

Summary

The Greater Zumbro River Watershed Partnership hosted "Waterside Chats" in three communities throughout the watershed in October and November 2019. Waterside Chats were held on October 24th, 2019 at the Zumbro Valley Recreation Club in Mantorville, November 7th, 2019 at the Community Center in Mazeppa and November 14th, 2019 at the Sportsman's Club in Lake City.

Lake Pepin Red Wina Watershed ke City Goodhue Wabasha Rice Kellor Wabasha Olmsted Steele Legend Dodge - Streams Bear Valley Watershed District Mississippi River - Lake Pepin Watershed Lakes & Reservoirs Cities Zumbro River Watershed

Mississippi River

The public was asked to attend the Waterside Chats

Zumbro River Watershed

to learn about the issues that had been identified by local partners and to provide feedback with their local knowledge of the watershed. Each Waterside Chat began with an overview presentation by the local SWCD or County Staff which included a summary of the One Watershed, One Plan program and plan development process, a summary of what has been accomplished, and information on how the public can participate. Following the overview, Barr Engineering summarized the priority resources and issues that had been identified in local and state plans, studies, reports, state agency feedback, and resident surveys. Initial results of the prioritization of these issues identified by a survey of watershed residents and ranked by the policy committee, planning workgroup and technical advisory group was also shared to aid in the table conversations (see figure 1 below).

Following the presentation, attendees were broken into small groups. Each small group discussed a series of questions to provide their input and feedback on the list of priority issues to be addressed in the 10-year scope of the plan. Comments were captured by a facilitator from the planning partnership, summarized, and reported out to the large group.



Figure 1. Priority Scores for Issue Areas (Policy Committee, Technical Advisory Group, and Planning Workgroup Ranking

Waterside Chats Framework & Participants:

The three Waterside Chats were hosted in late October and early November of 2019. The first was held on October 24th in Mantorville, the second on November 7th in Mazeppa, and the third on November 14th in Lake City. The Chats were facilitated by the local County or SWCD staff expert in each area. The Waterside Chat in Mantorville included 12 participants, and 10 staff from the planning Work Group and the consultant team. The 12 participants represented an assortment of local citizens and representatives from local and state government entities. The November 7th Chat in Mazeppa included 29 participants, and 10 staff from the Planning Work Group and consultant team. The composition of participants was diverse and included many local landowners and producers from the area. Other participants were affiliated with the Lake Zumbro Water Quality Committee, state agencies (MPCA, MDNR), and environmental advocacy



Photo: Waterside Chat in Mazeppa, MN

groups (Conservation Minnesota). The third chat on November 14th in Lake City included 23 participants, and 8 staff from the planning workgroup and consultant team. Participants included many citizens who live in the Mississippi River – Lake Pepin watershed area, state agency staff from MDNR and MPCA, the City of Lake City Environmental Committee, local SWCD supervisors, and The Nature Conservancy.

Emerging Themes:

The questions that were asked during the small group table conversations are presented below with a summary of the general themes. A full list of comments captured at the table conversations is included as an attachment to this summary.

Question 1. What do you think are the *major issues* in the watershed? Do you agree with the survey results and partnership prioritization?

Many of the participants strongly agreed with the issue prioritization ranked by the Policy Committee, Planning Workgroup and Technical Advisory Group. They felt that the issues which were ranked with the highest priority (Groundwater Quality, Erosion and Sedimentation, Flooding and Surface Water Quality) closely aligned with results from the resident survey and addresses the major issues in the watershed.

Attendees also discussed that many implementation actions to address the top priorities will have multiple benefits. For example, promoting soil health practices will address multiple issues such as surface water and groundwater quality. Addressing the top ranked issues first will also have beneficial impacts for some of the lower ranked priorities like "recreation and livability".

Question 2. What specific resources or areas are you concerned about?

