

Response to State Agency and Public Hearing Comments

Root River One Watershed One Plan

Approved by the RR1W1P Policy Committee September 26, 2106

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
Board of Water and Soil Resources (BWSR)	Mandatory - 1	1	Include an explanation on where the Quantitative Measurable Goals from Table 4.4 came from at the beginning of Section 3.0.	Yes	3.1	Paragraph added: The measurable goals within the plan are described as both “quantitative” and “reporting.” A quantitative goal is generally a specific percent change in the metric; e.g., percentage reduction in the annual load (pounds per year) reaching a specific resource like a lake or river. The reporting goal is linked to the quantitative goal and is the surrogate, which will be used to assess and report progress (e.g., the estimated number of Best Management Practices needed to achieve the quantitative goal). The quantitative goals within this plan are largely based on state goals applied locally. Some of these include goals for the reduction in nutrient levels across Minnesota and desired sediment reductions for the Minnesota River applied to the plan area.
BWSR	Mandatory - 2	1	The heading for Table 4-1 needs to be clarified. These are anticipated reductions over the 10 year lifecycle of the plan and the estimated reductions to the overall loads (i.e. it will take several 10 year plan implementation cycles to fully achieve the overall reduction goals) which is not clear as the table is currently labeled.	Yes	4.1	Paragraph added: The Planning Work Group used the potential Best Management Practice (BMP) locations generated within PTMApp to develop a prioritized and targeted implementation approach for improving surface and ground water quality. Sediment and nitrogen are two of the most prominent issues affecting the priority resource concerns of ground water quality and surface water quality. Therefore, when developing the implementation approach the PWG selected filters for those BMPs in each planning region, with the greatest reductions in the annual sediment load delivered to the planning region outlet (regional scale) and the greatest total nitrogen load reduction reaching the catchment outlet (i.e., local scale). The PWG reduced the total number of Best Management Practices identified as potential locations by PTMApp, to these “best” 100 Best Management Practices within each planning region. The sediment and total nitrogen annual load reduction benefits of these practices were then evaluated as if they were all implemented within the plan area. The locations of the Best Management Practices within each planning region are shown within Appendix I and comprise the “targeted implementation approach.” The plan therefore, provides a best estimate of the numbers, types and approximate locations for Best Management Practices on the landscape, and how much progress towards the measurable goals is possible. The specific locations of practices will obviously be refined during implementation. Use of the financial incentive initiatives described within Section 5.1.1, Field Practices Management Category, is expected to be used to implement the practices and is the basis for the funding needs identified for field practices within Table 5.7. The implementation approach is also the basis for the estimated annual load reductions presented in Table 4-5 and Table 4-7.
				Yes	4.2	Table title changed to read: Table 4 -1: Example for the South Fork of the Root river, demonstrating how PTMApp results can be used to assess the ability to achieve measurable goals.
BWSR	Mandatory - 3	1	The heading for Table 4-7 also needs to be clarified. The table shows PTMApp estimated reductions over the 10 year life of this plan and the percent progress towards the overall reduction goals. This table is critical to being able to understand the plan and what is intended to be accomplished on the ground.	Yes	4.9	Title changed to: PTMApp estimated reductions over the 10 year life of this plan and the percent progress towards the overall reduction goals. Legend (place at the top of the table either to the side or under the title): Blue cells indicate achievement of the measurable goal within the 10-year plan duration. Footnote: Estimated number of practices, cost and progress toward achieving the quantitative measurable goals by planning region, based on implementing the “most effective” best management practices to achieve local (field scale) nitrogen and planning regional sediment annual load reductions. Estimates developed using the Prioritize, Target and Measure Application (PTMApp). Blue cells indicate attainment of the measurable goal within the 10-year plan duration. Best Management Practice locations comprising the prioritized and targeted and implementation approach are included in Appendix I; see Section 4.1 for a description of the prioritized and targeted implementation approach.
BWSR	Mandatory - 4	2	A footnote for Table 4-7 must be added to explain what the blue shaded cells indicate. This is explained in the body of the plan but should also be explained here so that the table can stand on its own.	Yes	4.9	See response to BWSR Mandatory - 3

