

Integrated Management Plan Stakeholders Meeting

Twin Platte Natural Resources District

June 28, 2005

Stakeholders present: Phil Armstrong, Don Colvin, Burdette Cooley, Jim Goeke, John Kilpatrick, Marion Kroeker, Tina Kurtz, Frank Kwapnioski, Jim Meismer, Dudley Oltmans, Roric Paulman, Robert Petersen, Page Peterson, Dennis Schilz, Kenneth Schilz, Jerry Steinke, Mike Svoboda, Doug Teafor, Steve Van Boening, Joe Wahlgren, Jerry Weaver, Mike Wheeler, Robert Wiseman.

Stakeholders absent: Jim Hawks, Todd Kramer, Steve Krajewski,

Resource People: Jim Cannia, Ann Diers, Ann Dimmitt, Tom Hayden, Kent Miller, Roger Patterson

The Stakeholders Meeting was called to order at 6:30 p.m. CDT.

Introductions

Guest speakers from Nebraska Department of Natural Resources were introduced: Roger Patterson, Director; Ann Bleed, Deputy Director; and Jim Cannia, Integrated Water Management Analyst.

Announcements

Lisa Dominisse, the new DEVCO director in North Platte, was introduced to the group.

Educational Presentation:

Review of State Water Laws – Roger Patterson (Director, Department of Natural Resources)

DNR administers surface water in the State of Nebraska based on these premises: Surface water is dedicated to the public and allocated as property rights to individuals using an appropriation system based on first in time, first in right, meaning that those with the earliest water rights have priority. Water appropriations are only approved when:

- 0) There is a beneficial use for the water. Water rights must be perfected according to specified requirements and if the water right is not used enough or is used incorrectly it can be adjudicated or cancelled by the State.
- 0) There is unappropriated water available in sufficient amount and time to meet the individual's needs at the time needed,
- 0) In contested applications, public interest/welfare is a determining factor in approval or denial of the request.

Types of permits available for surface water:

- Natural Flow: The most common permit, which allows user to divert natural flow out of streams.
- Storage: Required if you are diverting water into storage. A storage right is secondary to downstream irrigators with natural flow rights. Storage of less than 15 acre feet by an on-channel reservoir is exempt.
- Storage use: Allows you to take water out of reservoirs and divert it to canals for your use.
- Natural Lake: Required to pump water out of lakes.
- Wells within 50 feet of a stream: Subject to regulation by ground and surface water regulators

Surface water administration occurs when the State closes down certain users to insure that they don't use more than they are entitled to receive and to guarantee that senior rights get priority in allocations. Frequent administration occurs in the Elkhorn, Loup, Platte and Republican basins. When no unappropriated water is available basins are closed for new surface water appropriations.

Moratoriums on new surface water appropriations are currently in place for sections of Whitetail Creek, upper Niobrara, Republican River, Lodgepole Creek and the Platte River.

Water appropriations can be modified in certain circumstances:

- To relocate or transfer water rights
- When incidental recharge of underground water storage would occur
- To allow for changes in returns and delivery systems

These modifications can be made only if there is no negative impact to downstream water users.

A maximum rate of 1cfs per 70 acres and volume of 3 acre-feet per acre each year is allowed from natural flow for irrigation purposes. Maximum allowed from storage depends on beneficial use.

New rules currently being drafted for the transfer of surface water rights include:

- An expedited process when users are shifting water to irrigate adjacent land within the same area, same point of diversion, same number of acres and same owners. The transfer must not negatively impact any other users.
- Change in type: Examples include things like changing from natural flow to storage or to intentional underground storage, or changing from incidental underground appropriation to a natural flow or storage use appropriation.
- Temporary Transfers: Can change preference categories (for example from irrigation to municipal use) using 30 year, renewable leases.

