

GROUNDWATER LISTENING SESSIONS

Portage County, Wisconsin
September 30, 2014 – January 13, 2015

SUMMARY OF
GROUNDWATER
LISTENING SESSION
SERIES SPONSORED BY
PORTAGE COUNTY
EXECUTIVE
PATTY DREIER

PORTAGE COUNTY
Patty Dreier



OFFICE OF THE EXECUTIVE
County Executive

February 2, 2015

Dear Fellow Water User,

Enclosed is my summary of the citizen inputs gathered at Groundwater Listening Sessions held between September 30, 2014 and January 13, 2015. Over 150 individuals attended the nine sessions which were held at various locations, twice in each quadrant of Portage County with the last session held at the Portage County Public Library in the center of our County. Some individuals attended multiple sessions bringing our total participation up to 218.

I facilitated every session and tried to learn as a leader and water steward from each. Some sessions had very different discussion "tones" than others. Each session brought something new—a new idea, a different story about water in that area, a new kind of dialogue, and a new face to remind us that "we are in it together" when it comes to our water quantity and quality.

There was a sincere effort by most participants and this facilitator to share in productive discussion. As time went on, I became aware of how each session was building on the ones before and it occurs to me now that where we started was a very different place from where I believe we ended at this point in discussion. I grew through this process and I sincerely hope that each participant did, too—by listening to ideas from outside their comfort zone, by learning something they didn't know before, by seeing the faces of others with whom they share a destiny connected by water.

At a recent groundwater community meeting, a citizen asked: "What's it take to do something or are we just talking about it?"

Building on listening session inputs and in accordance with the recommendations for action in *Sustaining Central Sands Water Resources*¹, I am recommending that we organize a structured and participative Groundwater Management Planning Summit this March to continue moving forward. I recommend that at the facilitated planning summit we create several "roundtables" of local people who have a diversity of interests and perspectives on water resources around every table. Their charge will be to take the inputs from these listening sessions (enclosed) and work collaboratively to create meaningful action strategies to guide us forward. Their strategies will be considered by still wider groups and committees for inclusion in our Portage County Groundwater Management Plan revision. We will invite others to join us at the Summit (e.g., state officials or others from the Central Sands), but the bottom line is that we, *the citizens of Portage County*, will take responsibility for planning and respectfully considering our own local future. Together, using this "bottom-up" method, we will cooperatively and collaboratively work to design action

strategies which demonstrate that we care about ensuring a healthy future—for people, for business and industry, for fellow property owners, for our quality of life, and for our natural resource systems.

Water belongs to all of us. What we do to our water, we do to ourselves. If we destroy it, we destroy ourselves and our neighbors. If we care for it, we care for ourselves and our neighbors.

The challenge before us is to see beyond our own personal interests, comfort zones, and perhaps even selfishness. The challenge before us is one that requires us to avoid getting mired in sideline details or limited by existing or perceived barriers. Instead, we need to walk in the direction of sensible light and basic science on the subject of water resource management. We need to head ourselves in a direction of better balance and consideration toward a broad vision which includes caring for our neighbors, caring for our community's vitality, and caring for our shared future.

We are in this together. What does it mean to live up to our shared and ethical responsibility for this life-giving resource? Let's explore the exciting possibilities. Setting a premiere example of water stewardship will be good for all of us!

With hope,

A handwritten signature in blue ink, appearing to read "Patty Dreier", with a long horizontal flourish extending to the right.

Patty Dreier

¹ Kniffin, M., Potter, K., Bussan, A., Bradbury, K., Colquhoun, J., Undated. Sustaining Central Sands Water Resources. UW-Madison. Prepublication copy, 108-109,111.

Gratitude

- Thank you to every person who took time out of his/her busy life to participate in a listening session or to share thoughts with the Portage County Executive Office.
- Thank you to staff and/or elected officials at each hosting location for opening your doors and supporting this listening session series.
- Thank you to the elected leaders in hosting municipalities for sharing their area's "water stories."
- Thanks to the following people who tested water samples:
 - Alejandra Viso.
 - Mary Lowinski.
 - Laura Brown.
 - Tim and Karen Hannon.
- Thanks is also in order to the individuals who assisted in arranging for and facilitating the sessions:
 - Jami Gebert, Executive Assistant to Portage County Executive Dreier.
 - Jeff Schuler, Director, Portage County Planning and Zoning Department.
 - Ray Schmidt, Water Quality Specialist, Portage County Planning and Zoning Department.
 - Nathan Sandwick, Community Educator, UW-Extension in Portage County.
 - Steve Kunst, Rural Planner, Portage County Planning and Zoning Department.
 - Sarah Wallace, Assistant Director, Portage County Planning and Zoning Department.
 - Steve Bradley, County Conservationist, Portage County Planning and Zoning Department.

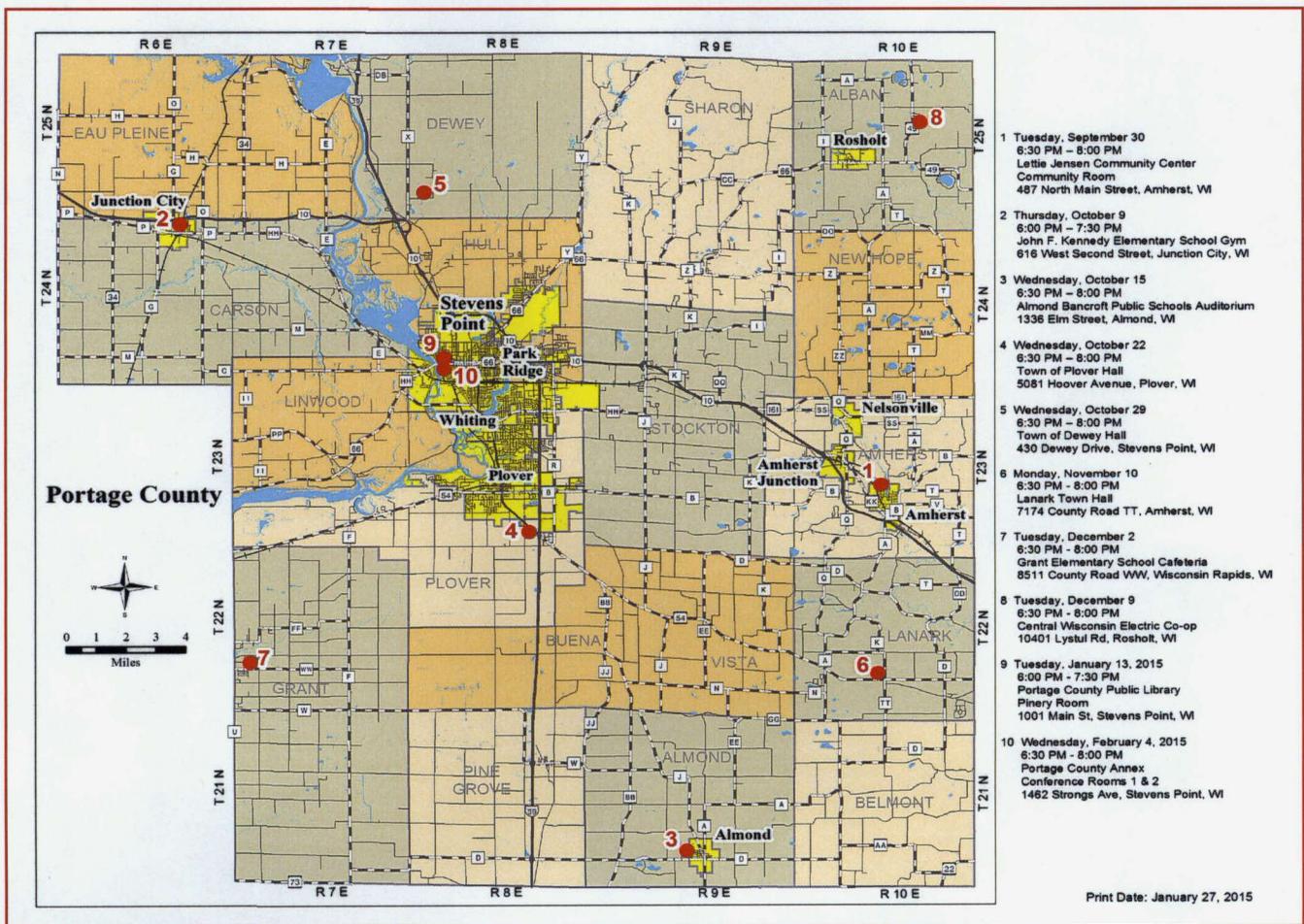
Introduction and Goals

In an effort to begin to address real conflicts regarding groundwater use and contamination in Portage County and following up on Portage County Executive Patty Dreier's State of the County Address on the subject of groundwater (July 15, 2014), a series of listening sessions were organized beginning in September 2014. As was stated in the press releases, inputs about groundwater issues and opportunities would be gathered following a basic groundwater and surface water education presentation that would relate to the unique local water situation in the vicinity of each listening session.

