

**Northeast Minnesota 25 by 25 Water Quality Town Hall:
Table discussion input**

Question 1: What goals could be established to improve water quality by 25 percent in Northeast Minnesota?

Ensure industrial use can *guarantee* any use of water will not degrade quality or supply of water	Enforce laws and regulations in the mining industry including no variances and impose permit standards that reflect best science.
Any pipeline construction must meet needs of citizens not industry	Prevent further pollution of our waters by preventing introduction of invasive species
Establish education programs and develop baseline monitoring of storm water from rural communities.	Better environmental education so that people understand rules and risks. We discussed soap in miners lake.
Reduce large area impacts from things like road salt, fertilizer/herbicide/pesticide applications.	Better enforcement of non point pollution.
Reduce road salt	Avoid known risks of sulfide mining in the BWCA watershed.
Increase education about simple solutions to protect water quality.	For 25 by 25, it needs to focus on the worst areas (not NE MN). The goal in NE MN is to maintain the WQ. Focus improvement goals in the rest of the state.
Enforce existing permits and impose best sciences	Establish a baseline and maintain plans/funding for monitoring. A 40-year cycle for monitoring not enough. We can't just have observations or citizen based data, but data through a scientific process.
Prevent invasive species	Fill in monitoring gaps - MPCA monitoring more consistently and more lakes for a baseline (need more \$)
Understand and reduce algae blooms in NE MN. Climate change? Septic systems? Lakefront vegetation removal? Lawns?	Protect drinking water by developing a central data base so water quality in private wells can be monitored and appropriate actions taken.
Hold WLSSD responsible for raw sewage overflow into Lake Superior.	Monetize "clean water" through non-government jobs for the average person.
Expand use of road salt substitutes (if they are available and viable).	When land is at the point of sale there should be a simple brochure teaching how to protect water quality in their activities on the land.
Reduce microbeads	Upgrade municipal wastewater and stormwater treatment systems
Improve buffer around shorelines	Encourage, educate and promote rain gardens and similar strategies to limit, cleanse, and re-use run off.
Education to promote stormwater mngt ordinances in urban nodes, i.e. MS4 stipulations	Allow urban and rural cooperation on water quality projects.
Permanently protect the Boundary Waters watershed from sulfide-ore copper mining.	
Improve regulation of septic systems	
Check on septic systems that are outdated	
Create lists of simple things landowners can do	
Reduce point source eutrophication in area lakes. I. E. Ely treatment plant and septic systems.	
Educate public that what they flush down the toilet ends up in the drinking water. "Your waste becomes my drink. You must think"	

Manage forests properly to prevent destructive forest fires
Septic systems a huge problem, upgrades can be cost prohibitive -- rebates or incentives?
Increase the efficiency of Ely's tertiary treatment plant by 25% or more. Encourage lake shore property owners to upgrade septic systems.
State of the art technology and best practices in municipal water treatment facilities required.
Resorts - septic systems a big cost prohibitive thing, but also want to encourage tourism
Increase education: - all generations, schools, town halls, across all ages
Keep what you came for. Preserve the beauty in spite of more people coming to enjoy it.
Update municipality wastewater facilities. Upgrade city infrastructure. Grants needed. Ely does not have the tax base to do this. We need good paying jobs to increase our population.
Ongoing monitoring of lake water quality and enforcement of regulations. Penalties should be serious and regulatory agencies funded enough to do their job and protect us.
improve relations between utility companies and property owners for water fluctuations in reservoirs such as Birch Lake.
Education! Especially starting at a young age.
Test every well
promote education and processes for widespread rain gardens, localized water treatment systems, rain barrels
Ecosystem based learning. Cause and effects impacts of water in science youth education
Education on what really is pollution. What really polluted the water up in this area. Tourist bring boats and fire wood from all over. Do they even know that's pollution?