Participants were asked to talk about specific areas of the watershed that they were concerned about. Many participants discussed specific areas that are prone to flooding with focus on areas that have erosion and sedimentation problems. Some examples of areas participants were concerned about in the *Zumbro River Watershed* included Middle Fork Zumbro River, Mayowood



Photo: Waterside Chat in Lake City, MN

area (Minnesota State Highway 63 and 52), the Lower Zumbro Watershed, and Lake Zumbro. Areas that were mentioned in the *Mississippi River-Lake Pepin Watershed* included Wells Creek, Gilbert Creek, West Indian creek and Hay Creek. Figure 2 includes the major subwatersheds in the planning area.



Figure 2. Planning Area Major Subwatersheds

Another focus of conversation across all three Waterside Chats was Groundwater Quality. Participants were concerned about specific areas with documented contamination issues, especially high nitrate levels as identified in the MN Department of Agriculture's Township Testing Program (ex. Florence Township, Goodhue County). Groundwater quality was a concern for private drinking water supplies and wellhead protection areas for municipal supplies. Lastly, participants discussed protection of recharge areas and wetlands.

Question 3. Within the broad issue categories, what specific problems are most important?

Participants were asked to discuss the specific problems that are most important within each broad issue category. The following summarizes major themes emerging from the Waterside Chat small group discussions:

Groundwater Quality

Participants felt that groundwater quality and groundwater protection is a major issue and should be a top priority as watershed residents rely on groundwater for their drinking water (Figure 3). The following bullets summarize comments related to Groundwater quality:

- Groundwater quality (drinking water quality) is threatened by contaminants like nitrate and bacteria as evidenced by the recent Township Testing Program monitoring results.
- Issues like unsealed wells and sinkholes continue to contribute to the contamination problem.
- There is concern about using lower aquifers for drinking water as they have other contaminants of concern.
- Desire for more public education and engagement to better inform the public regarding water quality issues.



Figure 3. Pollution Sensitivity of Wells; Red (high sensitivity to pollution) Green (low sensitivity to pollution)

Conservation Practices & Soil Health

Conversations emphasized that loss of conservation practices have led to altered hydrology, altered landscapes, and altered habitat. Examples provided by participants included:

- Increased tillage is increasing sedimentation and leading to poor soil health in many areas.
- Waterways and contour strips are being removed and tiling has increased across the watershed.
- Poor fertilizer management is contributing nutrient loading from feedlots and agricultural land
- There is a lack of perennial vegetation; including increased tillage along fence lines and buffer strips.
- It is difficult to raise awareness of soil health practices and to find landowners willing to adopt the practices.

Some participants felt that the issue stems from our current agricultural system of incentivizing the production of corn and soybeans. Farms are converting from livestock operations to more cropland which means less diversified crops and less pasture/hay in rotation.

Discussions included suggestions to enforce existing standards and/or appropriate land use management to limit non-point source pollution like nutrients and sediment.

Flooding & Landscape Resiliency

A reoccurring discussion at the Waterside Chats included concern about the increased frequency of precipitation events and climate change contributing to high volumes of runoff, more frequent flooding, fast flows, and streambank erosion in many areas of the watershed. These issues are summarized below:

- Flooding is exacerbated by altered hydrology, such as loss of wetlands and water storage.
- Flooding leads to bank erosion, increases sedimentation, impacts water quality and creates public health issues throughout the watershed.
- Public infrastructure, transportation, agricultural land, and economies located in the floodplain are negatively impacted.
- More water storage is needed as wetlands have been impacted throughout the watershed.
- There is some disagreement over where and how to store water, for example where impoundments and dams should be restored versus where they should be recommended for removal (ie. Silver Lake Dam in Rochester MN).

Degraded Surface Water Quality

Participants discussed surface water quality impacts from both rural and urban sectors including the following:

- Surface water (and groundwater) are being polluted as municipal wastewater systems face aging infrastructure and capacity problems.
- Small community and private septic systems are failing and contributing to pollution downstream.
- Pollutants like road salt and urban trash in stormwater discharge impact our surface and groundwater quality.
- Nutrient loading from feedlots and agricultural land is degrading water quality (Ex. Figure 4).



Figure 4 Total Nitrogen Loading in the Greater Zumbro River Watershed

Natural Resources

Forest health including terrestrial invasive species and brush/tree overgrowth along stream banks is an issue in the watershed and should be addressed in the plan.

