

Upper Platte River Basin-Wide Plan – Second Increment

SPG Meeting #6 - Meeting Minutes

Date: Wednesday, May 17, 2017 from 10:30 a.m. to 3:00 p.m.

Location: Holiday Inn Express & Suites, North Platte, NE

Agenda:

- I. Administration**
 - a. Today's meeting will offer a working lunch
 - b. This is an Open Meeting
 - c. March Meeting Recap
 - i. Meeting minutes
 - ii. Key discussion / decisions
 - iii. Follow-up items
 - d. Review of Decision-Making Process
- II. Economics of Water Users**
 - a. Review Input from March
 - b. Water Use Vulnerability Discussion
 - c. Refinement of Economic Viability (Goals and Objectives)
- III. Continued Work on Definitions for Additional Elements**
 - a. Social and Environmental Health
 - b. Safety
 - c. Welfare
- IV. Next Steps**
- V. Public Comment**

Attendance:

A copy of the attendance sheet is attached at the end of this document.

Minutes

These minutes follow a PowerPoint presentation that can be found online: <http://upbwp.nebraska.gov/>

I. Administration – Stephanie White

- a. Today's meeting will offer a working lunch
- b. This is an Open Meeting
- c. March Meeting Recap
 - i. Meeting minutes
 - ii. Key discussion / decisions
 - iii. Follow-up items
- d. Review of Decision-Making Process – The goal is always consensus
- e. J. Engel reviewed the handout of supply and demand and groundwater use depletion estimates. Clarified that the Supply and Demand Balance is simply a comparison of total supplies and total demands in the basin. Shortages when comparing total supply vs. demand are only partially attributable to groundwater use depletions, as the deficit between basin supply and demand is greater than total estimated groundwater use depletions.

II. Economics of Water Users – Stephanie White

- a. Review Input from March – see summary on slides
- b. Water Use Vulnerability Discussion
 - i. Under what water supply condition has water been a limiting factor to your economic productivity?
 - 1. Galen Larson (North Platte NRD; Platte Valley Bank of Scottsbluff)
 - a. \$130 million in agriculture loans/debt (Scottsbluff)
 - b. There are no other true makers of new money outside of agriculture (hospital is only other main employment center)
 - c. Scottsbluff county has had discussion to bring in new employers, but they all need water
 - d. Suggestions: good winter storage and timely rain; timely hail storm (before crops are planted or after crops are mature)
 - 2. Dave Fisher (North Platte NRD; surface water user)
 - a. Representing next generation
 - b. Treat water as a reusable resource
 - c. Recognize we are fully appropriated
 - d. Need storage to maintain river flows; deregulate and let the land be the storage
 - e. People can irrigate when and where they want (and no cost for storage)
 - f. Work with Wyoming and Colorado to save water if we don't need it so it doesn't flow out of the state
 - g. Lake McConaughy is limited for storage.
 - h. Provided handout to SPG regarding need for storage.
 - 3. Bill Halligan (South Platte NRD)

- a. The allocation system has worked well (our economic effect was when we lost the water table and were sucking air from wells)
 - b. Only 8% of irrigated acres are on river, and they have not experienced a draw down in water tables, but we're under allocations just because of government regulations
 - c. Suggestion: Only allocate during dry years; geographic equity of regulations; recharge must last 40 years
 - d. No major recharge event in the bulk of our wells
 - e. The crop rotation is changing for allocation (dry beans and alfalfa when there is no water)
4. Jack Revelle (Groundwater user from Pumpkin Creek)
- a. Allocations have brought changes to farming practices (currently on a 12 inch allocation):
 - i. No till, drip irrigation system to conserve water, less consumptive use crops (peas, dry beans, wheat in spring); retired some irrigated acres with buyout; to compensate and stay viable, found way to cut out or reduce water usage
 - ii. Suggestions: NRDs should use flow meters to see where water usage is and how much. Also, put in measurement devices in the field to know how much water is in the field so it doesn't get watered if it doesn't need it; technology with crop moisture sensors/metering allow better water management.
 - iii. Hwy 71 is seeing high flow and farm has seen a good source of corn stalks by using cattle – cattle has helped with the economics (diversity of revenue)
 - iv. Success on Pumpkin Creek – some flow has returned. Dam on Pumpkin Creek is full for the first time in a long time.
 - v. Western Sugar Cooperative a major user
5. Jay Richeson (Gothenburg Irrigation & Well Service)
- a. Fortunate to have plenty of water
 - b. Economic development is suffering – the City can't have a large company (large water user) come in because of water supply limitations.
 - c. The City does not allocate water and farmers are good about not overusing it
 - d. Suggestion: the City can't recruit any industry unless it has water - fully appropriated designation would provide more flexibility to find water.
6. Bob Dahlgren (Village of Bertrand, Bank of Bertrand)

