



In Perspective

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The Need for a Water Bank

The concept of a "water bank" is new to us in the Central Platte NRD and to the state of Nebraska. Ron Bishop, general manager, said landowners will play a major role in whether the water bank is successful. If the NRD does not acquire water rights from landowners, the only way to make up the required depletions in the District is to regulate. "We want to stay away from regulation as much as can," Bishop said. "Every acre-foot of water that impacts the river that the NRD can acquire, means that much less regulation and cutback we'll have to impose." That's why the Board of Directors have diligently been discussing details about how a water bank should be set up and maintained. On May 24th, the board approved the Central Platte NRD Water Banking Policy which defines the process of a how a water bank will work.

Before going into the actual process, let's first review why we need a water bank in the District. Two recent developments have made the establishment of a "water bank" of critical importance.

LEGISLATION

The first began in 2004, when Nebraska adopted LB 962 that calls for the integrated management of surface water and groundwater. As part of the LB 962 process, the Platte Basin above Elm Creek, Nebraska was declared over-appropriated. Columbus to Elm Creek was designated as fully appropriated.

With those designations, the NRDs and the Department of Natural Resources (DNR) are responsible for developing Integrated Management Plans (IMP) that would call for "no new uses" in the basin above Columbus that would negatively impact an existing surface water right or groundwater use. New uses could be allowed, but any depletion to existing rights and uses must be "offset" with water.

Over-appropriated status means there are so many uses that they are causing the water supply to be out of balance with demand, resulting in a shortage to someone else downstream.

Additionally, in the basin above Elm Creek, the IMP will have to replace or offset uses sufficient to return the basin to a fully-appropriated status; since this area has been designated as over-appropriated. This too, will require all the uses above and beyond a fully-appropriated status to be replaced or offset.

Fully appropriated status means any additional uses will cause the water supply to be out of balance with demand.

WILDLIFE PROGRAM

The second development was when Nebraska entered into the Platte River Recovery Implementation Program (PRRIP) in 2006 with the states of Wyoming and Colorado and the U.S. Department of Interior. The program calls for no new depletions to U.S. Fish and Wildlife Service "target flows" and a return to the 1997 level of depletions. Again, new uses could be allowed, but any depletion must be offset with water.

This replacement of water or "offset" can be accomplished in any one of three ways. **See options and policies on Pages 4-5 of this publication.**

Protect Your Irrigation Rights

Why is the NRD certifying irrigated acres? The answer is to protect your water right. Literally.

A rule to be imposed next year will require that only certified acres can be irrigated. Violators could be subject to a \$5,000 a day penalty. That's why it's important that everyone get their 2004 irrigated acres certified. Protect yourself and your irrigated acres. Get them certified!

The state imposed a stay (ban) on developing new irrigated acres after 2004 within most of the NRD; and the ban was expanded to new groundwater uses in the rest of the NRD in 2005. The only exception to the "no new uses" requirement is by acquiring a variance from the NRD. As part of the variance, adequate water to offset the new depletions to the river must be acquired or another use must be dried up. This may be done by converting other acres owned to dryland or by acquiring water from someone else— such as through the NRD's Waterbank.

See **map insert** on how many irrigated acres are already certified **Landowners east of Hall and Howard counties will receive packets to certify irrigated acres in mid-July.**



****IN THIS ISSUE****
-The Need for a Water Bank
-Protect Your Irrigation Rights
-2007 Water Roundup Festival
-Converting Fields/Pivot Corners to Cash
-Prepare Now for Fall/Spring Burns
-Insert: Certification Progress & Website Launched

Central Platte Natural Resources District
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The Need for a Water Bank (continued from Page 1)

OPTION 1: Purchase water. Acquire water from outside the Central Platte NRD and transport it to the central Platte River.

Two problems exist with this option:

- 1) **Where to get the water?** Everyone around us that has water in any quantity has been declared over-appropriated, fully appropriated or is about to be designated as such.
- 2) **Cost.** We would have to pay for the water itself and pay the cost to transport it to the central Platte River. It would be some distance, making the cost high.

OPTION 2: Regulation. Regulate all current users to reduce the number of irrigated acres and other uses in a sufficient amount to replace the current and future excess depletions.

