

**Stillwater 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 the Twin Cities metro area?

Encourage/eliminate barriers to water reuse
Proactive goals rather than just reactive.
MN should lead setting a standard for K-12 educational content standards. The native content = water
Residential education and action
Limit or prohibit mining in our pristine water areas.
High priority on public education
Keep water on the land
Water quality education
Keep breaking down the cylinder of excellence (silos) in state govt water agencies.
Enforce the buffer requirements, especially in "forgotten" ditches.
More rain gardens and other best management practices
Change building codes and development codes to prevent runoff.
Set a charge for use of groundwater
Go to scale with education and small public actions.
Protect groundwater by taking care of areas that infiltrate quickly
Mandate limits to road salt use AND fund research into alternatives.
Better road salt practices
Enable EQB to better align state water regulations & priorities.
Regulate salt usage by eliminating liability to private applicatirs
Reduce P to St Croix River by 25%
Increase funding for groundwater monitoring, CECs
Public action from ground up to decision makers.
Convince agricultural community of their impacts through self monitoring of farm field runoff
Promote safe reuse of water for irrigation

Retain water on land to reduce nutrients
Change ag policy to make perennials marketable.
Decrease lake chloride amounts - or at least stop the (current) inevitable increases.
Need to reduce Nitrates in surface & ground water
Whatever goals are established, want to see "locked in" through constitutional amendment or other mechanisms so not immediately undone by next administration
Promote water efficiency regionally
Increase commitment to K-12 water education, in curriculum. empower students to become good water citizens & stewards
Encourage more rain gardens
Switch out our salt dispenser trucks to not do the swirling salt dispersal function. It's wasteful.
Proactively fund and arrest PFC contamination
Promote redevelopment over developing undeveloped areas, preserve existing green spaces
Enforce comprehensive PRIVATE wellhead protection.
Simple flyers to educate people on issues. Not too busy just short and sweet
Every Local governments makes a commitment to sustainable land & water development & management practices.
Sustainable redevelopment
Surface water goal for improved quality of less phosphorus
Local governments must have firm goals and projects defined in their local water plans
Protect drinking water quantity and quality

Create a statewide Campaign for water stewardship. Build on GOV Dayton's commitment.
Better engagement of the public to impact water quality at home
Better private property management reducing P...commercial fertilizer companies have interest to sell. Use more organic.
Educate all Minnesota residents (including youth) of issues that contribute poor water quality and how to encourage water conservation.
Intercept and treat urban runoff
Limit and control urban runoff to control phosphates road salt
Increased incentives and education for water conservation.
Funnel more money to AIS grants
Incentivise developers to conserve water and use alternative sourced (reuse)
Healthier fish so we can eat more local, native fish.
Reduce greatly the salt used for de-icing
Change code or policy in cities to require development plans to at least explore the feasibility of permeable pavement and only use impervious where permeable is not feasible.
Define cost and charge for use of all pollutants
Rethink transit design - reduce impervious surface, use more pervious surface, evaluate roads to see if they can be narrowed, use road salt better and research better options
Reduce urban runoff
Stop over salting
Increase wate clarity in Lakes by 25% by 2025.
limited liability legislation for salt applicators and homeowners
Keep aquatic invasive species from entering lakes and rivers
Protect drinking water, wells and aquafers

1. Pinpoint monitoring protocol 2. Awareness of problems using hard data 3. Increase conservation of water and reuse of stormwater
Less dependence on ground water for irrigation purposes.
new ideas for water treatment
Pinpoint the sources of pollution to better solve the issue. Remove garbage from the Mississippi. Reuse grey water for toilets and waste management.
Reduce fertilizer and pesticides - change the way we fertilize crops and lawns
creating green spaces of all sizes to capture runoff
Road salt reduction Fertilizer reduction (consider taxing products and services for those who choose to use) Buffer zone for surface runoff
Clean up polluted lakes and streams- make them swimmable
Water reuse
Rethink lawn and landscape culture - mow less, reduce inputs like fertilizers and herbi/pesticides, have more rain gardens, change culture of mowing and culture of irrigation
Increase commercial water reuse
Input Lawn treatment measurment evaluation
1 Reduce nutrients to surface water by 25% by '25 2 increase cover crops 25% by '25 3 Get 25% farmers to use precision farmers by '25
Develop a water ethic, improve awareness and education
Reduce, reuse, recycle wastewater including recharging aquifers Financial assistance to property owner Better interaction/coordination between state agencies
25% reduction of road salt use
Cities need to develop ordinances to encourage sustainable communities

