

# Summary

Project: UENRD - Voluntary Integrated Management Plan

Subject: UENRD Voluntary IMP Stakeholder Advisory Committee Meeting #2

Date: Wednesday, June 27, 2018 6:00-8:00 p.m.

Location: O'Neill Community Center – 501 S. 4<sup>th</sup> Street, O'Neill, NE 68763

## SUMMARY

1. Welcome – 2 mins
2. Education: What happens during time of shortage (Department) – NeDNR – 15 minutes  
Question/Answers:
  - A well sunk 50 feet distance from a stream would be considered surface water
  - There are no controls on Elkhorn River (i.e., dam system), is that correct? No mainstream dams. Smaller flood control systems. The only structure is up by Atkinson – it doesn't really hold water (like Gavin's Point). Wahoo has sand creek, b flood control wasn't the reason for that development that had to do with wetlands/habitats.
  - Any wetlands, least tern/piping plover nesting, that sort of thing along the Elkhorn? Can't say for sure, but Elkhorn was habitat for the pallid sturgeon.
  - Dennis: when you look at one individual flow at the annual level, the flow is going up. The water appropriation that Game and Parks have, it correlates to the flows during the summertime. Looking at the total doesn't give you the full picture, need to look at what the permits were allocated for fish/bird habitat during summer months.
  - Beth: We want to stress that we would never make anyone drain their reservoir.
  - Do you have to let the water that is coming into your storage facility go downstream? Jeremy – if you were closed, then yes. You would have to divert downstream. Welcome to use all the water currently stored, just can't add more.
  - Can the City of Lincoln/Game and Parks buy a 1950's permit up stream and update their date? Jeremy – not impossible, but only allowed to transfer the consumptive use portion rate when acquiring additional permits
  - Are Game and Parks like any other farmer? If they create a wetland and there's a shortage, do they get shutdown too? Jeremy – if they have a wetland permit, they are allowed to maintain. If they have a permit to store water at a dam, we could ask them to let some go. If they don't, we don't have jurisdiction
3. Education: What happens during time of shortage (District) – UENRD – 15 minutes  
Questions/Answers:

- Management starts as we get closer to the 1992 low point – the average low the DNR goes with. Within 2 ft of the 1992 low point, it triggers phase 1 – education. Within 1 ft – you put flow meters on 10% of irrigation wells. With every additional foot it sinks below the line, an additional 10% of wells will need flow monitors.
- When it comes to flow meters, how is it determined which wells to put them on? Sarah – that is up to you, as long as you have 10% (or whatever the required percentage at the time is) covered.
- How deep is the bedrock there, what is the percentage of the water available (water saturation – question from chuck)? Sarah – I don't remember the numbers exactly. Dennis – Got away from 15% saturation depth because it varies so much between counties/location. We can chase the water, but we're also trying to protect surface water. Which is why they go by water level.
- Do you measure the draw down or just the static water level? Sarah – monitor the static level and draw down using transducers. We use static water level to manage, but we do monitor the draw down.
- How long do the actual impacts of rule 27 last? They last as long as it takes to get back above the lowest average reading. If you're in allocation, that lasts for 5 years.
- Why do we spend 2 grand on a flow meter as long as a nozzle reader is used and if you can get the same result? Flow meters seem to be pretty short life. Sarah – as long as it is the right reading, that would be fine. Flow meters are very accurate, nozzle readers are not always accurate. Dennis – yes, flow meters do require maintenance, much like a car. If we have to start with allocation, a maintenance program would need to come with the flow meters.
- Are there uncertified acreages? Dennis – there are individuals out there that are not certified. This may be for various reasons. You will, at a point, need to have that done and certified. For those that have not certified their acres, a cease and desist can be issued and shut down irrigators and wells.
- What percentage of acres still need to be certified? There are wells that may not have been pumped in 20+ years. But they still exist on the DNR records, folks need to bring in paperwork to get them certified now as irrigation acres. Estimate about 50,000 acres that still need to be certified.

