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LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT  
Dedicated to the conservation, preservation and wise use of our natural resources

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## Construction to Begin This Fall on Wanahoo/Sand Creek Project

### Project Receives \$500,00 in Startup Funds

The Sand Creek Environmental Restoration Project continues to roll forward, with preliminary construction slated to begin this fall.

The project received final approval from the U.S. Army Corps of Engineers in January, but funding for 2003 was up in the air. In March, project sponsors were able to secure \$500,000 in startup funds from the federal Office of Management and Budget, thanks to the help of Congressman Doug Bereuter.

"This will enable us to start design and actually put something on the ground," said Mike Murren, the project coordinator.

The majority of the startup funds are being used to complete final design and engineering for the project. That work should be completed in 2004.

Preliminary construction work will begin this fall and will involve clearing and grub-

bing to remove trees from the site of the Lake Wanahoo dam. The 637-surface-acre lake is the linchpin of the project, which will also involve seven smaller upstream dams.

"To help assure future funding, it's important for us to show that construction has started. The clearing we'll be doing this fall will allow us to do that," said Murren.

The dam embankment and bridges will be completed in 2006, along with recreational facilities at Lake Wanahoo. The seven smaller dams and wetland structures also are scheduled to be done by 2006. The Highway 77 bypass over the top of the dam will be paved in 2007.

The total project cost will be \$30 million, with 65% of that total coming from federal sources. The remainder will come from a combination of state and local sources, including \$700,000 each from the local project sponsors (the Lower Platte North NRD, the City of Wahoo, and Saunders County).



Clearing and grubbing will begin this fall at the Lake Wanahoo site to remove trees from the future dam site. Construction of the dam is scheduled to begin in 2004.

### 2003

Begin preliminary construction on Wanahoo embankment (clearing and grubbing) in fall

### 2004

Finalize Wanahoo design and engineering  
Let bids for Wanahoo dam construction

### 2005

Begin construction of Wanahoo embankment and bridges, and NRCS upstream structures

### 2006

Complete work on Wanahoo embankment and bridges, NRCS upstream structures and wetlands

Complete Wanahoo recreational facilities

### 2007

Pave Highway 77 bypass over Wanahoo embankment



# Redrawing the Boundaries

## New Floodplain Boundaries to Affect Fremont, Schuyler, and North Bend

Big changes could be in store for three communities in the Lower Platte North NRD as a result of updated floodplain boundaries.

As part of a federally-mandated update, the Federal Emergency Management Agency (FEMA) has remapped floodplains along the Platte River from Columbus to Plattsmouth. Fremont, North Bend and Schuyler are among the cities that could see changes in their floodplain status - and flood insurance premiums - as a result of this effort.

Preliminary results of the remapping show that "peak discharges" during a 100-year storm event have increased 15% to 27% at various points along the river, which translates to increased risk of flooding. The increase is mostly due to channel straightening of small tributaries and changes in land use over the years.

North Bend has always been in the floodplain and isn't expected to see any direct impact from the remapping. In Schuyler and Fremont, however, the increase in peak discharges means that some areas of those communities could be added to the 100-year floodplain. This would require home and business owners in those areas to carry flood insurance, which could add substantially to their insurance premiums. Certain types of development could also be restricted or regulated within the new floodplain boundaries.

"These floodplain boundary changes have a negative impact on those adjacent to the Platte River," said John Miyoshi, NRD General Manager. "The NRD is working to be proactive and reduce those impacts where possible."

To help Schuyler and Fremont deal with these new challenges, the NRD is cooperating with the U.S. Army Corps of Engineers on Section 205 studies. The studies will look at options for flood mitigation, with the intent of keeping all areas of Schuyler and Fremont out of the 100-year floodplain.

"We'd like to maintain the status quo," said Miyoshi. "If new areas are added to the 100-year floodplains because of the remapping, we'd like to improve the flood protection enough to take those areas back out."

In Fremont, the study will look at the possibility of rehabilitating and improving the old Fremont Agriculture and Railroad

Levy, along with other possibilities. The cost of the study is \$693,000, with 50 percent of the funding coming from the Corps. The NRD has agreed to fund 50 percent of the local costs, with the remainder split between Fremont, Inglewood and Dodge County.

Schuyler isn't as far along in the process, and expected study costs and how they will be split have not yet been determined. That information should be coming later this summer. Because the peak flood stage for Schuyler is relatively low, that study will likely focus on the possibility of a "conveyance channel" to route water around the south side of the city, rather than a levy, Miyoshi said.

North Bend could also benefit from a Section 205 study. With a Highway 30 bypass planned to go around the city, there is an opportunity to "ring" the city with the bypass on the north side and a levy on the south, and take the city completely out of the 100-year floodplain. Study costs haven't been determined, but they should be relatively low because much of the required hydrological data has already been gathered by the Department of Roads for the bypass project, Miyoshi said.