The goal was to begin to "build a common understanding through this listening series" and begin to "facilitate development of a shared vision related to groundwater stewardship that balances interests and addresses issues today while ensuring healthy water resources for years to come and for everyone."

Nine groundwater listening sessions, each facilitated by Portage County Executive Patty Dreier, were held around Portage County with the final session being a summary presentation of the previous nine sessions. Each quadrant of Portage County was visited twice followed by the last two sessions (including the summary) held in the center of the County:

1. **Tuesday, September 30, 2014**—Lettie Jensen Community Center from 6:30 PM – 8:00 PM in the Community Room, 487 North Main Street, Amherst.
2. **Thursday, October 9**—John F. Kennedy Elementary School from 6:00 PM – 7:30 PM in the Gym, 616 West Second Street, Junction City.
3. **Wednesday, October 15**—Almond Bancroft Public Schools from 6:30 PM – 8:00 PM in the Auditorium, 1336 Elm Street, Almond.
4. **Wednesday, October 22**—Town of Plover from 6:30 PM – 8:00 PM in the Town of Plover Hall, 5081 Hoover Avenue, Plover.
5. **Wednesday, October 29**—Town of Dewey from 6:30 PM – 8:00 PM in the Town of Dewey Hall, 430 Dewey Drive, Stevens Point.
6. **Monday, November 10**—Town of Lanark from 6:30 PM – 8:00 PM in the Town of Lanark Hall, 7174 County Road TT, Amherst.
7. **Tuesday, December 2**—Grant Elementary School, from 6:30 PM – 8:00 PM in the Cafeteria, 8511 County Rd WW, Wisconsin Rapids.
8. **Tuesday, December 9**—Central Wisconsin Electric Cooperative from 6:30 PM – 8:00 PM in the Community Room, 10401 Lystul Road, Rosholt.
9. **Tuesday, January 13, 2015**—Portage County Public Library from 6:00 PM – 7:30 PM in the Pinery Room, 1001 Main Street, Stevens Point.
10. **Wednesday, February 4**—Portage County Annex Building from 6:30 PM – 8:00 PM in Conference Rooms 1&2, 1462 Strongs Avenue, Stevens Point. (Summary presentation on previous nine sessions.)



Free nitrate testing was available at every listening session for those who brought a pint of cold water in a clean container. Test results were shared privately following each session along with follow-up test recommendations.

There were 218 participants at the nine sessions. There were 12 people who attended more than one session. Wood County elected officials attended session #7, asking questions about the process and expressing interest in learning from Portage County.

A total of 44 nitrate tests were conducted on water samples brought to the first nine sessions. (Nitrate testing is also available at the tenth session, but the data is not available in time to be included in this summary report.) The results of the nitrate tests are included on page 7.

Listening Session Methods

Upon arrival at each listening session, participants were asked to sign in. If they were a resident of Portage County or owned property in Portage County, they were given several yellow post-it notes. If they were a non-resident, they were given several blue post-it notes. Pencils were also provided to those without a writing utensil upon arrival.

Water samples were dropped off at a water testing station and numbered to key them to the owner of the sample.

A simple one-page groundwater information sheet was provided to participants for reference during the session, but also to take home and share with others if they wished. See Appendix A for a copy of this hand-out. County Executive Patty Dreier assembled the information sheet on her own from a variety of resources (references are found in Appendix D). Because she used to teach about water resources as a member of the academic staff at the UW-Stevens Point College of Natural Resources, she also tapped her previous knowledge about water resources in preparing the simple information sheet.

Each listening session was divided in three parts of approximately 30 minutes each. As part of each "welcome," the County Executive described how the listening session would flow:

1. Basics about groundwater (talking through the information sheet) and a brief representation of the "story" about water resources and water quality in the area of the listening session or quadrant of Portage County. Various maps, diagrams, and charts were available and/or used.
2. Gathering of ideas written by participants on post-its and posted to larger easel paper to answer each of the three strategic questions:
 - a. What's going well with water?
 - b. What's not going well with water?
 - c. What ideas do you have to guide the future of water resources in Portage County?
3. Review of the responses to each strategic question to identify "themes" or more general points followed by a larger discussion.

When it came time in listening sessions to gather the ideas of participants (#2 above), the post-its represented the individual perspectives/ideas and "voice" of attendees. This

method of privately writing down thoughts and then walking them up to large easel paper to post their idea next to the respective question (2a., 2b., 2c. above) was chosen to facilitate the bringing forth of ideas and concerns when individuals might not otherwise feel comfortable doing so aloud in front of a large group. If citizens had more ideas than the post-its provided, they were invited to ask for additional post-its. After participants brought up their ideas for posting on the large easel papers, a County staff member worked to quickly cluster the ideas into topic areas to assist the County Executive in facilitating large group discussion (#3 above).

As part of the facilitated discussion, the County Executive also wrote on easel paper to enhance her listening and to register some additional ideas that were being shared through the large group discussion. Discussion varied by session, but commonly touched on the following:

What's going well with water? Agriculture/Economics, Irrigation Technology, Awareness is Growing, Some Management Practices, Abundance, Quality/Quantity.

What's not going well with water? Quality/Quantity, Overuse/Misuse, Lack of Accountability/Monitoring or Plan, Lakes/Streams Concerns, Water Conflicts, Misinformation/Misunderstanding.

Ideas for guiding the future of water resources? Education, Monitoring/Assessment, Science-based Management, Reduce Waste of Water or Loss to Recharge, More Collaboration/Cooperation.

At the last four listening sessions (after the first round of visiting each quadrant of Portage County) the County Executive added a new component to the "final discussion" portion of the session. After initial "gathering" and discussion of the participant ideas from post-its, the County Executive began to share what common themes were showing up in the ideas and discussion of previous sessions. The conversation about themes was intended to try to spur additional discussion about what ideas people had to guide the future of water resources in Portage County. The general themes she shared included:

- Education
- Data/Assessment
- Balance Equation (Use/Recharge)
- Quality
- Management Based on Planning

It is important to note that because there were attendees that participated in more than one listening session and wrote (were encouraged to write) their ideas on the post-its at several sessions, there may be duplicate ideas written by the same individual from session to session. Only the verbatim summary of the ideas from the first listening session at Lettie Jensen Center can be assured of being an unduplicated representation of citizen ideas.

Every session ended on time.

Those that brought in water samples were privately provided their individual nitrate results.

- Results at or below 5 ppm were encouraged to sample every 15 months thereafter.

- Results at 5 to 10 ppm were encouraged to submit a sample to the UW-Stevens Point Water Lab for confirmation of nitrate level, and not use the water for drinking or cooking unless lab analysis shows a result below the 10 ppm Health Standard.
- Results at 10 ppm nitrate or above were advised to immediately stop using the water for drinking and cooking, submit a sample to the UW-Stevens Point Water Lab for confirmation of actual nitrate level, and not use the water for drinking or cooking unless lab analysis shows a result below the 10 ppm Health Standard. In addition, if the screening test shows a sample result of 20 ppm or above, it was suggested that the owner test for commonly used pesticides, as there is correlation between higher nitrate levels and the presence of pesticides and other contaminants.

All participants were encouraged to get their water tested every 15 months to ensure their test results take into account seasonal variations in water quality.

The County Executive also invited citizens to send their letters to her by January 20, 2015, for inclusion in this report. Two letters were received as a response to this request. These letters are included at Appendix C.

