

Integrated Management Plan Stakeholders Meeting

Twin Platte Natural Resources District

May 21, 2007

Stakeholders present: Don Colvin, Burdette Cooley, Lisa Dominisse, Steve Krajewski, Marion Kroeker, Tina Kurtz, Jim Meismer, Dudley Oltmans, Roric Paulman, Robert Petersen, Dennis Schilz, Kenneth Schilz, Jerry Steinke, Mike Svoboda, Steve Van Boening, Joe Wahlgren, T.J. Walker.

Stakeholders absent (excused): Phil Armstrong, Mike Drain, Jim Goeke, Jim Hawks, Frank Kwapnioski, Page Peterson, Doug Teaford, Mike Wheeler, Robert Wiseman.

Stakeholders absent (unexcused): Jerry Weaver

Resource People: Ann Dimmitt, Kent Miller.

The Stakeholders Meeting was called to order at 7:35 p.m. CDT

Announcements and Presentations

The facilitator told the group that Dr. Robert Wilson was available to speak about vegetation management at the July 16 Stakeholder meeting. The group indicated an interest in this presentation so it will be scheduled.

Kent Miller reported that the Stakeholder Subcommittee's efforts to hire a consultant were postponed due to two developments: 1) TPNRD hired a groundwater modeler, and 2) Central Platte NRD, NPPD and DNR launched a search for a consultant to put together water budget information for Dawson County. Kent proposed that the study area be expanded to include TPNRD and/or the entire COHYST district. COHYST sponsors have decided they will not ask that this study be expanded to include the entire COHYST area. Kent suggested that Brian Barel, Water Resources Manager with NPPD, speak to the group about this study. Stakeholders approved a revised agenda to include a presentation from Mr. Barel on Conjunctive Management of Surface and Ground Water in Dawson and Buffalo Counties.

Brian Barel spoke of positive benefits of the development of a ground water and surface water conjunctive management plan for the combined irrigation area for the Central Platte Valley. There are 7 irrigation canals in the study area that deliver an average annual diversion of 230,000 AF to 83,000 acres. There are also 2900 wells that irrigate 120,000 acres with ground water and also supplement surface water. Approximately 60% of surface water users also have wells. NPPD, CPNRD and NDNR have joined forces to study, develop and implement a conjunctive surface and ground water management program for this area which will optimize total water supply, manage for surface and ground water quality and sustain the surface water delivery system benefits (maintaining groundwater recharge and quality while preventing groundwater mining). The study should also provide alternatives for the CPNRD Integrated Management Plan. Stakeholders will be involved in program development, education and implementation using a phased approach:

PHASE I: Data Collection and Evaluation

A fair amount of data collected from 2004 to 2006 and merged with state information led to the decision in 2006 to move to Phase II.

PHASE II: Plan Development (2007-2008)

Stakeholder and public input and education will be incorporated into plan development. Major components of the plan to be developed include:

- Hydrologic modeling and analysis to integrate a surface water model into a ground water model which will likely extend to Lake MacConaughy where storage water starts. COHYST data will be used along with any other information sources that may be useful.
- Analyze the economics of alternatives considering costs and benefits of projects to be built or changes to be made.

- o Develop and evaluate various management scenarios which would spell out how management would take place in dry and wet years.

PHASE III: Plan Implementation (2009 and beyond)

Depending on the specifics of any plan developed, new legislation may be required, new entities created, etc.

Timetable for Phase II – Plan Development:

January 2007: RFP issued to five consulting firms for the following work:

- o Develop evaluation tools including (1) a surface water model capable of integrating with a ground water model like COHYST, (2) economic analysis tools for analyzing costs and benefits of various alternatives, (3) groundwater water quality analysis tools.
- o Utilize tools to evaluate management strategies and options for conjunctive management of surface water and groundwater resources in the study area. The goal is to optimize availability of water to ground and surface water users taking into consideration present system benefits as well as LB962 needs and Platte River Recovery Implementation Program commitments.

February 2007: COHYST sponsors asked conjunctive management sponsors to request RFP recipients also provide a cost to expand the surface water model to the COHYST area and integrate with groundwater model.

March 2007: Conjunctive management sponsors requested supplemental proposals to expand surface water model to COHYST area and integrate with groundwater model.

April 2007: Presentations/interviews with 4 firms.

May 2007: Request for final and best cost estimates for 3 different options: 1) Entire COHYST area, 2) CNNRD area only, 3) CNNRD and TPNRD areas.

June or July 2007: Final proposals back and work awarded with 18 months to complete

Benefits of this approach include the development of tools to evaluate the different management scenarios and make informed IMP recommendations, guidance in deciding what data must be gathered and refined to integrate surface and ground water, and creation of a model that can possibly be used statewide.

