

Thief River One Watershed One Plan Prioritization Matrix

Prioritization of Issues

The “Prioritization Matrix” is a categorized table that lists the issues that were compiled for the Thief River watershed, results of the public meeting input process, and prioritization of issues based on public input and professional judgement. The tables are the products of the following process.

1. HEI worked with all the project partners and advisors to compile and edit a list of issues for the watershed that was eventually approved by the TR1W1P Policy Committee.
2. Agency and public attendees of the January 9-10, 2018 public meetings used color-coded dots to provide input on the issues that they deemed most important. Agency staff used blue dots. Public attendees used orange dots. After the public meetings HEI tallied the number of blue and orange dots for each issue.
3. HEI ranked the issues based upon the total number of dots, blue and orange, that each issue received (Note: orange dots outnumbered blue dots at a ratio of 3.18:1). Percentiles (80th and 40th) were used as break-points between three categories (“A”, “B”, and “C”). Category “A” includes the projects that are the highest priority in the watershed. These are the first things that will be funded and the first issues to be addressed with projects in the watershed. Categories “A” and “B” will both be assigned measurable goals and implementation actions in the plan.
4. The Planning Work Group (PWG) had a very productive discussion of each issue during a 2/8/2018 phone conference. Issues were moved up or down in the ranks based on the professional judgement of the group. Changes were only made if there was justification for making a change. The group was in unanimous agreement on nearly all of the issues. Sixteen of the issues were adjusted. Thirty of the issues remained in the category given to them as a result of the public meetings. Of the sixteen issues that were adjusted, nine issues were moved up to the next highest category, and six issues were moved down to the next lowest category. One issue (4.1.4) received an adjustment greater than one category (A to C).
5. Issues that received zero dots were not ranked or placed into prioritization categories. They will be, instead, described separately as issues that could become priorities in the future.
6. For the issues that were adjusted, the plan will clearly provide the justification for the adjustment and recognition of the amount of dots the issue did receive at the public meetings.

The Advisory Committee requested a narrative justification for each of the adjustments that the PWG made to the prioritization matrix. The following list of issues are those that were adjusted by the PWG. Each individual issue was discussed by the group. Adjustments were not made without justification. Most of the issues (>65%) remained in the same category that was assigned to them based on the total number of dots received at the public meetings.

Issues highlighted in **yellow** were recommended a higher priority by the PWG. Issues highlighted in **gray** were recommended a lower priority by the PWG.

- **1.1.1:** Water Quality: Protection of generally good quality groundwater supplies from elevated levels of nitrates, arsenic, or other contaminants which if excessive can result in implications to

human health and treatment costs for public and private wells. Protection is particularly important in vulnerable DWSMAs.

- Reasons for the move from A to B:
 - The quality of groundwater is good
 - There are no known problems with high nitrates in drinking water in this watershed.
 - Clay soils in this area likely help keep nitrates out of the groundwater.
 - There was a lack of plans or ideas for projects that could directly affect this issue and produce measurable results.
 - The high rank is not currently justified by monitoring data.
 - Well sealing projects are addressed as they come in to the SWCD offices. It is already an ongoing program.
 - More information and monitoring is needed (Issue 1.1.2 is currently priority B)
 - Projects that get implemented for other priority issues will have multiple benefits including the protection of groundwater supplies from nitrates and other contaminants.
- Reasons to keep it in A
 - The number of dots that it received (4th most).
 - Put a greater emphasis on “selling” the well sealing program
- 4.1.3 Increase regular input from stakeholders to guide future efforts related to this plan.
 - Reasons for the move from A to B
 - Because of stakeholder involvement in the development of the 1W1P, we won’t necessarily need to address this issue immediately. It can be addressed later, after some projects have been completed.
- 4.1.4: Need for recognition of the fiscal impact of agricultural, conservation practices, and other economically important land uses in the context of individual landowners, taxpayers, and government entities that could be addressed through education, fiscal benefits, and incentives.
 - Reasons for move from A to C
 - How do we tackle this?
 - Secondary issue
 - Difficult to understand the meaning of the text – clarify with the author
 - Ongoing issue that covers multiple agencies
 - Part of this issue can be addressed through this planning process by identifying the cost/benefit of conservation practices
 - SWCDs and RLWD provide ongoing education and outreach to the public
 - Reasons to keep in A or B
 - Input from the kickoff meeting indicates it could be placed in B.
 - Other notes
 - Public input may have been a reaction to the Buffer Law.

Issues 2.1.1, 2.6.1, 3.1.3, 5.2.3 are recommended to be moved from B to A. The initial cut-off for priority “A” issues was at 80% and the PWG recommends moving the cut-off to 70% to include these four issues.