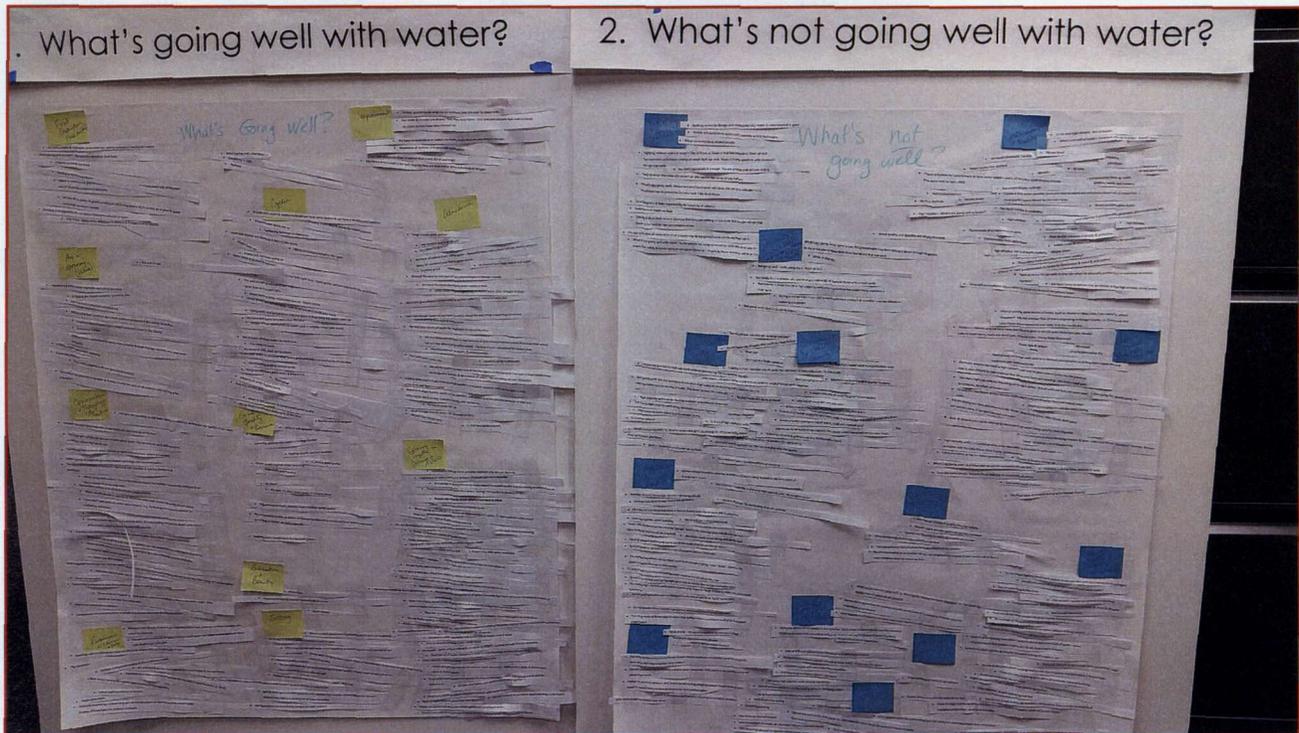
Results

A summary of attendance and nitrate tests/results appears in the following chart:

Listening Session	Date	# Participants	# Nitrate Tests	Nitrate Results (ppm)
1. Jensen Center, Village of Amherst	9/30/14	42	4	0.3; 1.2; 2.1; 5.8
2. Kennedy School, Village of Junction City	10/9/14	11	1	1.2
3. Almond Bancroft Public Schools, Almond	10/15/14	39	1	7.8
4. Town Hall, Town of Plover	10/22/14	35	19	1.3; 1.9; 2.3; 2.5; 4.6; 5.4; 11.2; 11.3; 13.0; 13.3; 13.5; 14.5; 15.1; 16.0; 17.9; 18.2; 19.3; 26.4; 31.5
5. Town Hall, Town of Dewey	10/29/14	13	5	0.6, 0.9, 1.7, 2.1; 4.3
6. Town Hall, Town of Lanark	11/10/14	16	1	12.7
7. Grant School, Town of Grant	12/2/14	13	3	1.6; 1.7; 3.2
8. CW Electric Cooperative, Town of Alban	12/9/14	8	2	2.9; 5.4
9. Portage County Public Library, City of Stevens Point	1/13/15	41	8	1.3; 1.4; 3.1; 4.6; 8.2; 17; 25.6; 39

Verbatim transcriptions of each participant post-it "idea" are found in Appendix B.

After the nine sessions, individual ideas were organized around similar content as responses to the strategic questions. They were then arranged by themes on large poster boards:



The themes are noted below (not in any particular order). It is important to point out that ideas could be clustered into a variety of themes but after considering them in balance with listening session dialogue, the following themes were thought to be representative of the voices heard/gathered across all nine listening sessions:

What's going well with water?

- Food Production (Feed People)
- Improvement
- Cycles
- Agriculture and Economy (Value)
- Conservation and Technology and Best Practice
- Resources to Learn and Help
- Abundance
- Recreation and Beauty
- Testing
- Good Quality and Resources
- Coming Together to Discuss and Address

What's not going well with water?

- Differing Values
- Residents' Private Wells and Property Values Negatively Affected
- Overuse/Use by Agriculture

- Overuse/Use by Others (Non-Ag)
- Land/Water Use Practices
- Climate Effects and Other Trends
- Lack of Monitoring
- Lack of Regulatory Oversight or a Plan
- Lack of Understanding
- Politics
- Lack of Education/Awareness/Involvement
- Lakes and Streams Negatively Affected
- Contamination or Quality

What ideas do you have to guide the future of water resources in Portage County?

- How to Approach
- Education (Research/Science)
- Innovation
- Monitoring/Assessment
- Balance
- Regulation
- Plans and Management



Recommendations

As mentioned in the cover letter on this summary report, County Executive Patty Dreier calls for a Groundwater Management Planning Summit to be held in March 2015. This will be a structured and participative local event facilitated by the County Executive and Jeff Schuler, Director of the Portage County Planning and Zoning Department. In accordance

with recommendations for action noted in *Sustaining Central Sands Water Resources*, local citizens with a diversity of water perspectives and interests will be invited to participate as members of facilitated "roundtables" in this "bottoms-up" approach. Each roundtable will take these individual groundwater listening session inputs under consideration and collaboratively work to develop meaningful and concrete action strategies for consideration in Portage County's Groundwater Management Plan.

The draft action strategies gleaned from the Summit will be dispersed to yet wider groups and committees for their feedback and further refinement.

Essentially, individual ideas (listening session inputs) create a foundation from which a balance of group ideas about actions can grow through the diversity of perspectives around every roundtable at the Summit. Then these action strategies are further focused through "filters" of various stakeholder groups before they are finally integrated into Portage County's Groundwater Management Plan. The goal is that the action strategies in the plan belong to everyone and represent a balance of voices and groups.

Throughout the Listening Session process summarized here, and the further steps identified above, a substantial step forward has been achieved in the conversation and discussion about groundwater resources. This conversation, however, does not exist for its own sake, but is absolutely tied to a variety of long-range planning and long-range ACTION efforts being undertaken by Portage County, its municipalities, and its residents.

For example, Portage County is about to undertake an update of its State-mandated Farmland Preservation Plan and its Comprehensive Plan documents. In addition, Portage County, through its Land Conservation Division, will be working with residents and the University of Wisconsin-Stevens Point to take the next steps in the process of Lake Management planning. Without doubt, the subjects of groundwater and surface water run freely through these planning subjects. The results of the Groundwater Management Planning Summit process will be dovetailed with these other planning processes.

Everything is connected to everything else, hence the reason to connect our groundwater management planning efforts and actions with those of other planning efforts and actions. The ultimate goal is to ensure the long-term health and vitality of Portage County's resources, people, employers, and institutions.