Eliminate infiltration of PFC contaminants into the groundwater from stormwater pathways, as is occurring in a stormwater pathway that travels through Lake Elmo, W. Lakeland, Afton to St. Croix river
25% reduction in ground water use
Protect the quality of all life in the water
More research into water conservation and reuse.
Alternative agriculture practices to grow products
Address controllable pollutants- lead from pipes, microbeads and micro plastics,
An increase in education on local water issues, reducing runoff in urban areas using porous surfaces and rain gardens, reduction in household overuse of water
Increase public engagement Reductions in water pollutants Increase water protection in urban areas
25% reduction in oil pipelines
Recharge aquifers and protect recharge areas
Improve testing with published results
Design development for the carrying capacity of the land and limit growth in the metro area to a more sustainable level.
25% reduction in chloride use on roads
Determine true value of water and incorporate into the cost of water to pay now for sustainability
Change summer pumping demand to not be more than 3x winter demand for city wells
Periodic testing of private wells

Convert municipal drinking water to use surface water not groundwater
Educate people to set goals to reduce personal use of water. 2. Separate & regulate drinking water sources from commercial use . 3. Enforce lakeshoreline buffers.
1. Attitude changes on how we treat our rivers & lakes -not a sewer 2. Maintain & improve the number of unimpaired water by 25% 3. Improved coordination /compliance in best practices for road salt
3) Promote recreational uses of lakes and rivers to increase exposure to the value of water assets
Salt liability protection to reduce use
Green infrastructure, including buffers, increased use of surface and grey water, plumbing codes
Innovative road design including pervious pavement around water bodies, rumble strips to slow traffic and reduce need for salt
Educate how to access information on water quality Limited liability for salt application
Check buffer zones to make sure farmers are adhering to the rules.
BUFFER ZONES!
Require certification and licensure for chloride applicators state wide.
Streamline permitting for stormwater reuse.
Require all redevelopment improve water quality through minimal impact design standards (all ready exist, just need to be implemented)
Systems

Question 2: What actions are needed to get to these goals for the Twin Cities metro Area?

Improved infrastructure
Develop a policy for waste water reuse by Met Council.
Water reuse
Private wellhead protection plans similar to Municipal wellhead protection to protect the same aquifers.
Road salt 25% reduction- already great examples for roads.... now focus on water softener reductions. Support research for cost effective reductions and removals from resources.
Charge users true cost of ground water and pollutants
Improve or increase public education initiatives - for adults in addition to children. Possibly through: adds, neighborhood organizing (door-to-door), etc.
Road salt- change expectations for snow/ice travel. Variable speed limits based on weather conditions.
Install modern salt monitors on plows
Increase number of watershed district staff (which means of course, increase funding).
Road salt- look for alternative substances
Tax incentive to reduce runoff at the watershed level
Require or incentivize private contractors to learn best practices for salt reduction on roads and limited liability in exchange for documented application reduction.
Establish programs to engage ENTIRE watershed districts, not just those around a body of water.
Road salt- state of MN needs to lead by example.
Expand master water stewards program in all watershed districts.
Ensure that public properties show the best norm for raingardens and stormwater reuse. Public lands have to be an example for residents for NOT over-watering.

Fund water capture
Reducing ag runoff- incentives for agricultural to comply or remove incentives to do wrong things
Encourage each of our cities to become Green Step Cities.
Equalize funding opportunities for water quality projects across metro
Rain barrel incentives.
Develop financial incentives for industry to reduce water consumption.
Incentives for rock gardens and roof top gardens.
Low mow grass - U of M research.
Share what works with others. Seek out success stories and replicate those models. Make sure you have good data and find out what you don't know.
Require periodic testing of private wells, perhaps every 5 years. Data is vital to understanding our ground water systems. Enhance testing as well.
Legislation to reduce liability for small applications for deicing. See New Hampshire legislation
Make perennials profitable you get significantly more perennials on landscapes
Give water and water entities legal rights like NZ giving Whanganui River legal rights of a person.
More education and incentives for implementing buffers
Give out water meters for well use of ground water
Set regulations, laws and set certifications on phosphorus, fertilizers. But work on finding incentives ather than penalties.
Infrastructure for water reuse - local treatment, greywater use
More funding for conservation districts, watershed districts, and clean water fund to promote education and clean water projects

