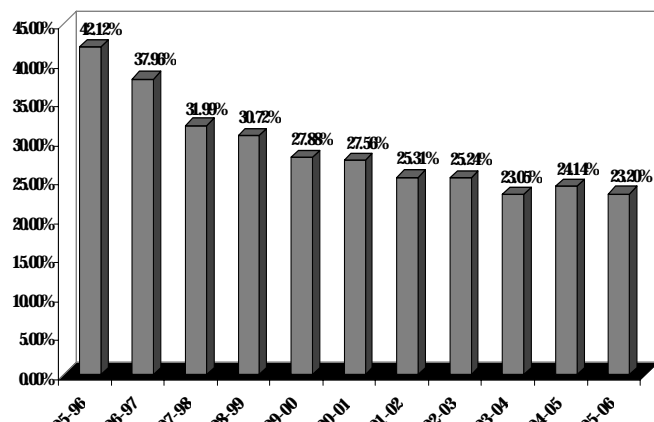


Prices Subject to Change

Cost Share Eligibility Requirements

Any person who fails to comply with any of the Upper Elkhorn Natural Resources District's Rules and Regulations shall not be eligible to participate in any programs or receive payments that are administered by the District. Programs requiring compliance include but are not limited to the following: UENRD Groundwater Management Plan - Phase I and Phase II Rules & Regulations; Chemigation Act; Irrigation Runoff and Erosion and Sediment Control. Cost share programs that may be affected due to lack of compliance include but are not limited to the following: Nebraska Soil and Water Conservation Program; Upper Elkhorn NRD Conservation Program - Land Treatment Fund; WILD Nebraska/Wildlife Habitat Improvement Program; Nebraska Buffer Strip Program; Corners for Wildlife; Liquid/NH₃ Application Program; Livestock Manure Analysis Program; Domestic Water Quality Program; Nitrogen Management Program; and, the Water Well Decommissioning Program. Anyone who is already a participant in any of these programs or may be a participant will not receive any payments as long as they fail to comply with any District rules and regulations.

Property Tax % of Budget



Upper Elkhorn NRD Fall Static Water Level Results

The Upper Elkhorn NRD has administered a static water level (depth to groundwater) monitoring program since 1975. This fall, the District's sampling network has been increased to 148 observation sites including both irrigations wells and dedicated monitoring wells. The static water level is measured by the District on a biannual basis during the spring and fall seasons. Water levels are collected using approved techniques by certified personnel. The results of these measurements are used locally by the NRD to assess the change in groundwater levels over time.

Fall water levels reflect the amount of stress that has been imposed on an aquifer and are important to groundwater management. By determining fall water levels, the impact of pumping on the aquifer can be gauged as well as the ability that aquifer has to recover from such usage by examining levels over a period of time. By consistently collecting data over an extended period during the same time of year, frequency and duration of fluctuations in aquifer levels can be successfully monitored and recorded. Differing water levels can also indicate flow patterns changing and could mean a potential for an influx of low quality water.

Static Water Level Results for the Fall of 2004: Results from fall sampling showed improvement across the District, with significant changes Rock County. However, water levels decreased slightly in Wheeler County. The irrigation well with the largest decline was in southwestern Antelope County with a drop of 4.06 ft. The irrigation well with the largest increase was in eastern Holt County with a rise of 9.77 ft. The following table shows the average level of change in each county over the past 5 years.

Fall Levels (ft)	Antelope County	Holt County	Rock County	Wheeler County
2001	68.23	25.64	18.06	21.03
2002	70.37	26.44	20.05	22.73
2003	72.19	27.99	20.95	23.79
2004	72.31	27.71	21.33	22.22
2005	72.17	27.31	18.34	22.83