Appendices

A Copy of Groundwater Basics Handout from County Executive

B Verbatim Inputs from Participants at Listening Sessions

C Citizen Letters Providing Input on Groundwater

D References



General Information Gathered by County Executive Patty Dreier for Groundwater Listening Sessions 2014-2015

dreierp@co.portage.wi.us 715-346-1997

Groundwater Basics/Groundwater Quantity

- In accordance with the Wisconsin Constitution, water belongs to everyone. This is also called *The Public Trust Doctrine*.
- *Groundwater* is the water from rain or snow that soaks into the ground, percolates through soil and rocks to the top of the water-saturated layer called *the water table*.
- Groundwater and *surface water* (lakes and streams) are connected. The top few meters of groundwater is the main water source for most of Portage County's 100 lakes, 115 miles of streams, and wetlands.
- While Central Wisconsin's aquifer is plentiful, but it is a finite resource limited by precipitation.
- Groundwater is *recharged* through precipitation—when there is more precipitation than is lost by evaporation or transpiration or used at the surface.
- A *watershed* is a drainage basin. All groundwater moves continually toward an area of discharge. Rates vary greatly. In Portage County, groundwater moves an average of 1 to 5 feet per day. Portage County has a *watershed divide* that runs north and south along Custer ridge. Water to the east of the divide drains to the Atlantic Ocean. Water to the west of the divide drains to the Gulf of Mexico.
- On average, Portage County gets 32 inches of annual precipitation. Most precipitation (about 75%) naturally evaporates or transpires through plants and never reaches surface or groundwater. Does the 8 inches or so remaining from precipitation each year recharge groundwater then? Not necessarily. It depends on local topography, run-off, soil, land use, vegetation, or human uses before it reaches the water table.

Groundwater Quality

- Course sandy soil which is found in much of Portage County and the Central Sands (portions of 8 counties), is well-drained meaning that it has many spaces between *course particles*. This allows water to percolate quickly through the soil which in turn makes groundwater more susceptible to contamination. Chemicals applied at the surface make their way through the soil and into the groundwater faster in sandy soils than in areas with more fine (clay) soil particles. Of wells tested in Portage County, about 30% have pesticide contaminants.
- Nitrate is one of the most common contaminants in Portage County, present above health standards (for children or adults) in about 25% of wells tested. Low concentrations (less than 0.2 parts per million) occur naturally. Values greater than 0.2 ppm are an indication of contamination from human activities such as fertilizers, animal wastes, septic systems, sewage treatment systems, and decaying plant matter. State and federal laws set the maximum allowable level of nitrate-nitrogen in public drinking water at 10 ppm. Millions of dollars have been spent in Portage County on drinking water treatment systems to address high nitrate levels for municipal users—costs passed on to water customers. Some private home owners cannot drink their water due to high nitrate content.
- High nitrate levels in drinking water pose a risk to infants and can cause *blue baby syndrome* (methemoglobinemia) caused by lack of oxygen in the blood. Pregnant women are advised not to drink nitrate-contaminated water due to scientific evidence suggesting risk of birth defects.
- Other evidence suggests that adults with heart/lung disease or enzyme defects or cancer may be more sensitive to the toxic effects of nitrate and that nitrates may increase the risk of certain cancers.
- Deeper wells do not necessarily mean better quality water.

Appendix A

Groundwater Use

- More than 70% of Wisconsin's drinking water and essentially all of Portage County's drinking water comes from groundwater.
- 40% of Portage County citizens (~28,000) get drinking water from private wells. Most water pumped from a private well and discharged into a septic system is returned to groundwater.
- Different plant communities use different amounts of water. (Conifers, most; prairies, least.) Green plants use very little or no water during dormant winter season.
- An average person uses about 50 gallons of water per day.
- Water and economic development are related: Farming, food processing, paper making, and brewing, depend greatly on water. These fields of business along contribute significantly (billions) to Portage County's economy each year. Water recreation and tourism generated by the above noted businesses also contribute to the economy.
- Water and property values go hand in hand.
- *Municipal water users* are usually served through high capacity wells and water treatment systems that must meet state and federal standards. There are 5 municipal water systems in Portage County. Sewage treatment plants in Stevens Point and the Villages of Plover, Whiting, and Junction City discharge treated water into the Wisconsin River where it flows downstream and out of the watershed. Similarly the Village of Amherst discharges to the Tomorrow River. The sewage treatment plants in the Villages of Rosholt and Almond infiltrate the treated water back to groundwater.
- There are 1000+ high capacity wells in Portage County, most of which are used for agriculture.
- Portage County withdrew the most groundwater of any county in Wisconsin in 2011 and 2012 (21 and 35 billion gallons respectively). Portage County continues in top spot per draft 2013 figures.
- High capacity wells are defined as wells that pump 70 or more gallons per minute. Some pump 1000 gallons per minute.
- Different crops use different amounts of water. Irrigation technologies such as drip nozzles and soil moisture sensors can reduce water use on farm fields.

Groundwater Management

- Some local ideas to address groundwater quantity: improve water conservation/efficiencies, increase recharge (slow down water so it percolates), divert storm sewers from sending discharge downstream, reduce run-off by reducing impervious surfaces, create retention ponds, enhance wetlands, expand use of irrigation technologies, use alternatives to "green" lawns, work with regional partners and manage within watersheds, set water priorities...
- Some local ideas to address groundwater quality: expand monitoring efforts, reduce run-off, reduce chemicals used on land surfaces, reduce chemicals used in/around homes/businesses, prevent overwatering after applications of chemicals on land, create buffers around surface waters (wetlands, etc.), pinpoint contamination sources, continue strong solid waste and land conservation programs (manure management, etc.), expand use of best practices on farms/businesses/homes, ensure hazardous materials disposal, shoreland zoning, education/outreach, conservation tillage, ...

Appendix B

BOLD responses are from citizens outside of Portage County.

Lettie Jensen Community Center, Village of Amherst

Tuesday, September 30, 2014

What's going well with water?

- Stricter guidelines on what can be released into the river by paper mills
- The Wisconsin River is cleaner than it was 20-30 years ago
- What is going well with water is the beginning of monitoring (amount) (quality) of our groundwater
- More testing & awareness of pollutants in the water is happening
- Plentiful amount of quality & amount water
- We do have a wonderful resource to share here!
- We generally have good water quality in P.C.
- Everything is right.
- High reduction of water use due *[sic]* to new irrigation technologies
- Increase in public education and awareness of water related issues
- Awareness of issues we face is heightened
- We're finally talking about it
- That the conversation about protecting our groundwater resources is gaining momentum
- Increasing awareness about groundwater
- We are getting science in the mix
- We have a longstanding groundwater citizen advisory council
- Our water supports a vibrant agricultural industry
- Conservation efforts in many areas are being implemented
- 6 billion dollar agricultural economy made possible through Portage Counties *[sic]* vast water resources
- Our water in the rural areas tastes good and does not need to be chlorinated
- What's going well – Not Much
- My water is cold, clear and tasteless
- Ample rainfall replenishes the water used to irrigate crops (and snow)
- We are #3 in nation in potato production; #1 in snap beans; #2 in carrots; #3 in peas & sweet corn; huge economic benefit
- We have no restrictions on water use drawn from land we own and or manage
- Potato & vegetable growers embrace technology that conserves water
- Veg crops – beans, corn, potatoes – 5 billion \$ in Portage County; Carrots
- Is helping the County economy, is creating jobs

What's not going well with water?