4. Break – 3 mins

5. SMART Goals Discussion – HDR – 15 minutes

6. Draft Goals & Objectives Review and discussion – HDR – 45 minutes

Goals and Objectives	
<b>Goal Area 1. Water Resources Data for Informing Water Management Decisions</b>	
<b>Goal 1:</b> Develop and implement processes to maintain water supply and use inventory based on best available data and analysis.	
<b>Objectives of Goal 1:</b>	1.1 To conduct data collection and analyses of water supplies, utilizing the best available information, data, and science.
	1.2 To conduct studies to identify hydrologically distinct sub-areas within the District for the purposes of integrated management.
	1.3 To continue to monitor district-wide water use and develop and implement monitoring processes for key water uses not currently monitored

	1.4 To project changes to water supplies and uses due to changes in population and land use.
	1.5 To evaluate variations in water supplies and uses due to climate cycles.
	1.6 To monitor changes in water supplies and uses within the District.

**Comments/Notes on Goal 1**

- 1.2 is probably the one that is in the biggest need. We have a lot of different areas in the Elkhorn district that are questionable as far as water replenishment.
- How many wells do we monitor? Static wells ~ 350 for the whole district, sampled each spring and summer. For further clarification:
  - We have 362 total, for various reasons we usually are unable to check all 362 ever year, but close
  - We have 104 historical irrigation wells which we use for management decisions and monitoring, they've been around since the 70's (102 is how many we got to this spring)
  - We have 58 designated monitoring wells that UERND owns, they're not irrigation, just for monitoring
  - We have 200 additional irrigation wells that we added in 2015 to increase our sample size.
- How many wells did we have in 1999? And how many do we have today? Dennis – what happened in 2012/2013, we were allowed to put in 2500 new irrigated acres. Then what ended up happening in 2012, the drought was severe – that should have only been 25 full size pivots and we had 100+ in that time period. We had a lot of 'helper' wells come in. if you go back to 1999 the big push in irrigation development was pre 2004. 2004 is when LB962 came into play along with designation of full/over appropriated, which triggered a lot of development in 2004
- What triggered that over appropriated designation? It had to do with the instream flow that NE game and parks has (93 water right) and a surface water user in the Loup River Basin that was irrigating 40 acres of land. This impacted 33% of the state. Game and parks needs to maintain the fish and wildlife end of the equation.
- So we were kind of thrown into that bowl because of what was going on in the SW of the state? That would be fair to say. Legislation was trying to be as proactive as possible.
- The bar graph you showed before that - is that the result of monitoring the 300 wells? Sarah – no, the wells we use to do that are what we call historic wells – we have been monitoring those since the 70s. There are 102 wells across the state. Added almost 200 more wells to better monitor.
- Is there any specific area the water is dropping more than others? Sarah – northern and central antelope is decreasing. Southern antelope and holt are increasing, the rest of the district is staying level
- Is there a correlation between number of wells and increasing/decreasing levels? Sarah – haven't looked at that specifically but we have a graph that might illustrate it – this comes back to the point that our data is pretty new.
- Potential Action item – defining hydrologically connected areas
- Potential Action item – looking at distribution of monitoring wells
- Where do the goals come from? How are they developed? John – these came out of discussions with district staff and comments that we received form the last stakeholder meeting. They are also in line with the basin-wide management plan.
- Potential Action Item - Some people on the board are wondering about the effects of tiling fields would be
  - What is the effect of tiling? Of invasive species? Conservation methods? Draining?
  - Carrie – we do have some language in the Lower Niobrara IMP that can help cover the action item
- Goal agreed upon, as a whole

**Goal Area 2. Minimizing conflict between water users**

**Goal 2:** Prevent or mitigate water related conflicts between ground and surface water users, as well as conflicts between domestic, municipal, industrial, and agricultural uses.

<b>Objectives of Goal 2:</b>	2.1 To assess the potential impact of new and existing surface water and groundwater uses on existing surface water and groundwater users within the District.
	2.2 To establish rules and regulations regarding transfers, variances, water banking, water leasing, or other actions of water management within the District, if necessary, to enhance equitable water use management, mitigate new uses, or to avoid conflicts.