In response to questions, Mr. Barels provided the following additional information:

1. California's conjunctive management approach uses surface water when there is an excess and mines groundwater in dry times. In 2004, after 6 years of drought and inadequate surface water storage supplies, NPPD drilled wells to supply needed water. There is variability in Nebraska regarding the connection between the aquifer and surface water so we must understand how changes made impact both ground and surface water.
2. NPPD has permits for incidental recharge for all areas surrounding canals and considers this to be positive. The Platte River used to be a losing river from Grand Island to Columbus. The canals, however, have created a ground water mound.
3. Interaction between ground water and surface water is variable and complex. In Grand Island, pumping from wells is increasing and so is surface water. In Pumpkin Creek, by contrast, pumping from wells is increasing and surface water is decreasing.
4. Some of the wettest years on record were from 1975 to 1990 which brings up questions like: How did the Sandhills react to this? Have we seen the full impact of development yet? Is the current drought "normal"?
5. We also need to understand the impact of conservation efforts and the evaporation component on ground and surface water.
6. Surface water data sources include information collected by USGS, State of Nebraska and canal diversions. We need a model that administers changes in use and flow based on surface water rights. The difficulty comes in linking surface water and ground water flows with variables like recharge rates.
7. This study is currently being paid for by NPPD, CNNRD, DNR, grants, and Environmental Trust money. TPNRD is currently entering into a new budget year so they could budget in funds to assist with this effort.

Discussion of IMP Management Scenarios

Discussion of possible management scenarios continued.

Metering: Additional thoughts on metering (which was discussed last month)

<i>PROS</i>	<i>CONS of Metering</i>
Systems are available that would allow for remote monitoring of meters	Would have to deficit irrigate to reduce to the point that you'd put water in the stream

Acreage Reductions: Reducing the number of irrigated acres and subsequent management to reduce consumptive use of those acres. This needs to be done on an entire basin basis to be effective. The term of acreage reduction (3, 5, 10 years, etc.) depends on the water budget and precipitation. If land is taken out of irrigated production, there must also be a determination of what would be done with the land to insure reduction in consumptive use.

<i>PROS</i>	<i>CONS of Acreage Reductions</i>
May be required to get water in the stream.	Negative economic impact – lowers tax base and less is paid for inputs.
Easily quantifiable.	Logistics of implementing (enforcement or regulation) on a field by field basis would be complex and difficult.
If acreage changes are tied to limits on consumptive use then producers have flexibility to decide what changes to make that actually put water back in the stream. What you do with the water on reduced acres is most important.	Who is going to pay the costs involved in reducing or eliminating consumption of acres reduced?
Acreage reduction is a way to reduce consumptive use.	KREP restricts the way acres can be managed so may not get a big reduction in consumptive use. Also, can't count on KREP dollars being available and NRDs don't have funds to provide these kinds of incentives.
Shutting off irrigation on acres near the river would be most beneficial in the short term.	Distance from stream may impact short term benefit from this management approach.
If manage reduced acres to get consumptive use to zero may be able to irrigate more elsewhere and still put water in the stream.	There is a breaking point where efficiencies from acreage reduction are not accrued (for example – taking a piece out of the pivot pie)

Well Spacing: Adopting more stringent well spacing requirements than current (600 feet for irrigated crop land and 1000 feet for public or industrial use). For example, 1000 feet between wells could be required on irrigated crop land. This is a moot point in over appropriated reaches but not in fully appropriated in the event that the IMP would lift the moratorium on new wells in fully appropriated reaches.

<i>PROS</i>	<i>CONS of Well Spacing</i>
Could be a component of regulations for new development as it limits the number of new wells developed and acres irrigated.	Since this is only for new wells it is irrelevant as long as there is a moratorium in place for new well development.
	If you don't also limit the quantity of water pumped from the well it may not be useful.
	As long as it is first come, first serve, for well

drilling then the race is on.

The comment was made that discussion of each of these management scenarios is just reinforcing the need for reliable water budget numbers and effective ways to track stream and ground water flows to prove what method is working in the water budget.

Future Meetings

We will continue with the process of defining and discussing management scenarios in the order listed below. Stakeholders should be prepared to voice their thoughts and concerns so we can quickly move through the list.

- Prevent or limit expansion of consumptive use
- Require use of best management practices
- Mandatory education
- Regulate transfers
- Moratorium on well permits
- Conditioning of permits
- Incentive programs (CREP, EQIP)
- Retiming projects
- New storage developments
- Water banking
- Vegetation management
- Pooling

Meeting Schedule

All meeting times are from 7:00 to 9:30 p.m. CDT and ***will be held at the Holiday Inn Express.***
Future meetings:

7:00 p.m.	June 18
7:00 p.m.	July 16
7:00 p.m.	August 20
7:00 p.m.	September 17
7:00 p.m.	October 15
7:00 p.m.	November 19
7:00 p.m.	December 17

The meeting was adjourned at 9:30 p.m. CST.