Altered hydrology and lack of perennial vegetation may negatively impact habitat and health of fisheries.

Erosion & Sedimentation

Erosion and sedimentation contribute to nitrogen movement and affect our streams and lakes (Lake Zumbro & Lake Pepin).

Producers face many challenges including the cost of adopting beneficial soil health practices (ex. cover crop seed) which will keep soil on agricultural land and reduce erosion/sedimentation. There was agreement that requirements, such as buffers are effective but are a constant challenge for some landowners facing increased streambank erosion due to flooding.

Livability & Recreation

Waste left at campgrounds, overuse of trails, urban trash, and contaminated stormwater impacts the recreational quality of the resource.

Methods to Improve Water Quality

Some attendees voiced concern that voluntary conservation programs do not always work, and that regulation is needed in certain scenarios. There was also concern that lack of regulation or inefficient regulation have resulted in marginal or no water quality improvements over time, and stakeholders including state agencies, public and private sectors often lack joint coordination and have differing opinions on priorities.

Question 4. What solutions do you see to these problems?

Participants were asked to discuss actions that will make the biggest impact on water quality

issues in the watershed. Below are general themes that emerged from the small group conversations.

Conservation Practices & Soil Health

Promote regenerative soil health practices and adoption of other agricultural/conservation BMPs, as they will impact many of the issues and problems the watershed faces. Some of the actions that should be promoted include:

- Promote cover crop adoption
- Increase peer to peer farmer education on soil loss and reduced tillage (or no till) farming practices.
- Keep the soil where it is and limit erosion and sedimentation



Photo: Cover Crops Planted on Olmsted SWCD's Soil Health Farm

- Improve nutrient management; fertilizer rate and timing
- Promote managed grazing, use of saturated buffers, and smart tiling
- Increase BMP education and instruction for renters
- Target commercial/co-op agronomists
- Lobby for large scale change to the farm bill

Education and Promotion

Participants discussed ways to increase and promote education around water quality issues through the following methods:

- Increase education in K-12 schools (ecology curriculum)
- Increase coverage on local news outlets to increase concern and provide for a more informed public
- Enhance outreach on groundwater contamination issues
- Adopt short term goals and deliverables in the Plan to demonstrate that practices are working. Share successes and failures with stakeholders
- Share and educate on the responsibilities that lie with both rural and urban communities.



Photo: Soil Health Field Day in SE MN to Promote Education

Incentivize Best Management Practices

Participants felt that landowners who are adopting best management practices should be incentivized. They also suggested methods for reaching more landowners and continued programmatic support.

- Provide better cost sharing for some practices (planting cover crops, renting/buying specialized equipment, trapping sediment, and structural BMPs)
- Offer subsidies to protect soils productivity
- Incentivize stewardship and tools. Promote neighboring farmers working together (sharing equipment and resources)
- Establish contracts with renters/absentee landowners that establish BMPs for nitrogen management
- Expand reinvest MN program (RIM) and CREP/CRP
- Support tax relief

• Make it easy, limit the red tape

Landscape Resiliency

Promote forest health practices; plant more trees with climate change in mind.

Water Storage, Floodplain Retention, Slowing the Flow, & Streambank Restoration

Solutions should focus on adding water storage capacity, tile management, floodplain retention, restoring wetlands and slowing the flow. Participants encouraged using water control structures and practices where they will make the biggest impact on water storage and habitat reconnection and included the following recommendations:

- Focus on managing failing structures
- Implement new terraces, basins, and grade stabilizations throughout the watershed
- Utilize dams and the transportation network for water storage where possible (floodplain culverts etc.)
- Promote perennial cover/prairie, CRP adoption on marginal lands. Reconnect wildlife corridors for habitat

Improve Water Quality

Focus on stabilizing and restoring streambanks by increasing vegetation/buffers along streams and waterways.

Implement urban Stormwater Best Management Practices (even in communities without MS4 permits). Maintain natural areas, reduce impervious surfaces, utilize raingardens, and reduce salt use.

