Integrated Management Plan Stakeholders Meeting
Twin Platte Natural Resources District
January 29, 2007

Stakeholders present: Phil Armstrong, Don Colvin, Lisa Dominisse, Frank Kwapnioski, Jim Goeke, Jim Hawks, Marion Kroeker, Tina Kurtz, Jim Meismer, Dudley Oltmans, Robert Petersen, Page Peterson, Dennis Schilz, Kenneth Schilz, Jerry Steinke, Doug Teaford, Steve Van Boening, Joe Wahlgren T.J. Walker, Jerry Weaver, Robert Wiseman.
Stakeholders absent (excused): Burdette Cooley, Steve Krajewski, Roric Paulman, Mike Wheeler.
Stakeholders absent (unexcused): Mike Svoboda.

Resource People: Kent Miller, Ann Dimmitt, Ann Bleed

The Stakeholders Meeting was called to order at 7:05 p.m. CDT.

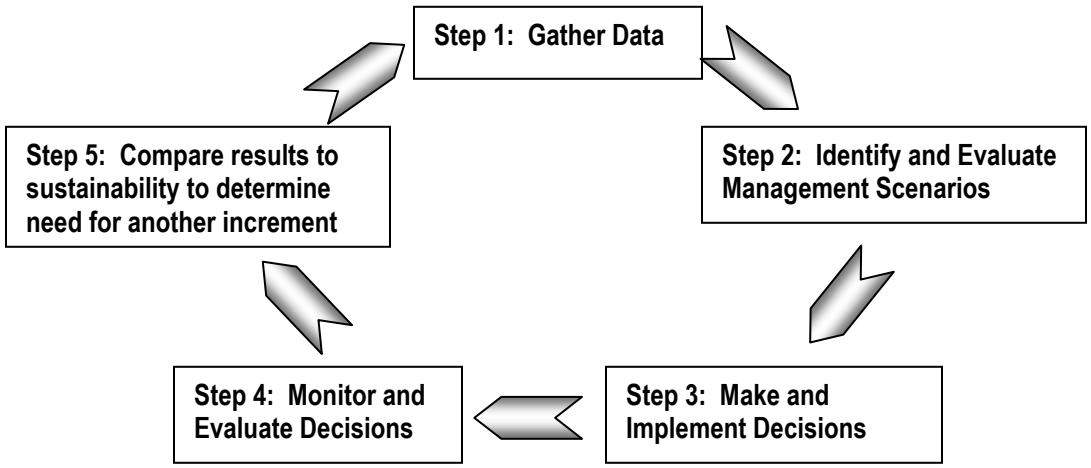
Announcements and Presentations

Ann Bleed was welcomed. She is the new Director of the Department of Natural Resources.
Kent Miller reported on the 2007 Nebraska Association of Resources Districts (NARD) Legislative Conference which was attended by board members and employees from all 23 NRDs. NARD delegates supported the Governor's budget which includes $2.7 million annually in new funding for water programs. There was extensive discussion on two bills that have been introduced in the Unicameral: LB 594 – well drilling moratorium and LB 701 – creating a new water management committee. Rather than opposing or supporting these bills, delegates adopted a policy statement to address these bills and work with the legislature and interested parties to find solutions to the issues. The policy statement is as follows:

> *We support efforts of the local NRDs to address management of water resources within their district. We encourage local NRDs to utilize existing authorities to manage resources pro-actively to assure the public a safe, abundant supply of water for all beneficial uses. We oppose additional intentional transfers of water from one river basin to another for the purpose of augmenting water supplies in the receiving river basin. We believe the districts in these basins should be provided adequate management authorities, resources and funding to manage their water for beneficial purposes. In areas where additional resources are needed, we support adequate funding and technical assistance from state sources to assist the NRDs with management activities.*