Reuse- business reuse- awesome! Efficient. Stormwater reuse- some situations where works. Waste water reuse- expensive...if goal is to preserve MN water then maybe cheaper to put metro on river water
Road salt - modify equipment to use less, research new options, methods, and practices.
We need to better educate the public, more specifically our younger generations about the effect we each have on our environment and how it affects us personally and make it more engaging to the youth
More options for de-icing roads
Reduce salt use in the road by mixing with sand
Education for homeowners, not just agriculture.
Reduce liability of trying to reduce salt usage to reduce fear of slip and fall lawsuits.
Education for commercial salt applicators on application rates and best time and method for applying
Using social media campaigns that demonstrate facts in terms people understand, show how water quality improvements save money, use humor, and help communicate water quality alerts
Too many silos.
More education, especially programs that target intergenerational groups
Funding to help get non compliant septic systems onto municipal systems
Change culture - get people to care more about water than about Green turf
Develop curriculum and activities to educate young people about water systems and how sectors like transportation are connected to water quality
Salt liability protection
Have a certification for neighborhoods as well as the ag certainty program.
Change the perception that water is cheap.

Require toilets on boats and ice houses
Better landscape management - drought resistant grass, incentives for smaller lawns, grants for green roofs and rain gardens
Set standards & benchmarks for performance.
Managed infiltration
Develop citizen-science type data collection and water monitoring programs
Use river water piping to be available for Geothermal
Find and invest in existing programs that already address some of these goals such as the Pollinator Friendly Alliance
We need to get out politicians and people of power more involved in our push to change and in helping bigger corporations switch to cleaner water practices.
Corporate incentives to create and implement waste water reuse.
25% reduction in use of salt on roads. Potassium acetate possible sub
Water reuse both storm water and wastewater License all salt applicator Raise the cost of water including water from private wells
Closed loop systems for storm water and drinking/wastewater to allow for aquifer recharge, irrigation, increase conservation
Look at pilot in East Bethel how waste water is recharging aquifer
Financial incentives to cities and counties to adopt better technology for chloride use on roads and limited liability insurance for private parking lots
We should hold everyone accountable on not pouring more pollution into our water and in holding bigger corporations accountable.
Education
Local education on conservation efforts

Reduce demand for oil with renewable energy so pipelines aren't needed
Govt accountable
Enhance communication between neighbors and local farmers and have a goal on how to improve water for the seventh generation. Hold each other accountable.
Use parent teacher conferences to build on projects children develop about water learning.
Develop strong certification programs for pollutants such as salt
Increased legislation/continuity so citizens don't get "whiplash" when the next administration comes in; supported / outreach programs; monitor & limit chemical applications from all users
Ration water. MCPA MUST enforce pollution violations. DNR should drop its appeal of Judge Marriner's ruling on White Bear Lake.

A campaign focused on water protection, similar to recycling campaign in past.
Homes and businesses (including farms, mines, and corporations) must be held accountable for the pollution they produce, and activities that have potential widespread effect should not be permitted.
Implement a home owner water usage audit (like Xcel Energy's electricity audit)
Tax/fee for private well usage
Include "state of water quality" in each person's Property tax statement
Internet of Things (devices) to monitor and report immediately WQ alerts
Expand K-12 program to design competitions to expand idea generation

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

Letters to home owners reminding them not to mow grass and leaves into the streets and how it hurts lakes and ponds
educate or replace leaders who don't value water quality appropriately
Pass legislation that reduces liability for salt applicators
Making sure these changes stay beyond the change in administration
Contact your local politicians. Let them know that water is a priority. Call them!
Salts- Limited liability for our private applicators

homeowner and salt-seller education about the dangers salt pose to water quality, restrict sales where possible
Mandate toilets on boats and ice houses
Fully fund our watershed district's plans & our counties' water management plans.
Salts- increase technologies available now and certify communities
Develop a salt use certification and incentivize salt reduction
Tax incentives for healthy lawn care.
Support FOREVER GREEN program at U of M