- a. Should water be for who is in the city now or for new businesses?
 - b. His farm has 36 inches of water because of McConaughy
 - c. Suggestion: They get what we need, but they need storage and it needs to be in the west part of the state so the western stakeholders can have water since they can't get it from McConaughy.
7. Mike Drain (Central Nebraska Public Power and Irrigation District)
- a. CNPPID's primary purpose is to provide water to its irrigators
 - b. For financial reasons, hydro power is a necessity; we maintain a significant system, a large dam, a large canal, and a lot of regulatory requirements
 - c. Prior to 20 years ago, you would have seen 75% of revenue from hydro power sales
 - d. Annual budget covering operations and maintenance is \$10-12 million – in a wet year like the last year, we delivered irrigation water and produced electricity with the water that runs down the river; that allows us to have the money in the years we don't have that water
 - e. Hydro power revenue over last 20 years averages \$9 million – but varies greatly: some years like '97-'99 revenues are around \$12M, but also years like 2003/4/5/6, producing only \$3 million a year. Carryover from wet year revenues is essential.
 - f. If system operated for irrigation deliveries only, hydro power generation would be around \$7M (similar to 2001 operations). Discretionary hydro power generation is critical to close revenue gap.
 - g. Irrigation revenues are fixed – annual per acre cost regardless of water needed or delivered. Charge per acre is around \$36 an acre (covers water and O&M). Approximately 80% of acres served are co-mingled (access to surface and ground water)
 - h. 12 inches is what we try to give irrigators; but some dry years we had to reduce the allocation. Reduced delivery means less hydro power generation and less revenue.
 - i. Suggestions: More storage will help; we have to generate our own revenue (no taxing authority)
 - j. We'll prioritize to save the water in McConaughy for the farmers to irrigate over hydro generation in drought years,
 - k. Sell much of our electricity generated to Kansas because they have a renewable portfolio standard and pay a higher

- price for hydro power as part of that portfolio. Currently in a 10 year contract;
- l. Trying to be more efficient; land and irrigation practices, as well as hydro facilities and system management.
8. Dennis Strauch (Surface water irrigator, Pathfinder)
 - a. Live and die by snow pack from Colorado and Wyoming
 - b. Annual need is about 15-18 inches and majority of water comes from federal reservoirs from Wyoming
 - c. 7 of the last 15 years have been water short years and therefore delivered only 8-12 inches.
 - d. 1/3 of the land is co-mingled and are restricted to an allocation; our producers in those water short years changed crop mix, went idle
 - e. No economic impact on the district as long as the producers remain viable
 - f. Operations have changed since 2002 – farmers are consuming more of diversion to less returns; impacts downstream
 - g. Since there is only so much storage, farmers have become more efficient; reduces spills and losses that can be stored so then we can increase the supply overall
 - h. Approximately 70% of land has pivots - operating at 85% of what we used to in terms of diversion
 - i. Suggestion: Basin support in getting Congressional approval/BOR red tape to allow facilities to be used for intentional recharge.
 9. Brian Barels (NPPD)
 - a. Looks at the snow pack west of Ogallala; also monitor the snow pack and reservoir storage in Wyoming; 8-9 months of non-irrigation season key for supply as well as hydro power generation
 - b. Irrigation – 80,000 acres; own operate 3 irrigation canals; provide storage to 3 additional canals. Allocated storage amount every year to supply water to the canals; that is not a total supply – 80% of water from canals is natural; 20% from our storage capabilities
 - i. In early 2000s, ran out of storage for the six canals; negative economic impact to customers (80,000 acres)
 - c. Hydro Power – Major facility is in North Platte and smaller facility in Kearney – can take water from the South and North Platte Rivers to feed hydro system
 - d. Cooling of power plant at Gentleman Station – Use McConaughy and Sutherland Reservoir