Voluntary vs Regulatory

Participants also discussed voluntary measures versus regulatory action. Some felt that noncompliance in problem areas should have consequences such as enforcement action, and that political willpower is needed to address these issues. Other participants discussed increasing staff resources and expanding beyond the regular toolbox of state and federal programs to address water quality issues in the Greater Zumbro River Watershed.



Photo: Zumbro River Downstream of the Green Bridge

Compilation of Comments from Greater Zumbro 1W1P Waterside Chats

Location	Group	Question/Topic	Comment
Mantorville	1	Major Issues	PC/TAG/PWG results match survey
Mantorville	1	Major Issues	PC/TAG/PWG results cover major issues
Mantorville	1	Major Issues	Soil health omitted from public survey
Mantorville	1	Major Issues	Groundwater quality, flooding, erosion
Mantorville	1	Specific Issues	Sedimentation and scouring impact on public infrastructure cost
Mantorville	1	Specific Issues	Population centers will drive what happens in rural landscape
Mantorville	1	Specific Issues	Urban vs rural - bridging the gap between different WQ issues
Mantorville	1	Specific Issues	Flooding - holding water back on rural landscape
Mantorville	1	Specific Issues	Funding - private sector cooperation to raise funds for projects
Mantorville	1	Specific Issues	N-fertilizer application
Mantorville	1	Specific Issues	Erosion and sedimentation contributes to N movement
Mantorville	1	Resources/Locations	Everywhere that floods
Mantorville	1	Solutions	Encourage perennial cover
Mantorville	1	Solutions	BMPs that address multiple issues (e.g., cover crops)
Mantorville	1	Solutions	Keep sediment in place, limit erosion
Mantorville	1	Solutions	Limit N fertilizer application
Mantorville	1	Solutions	Focus on where to put practices
Mantorville	1	Solutions	Regulatory vs voluntary education
Mantorville	1	Solutions	Focus on folks already adopting practices
Mantorville	1	Solutions	How do you incentivize?
Mantorville	1	Solutions	Need to make it easy, limit red tape

Location	Group	Question/Topic	Comment
Mantorville	1	Solutions	Share responsibility between rural and urban
Mantorville	2	Resources/Locations	Ditch/bank stabilization - Middle Fork Zumbro
Mantorville	2	Specific Issues	Brush/tree overgrowth along the streams
Mantorville	2	Major Issues	Accelerated runoff
Mantorville	2	Specific Issues	Problems accentuated by heavy rain
Mantorville	2	Specific Issues	Cloudy water, water with odors
Mantorville	2	Specific Issues	Unrealistic expectations regarding water quality/runoff (pre- settlement may have had issues too)
Mantorville	2	Specific Issues	Floodplain management; towns and crops in floodplain
Mantorville	2	Specific Issues	Stream incision and disconnection from floodplain
Mantorville	2	Specific Issues	Increasing nitrate in groundwater
Mantorville	2	Specific Issues	Unsealed wells
Mantorville	3	Specific Issues	Groundwater quality - deeper not always better
Mantorville	3	Resources/Locations	Bank erosion by Mayowood (63 & 52)
Mantorville	3	Specific Issues	Flashier storm events - more runoff
Mantorville	3	Specific Issues	Compaction leads to more runoff
Mantorville	3	Specific Issues	Farming changes: livestock to cash crop, less hay in rotation
Mantorville	3	Specific Issues	Absentee landowners - don't see what's going on on the land
Mantorville	3	Specific Issues	Flooding impacts on infrastructure and transportation
Mantorville	3	Major Issues	Address other issues and "recreation and livability" will
N A A A A A			Improve
Mantorville	3	Solutions	Slow the flow
Mantorville	3	Solutions	Keep soil on the land
Mantorville	3	Solutions	Return the "sloughs": restore wetlands
Mantorville	3	Solutions	Address soil health; it will impact many issues