This option treats everyone the same by requiring a uniform percentage of reduction in irrigated acres on every farm operation. Some "grouping" of areas that have similar conditions can be made, but equity becomes an issue if Group A is treated differently than Group B.

Primary problem with Option 2: Operators develop their labor and equipment based upon an operation of a certain size. A 5%, 10% or 15% reduction in the size of that operation reduces the efficiency of their labor force and/or their equipment; and opens up the question of what to do with the non-irrigated and non sub-irrigated acres. Change equipment for dryland crops?

Inefficiencies with Option 2: Inefficiencies are built into this "regulation" option. These include how much land, and which lands, are retired to meet the required goal. Since not all of the lands impact the river the same amount, there will be acres retired that have both a large and a small impact on the river— even if areas that have similar features are "grouped." Administration is also high on this option since every farm operation would have to be monitored for compliance.

Nevertheless, **regulation must remain a viable option** because it is one sure way of meeting the requirements of Nebraska law.

OPTION 3: Water Right Acquisition into a "Waterbank". Acquire permanent easements from willing sellers to retire irrigated acres (and other uses) and convert the land or use to one that has a lesser impact on the river, thus increasing the flows.

This option has the potential to be the most efficient in that it would likely attract odd size fields and odd shaped tracts of land; such as pivot corners that are harder to farm and less efficient to irrigate. It also would favor those lands that have a larger impact on the river if the fee structure for the acquisition was set up based upon a uniform cost for each acre-foot of impact to the river.

Water Banking Policy

The Central Platte NRD Board of Directors has decided that Option 2: Regulation and Option 3: Water Right Acquisition are the options that will be implemented in order to achieve compliance with the law within the CPNRD.

Option 3: Water Right Acquisition will be the first option implemented. *The Board will do as much as economically reasonable and feasible to achieve the requirements before implementing Option 2: Regulation.*

This water right acquisition will be handled through the District's Water Bank that will also be used to facilitate offset acquisitions for new and expanded uses.

The Water Bank Program officially began on May 24, 2007.

First in Nebraska

Central Platte NRD's water bank is the first to be implemented in Nebraska. At least three other Natural Resource Districts (NRDs) are currently considering water banks in the Platte Basin, especially those that have been declared over-appropriated. These NRDs include: the Twin Platte NRD in North Platte, the Tri-Basin NRD in Holdrege and the North Platte NRD in Gering.

Ron Bishop, general manager, said the state of Kansas is another state that he knows of that has a water bank.

2007 Water Roundup Festival

1,244 Students 51 Activities 350 Presenters & Volunteers

Fourth and fifth-grade students from across the state learned about the importance of water conservation at the 2007 Nebraska Children's Groundwater Festival, which was held on May 8th at Central Community College and College Park in Grand Island.

The Central Platte NRD sponsors the event by providing \$10,000 and two staff members who coordinate the event— Kelly Cole and Marcia Lee. There were 20 new activities this year. One new concept was "Water Jelly" in which students learn how polymers can help conserve water because of their expansion qualities (see photo to the right). Polymers are the same material used in baby diapers to absorb water.

Another new concept stemmed from the City of Grand Island's storm water management program. They developed an interactive powerpoint game called "Nobody Knows Where It Goes" in which students see how common waste products can affect the rivers, lakes and groundwater by interacting with animated characters. The game was designed by the same person who created Homer Simpson, from the Bart Simpson Show.

There were also three high schools that presented classrooms for the first time— Palmer High School presented "Hydro Human," Grand Island Central Catholic presented "Recyclable Roundup," and Grand Island Senior High environmental science classes presented "GISH Water World" and "Watery World."

High schools were invited to present through the Jami Harper grant program that pays for materials needed for their classrooms. Harper is a 2006 Grand Island Northwest High School graduate who received third place in the Volvo for Life Award because of her work with the Festival. She was awarded \$25,000 to distribute to local educational events and she chose to give \$10,000 to the Festival. Harper designated that part of the money be used for the grant program and part used for scholarships. For more information on Harper, visit the NRD website at: www.cpnrd.org.

The tentative date for the next Nebraska Children's Groundwater Festival is Tuesday, May 13, 2008 at the Central Community College and College Park in Grand Island.