- **2.1.1:** Water Quality: Elevated concentrations of suspended solids, sediment, and total phosphorus approaching (protection) or exceeding (restoration) water quality standards for aquatic life, which can lead to aquatic life impairments.
 - Reasons to move from B to A
 - Connected to 2.3.1 (erosion and sedimentation, the top vote-getting issue)
 - The Thief River is impaired for TSS from Agassiz to Thief River Falls
 - Mud River is listed as a potential impairment for Phosphorus
 - Moose River is listed as nearly impaired for Phosphorus
- **2.6.1:** Sediment deposition in wetlands degrades hydrologic function, contributes to nonnative plant species succession, and contributes to sediment and highly organic/low dissolved oxygen water to downstream waterways.
 - Reasons to move up from B to A
 - Connected to 2.3.1 (erosion and sedimentation, the top vote-getting issue)
 - Mud River is impaired for DO
 - Moose River is impaired for DO
 - TSS Impairment on the Thief River from Thief River to Agassiz
- **3.1.3:** Degradation of aquatic habitat, aquatic vegetation, and riparian habitat associated with increased drainage, channelization, ditch maintenance, and development, and the physical damage to the banks and beds of creeks, streams and rivers from higher and faster flows pose to public lands and waters management challenges.
 - Reasons to move up from B to A
 - Connected to 2.3.1 (erosion and sedimentation, the top vote-getting issue)
 - Streambank stabilization projects are high priority projects to implement
 - The major source of sediment yielded to streams and ditches is from streambank and ditch bank erosion (63% Erosion Sedimentation Sediment Yield Report 1996)
- **5.2.3:** Improperly installed or poorly functioning subsurface sewage treatment systems (SSTS) and individual sewage treatment system (ISTS) increase the potential for ground and surface water contamination, adversely impacting human health and water quality.
 - Reasons to move up from B to A
 - Mud River is impaired for E. Coli
 - Supported by data.
 - SWCDs have been seeking and receiving grant funding for projects that address this issue.
 - Marshall County is planning a grant application.
 - Action is part of current and near-future plans
- **3.1.1:** Modification of waterways, culverts, and dams at impoundment outlets reduce hydrologic connectivity and altered the flow regime resulting in the reduced potential of waterways to support quality fish populations.
 - Reasons to move down from B to C
 - The major dams (Thief River Falls, Thief Lake, and Agassiz Refuge) are not likely to be changed in the next 10 years
 - The watershed has not yet been formally assessed by the MPCA
 - There is no Stressor Identification Report for the watershed

- The WRAPS and TMDL documents did not directly address biological impairments due to the lack of a formal assessment
 - Reasons to keep at B
 - We need a culvert inventory
 - Biological data is available and we can use it to identify areas that need to be investigated.
 - **3.3.2:** Presence of noxious weeds threatening the quality of native plant communities.
 - Reasons to move down from B to C
 - Discussion focused on the lack of known noxious weed problems in the Thief River watershed.
 - Reasons to keep at B
 - There are noxious weed problems in neighboring watersheds...prevention and protection are important.
 - **2.1.2:** Water Quality: Elevated concentrations of bacteria approaching (protection) or exceeding (restoration) water quality standards for aquatic recreation, which can impact beneficial uses.
 - Reasons to move up from B to A
 - The Mud River *E. coli* impairment should be a high priority for restoration efforts. Nearly restored. This will likely be one of the first areas that we target for projects.
 - Sources have been identified. Areas can be targeted.
 - Immediate and potentially severe health effects from *E. coli* bacteria
 - **5.1.3:** Point sources and their impact on surface water quality.
 - Reasons to move down from B to C
 - Grygla and Goodridge are the only wastewater treatment facilities.
 - Wastewater treatment facilities are regulated by the state (MPCA), not local agencies
 - **5.2.5:** Frequency of use and public access to quality outdoor recreation experiences.
 - Reasons to move down from B to C
 - Lack of locations that have been identified as places that need improved access.
 - **2.1.3:** Water Quality: Reduced concentrations of dissolved oxygen approaching (protection) or exceeding (restoration) tolerable levels that can affect the diversity of quality of aquatic life.
 - Reasons to move up from C to B
 - There are two dissolved oxygen impairments in the watershed that we will need to address
 - Water quality data analysis for the Protection and Restoration section indicates that the DO impairments should be priorities.
 - **4.1.1:** Increase public awareness and knowledge of water management issues including general citizens down through school aged children.
 - Reasons to move up from C to B
 - Ongoing education activities in each of the Counties and SWCDs
 - RLWD is also involved with ongoing public education activities
 - **4.2.1:** Information needed to understand baseline conditions for resources to better inform management decisions.
 - Reasons to move up from C to B

- Data collection is very important.
 - There will likely be a monitoring plan in the 1W1P (WRAPS monitoring plan + additional monitoring).
 - Important to measure progress of goals and actions identified in the plan
 - Ongoing work (RLWD and Pennington SWCD long-term monitoring, USFWS monitoring)
- **2.1.6:** Aquatic Life use assessments needed for channelized reaches now that Tiered Aquatic Life Use (TALU) standards are in place.
 - Reasons to move from C to B
 - Move up to B to make it a higher priority for the MPCA.
 - Swap with 3.1.1.
 - Address this issue before addressing 3.1.1