- We don't have a water plan for managing water in P.C. Anything is fair game.
- People guessing as to the problems
- Just a concern with the increase in high capacity well. No problem so far!
- I am concerned about declining streams & lakes – the Little Plover “drying up” recently, former “lakes” shrinking and or disappearing
- Unwillingness to take responsibility for issues by all citizens
- High capacity well may be draining available groundwater resources

Appendix B

- Homeowners living near new high capacity wells may experience less water being available in their wells
- Municipal waste water being sent down river
- Streams are going dry and lake levels falling
- Avoidance of issues we face
- Too much water used in unproductive ways; danger of too much regulation
- Removal of dams throughout Portage County that at one time “held” water here
- Taking a short term view or the view that because nothing catastrophic has happened yet that there is no need to take preventative action
- Ordinances in cities and villages that require irrigated lawns
- Too many high capacity wells without regulation
- Not going well – High Nitrates; not just septic systems; increased irrigation; lower lake & stream levels; trace organics in groundwater; pesticides; pharmaceuticals, etc.
- During a dry summer – our 140’ private well loses pressure & quantity – we are limited on watering our garden
- What is causing some bodies of water, such as Washburn Bass Lakes (Two Lakes) to almost disappear? Has the average flow of rivers originating in Portage County, i.e. Tomorrow and Little Plover been measured over time, if so the results are
- Everyone should share equally in the HCW fee. Each urban resident should pay the minimum (\$125 now) cause they use a HCW and as an irrigator we pay \$125 even if pump 0 gallons.
- Should check nitrates again and get new numbers
- Water quality has declined
- Feel badly for the people who are having problem NE of Stevens Point with private wells
- Increasing permits for high cap wells without considering the cumulative impact
- Communities allowed to continue traditions of impounding streams to the detriment of downstream users
- There is a dispute among some about groundwater science/hydrology
- Miss informed; people making ag look bad
- Areas in Portage Co. are lacking in water quantity
- Climate change! [*sic*] is affecting available water resources. This needs to be considered as we determine needs.
- Elevated temperatures from climate change reduce moisture and elevate need for irrigation. New ways like improving soil, crop rotation.
- Accelerated use of water that can’t continue forever
- The science is well known, we should be talking about it and not the spurious stuff
- Watering of lawns & golf courses and fertilization of both
- Pumping is drying lakes, streams & wells
- The discourse on the subject is not always constructive
- Many Portage County residents feel there is a need to limit irrigation, which will greatly impact vegetable production – need more education
- People do not understand recharge and the fact that irrigation only takes place 3-4 months/yr.
- Lakes and rivers at risk for future generations

Appendix B

What ideas do you have about guiding the future of water resources for Portage County?

- Ideas need sustainable water use – chemical use, fertilizer use, ag policies need to focus on environment not just crop production
- Prior to more high capacity wells being drilled – available gr. water levels need to be tested and evaluated for future needs of homeowners
- Cooperative long range planning for expansion of municipal water supplies
- Manage groundwater pumping for healthy lakes & streams
- Work to quantify the maximum sustainable volume of water that can be used per year.
- Pipe municipal water back to the recharge area “headwaters of Little Plover River”
- Listen to local stakeholders
- Regulation of high capacity wells
- We must not deplete our groundwater: monitor-groundwater have guidelines for use.
- 1) Check level of various lake and pond levels in Portage County over time; 2) Check the flows of various rivers and streams in Portage County over time; 3) Check the quality of the water, not just the quantity
- Restrict building permits to balance the use with the recharge rate for that unit of land.
- Enact an extraction tax on high cap wells to incentivise [*sic*] conservation and provide funds for remediation (i.e. bad wells)
- We need to educate the public about the importance of protecting our water quality & quantity
- Groundwater management laws to enforce Public Trust Doctrine
- Develop guidelines for the prioritization of the use of water for various purposes.
- More people involved with studies open minded.
- Open discussions with all users, farmers
- If there are only 1000 H.C. wells in Portage Co. why do we not monitor each one with a meter? Would this not be much more accurate than self-reporting or guessing?
- Learn from other states – Michigan & Minnesota have taken action already on this issue – look at practices to adopt what could work here
- We need a science based water plan for actively managing water in P.C.
- These sessions are an excellent idea!
- More research on subsurface irrigation in the County
- Look at past; Why? 1) Fence through Bear Lake; 2) Hedge row through Lake Thomas
- Enhancing soil water holding capacity! Building soil organic matter on farms
- Send less water (ground & rain) down the rivers.
- Improving nitrogen use efficiency to improve ground water quality
- Build and/or rebuild water confinements to hold storm events in Portage Co.
- Ideas for future gather data; get facts; use science to set policy
- More science
- Science based sensible management

John F. Kennedy Elementary School Gym, Village of Junction City,

Wednesday, October 9, 2014

What's going well with water?

- We have enough water in the field right now. Could get by without any more rain until freeze up.

Appendix B

- Quantity so far is adequate; public awareness is increasing
- Awareness of water issues – a dialogue of people gaining knowledge
- Community talking about possible solutions and not just blaming
- We are fortunate to have one of the few places in the world to have such a large continuously rechargeable aquifer & abundance of water. We are sitting on Lake Wisconsin.
- Water is necessary to grow potatoes and vegetables. WI ranks 2nd in processed veg. production and 3rd in potato production nationally.
- The clarity of water.
- The amount of clean water we have now
- WPS & other agencies offering aid for tech upgrades for farmers; similar options for manure pits/feed lots; DNR has funding for well abandonment
- Farmers actively involved in conserving water; farmers funding research to better understand groundwater; ongoing university and USGS research

What's not going well with water?

- Change in weather patterns with lack of rainfall during cropping season; longer time of open water in winter likely increasing evaporation from surface water
- The increase of contaminants in water
- Added usage & need creates added possibility for contamination
- Nitrate issues
- Deep wells/low pressure western Portage County

What ideas do you have about guiding the future of water resources for Portage County?

- We do not need more government regulations in our life. People here are stewards of the land & are great problem solvers.
- Education/research; monitor water use
- Meetings & outreach such as this; all stakeholders should have a voice
- Increased education of the groundwater in Portage County and surrounding areas

Almond Bancroft School Auditorium, Village of Almond, Wednesday, October 15, 2014

What's going well with water?

- The well company measured our neighbors well when we put a new well in. The level was 2 ft. higher than in the early 60's.
- We are fortunate to have a huge amount of groundwater below central Wisconsin that cannot run out like others parts of the world. I believe it is the amount of the Great Lakes.
- Water level is being maintained overall. Depth cycles.
- "Seconded" that users are conservation-minded. e.g. Technology/nozzles/equipment for: uniformity, infiltration
- We have had some very good rains this year
- Water levels are not changing. Lake levels are on a 25-30 year cycle.
- Have to look at jobs/econ productivity
- Farmers are constantly looking for ways to conserve water & cut down on use of chemicals
- Going well! Some of the new irrigation systems use less water than the old irrigations systems.

Appendix B

- Knowledge is being shared to move toward improved quality and minimizing quantity impacts
- Going well! We've had more rain and snow to help bring the water table up.
- There's a concerned discussion about "saving" the quality & quantity of water
- Water is still available & has generally good quality
- Billions of dollars' worth of agriculture products produced in the central sand area
- Little Plover has not gone dry in recent years. (incl. drought in 2012)
- **People are talking about what's important to them.**
- Above normal precipitation this year; new irrigation technology that uses less water; more awareness of groundwater issues
- Feeding a record population
- Good tasting water in central sands
- Our experience, e.g. considering changes like dam removal
- Water use efficiency is continuously increasing in agriculture through new technologies, allowing for higher yields using less water
- Water use efficiencies in agriculture should be better with increasing yields we are seeing
- Plenty of water for all
- All of Portage County used 1 ½" of water in 2011
- Our rivers & streams are cleaner than they have been – H₂O pollution sources have been cleaned up, point sources have been cleaned up
- Groundwater levels are up
- Irrigated vegetable production largest economic driver in the County
- Irrigation growing our food
- Water use technologies
- Regulation of fertilizer and pesticide application
- We have the most abundant water supply in USA
- Precip [*sic*] has been going up
- Those of us who depend on water are the most conservative minded about water usage. Why would we use more than necessary.
- Economics 5 billion
- The current concerns have initiated science based research so we know how to address the problems

What's not going well with water?