Water Willy, the festival mascot, sports a western outfit to go along with this year's theme "Water Roundup."



Students from Greeley-Wolbach enjoy feeling water crystals at the "Water Jelly" classroom, taught by the Bureau of Reclamation. The students used polymer water crystals to learn of their expansion qualities to hold moisture.



Students who visited "Beware of the Wells" in the Exhibit Hall learned the pioneer method of using cornmeal to cleanse drinking water. Presenter shown is Ann Atkins from Stuhr Museum.

Prepare Now for Fall & Spring Burns

A long-term plan is essential for a successful burn. David Carr, range management specialist, said, "part of the successful practice of burning is to thoroughly prepare the burn unit boundaries."

Preparation includes:

- boundaries must be clear of trees and drivable
- boundaries through grassland areas should be mowed
- notify NRD staff of hazards within the burn area
- notify NRD staff of deer stands, junk piles, etc. within the burn unit

Prescribed burning is necessary for pasture health in most of the Central Platte NRD. With adequate moisture, non-native and undesirable species **will** affect your pasture if you don't burn because NRD has mostly rich soils. If you do burn, prescribed burning will **improve** the grazing quality of your pasture and your bottom line.

Prescribed burning re-establishes native grasses and helps them compete the non-native plants. One prescribed burn can kill thousands of small to medium sized trees in only a few hours. In cedar-infested areas, burning is much cheaper than mechanical or herbicide control; although a combination of these may be necessary.

Landowners should take advantage of the fact that the Central Platte NRD is conducting the burning with a specialized burn crew and is readily available to burn. The NRD crew utilizes advanced, professional techniques for burning, and consists of state certified firefighters. If trees are taking over your pasture, consider burning to improve your pasture and to increase the value for this state's wildlife.

The NRD staff can make a site visits to help determine what site preparation is necessary and where the boundaries should be placed.

Call David at 308-385-6282 or email: carr@cpnrd.org.



Photo taken on NRD burn near Clarks, Nebraska on March 23, 2007.



This photo taken in May 2007 shows new growth from the March burn done in the photo to the right. The burn also helped eliminate some volunteer cedar trees.

Water Bank Policies

OPTION 3: Water Right Acquisition

- ◀ Acquire water rights and uses that have an impact on Platte River stream flow to have available for replacement or offset needs of (a) the NRD, (b) new agricultural and industrial uses.
- ◀ Upon request, deposit and account for water rights and uses for individuals that have impact on the Platte River stream flows but are being abandoned. Water rights and uses deposited in the water bank by individuals will be protected and preserved for 15 years; after which time, if unused, they revert to the CPNRD to be used by the NRD.
- ◀ Administrative fee (of the then current acre-foot rate being paid by the Waterbank) will be charged at:
 - 5% Individuals withdrawing their own previously deposited water rights or uses to transfer to a new use of their own.
 - 10% Individuals withdrawing their deposited water rights or uses to transfer to another person's new use.
 - 15% Individuals acquiring NRD owned water rights for offsetting their own new depletions.
- ◀ District will acquire water rights and uses from current users on a willing seller/willing buyer basis.
- ◀ Preferred method of acquisition would be by perpetual conservation easements that control future uses.
- ◀ Temporary conservation easements, temporary leases, and fee title to land will only be considered on a case-by-case basis and only if it's advantageous to the best interest of the District and its residents.

Target Water Rights & Uses

Benefit: Defined as only those parts of a water right or use that impact the Platte River within 50 years and can be counted as replacement or offset water if retired. (Not all wells and uses impact the river equally.)

A use that depletes the river 80% of what the use consumes provides twice the replacement or offset benefit as a use that consumes the same amount of water but only impacts the river 40%.

When acquiring water rights and uses to retire and place in the water bank, the NRD will base payment rate on the impacts to the river. **The higher the impact to the river, the more the value. Payment rates will generally be higher closer to the River. See Pages 6-7 for examples.**

In order to maximize the benefits of, and insure uniformity and equity in benefits & costs, water rights and uses will be based upon a cost per acre-foot impact on the river.

Target Programs

Center Pivot Programs: Center pivot programs offered by the USDA (EQIP Program) and the NRD will be a target program by offering an additional incentive to permanently revert those corners to non-irrigated, non sub-irrigated uses.