While these studies are going on, home and business owners in the affected areas will still have to deal with the updated floodplain boundaries, which are expected to be adopted by FEMA in late 2003 or early 2004. By purchasing flood insurance before those boundaries go into effect, home and business owners could save themselves a substantial amount of money, Miyoshi said.

"Because the new boundaries haven't gone into effect yet, people in the affected areas can buy flood insurance now at a reduced rate and that rate will be grandfathered with the property," he explained. "For instance, one real-world example we looked at was a home with a premium of \$280. They could add flood insurance now for \$86, but if they wait until after the new boundaries are approved, that would go up to \$270, so their total premium would be almost double what it was before."

As the remapping and Section 205 efforts continue, public meetings will be held for the affected areas. Watch your local newspapers for announcements of these meetings.



*It's Your  
Water . . .*



## Yutan, David City and North Bend Complete Wellhead Protection Plans

Good things come in threes -- and the Lower Platte North NRD's Wellhead Protection Program (WHP) is no exception.

Since January, three Wellhead Protection Plans have been approved by the Nebraska Department of Environmental Quality for communities in the NRD. Yutan, David City and North Bend all completed a six-step process designed to help protect their public drinking water supplies.

There are only 12 other communities in Nebraska that have state-approved WHP plans, noted Mike Sousek, Wellhead Protection Coordinator.

"The residents of Yutan, David City and North Bend should be proud of themselves," Sousek said. "They've shown they're willing to go the extra mile to protect their drinking water."

The Wellhead Protection Program emphasizes community involvement and leadership. The NRD worked with a wide variety

of people in the three WHP communities, from city officials to high school students, to help complete the Wellhead Protection Plans.

"This wouldn't have been possible without a team effort," Sousek said. "It's taken a lot of effort by a lot of different people to get to this point."

With approved Wellhead Protection Plans, each community will now be eligible for additional help from the NRD, such as 100 percent cost-share for sealing abandoned wells. The communities are also on a priority list for funding from the Nebraska Department of Health and Human Services and the Nebraska Department of Environmental Quality.

Several other communities in the NRD are close to completing their Wellhead Protection Plans. Abie's plan should be approved later this summer, and Ithaca, Wahoo, Weston, and Prague will be submitting their plans in the near future, Sousek said.

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*"It's taken a lot of effort by a lot of different people to get to this point."*

**-Mike Sousek, Wellhead Protection Coordinator**

## *The Six Steps of Wellhead Protection*

**1. Delineate a Wellhead Protection Area map** for the public wells of a community. A computer program is used to develop this map, and takes into account pumping history, geologic logs from the wells, hydrogeology of the area, direction of groundwater flow, etc.

**2. Perform a Contaminant Source Inventory.** Within the Wellhead Protection Area, an inventory is conducted to identify potential contaminant sources that could pollute public wells.

**3. Manage potential contaminant sources** through ordinances, zoning, education, and/or agreements with the county or NRD.

**4. Prepare for emergencies** with contingency plans. What if the community's water supply falls short of demand due to mechanical problems or contaminated water. Is there a plan in place in case of emergency situations?

**5. Plan for new wells.** A well's lifetime is typically 20 years, and planning for new wells is necessary to address the demands of population growth.

**6. Keep public educated and involved!** Community participation is essential to make the Wellhead Protection process a success. Public participation allows residents to take pride in protecting their drinking water.



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# Building for the Future

Representative Doug Bereuter (above, second from left) was honored for his invaluable support of the Sand Creek Environmental Restoration Project at a reception in Wahoo on March 14.

Representatives from the project sponsors and cooperators spoke at the reception, praising Bereuter for his crucial role in winning final approval for the project. Bereuter was a key ally in Congress, helping shepherd the project through various rounds of studies and approvals on the federal level.

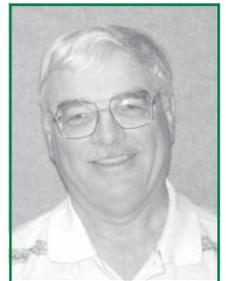
“Congressman Bereuter’s leadership on environmental and conservation issues has been a driving force for our project,” said John Miyoshi, manager of the Lower Platte North NRD. “We wouldn’t have an approved project today without his efforts.”

**Pictured L-R:** Dean Johnson, Chair of the Lower Platte North NRD Board of Directors; Representative Doug Bereuter; Doris Karloff, Saunders County Board of Supervisors; and Craig Breunig, Wahoo City Council.

# Hannah Joins NRD Board

**John Hannah** of Columbus has been appointed to the NRD Board of Directors to replace Greg Wilke in Subdistrict 5. Wilke, a director since 1993 and a past chairman, resigned from the board in February because he is moving out of the district.