- Irresponsible use of water by government bodies
- Municipal use is IMO [*sic*] underrated
- Government bodies watering grass medians
- Drainage district knowledge of water not being utilized
- Water concerns have divided people
- Too many political issues
- Lack of education on how ag industry operated (timing of irrigation, etc.)
- Nitrate levels
- Increased chemicals, nitrates
- To [*sic*] much concrete and holding ponds creating run off down the river
- Demands on agriculture for maximum yields work inversely to reducing fertilizer chemical impacts on groundwater

Appendix B

- Rapid growth of hi-cap wells with only minimal consideration as to long term impact on rural residential and lakes/wetlands
- Too many high capacity wells being installed too close together; contamination from ag, septic systems, lawns, and industry; growth in population and industry requiring more water; pressure from other states for Great Lakes water
- Wasn't the Buena Vista Marsh a big 'sponge,' before the drainage tiles and ditches were put in? Now fields on the marsh are irrigated.
- I believe that water quantity issues are very localized and sometimes blown out of proportion. I think quality issues should be the main focus.
- Hard to weigh the value of a stream or lake against the value of vegetables
- Not going well! We are seeing more and more high capacity wells being put in before there is any regulation put on density of wells. The more 'straws' the more groundwater being pumped out
- You are preaching to the choir
- I'm not sure that all ideas as to what is happening to our groundwater are being listened to
- Unlimited usage with seemingly little regulation
- What's not going well! Our lakes that we use for recreation are too low.
- What's not going well! The homeowner/landowner who does not use groundwater for a livelihood has no protection for their well if the level drops.
- What's not going well! Some areas, the groundwater has been brought down through irrigation, to the point where some folks have had to put in a new well.
- Going wrong – droughts brought on by climate change; over use of a finite resource; need work on non-point sources
- Public perception on high capacity wells used for agriculture
- Farmers are working hard and spending money to use new technology to use less water. The County wants to water more medians, let people water lawns and not monitor them.
- Lack of understanding from urban residents about agricultural use of water – many misconceptions that farmers irrigate 24/7 & are largest users of water.
- Too many high capacity wells and farmland being taken for large shopping malls, ex. Crossroads Commons

What ideas do you have about guiding the future of water resources for Portage County?

- Analyze what's changed on the landscape to impact the water; "LRR" [sic] headwaters example
- Research – is needed, science based, outside of UWSP, take emotions out; SP Grey Water – find a better system rather than down the WI River; Innovation – in irrigation, change in tax system for natural wooded lands that help clean water
- Any plans and laws should be science based
- Research needs to be reviewed by someone outside of UWSP
- All decisions should be science based not emotional
- Regional based research
- Try to keep emotions level and use science to solve issue. All parties need to accept some compromise.
- Planning in small communities, i.e. Arnott, Bancroft, needs to be done to increase lot sizes to reduce septic issues, to help mitigate the ag contribution.
- Continental Divide – does it matter? Nitrogen

Appendix B

- Maybe we should initiate an incentive program for research and conservation
- Look at the benefits of dams in keeping water in the system. Does this help during drought
- Get Stevens Point to release grey water back to Portage County, than to Wisconsin River
- St. Point wastewater returned to LPR headwaters
- Ideas! To somehow develop a system to protect the ground water for everyone – perhaps a permit system so that the resource is protected for everyone and penalization if people don't respect the agreement
- Natural buffers for water bodies; buffers for ag land; better educate home owners on water quality
- Eutrophication will fill lakes & streams and man only speeds the process
- Change tax system on wooded, natural land structures that naturally help clean water
- Use of irrigation scheduling models; variable rate irrigation; use of cover crops; grassy H₂O ways
- Local oversight/policy to monitor & current usage of hi-cap wells (municipal or ag) & future permits for new wells
- Put a hold on permitting for high capacity wells & strengthen the rules for permits
- Need to restrict water consumption to recharge rate; may need to consider crops that use less water
- Need leach beds for holding ponds
- Educate consumers about not perfect produce (aesthetics) and how it takes less inputs to create it – 40% of food is wasted due to this (opinion?)
- Education is key about the various uses water, example of why farmers may water when it's raining

Municipal Hall, Town of Plover, Wednesday, October 22, 2014

What's going well with water?

- Economy; potato & vegetable production top ranked; recreation; feeding the nation
- Keeping septic system clean & inspected 3 years
- 6 billion dollar agriculture economy
- Economics 6 billion
- Taste good
- It's cold; it's clear; taste good, it's always there
- We have reduced by a lot the use of water at our plant. The farmers we work with are very conscious about their water use.
- Farmers are implementing best management practices in order to conserve water
- Technology improvements allow farmers to apply water when and where it's needed
- Farmers are most knowledgeable about water use and stewards of the land
- We are developing an awareness – great improvement since 2006
- Awareness of the importance of H₂O
- We are aware there are problems and solutions
- Water table is up due to weather
- Plentiful
- Water table up
- My well hasn't went [sic] dry
- People are getting involved to save our water resources. Wells, rivers, lakes, & streams and strive to better water.

Appendix B

- Public interest in keeping water clean and conserving water
- Governments are concired [*sic*] at H₂O
- Open talk of all water concerns for help in understanding worries and concerns
- Testing is readily available
- Contamination awareness
- My nitrate levels used to be bad, recently they are now below state standards of 10 ppm
- Most people are practicing better methods of using less water and less contamination

What's not going well with water?

- In my case high nitrates. Not drinkable.
- Nitrates
- High nitrates
- Contamination
- Some still put medicine down toilets & these are found in the ground water
- I see a lot of water wasted by sprinklers watering lawns and water going down the drain
- Not enough of the population aware of the issue
- People still don't think water can't become a lost commodity
- Lots of different groundwater problems w/o planning guidelines
- There should be more people and governments involved in this issue
- Trending towards fewer days in winter that surface waters are frozen leading to increased evaporation.
- Runoff regulations
- To [*sic*] much of it being pumped
- Too much use, not enough recharge per year
- Over use
- To [*sic*] much fighting need more people to educate them selfs [*sic*] before pointing fingers
- Fighting between users of water – City of Point vs Town of Hull homeowners; Town of Hull homeowners vs farmers wanting to install high cap well; Town of Grant concerns with expansion of high cap wells
- Placing blame on particular users of our H₂O
- Finger pointing at farms or ag business

What ideas do you have about guiding the future of water resources for Portage County?

- Abusers of water pay fines. Good stewards get rewarded.
- Monitor high cap well usage
- More control on chemical use
- The county needs to look at their water use: stop watering lawns; stop watering medians; stop using fountains in storm water ponds
- Contamination – industrial
- Why not use the three hi-capacity wells sitting idle in the Village of Whiting (over 3 million gallons/day capacity) in an effort for inter-municipality cooperation to help solve the water problems in the Town of Hull & Little Plover River area before the DNR demands them capped & we loose [*sic*] the resource?
- Providing bulletins or online data regarding current H₂O conditions/issues

Appendix B

- Education of well use
- Relocate waste water plant to north of VOP [*sic, Village of Plover*]
- Locate municipal wells away from residential areas
- Send treated municipal water back to the recharge area!
- Education & technology
- Use research to make science-based decisions
- Education including young children
- Need better education. I hear many people that blame only the farmers for low water/contamination.
- Fund solutions for water problems and expertise

Municipal Hall, Town of Dewey, Wednesday, October 29, 2014

What's going well with water?

- Potatoes and vegetables do not require excessive amounts of water.
- The agriculture company is constantly improving their practices to use less fertilizers & pesticides
- Today's potato & vegetable growers embrace technology that conserves water.
- Majority of water is good quality
- Water quality is good in our township
- Economy is so dependent on water & Portage County has such an abundance, why not use it for a benefit?
- Educational resources are abundant to learn about water – ex. water quality specialist, UWSP Lab, Health Dept., HHS, DNR
- 1. Pretty good quality 2. Also still pretty abundant in most areas
- Regulations on septic systems helps maintain water quality
- Basically we have good water
- Availability for water testing for home owners – UWSP, other labs
- We have the capability to add water filters/conditioners to improve the quality of our water

What's not going well with water?

- Wells drying up, lakes going dry, streams going dry
- Waste of water over watering of lawns, road way medium [*sic*]
- Over regulation of irrigation or water use could result in a vast reduction of food production
- No communication as to whether or not our neighbors have good or bad water – or is there a water problem close to where we live.
- River & streams seem to be affected by the amount of water being used for farm irrigation
- Financial burden for some people to have water tested – every 15 months, could County provide free water test for bact./NO3

What ideas do you have about guiding the future of water resources for Portage County?

- Continue to find ways to conserve
- Possibility of PoCo providing some \$ for testing?

Appendix B

- Future – Newsletter to home owners to update/educate persons in our community about groundwater
- We are studying water issues without pointing fingers – all trying to keep water cleaner
- Testing water quality would be beneficial
- Willingness to share water resource

Municipal Hall, Town of Lanark, Monday, November 10, 2014

What's going well with water?