MPCA salt applicators training needs steady stream of funding
Public education campaigns.
Salt- public education to reduce private salt use
We need a state water mascot to raise awareness and excitement among youth about protecting our water
Light rail to Stilwater
State agencies should each champion water quality. Not just for DNR.
Start the conversation about the true costs. Do we have the will to impose more taxes on ourselves?
Minimum performance standards for agriculture.
Promote water and nutrient re-use
K-12 water education requirements statewide.
motivate people to do things differently based on the impacts our habits have on water
Create neighborhood coordinators connected to City Council's as a platform to educate Residence on water conservation ideas and plan for change
Promote organic based farming
Encourage cities to offer a tax incentive/break program for "keeping water on a property." Minneapolis does this.
Better enforcement of existing regulations. Provide staffing to support programs in state agencies.
Certification for homeowners, neighborhoods, cities as clean water. Like ag water cerification.
Research impacts of salt usage on plants and animals
Political will across levels of government, incl. Governor, legislation, judicial branch, agencies, and local level
Legislate a reduction in salt used on roads
Appropriate legislation and enforcement Implemented education programs Evaluate effectiveness of phosphorus bans in fertilizer

Administration change will happen. Clean water fund has been wonderful...more legislation in this regard to increase funding long term beyond this administration.
Prescribe different salt/grit ratios for specific sensitive areas
Coordinate salt/ grit usage across municipal boundaries
Showcase reuse projects
New ways to price water, esp. groundwater, tax incentives to reduce water use and reduce farming inputs
Educate public to pick up pet poo
More mass transit options
Enforcement of existing regs at local, state, federal levels
Find ways to do clean water practices profitability.
More groundwater aquifer monitoring
Increased funding for local landowners to address regional needs (well-testing, assist w/ leaking septic systems, buffers)
Incentivize desired behaviors
Change liability standards for salt applicators. Perhaps: change the liability to be based on a different de-icing best practice. Small contractors need to attend training on new best practices, e.g.
Salt applicator training.
Further resiliency within the state. Met Council is starting this as part of Comprehensive Plans.
Better educate our children on water quality and use.
More funding for research and Education to find more solutions
Limited liability legislation for salt applicators (fully fund the certification program w/ incentives for best practices)
Prevent mining residues such as fracking sands on our roads and in our rivers
Marketing campaign on the value of water so people don't take it for granted.

DNR should abandon its appeal of the White Bear Lake ruling.
Begin to consider global implications
Replace corn based ethanol with less water consuming plants.
Getting students involved...receptive to new ideas and wowed by nature. Junior Master water steward program for high school students.
Grassroots education through different types of media to reach different audiences (social media, newspaper, video, workshops) to share information, enable communication
Improve communications between agencies and let the public know how they are working together. Return treated water back to originating communities where possible.
Increased funding into proactive programs to engage the public
Bring together various agencies of state government who have a role in water protection, beyond tonight, to work together.
Provide a prescription drug pick-up that is easily accessible in each city. Or: better promote prescription drug pick-up places so drugs don't end up in landfills and then groundwater.
Homeowner education:H2OforLife has a great model; it needs steady funding and needs to go statewide

MPCA needs to require statewide stormwater quality requirements for redevelopment. We are redeveloping thousands of acres of impervious surface each year without addressing the quality of water.
Cities send info to homeowners in newsletters on water
MPCA should hold polluters accountable. They are ignoring violations that already occurring.
Homeowner education: tap into public/private partnerships e.g. Ecolab and water reuse. Have private help with public funds
Homeowner education: Market it! Social media, direct mail, all the usual marketing techniques.
Stop efforts to mine from sulfide ore. The threat to water any where is a concern of all Minnesotans. Protection is 100% more effective than fixing pollution that WILL happen, not even possible to fix
Homeowner education: have a group of neighbors grow lawns with no fertilizer and pesticides, and have a buffer for mowed lawns by water bodies. Get that to be the norm/goal in the neighborhood!
Convene a panel to study and advise on best practices for regional design, including infrastructure, building codes.