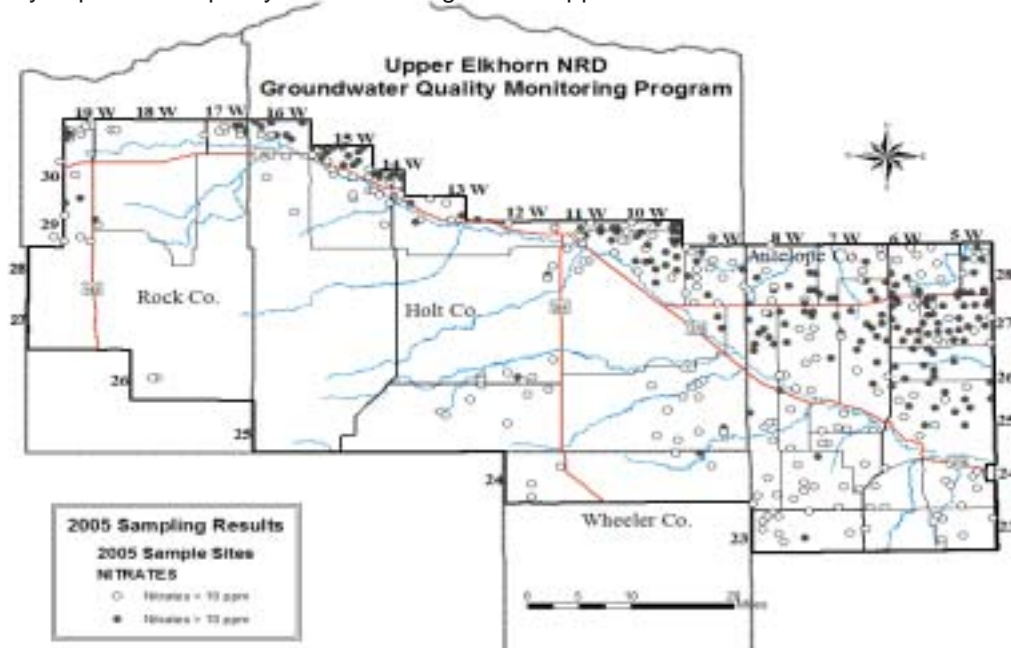
Upper Elkhorn NRD Water Quality Update

Nitrate contamination has consistently been a problem in groundwater within the Upper Elkhorn NRD. Average groundwater nitrate concentrations in a large portion of the District have exceeded the safe drinking water standard of 10 parts per million (ppm). Excess nitrogen fertilizer applications, inefficient nitrogen and irrigation management practices, runoff and leaching from livestock manure storage facilities are the primary sources of elevated nitrate-N concentrations in the District.

The Upper Elkhorn NRD monitored the groundwater quality of approximately 413 active irrigation wells for nitrate-nitrogen during the 2005 crop season. The results from this analysis show that 49% of the wells sampled this year in Antelope and Holt County had a nitrate-N concentration above 10ppm. The Environmental Protection Agency has established 10 ppm nitrate-N as the maximum contaminant level (MCL) for drinking water. The MCL represents the level of contaminant beyond which the probability of serious health risks increases. In some areas the wells nitrate-N level has tested well over 30 ppm, three times the safe drinking limit.

The map below shows the location of all the irrigation wells that were sampled by the District. Wells that have a nitrate-N concentration above the safe drinking water standard are displayed differently than those below the MCL. The trend seems to show that wells north of the Elkhorn River and Highway 275/20 have consistently higher nitrate-N results. These areas are being considered for the Phase II expansion of the Groundwater Quality Management Area. The entire District is in Phase I which keys on education of Best Management Practices (BMPs) and an irrigation water test conducted once every 4 years. Two smaller areas are in the Phase II areas, east of O'Neill to Page in Holt County and the Crawford Township near Brunswick in Antelope County. These areas focus more on proper irrigation and nitrogen management as well as required yearly soil tests to utilize the available nitrates and monitor leaching rates.

Continued education of land operators within the District and proper utilization of existing nitrate-N credits is absolutely necessary in order to slow the effects of the contamination and possibly improve the quality of our drinking water supplies over time.



Upper Elkhorn Natural Resources District Board of Directors

Chris Dierks - Chairman	Subdistrict 2 ~ Ewing	(402) 485-2618
Jerry Heithoff - Vice Chairman	Subdistrict 7 ~ Elgin	(402) 843-2467
Dale Wiles - Treasurer	Subdistrict 3 ~ O'Neill	(402) 336-2338
Greg Felker	Subdistrict 3 ~ O'Neill	(402) 336-2864
Ted Hughes - NARD Rep	Subdistrict 6 ~ Neligh	(402) 887-4942
Reg Green	Subdistrict 5 ~ Creighton	(402) 358-5479
Tim Knuth	Subdistrict 5 ~ Brunswick	(402) 358-5430
Jim Keller	Subdistrict 1 ~ Newport	(402) 244-5448
Jerry Childers	Subdistrict 4 ~ Chambers	(402) 482-5688
Mike Russman	Subdistrict 4 ~ Ewing	(402) 485-2638
Janet Koinzan	Subdistrict 7 ~ Elgin	(402) 843-2410
Jeff Krebs	Subdistrict 6 ~ Neligh	(402) 887-5215
Roy Stewart	Subdistrict 1 ~ Newport	(402) 244-5360
James Dvorak	Subdistrict 2 ~ Atkinson	(402) 925-5776
Curtis Gotschall	Subdistrict 2 ~ Stuart	(402) 925-2504

**UENRD Board Meetings are held the 4th
Monday of every month.**

**March through October at 8:00 P.M. and November through
February at 2:30 P.M.**

UENRD Staff

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Beth Walsh	Information & Education/Chemigation Coordinator e-mail: bwalsh@uenrd.org
Joy Knapp	NRCS Clerk, Neligh
Mary Zakrzewski	NRCS Clerk, O'Neill
Barbara Shannon	NRCS Clerk, Ainsworth

Phase II Groundwater Quality Management Area Requirements Reports Due February 1

A continuation of Phase I activities will remain in effect unless modified or negated by Phase II requirements.

The District will require the certified operator to accomplish a deep soil sampling analysis (mandatory two foot sample, three foot sample encouraged, if applicable) for nitrate-nitrogen content on each field larger than 40 acres with more than 50 pounds per acre per year of actual nitrogen fertilizer applied. The sample must be collected and analyzed using UENRD approved methods. Approved sampling and analysis techniques will be included as part of the District's educational program. This

analysis will give the certified operator knowledge of usable and inaccessible nitrogen in the soil profile.

Certified operators must submit a report to the UENRD by February 1 following each crop year on forms provided by the District for areas larger than 40 acres where more than 50 pounds per acre per year of actual nitrogen fertilizer is applied. The report may consist of, but is not limited to, the following sections:
Section I. Nutrient Mgt
Section II. Pest Management
Section III. Irrigation Management

The Oracle is the official publication of the Upper Elkhorn Natural Resources District. It is produced for the purpose of educating the public regarding natural resources issues. Any comments or questions should be sent to Beth Walsh, Upper Elkhorn NRD, 301 N. Harrison Street, O'Neill, NE 68763 or e-mailed to bwalsh@uenrd.org. The Upper Elkhorn NRD is an Equal Opportunity Provider and Employer