- Good local citizen groups & educators involved with water issues
- These listening sessions! Public engagement and education is important so that there is communication between communities ----- local govern.
- We are finally addressing the issue.
- Public education
- Need of water to continue activity very important.
- The University
- Lots of people who care about the resource, Moses Creek example
- Scenic Beauty
- Recreation
- Have had enough water to not have to worry about the bad things happening elsewhere.
- Abundant groundwater (historically) & surface water
- Historically good quality
- Generally, good quality water in Portage County!
- My well has not run dry.
- Local lake studies are showing a rises [*sic*] in lake levels
- An increased awareness among the public that our water resources are not limitless
- We are finally starting to take our water issues seriously
- 1. Still have good amount. 2. Quality seems to be good. 3. People care about water resources.

What's not going well with water?

- Poor quality because of nitrates & pesticides
- Nitrate levels
- Too much nitrate & pesticides
- Atrazine levels in wells
- Contaminants from agriculture
- People's fertilized lawns going right up to lake & stream shores/lake eutrophication
- More monitoring of chemical application on land
- Almost all human need or desire to use water without thinking about it
- State leadership lacking
- Overtapped groundwater lack of regulation
- Lack of oversight on usage, ag, municipal, industry & private waste!
- 1. A lot of high capacity wells. 2. Not enough testing of quality thru-out county. 3. Unknown pollutants.
- Low water levels in rivers
- We have lakes & streams drying up in Portage County!

Appendix B

- High capacity wells reducing groundwater levels.
- We are drying our lakes and streams (Little Plover, Stoltenberg Creek, Allen Creek, Wolf Lake) and will dry more, if we don't manage our water.
- Low lake water levels. Streams flows reducing or completely stopping.
- No consideration [sic] cumulative effects of pumping
- High capacity wells ----- pumping more water than what is available in some years ----- problems with the Little Plover River drying up temporarily
- Topic needs immediate research; demand for ag & residential will both increase & we need to make that happen. Hancock Research Station?

What ideas do you have about guiding the future of water resources for Portage County?

- Cut through the fog – get good science.
- Some mechanism to consider cumulative effects of high cap wells
- Ideas. 1. More testing. 2. More info to get people involved.
- Enhance vegetation buffers & preserve/mitigate wetlands for use as natural filters
- Getting more fisherman involved in stream restoration projects (i.e. native trout species)
- I would like some easier ways to harvest/reuse grey water
- We need a detailed written plan to manage the water resources in this area!
- Stricter water usage controls for all large volume users will be needed
- Everyone must think about how when & where we are using water
- We must find a method to limit the wasting of water! It must be equitable –
- Strict regulation of contaminants
- Need more regulation
- Strict regulation of high capacity wells - & reduction of these wells

Grant Elementary School, Cafeteria, Town of Grant, Tuesday, December 2, 2014

What's going well with water?

- UWSP Water testing lab – great opportunities for homeowners
- Clean
- Water Conservation
- At Present time large resource of water
- Large supply easily gotten.
- We haven't used it all up yet!
- My community is down gradient of Portage County and currently we have exceptional water according to UWEX, we don't have AG.
- Central Wisconsin's Huge underground aquifer is a valuable resource and can be used to help grow food and feed the world
- The cost of use.
- Supports a 6 billion dollar vegetable agriculture economy
- Education and information opportunities for the public to get involved (e.g. GCAC)

What's not going well with water?

- Wasting of water for non-vital uses.

Appendix B

- We have come to believe that we should accept high nitrates, in our water. We accept streams/lakes going dry.
- We don't appreciate it enough. We are greedy and careless with it.
- Nothing seems to change until everyone's [sic] water is contaminated or gone
- Changes in hydrology especially in former Buena Vista Marsh (now BV Grasslands)
- Too much use by agriculture. The use also degrades the quality.
- Creeks & Streams drying up
- Drainage system water standing
- With so many Hi Cap wells in area can water be adequately [sic] purified [sic] in sand base to control nitrates?
- Portage County Drainage District too powerful
- Dirty
- Nitrate; Bacteria
- It's a concern when the uninformed have the ability to create regulations based on emotion.

What ideas do you have about guiding the future of water resources for Portage County?

- Hi Volicity [sic] Wells
- Letting people have an equal voice to big business agriculture and industry. We use the least, yet our health may be affected, esp children
- Preserve the areas where groundwater is still pure.
- Municipal waste water being sent down river instead of back to a recharge area
- We need to create nitrate-free zones similar to atrazine zones where enough is enough. We also should control/monitor well usage/pumping.
- Better quantity and quality regulations/laws
- Help change state law.
- Base water resource management decisions on science and real data, rather than emotion.
- Do more dredging of ditches
- Budgeting use. -grow less water demanding crops near water ways; - Return stormwater to the ground.

**Central Wisconsin Electric Cooperative, Town of Alban,
Tuesday, December 9, 2014**

What's going well with water?

- It's good to know someone is paying attention to the water. TREE LAKE is most active with the water issue.
- Citizens and Farmers are continuing to work together –
- It's taken for granted!
- We are trying to be proactive about our water in the future

Appendix B

What's not going well with water?

- Well Contaminations
- Does radon have any effect on water quality?
- Over or wasteful use of water on ag fields
- Are citizens aware of how to take care of their water supply?
- Uneducated people who don't care what they put into lakes & rivers & streams

What ideas do you have about guiding the future of water resources for Portage County?

- Ag Use Limited/Having tighter control over waste per acre. Stricter Regulations
- Irrigation of crops to be done as much as possible during hours & times of minimal evaporation.
- Irrigation & example of fountains for astetic [*sic*] value should be curbed. The public square is S.P. is a good example.
- Education sessions more in-depth as to personal contaminants being put into the water
- Where to take samples for tested [*sic*].
- Continued efforts to maintain allowable nitrates levels –
- Is there a crucial problem? What is it? (Awareness)

Portage County Public Library, City of Stevens Point, Tuesday, January 13, 2015

What's going well with water?

- Learning and monitoring our water quality as to whether it's safe to consume or use
- Going well – Bringing awareness to public of contaminants & the need to test. Surprised its every 15 months.
- We have a vast amount of resources concerning lakes, rivers, streams, motivated people, the university and more.
- Public awareness
- Being able to have it tested knowing it is safe to drink.
- The collective willingness of all parties to come together and discuss the important issue of groundwater
- What is well w/water – Still relatively clean – Fortunately it still rains & snows for replenishment.
- Increasing Recharge (infiltration)
- We have abundant clear, clean water – beautiful lakes and streams and we need to preserve these for ourselves and future generations.
- We still have plenty of water for everyone to use at this time
- Replentishable [*sic*]
- It's still here & we have an opportunity to use science & manage better
- We are looking at what we all can do.
- What's going well w/water – From a farming standpoint technology has been & continues to be very proactive in conserving water.
- Presence of river & lakes for recreational purposes

Appendix B

- What's going well w/H₂O – Increased attention to H₂O issues. Increased education about local H₂O. Tackling quality, not just quantity.
- Water in Portage County seems to be plentiful, and serves as a consumable resource as well as a resource for AG business, manufacturing, and recreation.
- The county has done a good job of testing for water quality – Water usage by agriculture has been reduced thru more efficient appl.
- What's going well w/water? Agriculture – access to local foods
- Scientific knowledge is becoming part of the discussion on the future of the water supply. County officials take the problem seriously.
- Water quality and quantity are slowly dropping.
- Citizens and political leaders are thinking about securing a sustainable groundwater future.
- Improving conservation practices
- People are concerned about the future quality and quantity of water
- Ground filtration by the type of soil predominant in Portage County
- People in this room concerned enough to keep the issues before the public thank you
- Nothing
- Private well water & septic recharge our local water system & we have a lot of private systems.
- Going well – Community is talking & not pointing fingers , working through it as a community
- Going well – the county cares and is addressing the issues
- Here to educate/problem solve water issues.
- 1. People of Po Co are aware of water issues – 2. Interested in solutions – 3. We have great resources

What's not going well with water?