Location	Group	Question/Topic	Comment
Mantorville	3	Solutions	Bring livestock back, managed grazing
Mantorville	3	Solutions	Good nutrient management
Mantorville	3	Solutions	Target commercial/co-op agronomists in soil health and nutrient management
Mantorville	3	Solutions	Reconnect wildlife corridors for habitat (idea for marginal lands)
Mantorville	3	Solutions	Reduce impervious surface
Mantorville	4	Major Issues	Can't see clear water
Mantorville	4	Major Issues	Flooding - need cooperation from state agencies
Mantorville	4	Major Issues	Fix other issues and recreation will improve
Mantorville	4	Major Issues	Groundwater quality - seal old wells
Mantorville	4	Major Issues	Water quality - make water swimmable
Mantorville	4	Specific Issues	Buffers help but are unfair to farmers
Mantorville	4	Specific Issues	Buffers not holding up banks
Mantorville	4	Resources/Locations	Streambanks
Mantorville	4	Resources/Locations	Upstream areas (hold back water in headwaters)
Mantorville	4	Specific Issues	Tiling increases runoff rates
Mantorville	4	Solutions	Better MDNR cooperation
Mantorville	4	Solutions	Water storage in wetlands
Mantorville	4	More of	Farmer representation
Mantorville	4	Less of	MAWQP - allows farmers to do a little and then "skate by" for 10 years
Mantorville	4	Less of	SWCD/NRCS staff looking for something wrong
Mazeppa	1	Major Issues	Sedimentation and erosion - keep soil where it is at
Mazeppa	1	Specific Issues	Silver Lake dam removal (follow due diligence)
Mazeppa	1	Major Issues	Groundwater contamination
Mazeppa	1	Major Issues	Flooding

Location	Group	Question/Topic	Comment
Mazeppa	1	Specific Issues	Upstream wastewater treatment plants and community septic failure/lack of compliance
Mazeppa	1	Major Issues	Soil health
Mazeppa	1	Solutions	Incentivize anyone to be good stewards of the land
Mazeppa	1	Solutions	Retention ponds
Mazeppa	1	Solutions	Tax relief, reinvest MN program, CREP/CRP expansion
Mazeppa	1	Solutions	Address problem areas with consequences for non-compliance
Mazeppa	1	Less of	Fewer mandates
Mazeppa	2	Major Issues	Actions can address multiple issues
Mazeppa	2	Major Issues	Groundwater quality a top concern for humans and livestock
Mazeppa	2	Major Issues	Flooding
Mazeppa	2	Major Issues	Erosion and sedimentation
Mazeppa	2	Major Issues	Soil health addresses multiple issues
Mazeppa	2	Specific Issues	Groundwater - how do you target
Mazeppa	2	Resources/Locations	Gully erosion, areas of visible erosion/sedimentation
Mazeppa	2	Specific Issues	Contours are missing; waterways missing on the landscape
Mazeppa	2	Specific Issues	How to raise awareness of soil health issues
Mazeppa	2	Specific Issues	Protection and forest health need to be considered
Mazeppa	2	Specific Issues	Development on steep terrain
Mazeppa	2	Solutions	Education and outreach related to groundwater
Mazeppa	2	Solutions	Protecting streambanks and forests
Mazeppa	2	Solutions	Slow the flow; tile management; native prairie conversion
Mazeppa	2	Solutions	Increased wetlands and CRP adoption (get outside \$)
Mazeppa	2	Specific Issues	How to seek out landowners willing to adopt practices?
Mazeppa	2	Solutions	More BMP education and instruction for renters