Use communication research to create better messages for the public
Systematic inspections of failed septic systems on lakes and rivers - or sensitive groundwater - with P or N problems (point of sale criteria good but not enough) & Establish centralized collection.
1. Identify regional sources of water pollution. 2. Determine the base of existing water quality parameters. 3. Educate the public about 1&2. Set improvement targets & strategies to achieve these.
Continue to fund and monitoring and management of invasive aquatic species.
More recycling and better trash pickup to reduce run off.
Lawn mowing and herbicide reduction
Different standards for different areas of our state.
Public education : septic, nutrients, landscape, cost and benefit, risk and importance.
Neighbor-based and peer pressure and education encouragement - teach people who don't come to meetings.
Establish a assistance program to help home owners replace or improve outdated septic system.
Educate the kids who will educate their parents.
Focus on problem spots and point source pollution. Create awareness and educate on the problems. Duluth area, lake superior, and St. Louis river I.E. grant availability. Participation. Childreninvolve
Better regulations. Consistency statewide.
Publicly available data
Industrial use of water will be maintained in its original quality and quantity
Reduce mineral leaking and Sulfates - minntac.
Increase recycling, reduce trash
Encouraging seasonal cabin owners investment in clean water

Develop education and baseline monitoring of rural storm water systems.
Address concerns re: chemicals in water, incl. motor oil, medicines and industrial/septic leaks, invasive species. Encourage people to get active, unify interested groups to enhance political clout
Better use of technology. Stable standards with reason, to stabilize water treatment rates.
Mercury in rainwater - need to figure out how to work with other states to address this issue (it's a federal issue)
Any industrial waste projects are kept in check. Ensure that companies maintain proper funding for mitigation and potential clean up efforts should contamination occur.
Upgraded septic systems. Less Fertilizer used on lawns and buffers on shore. An alternative to sodium chloride on the highways.
Improve septic systems
Decrease level of mercury in the Lake Superior watershed.
Education and management of shore line maintenance. Improve storm water run off.
Improve mechanism of reporting so enforcement agencies can do their job - need better enforcement of existing regulations.
Increase or maintain the protection of our public land and forests to recharge our drinking water and mitigate against forest fires
All water quality improvements should consider the full range of costs and benefits.
Work to prevent the draining of swamps and bogs that sustain wildlife and preserve water quality
Reduce nutrients in water and Hazardous algae blooms
Ely should do a study of its storm sewer system for impact in local water and lakes e.g. Soap suds on miners lake.
Test old mining sites- who's accountable?

1. Focus on areas that have water quality impairments. I.e. St. Louis River 2. C/N mining and protecting water quality can operate hand and hand. 3. Use credible scientific evidence to support decisio
Must be a demonstration with evidence that any industrial project can be done safely before being approved
Reduce cynobacteria in Lake of The Woods by 25%
-Riparian Zones - create/increase regulations for private lake shore riparian zones, not limited to new development. including septic monitoring Mine: increased monitor of runoff on tilling pits
There should be no consideration of cost for basic water quality standards.
Improve septic functionality and compliance. Increase riparian buffers. Educate the public about their impact on water quality
Focus on public education regarding water quality issues, including aquatic invasive species, shoreline management and others. Strengthen laws on AIS prevention.
Get all riparian septic systems up to code standards by 2025
provide fundind for education and inspection of Septic and, municipal waste systems. Engage public to maintain and assist with costs for homeowners unable to afford upgrades.
Prevent new sources of sulfur/sulfide loading to surface waters; Improve septic compliance and O&M to reduce nutrient & pharmac. loads to GW; Increase private well testing for N, As, B, E. coli, et
Protect riparian areas
Ensure compliance with wastewater standards y municipality
Develop water friendly job opportunities in local communities in a way that maintains water quality.
Prevention is key. Increase renewable energy sources and decommission coal fired power

plants to reduce mercury contamination.
Move to organic farming standards reducing applications of wide spectrum chemicals and to encompass larger spectrum of pollutants tested, to including enforcing buffer zone rules to include livestock
Prevent contamination. Once water is contaminated, it is nearly impossible to remediate it.
Minnesota Power and others must be stopped from degrading lakes such as the Butch Lake reservoir and Kawishiwi falls. water levels are not regulated appropriately and the devastation is visible.
Hold assigned agencies to task of determining sources of contamination and make recommendations to correction with full ding appropriations.
Encourage active responses to climate change on local, state and national levels.
Activate and promote citizen action groups (IE - Lakeshore associations) to oversee and assess violations and educating public awareness to greater responsibility.