- Lack of interest from DNR
- Not so well – people are careless & uniformed
- Not enough awareness
- Too many opinions & not enough facts concerning usage
- Few limits on use/withdrawal
- Quality and quantity is not being monitored enough
- Too casual inspection practices/turning a blind eye by realtors
- Water contamination issues. No \$ from the state to help resolve water issues.
- Chemicals used predominately by farms for fertilization & weed & pest control.
- Lack of limits on private homeowners using pesticides or fertilizers
- Not going well – loss in property values
- High nitrates – What's not going well w/water?
- Lack of accountability for contaminating water or depleting supply
- City of Stevens Point placing a gas station within a well head protection area
- -High Nitrates, -Past agriculture practices, -Radon in water, -Blue green algae created to climate effect in temperature changes
- I'm wondering where the pumped septic tank sewage is going – onto fields? Uptaken by plants/veggies that we're then eating
- Special interests at the state level, inc. VGA lobbyists, have taken the control of resources away from local governments and individuals.
- DNR should be allowed to regulate nitrate levels, and be instructed to challenge permits.
- Decreased quality recharge

Appendix B

- Problem – Almond area did have lakes, but they're gone in last 20 years Patterson Lake, Boelter Lake or down many, many feet Wolf Lake, Pickeral [sic] Lake – Camp Helen Brachman
- Cities & villages discharging water out of the watershed (down the WI River)
- It appears that municipal use of water has increased dramatically over the past 5 yrs.
- What's not well w/water – Excessive salt use in winter. Runoff issues. Over pumping water table issues. All water table issues are not a direct result of hi-cap wells however.
- Excessive removal
- Not going well – wells going dry in Town of Hull
- Currently, anyone can install a high capacity well and no government entity has the power to stop it, even if there is clear evidence that lakes and rivers are receding. We need a legal path.
- To stop the installation of high capacity wells when they are drawing down our natural water areas.
- Too many high cap wells are impacting on surface water. Not all wells are bad just some need to removed, modified, or denied
- What's not going well? 1. Despite recent droughts, increased no. of hi-cap wells drilled. 2. What sector uses the most H₂O? 3. What sector applies the most chemicals? 4. Too much tip-toeing around industrial ag interests.
- What's not going well with water – Some people not using common sense in the best way to insure the safety & conservancy of our water resource. Hopefully these sessions will help this.

What ideas do you have about guiding the future of water resources for Portage County?

- Future – Social responsibility to greater good vs. solely economic gain
- Continue to pull all players together. Come up with a management plan that people trust!
- Proper sharing of the water resources by all residents/businesses of Portage Cty.
- Put a price on all water useage [sic]
- How do we assure that private well owners get their water tested? Can there be an incentive to do so?
- Better education to landowners
- Advocate on behalf of homeowners
- Develop method for balancing withdrawal with recharge \$-based?
- Ideas for improvement – Limit hi cap wells somehow, perhaps ask surrounding land owners before drilling process? Educate public about using and quality
- Stricter regulations for locating private wells for construction requirements
- Make sure state government keeps/strengthens state law to protect water quality. Make sure state does not impede [sic] local enforcement
- Portage County citizens & political leaders need to rally behind statewide sustainable groundwater legislation or, a regional response to the problem
- We need a citizen board to apply pressure on the state legislature to allow municipalities to fight against the proliferation of high capacity wells.
- Continue educating the public
- Guide future – education, educ of legislators
- Continue to monitor groundwater quality by following DNR standards
- Ideas for guiding the future? Education about farming practices to reduce H₂O use and chemical apps – eg, cultivation, rotation, compost fertilizer

Appendix B

- Ideas for future – Permanent conservation easements – keep forests/habitats intact and unchanged
- Stricter regulations i.e. DNR permitting process – Ideas for future of water.
- Form a citizen committee to make concise decisions about how to use groundwater without doing damage to surface water.
- -Land use planning, -Policies regarding use, -Citizen groups, -Groundwater stewardship for future use
- Our farming practices could change. We could tackle quality & quantity on *[sic]* by looking into this. Pollution is chemicals/manure applied. And quantity is from increased open plowed soil. If you want to retain water you need a ground layer to absorb water and reduce runoff. You could push for alternative grazing and crop procedures *[sic]*. I can talk more if needed.
- More control of pesticides, nitrates & water pumping
- Continue w/water testing, analysis, water committees on various local levels.

Appendix C

From: Susan Tupper [REDACTED]
Sent: Thursday, January 15, 2015 12:00 PM
To: CountyExecutive Office
Subject: Groundwater planning sessions

Dear Patti,

I just wanted to thank you once again for your work on the Groundwater Listening Sessions. It is a great idea to let all people speak about what is important to them. You mentioned that we could also write you with more ideas we have. I mainly would like to reiterate some of the themes from the listening session on Tuesday and what they mean to me.

As you said, according to our state Constitution, all citizens have a right to the water. I think it's interesting that one comment on Tuesday, by a local farmer, interpreted that right to mean that no one can stop the installation of high capacity wells. That to me is the crux of the problem. I have seen maps showing a huge proliferation of wells and attended lectures by professors at the University clearly documenting that lakes and streams, e.g. the little Plover River and Wolf Lake are drying up mainly due to the hundreds of high capacity wells installed each year. Growers are quick to point out that they are engaged in an important business of growing food. I would say that we cannot forget that throughout the world, water is now are most precious commodity and anything that impacts our water supply will effect our future even more than food. Does anyone in Portage County want to start buying bottled water to drink, or give up our incredible fishing, boating, and recreational opportunities on our bodies of water in the county? As much as we would like to avoid it, it does look like we will have an impasse between those growing food vs. those of us who want to protect our water supply. Thus, we need a way to have both sides satisfied. We cannot continue to give ground to the growth of agriculture at the expense of water. I feel as a county, we need a vehicle to make our concerns clear to our state legislature and we need "local control" to stop the continuous installation of high capacity wells when we have clearly reached the point of drawing down our water table. We need to make our concerns clear to the state and exert some pressure.

I suspect you already know this and I am so glad you are such a forward thinking County Executive. I can hope we can find a way to reach some common ground and that water does not continue to suffer.

Thanks again for your great work,

Susan Tupper
1599 County Road ZZ N
Amherst Junction, Wi. 54407

Appendix C

From: Todd Knepfel [REDACTED]
Sent: Sunday, January 18, 2015 10:24 AM
To: CountyExecutive Office
Subject: Comment on County Groundwater

Dear Patty,

Please consider my following comments for inclusion in your groundwater final report.

My family and I have either worked or lived in the township of New Hope since 1987. We built a home on the edge of Rhinehart Lake in 1992. We've seen many changes in the township and the county since our arrival. A couple items come to my mind: more people, increased demand for recreational opportunities - natural and man-made, fewer small family farms, and more large corporate farms. Corporate farms that require tremendous amounts of open space and large quantities of clean water to raise animals and/or grow crops.

While living on Rhinehart Lake for over 20 years we've seen water levels fluctuate consistently from year to year. Dry years and high water demand by everyone in the watershed cause a very predictable drop in lake levels. (You probably understand the hydrologic cycle better than any government official I know, so I'm not going to explain this any further.) However, in the past several years there has been a consistent effort by some area farmers to clear land and install high capacity wells for irrigation. My concern and many other local residents included, fear the consequences of this high water demand on many of our local lakes - Sunset, Onland, Rhinehart, Emily, and Collins. George Kraft noted the potential impact of this effect in a public presentation at CWES just prior to Christmas. He contrasted our present water demand with potential future demand due to increased high capacity well installations on the water levels of lakes, rivers and streams in the towns of New Hope, Lanark, Alban and Amherst. The impact is immediate and dramatic. After George's presentation I had a chance to talk with several local residents and many people are confused about the lack of control and foresight provided by their local governments regarding water use in their localities. "What's a resident to do?" they asked.

As a New Hope town board member and a member of the town's Planning Committee since 2000, I helped draft and support the strong natural resource and conservation protection component of our town's Comprehensive Plan. Unfortunately due to current lack of any state regulations/controls on water use (ultimately affected by our state's current political climate), and not much if any legal recourse available to local town boards, my hope is that the larger county government can exert some influence and control over the protection of our water resources - for everyone now and in the future. I can only speak for myself and not for my fellow town board members, but I truly believe all of us would support some form of county government monitoring or control over water use.

Thank you for initiating this necessary conversation and considering my comments. If I or the town board can assist with this effort please contact me.

On a more personal note - hope your new year is going well.
Enjoy the seasons,
Todd Knepfel

Appendix D

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