IMP Tools

At the last meeting the outline of a 5-Step Planning Implementation Process developed by Stakeholder Frank Kwapnioski was presented. The group requested that Frank explain this model in more depth at this meeting. He stressed that this proposal is not a definitive recommendation but is instead a way to systematically address issues and concerns in an IMP. It is a work in process and since the initial discussion he has changed some of the steps in the process. The revised 5-step process is shown below and on the following pages:



Frank explained each step of this proposed process. The outline of the planning implementation process is in bold type below. Frank's comments are in italics and questions are underlined italics:

Step1: Gather Data *Compile existing available information. Determine if additional information is needed.*

- **A. Water Budget** *We need to be able to determine our **water balance**. Is water supply adequate to meet our demands? If not, by how much does demand exceed supply?*
  - **1. Water Supplies**
    - **a. Precipitation**
    - **b. Groundwater inflow**
    - **c. Surface water inflow**
  - **2. Water Demands**
    - **a. Water consumption quantified and located (Agricultural, Industrial, Municipal, Domestic)** *Plus other demands like noxious weeds and unmanaged vegetation.*
    - **b. Water leaving the basin (Surface water outflow, Groundwater outflow, Evaporation, Evapotranspiration, Other Sinks)** *Surface water outflow would include surface water rights and required inflow streams plus uncaptured excess rainwater. Groundwater is always moving in and out of the NRD even if we can't quantify or control it.*
- **B. Hydrologic Framework**
  - **1. Water Sources and Locations**
  - **2. Aquifer properties**
  - **3. Surface water infrastructure**
- **C. Geologic Framework**
  - **1. Groundwater-Surface water connectivity**
  - **2. Aquifer Properties and Boundaries**
- **D. Other Data**

Are we trying to get to a baseline consumptive use number? There is a lot of data out there. We need to first get a general idea of what we have before we know what else is specifically needed. Determining a baseline of consumptive use may be a refinement we will want as we go through the process.
What boundaries would we set for this hydrogeologic framework? The TPNRD District
What time frame would we use for the water balance – Current, 1997, or historical? Tina noted that LB 962 suggests 1997 as a starting point but the years since then have been exceptionally dry. Frank suggested that long term averages may be a good starting point with adjustments for wet or dry times. This is something the group needs to decide.

Step 2: Identify and evaluate management scenarios *The following items are a starting point for discussion, not a comprehensive list of possible mechanisms that could be used. The group may opt to recommend any or all of these, plus others the group may suggest. Once data is available it will help determine which option would be the best to use.*

- **A. Identify additions to the water budget supply**
  - **1. Water Import** *May not be a very likely option but it is worth listing all possibilities*
  - **2. Deep Aquifer Sources**
- **B. Reduce Consumption**
  - **1. Allocations based on available water, not historical practices**
  - **2. Acreage Reductions**
  - **3. Incentive Programs**
  - **4. Dry Year Controls**
  - **5. Retirement**
  - **6. Others**
- **C. Improve water use efficiencies from existing water budget supply**
  - **1. Water Metering**
  - **2. Conjunctive Management**
    - **a. Recharge projects**
    - **b. Extraction projects**
  - **3. Retiming Excess Supplies**
  - **4. Alternative Agriculture Practices**

D. Increase useable supply
   1. **Groundwater Storage**
   2. **Surface Water Storage**
   3. **Evaporation Management (irrigated and non-irrigated acres)**
      a. **Crop rotation in association with eco-fallow, minimum/no till farming**
      b. **Application of polymers directly or through center pivots**
      c. **Other soil cover processes that reduce evaporation without effecting yield**
   4. **Evapotranspiration Management**
      a. **Alternative cropping**
      b. **Phreatophyte management**

Step 3: Make and implement decisions *Decide how we will meet our goals and implement the plan*

A. Define sustainability *We need to know when we have met the goal of sustainability.*
   1. **Determine difference between present levels of consumption and sustainable levels**

B. Determine fully appropriated level of development
   1. **Allocate water budget to specific uses and locations**
      a. **Downstream**
      b. **Water rights**
      c. **Groundwater use**
      d. **Groundwater recharge**

Step 4: Monitor and evaluate decisions
Additional management strategies need to be identified for this and the next step
Step 5: Compare results to sustainability to determine need for another increment

Additional Questions
COHYST has given us a benchmark for 1997. Shouldn't we be working on this instead of a longer-term approach? COHYST helps us understand connectivity but doesn't show us how land use has changed since 1997. Looking at development post-1997 doesn't tell us how much consumption has changed. We need to collect and analyze the data to figure out the best approach to even reach short term goals.