Fund the study to explore the economic, environmental, and social consequences of sulfide mining.
Actively work to create sustainable economic development. Job training. Job creation that is not polluting.
Address septic system failures due to overuse. E.g. Rental units that exceed limits.
Citizens being aware of requirements while supporting and working with local government oversight. Utilize honest science only, not theoretical science with economic windfalls to special interest.
Systemic survey of septic system compliance, O&M to reduce loading; Use wastewater nutrients as fertilizer when hazards are mitigated; Establish well testing ed. program
Evaluate all septic systems for efficacy every 5 years. Offer well testing clinics or a program so that all private wells are tested every 5 years

Question 2: What actions are needed to get to these goals for Northeast Minnesota?

Research and promote alternative septic system options for densely developed lakes
Education from kindergarteners to land owners
Education for invasive species, at a watershed level, at a young age.
More active training, higher pay, and or higher expectations of AIS inspectors for effective use of taxpayer dollars
Support local water quality ordinances through citizen education.
Cost incentives or rebates for cost prohibitive septic upgrades, education of septic problems with private landowners, more septic inspections
Widespread/systemic Education on how activities with septic, vegetation management, well management, and runoff from our land affect water quality, and how we as individuals can mitigate these effect
Regulate existing water quality standards
Enforcement in the ag industry
Grants or incentives for water quality improvements ,septics,
Incentivize cleaning boats after on lake to prevent invasive species
Educate landowners, especially along lakes and rivers
Reduce use of chemicals
Contact your legislators and run for local office if you're able/willing
Consistent enforcement of existing rules and ordinances assuming viability of the rules.
Ensure wastewater discharges are meeting standards
Legislator support, funding for these projects, jobs for people in the area, people willing to provide the education. The more jobs in the area, the height populationthe more people to prove the educ
Test all wells -promote the business of clean water, both private business and public business (create jobs, \$\$)
Require health impact assessment for proposed copper nickel mines.
Federal assistance and cooperation to manage airborne pollutants
Find a way to educate all ages

*education and public awareness leading to standards or regulation *more community involvement and engagement *take larger view of issue, not just cost *accountability *minimum standards
Improve lakeside buffer zones.
Septic inspections every 20 years to verify compliance
We need jobs in the area to have the population of people that can take on these kinds of actions on and volunteer. There are no jobs to keep young adults in the area.
Change regulations regarding when septic systems are completed ... not just when being sold, i.e. Every three or five years. Ensure fines or enforcement is thorough.
Provide education curriculum on the value of clean water
Work on the culture- attitude that change makers a difference. Educate people that why it should matter to me and convince people that it is all our responsibility. Start education with young.
Promoting citizen associations focused on water and natural resource quality (lake and/or watershed associations)
Create data base of all wells,establish baseline.
Prevention prevention prevention. Prevent contamination before it starts.
Education of the public on simple water conservation practices
Reduce road salt and design road construction to minimize run off. Solar powered road beds to minimize ice
Cost share septic projects, like fire wise program
Provide enough staff to help educate and follow up on the regulations
Funding for waste water treatment centers in rural communities
Basic rights for Minnesotans: clean water for everyone (public policy) and enforcement (do no harm written in administrative regulations now) Everything we do has to be measured against no risk to wtr
Create program to upgrade septic systems which is not income based.