Location	Group	Question/Topic	Comment
Mazeppa	3	Major Issues	Soil erosion, runoff
Mazeppa	3	Solutions	Regenerative soil health practices (no till/strip till, cover crops)
Mazeppa	3	Specific Issues	Chemical use is destructive
Mazeppa	3	Major Issues	Loss of habitat
Mazeppa	3	Specific Issues	Industry and discharges
Mazeppa	3	Specific Issues	Invasive species issues; wild parsnip buckthorn, etc
Mazeppa	3	Specific Issues	Streambank erosion
Mazeppa	3	Specific Issues	Loss of conservation practices
Mazeppa	3	Solutions	Slow the flow
Mazeppa	3	Solutions	Subsidies to protect productivity in soils
Mazeppa	3	Solutions	More structural practices (terraces, basins, grade stabilization)
Mazeppa	3	Solutions	Better cost sharing for some practices (slowing flow, trapping sediment, and structural)
Mazeppa	3	Solutions	Utilize transportation system for storage
Mazeppa	3	Solutions	Slow the flow at the source (better use of \$ than repairing banks)
Mazeppa	4	Major Issues	Flooding could be higher priority
Mazeppa	4	Specific Issues	Litter not as high priority as survey shows
Mazeppa	4	Major Issues	Lake Zumbro high priority by recreation rated low
Mazeppa	4	Major Issues	Groundwater quantity could become more of an issue with increased use
Mazeppa	4	Specific Issues	Loss of streambanks
Mazeppa	4	Specific Issues	Increased precipitation
Mazeppa	4	Solutions	BMPs for agriculture and urban areas (especially urban stormwater)

Location	Group	Question/Topic	Comment
Mazeppa	4	Solutions	Higher tolerance for inconvenience (e.g., use less salt, reduce City liability)
Mazeppa	4	Solutions	Slow the flow of water off the land
Mazeppa	4	Solutions	Find a new normal
Mazeppa	4	Solutions	Reduce nitrogen use
Mazeppa	4	Solutions	Widespread cover crops
Mazeppa	4	Less of	Less dredging as a solution, work higher in watershed
Mazeppa	4	More of	Guidance via public outreach
Mazeppa	4	Less of	Nostalgia for old dams - need to be forward thinking
Mazeppa	5	Major Issues	Groundwater quality - nitrates
Mazeppa	5	Major Issues	Garbage - plastics in water
Mazeppa	5	Specific Issues	Water appropriations and groundwater use
Mazeppa	5	Specific Issues	Small farms conversion to more cropland; system promotes
-			soybeans and corn
Mazeppa	5	Specific Issues	Cost of cover crop seed (invasives)
Mazeppa	5	Specific Issues	Pollution from sanitary system overflow
Mazeppa	5	Specific Issues	Urban trash
Mazeppa	5	Specific Issues	Climate change exacerbating runoff from Rochester Flood
-			Control Project
Mazenna	5	5 Solutions	Buffers are not "one size fits all" - "solutions" can hurt when
тагерра	5		not proven
Mazeppa	5	Solutions	Reduce or eliminate fall application of nitrogen
Mazeppa	5	Solutions	Implementation of dams and detention
Mazeppa	6	Resources/Locations	Lower Zumbro erosion (make higher priority)
Mazeppa	6	Resources/Locations	Zumbro River erosion
Mazeppa	6	Specific Issues	Need for more impoundments

Location	Group	Question/Topic	Comment
Mazeppa	6	Specific Issues	People taking out practices previously put in place (e.g., loss of dams)
Mazeppa	6	Specific Issues	Increased rain may lead to more tiling, lack of stable outlets
Mazeppa	6	Specific Issues	Concerns about tiling and habitat
Mazeppa	6	Specific Issues	Untreated sewage dumping (SSTS not keeping up with population growth)
Mazeppa	6	Resources/Locations	Lake Zumbro
Mazeppa	6	Specific Issues	Cutoff surface water to control flooding
Mazeppa	6	Specific Issues	Sinkholes in some areas
Mazeppa	6	Solutions	More \$ to address problems
Mazeppa	6	Solutions	Water control structures
Mazeppa	6	Solutions	Streambank stabilization (rip rap?)
Mazeppa	6	Solutions	Dams (can they generate electricity?)
Mazeppa	6	Solutions	Cover crops
Mazeppa	6	Solutions	Conservation plans required, hay in rotation
Mazeppa	6	Less of	Wrong crops are subsidized (need oats and hay)
Mazeppa	Summary	Solutions	Upland practices are mort cost effective
Mazeppa	Summary	Solutions	Use road crossings to achieve detention (culvert downsizing)
Mazeppa	Summary	Specific Issues	Conversion of pasture to crop
Lake City	1	Specific Issues	Agricultural pollution (siltation, chemicals, manure)
Lake City	1	Specific Issues	Non-point source pollution
Lake City	1	Specific Issues	Farming practice: altered hydrology, altered landscape, increased tiling