- i. Use stored water to cool it before going to Sutherland Reservoir for water
 - ii. If there is a shortage, there are agreements with irrigators near Sutherland to pay irrigators to not use water so the power plant can be cooled via water pumped from adjacent wells
 - iii. Power from hydro is about 50% of energy generation (includes Kingsley hydro generation)
- 10. Tyrell Anderson (Lewellen Ranch, Turner Corporation)
 - a. 84K acres, produce hay/alfalfa for 4000 head of bison, 5 year allocation since 2009 and so far it's been okay
 - b. If allocation was restricted farther it would be detrimental
 - c. Suggestion: Be more inclusive and less in a silo; focus on conservation – be good stewards of the resources
- 11. Keith Koupal (Nebraska Game and Parks)
 - a. People need to want to live here and be able to afford to live here.
 - b. Recreational and ecological: Recreation largely reservoir based - if water is low in McConaughy, there aren't as many visitors and they don't spend money in the state; if fishing and hunting is hot then we'll see more revenue; people want to live by water so that might drive growth in population and loans, building, buying, etc. ; ecological balance has a reliance on water
 - c. Natural hydrograph is important to fish and wildlife
- 12. Bernie Fehringer (Power District in western Nebraska and groundwater irrigator)
 - a. Allocation is 13 inches; on rainy years, the water could be rolled over
 - b. For a 125 acre pivot, 600 gpm and 51 days of pumping and they can't use all of 13-in allocation
 - c. The allocation has not affected the farm and hasn't reduced irrigation sales much; largely because farmers have changed cropping patterns due to limited amount of water
 - d. Success: planted hundreds of trees to bring in hunters to supplement revenue from dry crop years
 - e. Allocation started in 2009 (currently third allocation period); if they have a dry year, there won't be much impact due to adaptation of producers.
- 13. Kevin Derry (South Platte NRD)
 - a. 13 inch allocation has required short season cropping - went from 108 to 103 day corn because of water restrictions, so yield has gone down

- b. Cost of hail insurance limits the amount and types of crops
 - c. Rotation is expensive if you have a crop that can't withstand the hail and can't be insured
14. Chris Holly (North Platte Water Department)
- a. Plenty of water and a license to pump 4 billion gallons a year; on a dry year, up to 3 billion is used, but normally around 2.5 billion
 - b. In the business of selling water – only pump what is sold
 - c. No quality issues
 - d. Dispersed wells – not a concentrated well field. The problem is finding land to place a new well; there is no variability in water quality during droughts
 - e. Some wells are about 100 feet, but most are 300+ feet
 - f. Question: If there is a license to pump 4 billion gallons but now only pumping 2 billion, will the license amount change? And then what happens to that additional 2 billion gallons of water?
15. Dennis Burnside (City of Lexington)
- a. Attractive to new industries; new and existing industries rely on water; if that's reduced then it would effect a lot of other areas of life quality
 - b. Aren't experiencing limitations since it is a municipality
16. Bob Busch (surface water user)
- a. In 2002, the snow melt all went into the ground and there was no runoff water; and there was a tight limit in terms of allocation. Regarding the weather forecasts: when you see it you believe it
 - b. New storage is challenging – Deer Creek failed; people looking at Glendo storage but likely won't happen.
 - c. Endangered Species Act requires water – balance of human and environmental needs, feel we have done our share
17. Jim Benfeldt (Central Platte NRD; retired farmer and cattle feeder)
- a. Plentiful supply of water in the 45 years of production
 - b. Never been short of water or have had to experience what the upstream farmers had to deal with
 - c. Technology has been key: flood irrigation to center pivots, drip, water management, automated water management
 - d. There will be a conservation/sustainability impact
 - e. Son uses technology for water management because of college education – pivots is a labor saving and advent of better pump systems and water consumption measurement technology – right thing to do, but economics also play a role.

18. Rod Horn (South Platte NRD)
 - a. SPNRD Irrigates 1.5% of acres in state
 - b. 96% of water consumption in district is ag
 - c. In early 2000s, first district to look at moratorium at Lodgepole Creek
 - d. Referenced 2010 UNL study (Compton) on economic impact of allocations in their district; found modest impacts
19. Barb Cross (North Platte NRD)
 - a. From 2008-2016, District spent \$5.6 million (doesn't include cost share portion) on groundwater management activities and worked 87,000 hours at a labor cost of \$2.4 million
 - b. Initial focus was to retire irrigated acres – it costs a lot (LB962) to meet obligations; shift now to efficiency improvements
 - c. Suggestion: Educate on water efficiencies; if there is no money to spend on new technology, only option is to reduce allocation; but a 6-inch allocation will get rid of a ton of crops and it effects every piece of the economy; concentrate on efficiency to reduce consumptive use;
20. Leo Hoehn (North Platte NRD, Pumpkin Creek GW user)
 - a. Most years, short of water but son is a big supporter of technology
 - b. In 1989, the ranch had 1,700 acres of water rights from Pumpkin Creek – today creek is dry
 - c. Surrendered 1,000 acres of irrigated land
 - d. Revenue stream is different now from 20 years ago
 - e. NRD programs are valuable and try to take advantage of them
 - f. Education programs are important
 - g. Purchased in 1989, creek was dry by 1994. Last two years flows again in creek.
21. Rodney Schaneman (Surface water user)
 - a. In 2002, irrigation was shut off at the farm
 - b. Water is very important and you can't pump wherever you want; why are some over appropriated when the rest of the state downstream can pump however they want
 - c. Geographic equity – be fair across the entire basin
22. Carson Sisk (City of Kimball)
 - a. Haven't experienced shortage of water; no restrictions but can if need to
 - b. Produce and distribute water to about 2,500 users, down from peak population of 7,000