Additional Changes Made by LB 962:

- Extend the period for non-use from 3 to 5 years before water rights are cancelled
- If there is an excusable reason for non-use (like involvement in CREP) then the period extends from ten to fifteen years.
- If the reason for non-use is unavailability of water in a basin that is over or fully appropriated and water is expected to be restored, rights are extended for up to 30 years.
- If rights are cancelled, the irrigation district or canal company has up to 5 years to reassign rights to other users in the district.
- The process that will be used to make these changes:
 - Notice is given to the appropriator
 - The appropriator can file a response
 - The DNR and appropriator can stipulate
 - There is a hearing only if there are objections to the changes

Educational Presentation:

Administration of Surface Water Rights – Tom Hayden (Supervisor, Bridgeport Field Office)

Tom supervises water administration for parts of 5 water divisions (Hat Creek, White River, Niobrara River, Lodgepole Creek and Platte River west of Grand Island). He gave a detailed perspective on how surface water rights are administered each year. Water users are shut down according to the date water rights were first issued. In times of drought more administration is required. In 2002 the state had the lowest run off from rain but still had good storage water levels. The impact of the drought was felt more keenly in 2003 and 2004 when users with rights as early as 1890 were closed down for part of the season. Users are asked to order storage water for canals ahead of likely shut downs to keep water in the river. Administration above the Tri-State Canal Dam is under the North Platte Decree. During times of heavy irrigation, surface water flows are measured several times a week to insure that all users are receiving their proper allocations.

Educational Presentation:

Negotiated Rule Making – Roger Patterson (Director, Department of Natural Resources)

LB 962 states that river basins are deemed fully appropriated if:

- Surface water supply is insufficient to sustain over the long term the beneficial or useful purposes of surface water appropriations.
- Stream flow is insufficient to sustain beneficial uses from wells dependent on surface water recharge
- Stream flow is insufficient to maintain compliance with an interstate compact or decree

Nebraska Rev. Stat. 46-713 requires that the Department of Natural Resources (DNR) specify rules that will be used to make preliminary determinations of fully appropriated basins based on the best available scientific data.

A Negotiated Rules Making Committee was formed to specify by rule and regulation the types of scientific data and other information to be considered developing criteria for determination of fully appropriated status. The committee met seven times and reviewed information related to levels of interference (how reliable the supply needs to be), hydrological connectivity between ground and surface water, the water demand for crops and anticipated flows now and in the future.

Decisions of the Committee:

Types of Scientific data and other information that will be used:

- Surface water administrative records
- Department hydrographic reports
- Department and USGS stream gage records
- Department registered well database
- Water level records, maps from NRDs, CSD>USGS and other peer reviewed publications
- Technical hydrogeological reports from UN, USGS and other peer review publications
- Ground water models
- Current rules and regulations of NRDs
- Best scientific information available

Criteria for determining whether a basin is fully appropriated

- The water supply is sufficient to provide economically viable use
- The lag effect of pumping from existing wells has been taken into consideration

DNR Proposed Rule on whether basin is fully appropriated:

- A basin, sub basin or reach is fully appropriated if, after considering a 25 year lag effect:
 - Any irrigation right will be unable to divert at least 85% of the annual crop irrigation requirement May 1 – September 30
 - Or unable to divert at least 65% of annual crop irrigation requirement July 1- August 30

Concerns with Proposed Rule:

- Length of time for considering lag effect. (Suggestions ranged from 10 to 50 years)
- Percentage of crop irrigation requirement that needs to be met (suggestions up to 99%)
- Some thought a specific method should not be proposed but the report must explain the methods used.

Geographic Area within which the Department considers Surface Water and Ground Water to be Hydrologically connected:

- Area within which pumping of a well for ___ years will deplete the river or a base flow tributary by at least ___ % of the amount pumped. The committee reviewed options ranging from 1% in 50 years to 28% in 40 years.
- DNR Proposed Rule: 10% in 50 years. There would be a stay on development with no new rights issued in areas impacted by this rule. Any new development would have to be offset by either a water transfer, a reduction in everyone's allocation or retirement of irrigated land through programs like CREP and EQIP.
- The draft rule will be published within a month with a hearing scheduled in early August. After hearings, they will either adopt the rule or change it and schedule new hearings.

Educational Presentation:

Estimating River Depletions from groundwater irrigated land development (July 1997 – June 2004) – Jim Cannia (Integrated Water Management Analyst, Department of Natural Resources)

Two sources of data have been used to determine total amount of new irrigated land development since 1997: 1) Well Registration database – which records number of new wells drilled, 2) CALMIT 1997 and 2001 Land Use Inventory which uses remote sensing to determine how land use has changed. A 2005 CALMIT inventory has been completed and should be available for use soon. The area studied was the Platte River basin from Lexington to the Wyoming border. Maps show that existing irrigation wells are predominantly on the eastern end of this section of the Platte River basin and most new wells were drilled in the Central and Twin Platte Districts. Registered wells data show that between 2000 and 2004, the total number of wells nearly tripled in the stretches between the

Wyoming border and Kingsley Dam and between the Tri-County diversion and Lexington. In other sections of the basin the number of wells more than doubled in the same time period. CALMIT data revealed that pivot irrigation is increasing in areas that were previously gravity irrigated. Pivots apply water more evenly on a more frequent basis. Consequently, with pivots there is often more water used, less ground water recharge and lower returns to stream flow than when gravity irrigation is employed. CALMIT Land Use data revealed that between 1997 and 2001 there were 91,973 new irrigated acres in the Platte River basin between Lexington and Wyoming. Of this, 11,994 were in overappropriated sections. Reductions in estimated net pumpage requirements for some sections of the river were due to farmers switching from raising corn to soybeans.