Educate the public on soil and water conservation boards - how they function/ what they do/ how they're elected
Education and awareness for on water quality regulations and mining
Grants to maintain septic systems and water treatment systems
Protect our clean waters before they become polluted. Fund protection strategies.
Lake Associations need to take a position on WATER quality.
Enforce existing regulations, ensure compliance with CWA.
Sell BWCA water like Evian.
Financial assistance or incentives to encourage wastewater treatment upgrades.
All of these comments and suggestions need people in the area to either volunteer or want to live in the area. Right now people leave, don't stay or cannot come back because there are no jobs in area
Education about buffer and riparian zone management before enforcement. Increase funding to education through extension budget, schools, and community workshops.
Upgrade city water and sewer treatment plants and rural septic systems with government assistance and cost sharing
Integrate these water quality issues systemically into public education via standards developed by MDE and assist/support community groups, church, etc with the same
Minnesota center of research on water quality: best practices. Need funding for higher education and research
Land owners should receive a booklet or handbook of how they need to take care of the ecology of their property.
Prevention of pollution is much less costly than cleanup.
Make sure a test for private well water is not too expensive
Review rules for water levels determined by electric generation
Education and awareness. Research on Earth friendly and organic fertilizers. Lessen the burden on the tax base with more people moving here. Big employers with good paying jobs.
Rely on data and science.

Opening up exploring minerals for potential future mining will allow for jobs in the area without polluting waters. Right now it's not about mining, it's about exploring.
Education for k-12; they teach their parents!
Educate the public regarding buffer zones for lakefront property. Funding for septic upgrades. New highway technology regarding salt.
Required testing of septic systems and wells in order to get data on problematic areas and information about how many need to be upgraded or replaced
In NE Minnesota the three greatest water quality issues are: 1) septic systems; 2) aquatic invasive species; and, 3) fires. Rules and regulations need to be enforced!!!
Regulations for lakeshore homeowners re septic systems, shoreline vegetation, and fertilizer use.
Outreach (ie Festivals) works! Keep it up
Provide financial assistance for septic system and well upgrades or replacements for those that need it
Sell naming rights rights to unnamed waterbodies in Minnesota to raise money for water quality research
More funding for bonding/grants financial resources made available. stormwater collection/recycling for watering, solar pumps for livestock to protect buffer zones. Water Education/public awareness
Water shed in Duluth area needs education. There is way too much pollution in that area. They are highly polluting Lake Superior and St. Louis River, they need education and regulations!
Financial incentives (eg, grants) for improvements to private property owners who make water quality related improvements to their properties.
Integrated water quality and social contract curriculum from elementary through high school.
Increase awareness of the wq issues public should be aware of in home and on private land and state/county provided resources to test and address issues.
Environmental and natural resource education in MN Ed standards
Increase AIS inspections

Greater public education (eg, press releases, primary school curriculum, etc) re water quality improvement opportunities.

Concentrate on cleaning up southern Minnesota lakes and rivers

Question 3: What specific next steps are needed to move the actions forward now?

Enforce the rules and regulations that are in place. Don't try to regulate with "policy" or "guidance" to fulfill a political agenda. Not enforcing existing rules and regulations leads to mistrust.
Find funding to operate Ely's treatment plant at greater efficiency.
Vote in a way that considers water quality.
Make a way for private well owners to share their well testing results with a statewide database
Legislative support and funding.
Bring attention to a larger group of people. Continue to outreach to the larger population, including tourists.
Contact planning and zoning regarding occupant loading in rentals in each county. Ensure funding for necessary inspectors of septic systems.
Specific grants and loans for individuals and towns for septic and water treatment
Update water treatment technology to improve water quality
Higher population of people in northern MN to increase the number of people living in the area so that there is more people willing to volunteer and support these projects.
Pay the extra money to get adequate services.
Timeline for testing if septic /wells
Funding for education-for the group who will create the curriculum for teaching
funding for enforcement or staffing of followup of following regulations
Educate the public about conserving and protecting water supplies.
Cost analysis and financial assessments of assistance for upgrades or replacements to aging septic systems and wells
Construction criteria to include engineering of roads to minimize salt use and natural melting

Have the home prove that they followed the regulation by showing a receipt for work done
Increased biological monitoring by power companies managing reservoirs in local watershed
Efforts at state and local levels to increase engagement about water quality
Education, bill boards in metro area and Duluth that include true facts on house hold ways they can improve water quality themselves.
Develop wind and solar to minimize water draw down and fluctuating water levels for electric power.
A rebate or incentive on property tax for showing that you maintained the regulations. For example on maintaining shoreline vegetation.
Triage or prioritize issues based on their likely consequences and urgency. This could vary by location.
Funding to meet the 25% goals
Apply for grants for funding to assist communities with low population.
Discussions between power companies and lake residents regarding water quality and implications for wildlife and plants.
Identify the top 3 issues that are most important for clean water.
curriculum in the schools for education of how to maintain our water quality standards and what they are. Try to do it without bias toward one industry.
Host informational meetings in metro and Duluth areas including education information about invasive species, house hold waste and shore line run off.