John was born in Iowa and graduated from Iowa State University. John was involved in a nursery business in Shenandoah, Iowa, before moving to the Columbus area in 1986. Since then he has been involved in seed sales and agronomy and is currently a crop consultant. John and his wife Pam have one son who teaches in Omaha.



**John Hannah**

# SPRING CONSERVATION SENSATION

Beautiful weather and enthusiastic students combined to make a memorable outdoor education day at Czechland Lake on May 7<sup>th</sup>.

Fifth and sixth graders from 11 area schools came to the lake to learn about natural resources and the environment at the Spring Conservation Sensation. The annual event uses fun, hands-on activities to teach children about the importance of conserving natural resources.

Students rotated through eight 25-minute activities focusing on a wide variety of topics. At the “Geo-Hunt” activity, for instance, students participated in a scavenger hunt – with a twist. Working in teams, students had to find hidden items using Global Positioning System units.

“Bubble-ology” (photo at right) gave students the chance to create giant bubbles – with other students inside. The bubbles are made using a mixture of water, dish soap, and corn starch.

In “Birds and Worms,” students searched for colored macaroni hidden in the grass, and discovered just how effective natural camouflage can be. The activity demonstrated how insects and other animals use defensive coloration to blend into their surroundings and protect themselves from predators.

At other stations, students got to plant trees; practice casting, knot-tying and other fishing skills; examine the parts of a lake ecosystem; and learn about water conservation by spinning the “Water Wheel of Fortune” and doing the “Water Limbo.”

Three hundred and fifty students from across the district attended the 2003 Sensation. More than 4,000 students have attended since the event was launched in 1991. The Sensation is open to schools from Butler, Saunders, Platte, Colfax, and Dodge counties.

The event was sponsored by the Lower Platte North Natural Resources District and Saunders County Cooperative Extension, with



## Bubble-ology

In “Bubble-ology,” students learn about concepts such as surface tension as they are encased in giant bubbles. The bubbles are made using a mixture of water, dish soap, and corn starch.

partial funding from the Nebraska Department of Environmental Quality/EPA Region 7. Additional presenters came from the Natural Resources Conservation Service, the Lower Platte River Corridor Alliance, the Nebraska Game and Parks Commission, and the Groundwater Foundation. High school students from Mead served as group leaders and helpers. In-kind services were provided by the Nebraska Game and Parks Commission.

## Geo-Hunt:

It's a high-tech scavenger hunt! Working in teams, students use Global Positioning System units to locate hidden items.

## Migration Headache:

In this fast-paced game, students take on the role of migrating birds and predators to learn about all of the hazards birds face on their long migrations.

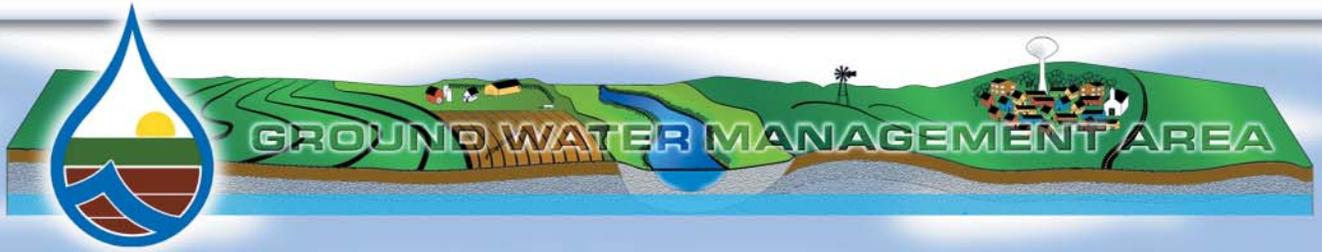
## Tree Planting:

Students take turns on the tree planter as they learn how to plant and care for tree seedlings. Each student received a seedling to take home with them.

## Lake Ecosystems:

Students explore “Lake Ecosystems” and learn about the weird, wild habits of aquatic insects, fish, and other critters.





# Groundwater Levels Fall Districtwide

One of the responsibilities of NRDs is to monitor fluctuations in groundwater levels. With the help of area cooperators, a groundwater energy level monitoring network has been established in the Lower Platte North NRD. The NRD is divided into four major aquifer regions: Shell Creek, Platte Valley, Uplands, and Todd Valley.

Currently there are 133 wells in the NRD's monitoring network. These wells are measured twice a year (once in the fall, once in the spring). The diagram at right shows changes in ground water energy levels in the four aquifer regions from spring 2002 to spring 2003. The red numbers show the median change in feet.

The spring 2002-2003 comparison shows the effect of drought conditions, with water levels declining in all four of the aquifer regions. The Uplands region showed the most severe drop, with a median change of -3.0 feet.

In all of the regions with the exception of Shell Creek, levels are at their lowest point since the NRD began tracking them in 1987. Normal to above-normal levels of precipitation will be needed for the levels to begin to rebound.