New Program: The District will also initiate a new Water Rights Acquisition Program to acquire water by reverting irrigated uses to non-irrigated, non sub-irrigated uses.

Target Areas

The "over-appropriated" area above Elm Creek will be the highest priority area because:

- Replacement water needs are higher in areas designated as over-appropriated.
- Location is in the upper end of the District and can serve offset requirements and needs for all agricultural, municipal and industrial uses downstream.

The NRD will initially reserve 70% of the appropriated water bank funds to target this area each year. The remaining 30% of the water bank funds will initially be reserved for the rest of the District.

The location of each acquisition will be considered since acquisitions can potentially serve a wider number of new uses the further west they are located in the District.

Administration

Water bank activities will be reviewed by the Water Bank Subcommittee.

The Subcommittee will forward a recommendation to the Board of Directors for final action.

The District wants to acquire groundwater rights from willing sellers and reduce groundwater uses that have an impact on Platte River stream flows, in order to reduce the extent of regulation that has to be imposed. The amount of impact on the Platte River varies widely across the District with some locations having a large impact while other areas may have only a small impact. An example of a large impact is: 80-90% of the water pumped in a 50-year period shows up as a depletion to the river. A small impact would be a 5-10% depletion to the river.

Several examples of how impacts vary across the District are shown below. One of the major targets the District will be concentrating on will be smaller, odd-shaped fields (such as pivot corners) that are harder and less efficient to irrigate. These areas would be easier to handle as dryland if the economics are right.

ACQUIRING WATER RIGHTS:

- *The District will buy a perpetual conservation easement on the acres involved *Ownership remains with the current owner
- *Restrictions will be placed on what may be grown— only dryland crops that aren't sub-irrigated

Anyone interested in converting small fields & pivot corners into cash should call the NRD office at 308-385-6282.

EXAMPLE

Area 1— Cozad, Dawson County

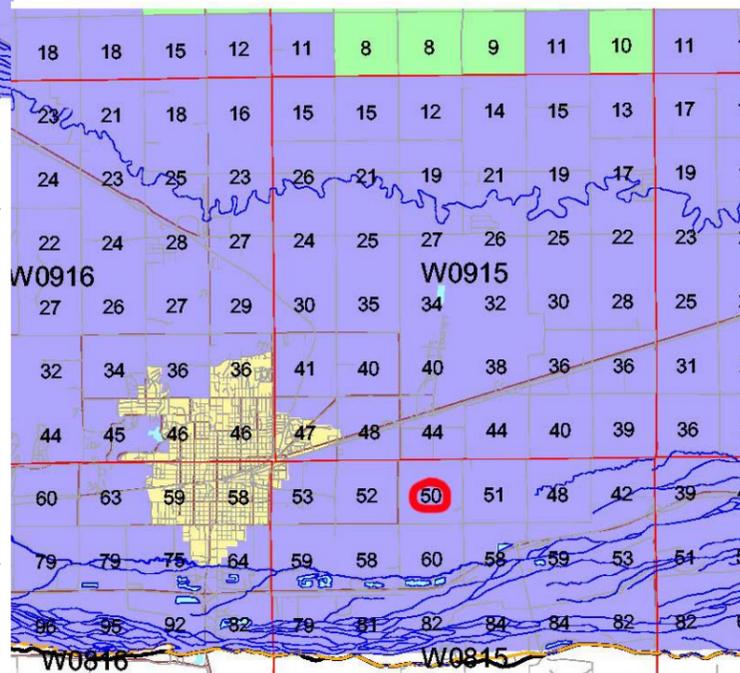
Field 1 SW of town, approximately 1.5 miles south of the river. Impacts the river 90%. (90% of the water pumped over a 50-year period will show up as a depletion to river flows.)
CONDITIONS: Irrigated quarter section where a center pivot is installed and conversion from irrigated corn to dryland corn on 28 acres in the four corners.

- There would be a net average annual reduction in depletion to the river of **19.4 acre-feet of water**. It's this 19.4 acre-feet of water that the District is interested in buying through a perpetual conservation easement.

Field 2 4 miles NW of town, impacts the river 38%.