Education throughout -- include in schools and business associations on a consistent basis. Especially focusing on long term effects of WATER pollution. ALL of us have a Vested Interest in WATER quali
Limit drilling that impacts water levels and quality.
Encourage people to let their legislators know what's important to them and to tell them that they want the state to spend money on it.
In NE MN we must protect what we have. Fund the study of the impact of a 20 year withdrawal of mining permits in the BWCA watershed.
Support the environmental study of the area that some are currently trying to defund at the federal level, the state should support this study
Encourage lake association organization and then educate through that
Partner up. Get beyond the gvt agency silos and public-private, urban/rural divides to tackle big problems. These water quality threats are often too big for one group or level
Pass laws and make rules regarding the prevention of the spread of invasive species.
Septic systems: more research (compost), area specific, rebates or incentives, increased inspections and or monitoring
prevention and maintenance is less expensive than restoration.
Come up with system to fund replacement septic systems.
Funding for public awareness, education (early childhood), forest improvement, enforced septic compliance more routine. Alternatives to road salt. Develop personal connection with water.
Continue funding for study of the impact of mining on water quality.
Teaching in schools - teach the kids and hope it filters back to parents
Allowing mining exploration to prove that mining can be conducted in he future safely with no water quality impact.
Enforce the laws and rules on water quality (such as contamination from taconite mines).
Develop science based regulations for preserving water quality.
Incentives to test if septic is up to code, or tax break if shore land is good
Tax dollars earned in the metro area returned to out state areas to upgrade failing infrastructure.

Education is critical! Explain what happens when invasives are present or take over. Enforcement is critical, but is not FREE.
Education and cost sharing info on shoreline management - simplify the process, consistent messaging, and cheaper. Partner with government - subsidies for native plants?
Write to our representatives about water quality issues.
Prevention is key. Prevent spread of aquatic invasive species. Prevent contamination from industrial sources.
Using VCC students to engage the community in outreach and provide support to address wq issues
Consistent messaging in education.
Governor should forcefully publicly veto any legislative action that would potentially lower WATER quality.
Find ways to monetize clean water work so that it provides good private sector jobs
BMP research and career tracks in septics at the u
Mining and clean water co-exist. continue funding of these areas to prove it.
Regular information sessions for adults each year to bring updated information to everyone.
Apply for grants.
Sell naming rights to unnamed bodies of water to raise funds for research.
Allow us to use government money to get people to come to educational events with free food
Leverage connections.
Maintain high quality of water that already exists. This may require special protection, special and specific laws, and strict enforcement. Once water is contaminated, it usually can't be cleaned up.
Fund or incentivize the testing of every well in the state, municipal, industrial, private . Align agencies and public to common goals, and regulations.
Get Polymet up and running. Need good paying jobs to bring young families to area. Increase our tax base to pay for upgrades of wastewater treatment systems
Create communications built on lpeoples buyin so people are not being told what to do
Prevention of negative effects is cheaper than cleaning up the problem.
Invest in technology for safer fertilizers

Fund activities like mining to lead to advancements in technology which will lead to cleaner and safer environments and habitat in northern MN.
Increase monitoring of invasive species using citizen science and educate property owners/community on how/where to report location of invasive species.
Start ongoing monitoring of storm water from City of Ely through Miner's Pit Lake of biological and chemical indicators for education and acquiring funding for management.
Boat owners need to do their part to prevent the spread of invasive species.

monitoring to check is a past tense method, it tells us what's already happened to the water. We need to educate to be ahead of the measurable results.
Don't forget that surface water and groundwater are connected.
Enforce standards/regulations that already exist (sulfate, septic, buffers).
Example: funding is available, but DNR approval is required and is delaying inspections and enforcement of boat inspections for invasive species!