**Comments/Notes on Goal 2**

<ul style="list-style-type: none"> <li>• There are areas that are decreasing, areas increasing – are you planning to allocate different regulations for different areas or considering the whole area as one? Whole area as one – GW management plan already covers that</li> <li>• How many IMP's are already adopted? Carrie – all 23 districts are in some stage of adopting IMP's. What is the Oldest? Republican or Upper Platte.</li> <li>• Some of this is confusing – why don't we have some of the existing IMP's to look at/compare, figure out what works/what doesn't? Carrie – we can do that. They are all on the website. Katie – we have looked at others to develop this one. Beth – we could post a page of links to those IMPs to make it easy. Katie – can send a distribution to everyone to help guide through the DNR website</li> <li>• Goal agreed upon, as a whole</li> </ul>	
<b>Goal Area 3. Planning for future growth in water uses and demands</b>	
<b>Goal 3:</b> Develop and implement a water management plan that allows for sustainable future development within the District.	
<b>Objectives of Goal 3:</b>	3.1 To establish procedures for securing water for sustained future growth of domestic, municipal, agricultural, commercial, and industrial water users within the District.
	3.2 To determine allowable levels of sustainable use within the District.
	3.3 To develop approaches to estimate future growth in water uses and demands.
	3.4 To identify available water storage opportunities.
<b>Comments/Notes on Goal 3</b>	
<ul style="list-style-type: none"> <li>• Define available water storage opportunities? John – both surface and subsurface. That would include recharge projects, pit storage</li> <li>• How much more water does the ethanol plant use versus the pivot that was there before? Dennis – plant has become more effective and efficient. That system up there is about 3.5 irrigation wells.</li> <li>• Goal agreed upon, as a whole</li> </ul>	
<b>Goal Area 4. Education and conservation</b>	
<b>Goal 4:</b> To develop and communicate education materials describing water resources and water resources planning and management within the District.	
<b>Objectives of Goal 4:</b>	4.1 To develop and disseminate water conservation guidelines for individuals to achieve sustainable water use.
	4.2 To identify cost-share opportunities that may include collaborating with other agencies and other NRDs to implement plan objectives.
	4.3 To encourage participation in information sharing with other organizations and agencies to conserve resources and prevent duplication of work.
	4.4 To expand education programs on general awareness of water supplies and to encourage water conservation measures; provide annual reporting and public information that includes, but is not limited to, activities from previous year, supporting data, education statements and on-going work.
<b>Comments/Notes on Goal 4</b>	
<ul style="list-style-type: none"> <li>• No comments or questions were raised on Goal 4.</li> <li>• Goal agreed upon, as a whole</li> </ul>	

7. Public Comment – 15 minutes

- What does the City of O'Neill do in times of shortage? Curtis – since 2012, we've adopted a tiered level plan based on static water levels which would affect the whole town. Level 1 is voluntary, time for education. Level 2 eliminate irrigation. Level 3 eliminate all outside water usage completely (including municipal usage – pools, etc.) Level 4 look at businesses that use a lot of water (car washes, etc.). O'Neill has 5 wells and they are rotated once a month, measured post use.
  - Is there much difference on the static level when you measure them? In a drought, yes. We're going into this season with about 5 or 10 foot lower water level (than pre 2012).

- Alan – Village of Ewing, pretty much the same thing. 3 wells. After businesses get regulated, we have the residents cut watering. Also measure by static water levels in wells.
  - Curtis – municipalities have been utilizing flow meters years. Alan – we use flow meters and hour meters
  - Oakdale – 2 wells, no controls at all
  - Stuart – monitoring wells for 4 years, haven't seen a big difference. We don't have at this time any controls or measures (Jack)
  - Dennis: noted that the Voluntary IMP helps keep us (NRD) out of a position of being declared fully appropriated and having a mandatory IMP plan implemented. Trying to do this now to protect existing users now and into the future.
8. Meeting closes – 8:00 p.m.
- Next meeting is August 29<sup>th</sup>. We will be going over some draft action items and refining those.