CONDITIONS: Irrigated quarter section where a center pivot is installed and conversion from irrigated corn to dryland corn on 28 acres in the four corners.

- On this field, there would be a net average of **8.7 acre-feet in reduced depletion** to the river if 28 acres were converted to dryland corn.



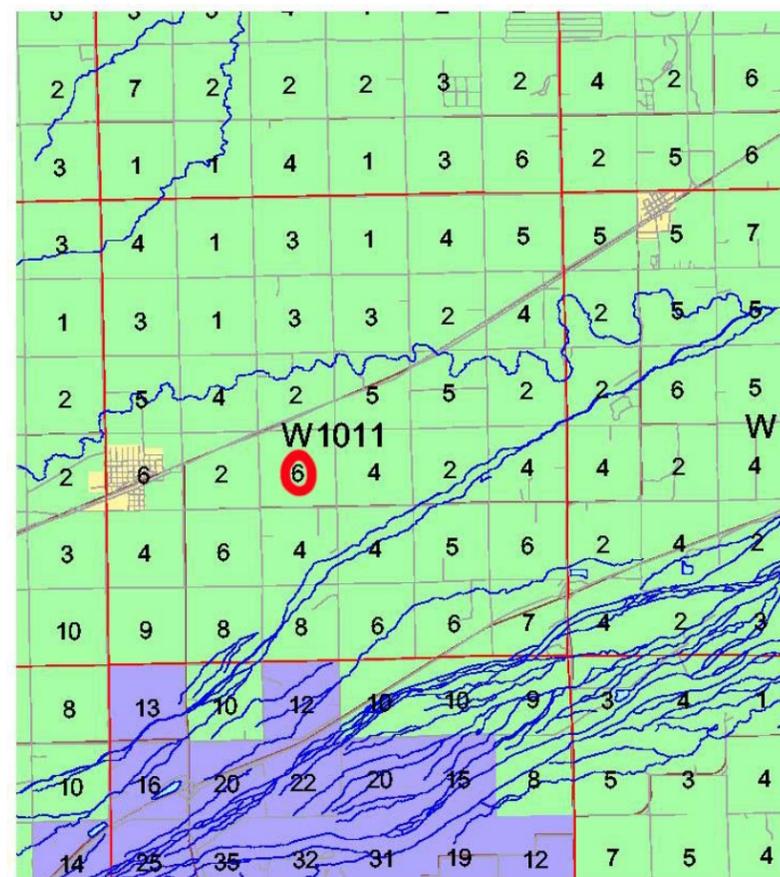
EXAMPLE

Area 2— Kearney, Buffalo County

Field 3 east of town, lies approximately 3 miles north of the river. Has depletion rate of 50%. (Depletion to the river equals 50% of the volume pumped during a 50-year period.)

CONDITIONS: Irrigated quarter section where a center pivot is installed and conversion from irrigated corn to dryland corn on 28 acres in the four corners.

- There would be a net average annual reduction in depletion to the river of **8.6 acre-feet of water**. It's this 8.6 acre-feet of water that the District is interested in buying through a perpetual conservation easement.



EXAMPLE

Area 3— Wood River, Hall County

Field 4 is more typical of the Hall County area with a much smaller impact on the Platte River. Located 5 miles north of the Platte River and approximately 2 miles east of the town of Wood River. Only has 6% impact on the Platte. (Depletion to the river equals 6% of the volume pumped during a 50-year period.)

CONDITIONS: Irrigated quarter section where a center pivot is installed & conversion from irrigated corn to dryland corn on 28 acres in the four corners.

- There would be a net average annual reduction in depletion to the river of **1 acre-foot of water**.

EXAMPLE

Area 4— Central City, Merrick County

Field 5 located approximately 2 miles north of the river and 2 miles SW of Central City. Has depletion rate of 59%. (Depletion to the river equals 59% of the volume pumped during a 50-year period.)

CONDITIONS: Irrigated quarter section where a center pivot is installed and conversion from irrigated corn to dryland corn on 28 acres in the four corners.

- There would be a net average annual reduction in depletion to the river of **9.5 acre-feet of water**. It's this 9.5 acre-feet of water that the District is interested in buying through a perpetual conservation easement.

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