- c. If groundwater levels got low enough and wells start sucking air then there can be some economic issues
 - d. Current inventory: Three wells a mile apart and all come into town on same pipeline
 - e. One big economic concern: decrease in population (7,000 to 2,500); it's the same amount for O&M, but fewer people paying bills so it's harder to maintain – and what about if there needs to be infrastructure improvements (no reserves for upgrades)
23. Joe Wahlgren (Twin Platte NRD and producer)
- a. Never been short of water – 50 ground wells and they are mixed with a series of supply canals that provide recharge and static water levels
 - b. Have had to make changes to become more efficient – 50% of producers in area have left because they never invested in items that were attractive to the next generation
 - c. Don't do things the same old way; give parameters and they'll change to what can be managed
 - d. Suggestion: Farmers need to change (technology, efficiency, management, rules, legislation) for betterment of the next generation
24. Kent Miller (Twin Platte NRD)
- a. LB962 passed and moratorium set in – the main direction of District was based on economics – protect what we have today
 - b. Stakeholders have said to maintain what they have and recognize that legislation enforcement is expensive for the agency and expensive to the irrigator
 - c. Board's focus has been to find offset water to maintain the acres today – it is not cheap for NRD, but isn't as expensive for irrigators
 - d. To get offset water, the NRD increase property tax (highest in state) and occupation tax (only NRD to have one in state – chosen over regulation) but it's working
 - e. No requirement on meters, but most of the Twin Platte NRD sits on sandy soil; run off goes back into the land – irrigators rarely pump more than they need and if so it isn't a big deal because of connection with aquifer
25. Pat Heath (City of Gering)
- a. Economic development – we'll take whatever we can get
 - b. No supply issues and have never been short
 - c. Have a transfer permit to protect surface water users
 - d. \$9.5 million spent for arsenic and uranium regulations; \$4.5 million for waste water treatment plant

- e. Reuse wastewater – cost for some areas were not too good; took a beating from public on use of waste water
 - f. \$1.5 million for O&M of water system; proactive on water conservation – always promote wise water use (someone else can benefit from water that we aren't wasting/using because we are conserving) – never had mandatory no-water ordinances, but encouraged it on a voluntary basis
26. Russell Edeal (Loomis)
- a. Irrigator, dad in SCS, Grandpa SCS board
 - b. Win-win mentality observed is a shift for planning group from 1st increment
27. Larry Reynolds – nothing to add
28. John Thorburn (Tri Basin NRD)
- a. Minimize regulations but take an approach that enables the current irrigation economy to thrive
 - b. Diversion of high flows to offset impacts to surface water, needed to recharge groundwater aquifer
 - c. Suggestion: work with and educate farmers on efficiencies and making progress towards that, but it's long term (multi-generational)
29. Lyndon Vogt
- a. Regulatory expense and cost of ongoing regulation versus a more voluntary management program
 - b. Producers and NRDs have changed due to shortages
 - c. Make a change – put water back to the river without negatively impacting producers – no one below McConaughy is having water issues (only west) – so what management system can change to solve that?
30. Vernon Nelson (Tri Basin NRD, Ground and Surface Water User)
- a. No water problem since the farmers left gravity irrigation; water supply never a problem in his area largely due to technology advances
 - b. Suggestions: A lot of feed lots and nitrates in water – grow corn using nitrogen (soil probes, timing, nutrients at the top of soil, limit pivots) – technology has been great – pivot on every farm and a swing arm (laying pipe in corner lots is a waste) – son and three grandkids working for him – it's about the next generation!
31. Jennifer Schellpeper (State of Nebraska Natural Resources Department)
- a. Goal is to help water users feel less vulnerable about water use
 - b. NeDNR has to follow the law and has to make sure everyone else is, too

- c. Themes from today: water supply variation across basin
- d. NeDNR cost share with NRDs (50/50 or 60/40 split usually), balance to follow law and see where dollars are being spent

32. Roric Paulman (Producer)

- a. Technology and collaboration is key – what technologies and processes exist to be more efficient, use less water, store for dry years
- b. In 1986, it cost \$80K for property and occupancy tax and now \$700K
- c. We've established the value of water – we are all in this pretty deep;
- d. Suggestion: TAPS (testing agriculture performance systems) through UNL – how can they take concepts and (taps.unl.edu) implement them; a simulated farm making all of the decisions and it's about ROI and about nutrient and water management (not about yield)

- c. Refinement of Economic Viability (Goals and Objectives) (will discuss at next meeting)

III. Continued Work on Definitions for Additional Elements (will discuss at future meetings)

- a. Social and Environmental Health
- b. Safety
- c. Welfare

IV. Next Steps

- a. Next meeting: July 19, 2017

V. Public Comment

- a. No public comments