Location	Group	Question/Topic	Comment	
Lake City	1	Specific Issues	Inefficient or no regulation (lack of political willpower for change)	
Lake City	1	Specific Issues	Lack of action when problem is known	
Lake City	1	Major Issues	Many issues are interrelated; address one and positively impact others	
Lake City	1	Solutions	Increase public understanding	
Lake City	1	Solutions	More capital to address issues	
Lake City	1	Solutions	Increase political willpower	
Lake City	1	Solutions	Increase public concern/caring about issues	
Lake City	1	Solutions	Increase staff resources	
Lake City	1	Solutions	Accepting change/changing perceptions (new normal)	
Lake City	1	Solutions	Prioritization of solutions	
Lake City	1	Solutions	Different incentives for farming	
Lake City	1	Solutions	Expand beyond regular tool box (state, federal)	
Lake City	2	Specific Issues	Private septics (too many in small areas)	
Lake City	2	Specific Issues	Feedlots and manure management	
Lake City	2	Specific Issues	General fertilizer management	
Lake City	2	Specific Issues	Road salt application	
Laka Citu	2	2	Specific losues	Stormwater discharge (leaves raked into streets, organic
Lake City		Specific issues	matter in urban areas)	
Lake City	2	Major Issues	Sedimentation	
Lake City	2	Specific Issues	Issues bigger with increased precipitation	
Lake City	2	Specific Issues	Bank erosion	
Lake City	2	Solutions	Saturated buffers, smart tiling, raingardens	
Lake City	2	Solutions	More education	
Lake City	2	Solutions	Renters (absentee landowners) contracts that establish BMPs for nitrogen management	

Location	Group	Question/Topic	Comment
Lake City	2	Specific Issues	Health of fisheries
Lake City	2	Resources/Locations	Well water in Wabasha County (Florence township)
Lake City	2	Specific Issues	Monitoring
Lake City	2	Resources/Locations	Protection of recharge areas
Lake City	2	Resources/Locations	Wellhead protection areas
Lake City	2	Specific Issues	Expansion of city services (sewage treatment)
Lake City	2	Specific Issues	Need real collaboration between agencies
Lake City	2	Major Issues	Altered hydrology - a lot of work to bring it back
Lake City	2	Solutions	Wetland restoration
Lake City	2	Specific Issues	Tiling - soil compaction and soil saturation
Lake City	2	Solutions	Streambank restoration
Lake City	2	Resources/Locations	Bank erosion in Lake City
Lako City	2	Solutions	Plant more trees (especially with climate change
Lake City	2		considerations)
Lake City	2	Major Issues	Groundwater quality is very important
Lake City	2	Specific Issues	Sedimentation of lakes and streams, Lake Pepin
Lake City	2	Resources/Locations	Sedimentation in Miller Creek
Lake City	2	Resources/Locations	Wells Creek sedimentation
Laka City	2	Specific Issues	Lack of coordinated priorities/lack of agreement between all
Lake City	2		players (agencies, public, private)
Lake City	2	Coocifie leaves	Large feedlots - manure can contribute more than community
Lake City	2	specific issues	sewers
Lake City	2	Specific Issues	Public may not be accurately informed regarding water quality
Luke City		specific issues	a sine may not be decarately morned regarding water quality
Lake City	2	Solutions	Perennial cover on marginal lands
Lake City	2	Solutions	Incentivize BMP adoption