Can COHYST give us the information we need? Jim Goeke: *Yes. Geology and aquifer data has been the same since 1997. We have data on water level changes for every year which reflects pumping levels. It won't be precise but should give us a pretty good idea of inflows and outflows if a modeler can carve just Twin Platte NRD out of the data, which should be possible. COHYST data was collected down to the quarter section so a precise grid is available. But we need a modeler on staff or on contract to provide this information on a district level.*

If we had a modeler, how long would it take to get this information? Weeks or months. But we still need to define our questions before a modeler can provide us with detailed data. We may want to work backwards – starting with the management scenarios we would support and then determining what information is needed.

How readily available is surface water information? DNR has continuous gauging of stream flows. Ann Bleed indicated that while they do a daily accounting of stream flows they don't have a "what if" model to use.

The group discussed this concept and several things were suggested:
- Overall, this proposed process is helpful in laying out all elements that would be in an IMP
- It makes sense to start with a water budget. What is our average water supply and water use? What has the consumption been historically?
- Next, we need to clarify what it would take to get back to 1997 levels and/or fully appropriated if the district was below fully appropriated in 1997.
- Then we can better determine which mechanism would be needed to get to this level.
- Finally, we can implement these alternatives, monitor results and make adjustments.

RECOMMENDATION:
It was proposed that the first recommendation of this Stakeholder group for the IMP is to immediately begin assembling the data outlined in this proposal. There was general consensus that it is difficult to make meaningful recommendations about mechanisms to use without a better understanding of our water balance and what reductions in consumption will be needed to get to fully appropriated. Specific data needed:

- Use the central portion of the COHYST model (predevelopment forward) to draw out and summarize data for the TPNRD district only
- Determine the Water Balance for several different points in time:
    - Current
    - Historic
    - Under different climatic conditions (dry years or wet years)
    - Desired (by law)

Ann Bleed suggested that while we are waiting for this data to be developed, the group could look at a variety of tools or mechanisms that could be used to scale back water use to whatever level is required by law. To do this we could ask 3 basic questions:

1. What mechanism can we use to either cut back on consumptive use or to increase available water? For each method identified determine what the NRD would regulate and what options producers would have within this regulation that would allow them to maximize profits.
2. What would be the likely user response to implementation of these methods?
3. What would the District have to do to make sure the rule is followed?

The group also needs to consider which efforts would have the most immediate impact in the short term as well as what approach would be best in a long term plan.

The group agreed that discussion of pros and cons of various tools could proceed on this basis while waiting for more definitive data. First, however, it would be helpful to create a comprehensive list of all possible mechanisms we could conceivably use. A subcommittee appointed to draw up this list this consists of Frank Kwapnioski, Jim Goeke, Jim Meismer, Joe Wahlgren and Ken Schilz. **The subcommittee scheduled a meeting for February 20 at 3:00 pm CST at the TPNRD office** (Tier One Bank Conference Room on the second floor next to the TPNRD office). All Stakeholders are welcome to sit in and observe this meeting.

Future Meetings
All meeting times are from 7:00 to 9:30 p.m. CDT unless otherwise noted. Future meetings:

7:30 p.m	February 26 – Quality Inn
7:00 p.m	March 19 – Quality Inn
7:00 p.m	April 16 – Quality Inn
7:30 p.m.	May 21 – Holiday Inn
7:00 p.m	June 18 – Holiday Inn

The meeting was adjourned at approximately 9:25 p.m. CST.