Using the above data sources, cumulative stream depletions were estimated for each reach of the Platte in 2006, 2013 and 2020. For new irrigated lands between 1997 and 2001, projections are that there would be 304,000 acre-feet total stream depletion by 2020.

Questions (for both speakers)

1. How is water quality in ground water reservoirs impacted by recharge?

Natural recharge generally improves the quality of ground water. There is no way to separate surface water and ground water quality.

2. How do you determine when to shut off people above the reservoirs?

The State can't shut off users for storage purposes but can do so if people below the reservoir have senior water rights.

3. How have conservation efforts impacted the volume of surface water?

Some stretches historically reporting 250 second feet have decreased to 50 second feet. Some drainages impacted by wells have dried up completely. The timing of return flows is later (September instead of July).

4. Can people sell their water rights only within the state?

Not necessarily. One Supreme Court case found that water is an article of commerce so you can't unreasonably limit the movement of water. In general, if you are not regulating your own citizens you can't impose different regulations on those from other states. The State is required to approve any interstate transfers of water.

5. When using the best scientific data to determine fully appropriated areas, does this include practices used in Colorado?

No. Methods used in Colorado were reviewed but geological conditions are significantly different from Nebraska so their methods are unlikely to work here.

6. If new scientific data proves existing assumptions for the 10% in 50 years ruling are incorrect, will you change the boundaries?

The COHYST model provides the information to make these kinds of changes if needed.

7. What was the basis for the 28% in 40 years and why is DNR now recommending 10% in 50 years?

The 28% in 40 was a negotiated guideline for the new Depletion Plan and determines which areas are overappropriated. The 10% in 50 years is the determination of hydrologically connected water using COHYST models. Since all of the TPNRD is already either fully appropriated or overappropriated a management plan is required to reduce depletions to acceptable levels.

8. If reaches within a system gain stream flow can this be used to increase storage?

This depends on how it will impact downstream users. At times of the year when water is not needed downstream it could be stored and used to replace depletions elsewhere and the state could use this as an offset.

9. If changes in cropping practices reduce water use do we get credit for this reduction?

Many conservation techniques (no till, pivot irrigation, terraces) impact stream flow and we don't hold ground water responsible for changes in practice. There are still management issues but they are different from ground water drilling. With CREP programs when acres are retired farmers can't dry up one area and use their water right somewhere else, so the state gets a credit for this land and can use it as an offset. Owners retain their water rights in the CREP program so when the acres come out of the program in 15 years the state will probably want to continue the lease going forward.

10. If we solve the shortage problem in our area will other areas be able to start new irrigating?

Since the Platte River basin is all fully or overappropriated east of Kearney there will be no new irrigation rights issued. Efforts will focus on getting back to fully appropriated in the entire basin.

11. Can water from CREP acres go into Lake McConaughy?

If irrigated by a ground water well you can't pump it out for transfer elsewhere. If irrigated by canal, retired consumptive use is available for storage in Lake McConaughy or for use downstream by those with senior rights

12. Was there a rush to develop new irrigated grounds between 2001 and 2004?

Yes, as soon as a moratorium was placed on the Pumpkin Creek area 70 new wells were drilled. There was a need to put the brakes on new development when the moratoriums were issued.

Future Meetings

Stakeholders were asked to contact Kent Miller with any additional ideas for speakers or educational topics to be covered in the coming months.

The July Stakeholders Meeting has been cancelled due to inability to schedule speakers. The next Stakeholders Meeting will be held **Monday, August 15th at the Holiday Inn Express in North Platte from 6:30 to 9:30 p.m. CDT.** Speakers will be Tina Kurtz, Department of Natural Resources and Brian Barels, Nebraska Public Power and Irrigation District.

The meeting was adjourned at 9:35 p.m. CDT.