Location	Group	Question/Topic	Comment
Lake City	2	Solutions	Short term goals and deliverables to demonstrate practices and plan are working
Lake City	2	Solutions	County planning - education on groundwater contamination
Lake City	2	Solutions	Vegetation/buffers along streams and waterways - shoreland management
Lake City	2	Solutions	More coverage on local news outlets
Lake City	2	Solutions	Need large scale changes in Farm Bill
Lake City	2	Solutions	Education in schools - ecology curriculum
Lake City	2	Solutions	More wetlands and floodplain retention
Lake City	3	Major Issues	Groundwater quality
Lake City	3	Specific Issues	Voluntary Ag conservation programs aren't working well
Lake City	3	Major Issues	Sedimentation
Lake City	3	Major Issues	Flooding
Lake City	3	Solutions	Change financial incentives
Lake City	3	Solutions	Ag industries - change Ag chemistry
Lake City	3	Solutions	Neighboring farmers work together (sharing equipment, resources)
Lake City	3	Solutions	Empty out sediment ponds from the 1970s
Lake City	3	Specific Issues	Silver Lake dam removal
Lake City	4	Major Issues	Groundwater quality
Lake City	4	Major Issues	Sedimentation
Lake City	4	Specific Issues	Nutrient loading from feedlots
Lake City	4	Specific Issues	Bacteria
Lake City	4	Specific Issues	Flooding and urbanization
Lake City	4	Specific Issues	too much tillage
Lake City	4	Specific Issues	Nitrates and bacteria in groundwater

Location	Group	Question/Topic	Comment
Lake City	4	Specific Issues	Soil health; nutrient input
Lake City	4	Solutions	Emphasis on BMPs
Lake City	4	Solutions	Education
Lake City	4	Solutions	Focus on reduced tillage and soil health
Lake City	4	Solutions	Maintain natural areas in urban settings
Lake City	4	More of	More people make clean water a priority
Lake City	4	More of	Improved fertilizer management
Lake City	4	More of	Less tillage
Lake City	4	More of	More cover crops
Lake City	4	More of	More funding (incentives) less regulation
Lake City	4	More of	More holistic thinking (watershed vs County)
Lake City	4	More of	More projects to impact high acreage (vs high dollar projects)
Lake City	5	Major Issues	Soil erosion (especially in small tributaries)
Lake City	5	Major Issues	Groundwater quality (nitrates)
Lake City	5	Resources/Locations	Drinking water wells
Lake City	5	Resources/Locations	Mississippi River
Lake City	5	Resources/Locations	Wetlands
Lake City	5	Resources/Locations	Wells Creek, Gilber Creek subwatersheds
Lake City	5	Solutions	Structural conservation practices
Lake City	5	Solutions	Turn marginal lands to native vegetation
Lake City	5	Solutions	Incentivize stewardship and tools
Lake City	5	Solutions	Education
Lake City	5	More of	More basin cleanouts
Lake City	5	More of	More technical assistance
Lake City	5	More of	More public access
Lake City	5	Less of	Less bureaucratic problems

Location	Group	Question/Topic	Comment
Lake City	6	Specific Issues	Lack of perennial vegetation
Lake City	6	Specific Issues	Need requirements to maintain waterways and practices
Lake City	6	Specific Issues	Absentee landowners not involved in requiring BMPs
Lake City	6	Specific Issues	Increase in weather events (high volumes, fast flow)
Lake City	6	Specific Issues	More violent and frequent rain events
Lake City	6	Specific Issues	Impact of recreational use (waste at campgrounds, terrestrial invasives, overuse of trails)
Lake City	6	Specific Issues	Continuous cropland (no strips, no fence tillage practices)
Lake City	6	Solutions	Cover crops, no till
Lake City	6	Solutions	Farmer eduction on soil loss
Lake City	6	Solutions	Funding to buy equipment and plant cover crops
Lake City	6	Solutions	Eduacational funding
Lake City	6	Solutions	Enforcement
Lake City	6	Solutions	Water retention
Lake City	6	Solutions	Funding for improvements
Lake City	6	Solutions	Forestry practices
Lake City	6	Resources/Locations	West Indian Creek, Gilber Creek, Hay Creek (trout streams)
Lake City	6	Specific Issues	Loss of wetland areas
Lake City	6	Specific Issues	Volume of water from tile
Lake City	6	More of	More perennial vegetation
Lake City	6	More of	More no-till or reduced till
Lake City	6	More of	More enforcement (carrots and sticks)
Lake City	6	More of	More outreach and education
Lake City	6	Less of	Less tiling
Lake City	6	Less of	Less chisel plowing
Lake City	6	Less of	Less peak flow