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
BWSR	Mandatory - 5	2	Additional detail must be added to Section 5.4.3 on how annual work planning will take place locally. For example, what factors will be considered when local partners meet to select projects or initiatives for funding?	Yes	5.4.3	Changed first paragraph to read: An annual work plan will be developed by the Planning Work Group based on the targeted implementation schedule and any adjustments made through self-assessments (see Section 5.4.4) and practical considerations. The annual work plan is expected to be adjusted each year based on the availability of funding received from BWSR and other state and federal agencies to implement the plan, the number of staff available to complete the work, schedule adjustments to implement cooperative projects with partners, and the urgency associated with responding to local needs. The annual work plan will then be presented to the Policy Committee, who will ultimately be responsible for approval. The intent of these annual work plans will be to maintain collaborative progress towards completing the targeted implementation schedule.
BWSR	Mandatory - 6	2	The now completed Root River Watershed Restoration and Protection Strategies (WRAPS) must be specifically mentioned along with the Root River Watershed Sediment Budget as new data and information to be incorporated into the plan through the Five-Year Evaluation (Section 5.4.4.3).	Yes	5.4.4.3	Following text included in the section: The five year evaluation will consider the applicability of information within the Watershed Restoration and Protection Strategy and information about the sources of sediment from the MDA Clean Water Fund Research Root River Sediment Budget Project. Specific information needed from the WRAPS include the existing annual loads and the load reductions needed to attain numeric standards. The implementation plan within this document is consistent with the draft WRAPS implementation strategy available at the time of plan preparation.
BWSR	Mandatory - 7	2	Section 5.4.5 must be revised so that the language is consistent with current statute. This includes the removal of all references to minor plan amendments and Rule 8410.0140. BWSR will follow up with the plan consultant with specific revisions to this section in order to meet current statute.	Yes	5.4.5	Revision made.
BWSR	Mandatory - 8	2	Existing Joint Powers Boards, including the SWCD Technical Service Area 7 and Southeast Minnesota Water Resources Board, must be listed and described in Section 5.4.6 as they are pertinent to water management within the Root River watershed.	Yes	5.4.6	Paragraph added: Two existing Joint Powers Boards are available as resources and for the purposes of collaborating on plan implementation. The Soil and Water Conservation District Technical Service Area 7 is capable of providing technical support for the implementation of best management practices. The Southeast Minnesota Water Resources Board is a local entity whose mission is to help sustain the quality of life in the nine counties of Southeastern Minnesota, including the counties involved in this planning effort. Their mission is to improve and protect the water resources within their boundary, through coordination of local water planning efforts. Expectations are that the Southeast Minnesota Water Resources Board will collaborate during plan implementation.
BWSR	Mandatory - 9	2	Specific to the Crooked Creek Watershed District (WD), a summary of completed studies on active or planned projects (including financial data) is needed to fulfill WD planning requirements. This could be included in Section 5.2 or in a WD-specific addendum to the plan.	Yes	5.5.3	Section revised as follows: There is only one watershed district in the Root River Watershed 1W1P planning boundary: the Crooked Creek Watershed District. The Crooked Creek Watershed District is in the southeastern portion of the plan area, located entirely within Houston County. The primary focus of the Crooked Creek Watershed District has been to provide flood control for the watershed district through the maintenance of four large earthen dams along with the upstream conservation practices implemented to maintain the structure longevity. The District has accomplished this original mission and remains in place to provide maintenance for these structures. The Crooked Creek Watershed District is considering the implementation of at least two additional flood retention structures along with upland treatment on cropland. These capital projects are included in this plan.  The District hires an employee of the Root River SWCD on a contract basis to execute these maintenance duties. The Crooked Creek Watershed District does not have a system of rules and regulations for the management of water within the watershed district.  No additional (new) rules or regulations specific to water management will be implemented by the plan participants, including within the Crooked Creek Watershed District. Rather the need for new and implementation of existing rules and regulations will continue through the respective counties.
BWSR	Mandatory - 10	2	An anticipated timeline or schedule should be added for each potential Capital Improvement Project (CIP) listed in Table 5-6, in order to meet the Plan Content Requirements.	Yes	5.2	Text added to second paragraph: Additional discussions are needed among plan participants to develop the specific process for implementing capital improvements. Specifically, members of the Policy Committee are expected to discuss the means and methods for funding new capital improvements, with potential funding partners, before an implementation timeline can be established.

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
BWSR	Mandatory - 11	2	Additional detail is required in Section 5.5.2.12 to meet Plan Content Requirements for discussion on opportunities and potential conflicts of using land use authority comprehensive plans to achieve 1W1P goals.	Yes	5.5.2.12	Text added to section: Each of the counties is responsible for land use planning, which is administered through local zoning ordinances. Implementing the land use planning and local zoning ordinances at the local level is an ongoing effort which will help achieve the plan measurable goals. Potential new ordinances were considered during plan development. Specifically, the Policy Committee discussed concepts about whether a new ordinance specific to the protection of karst formations was needed. Rather than implementing a new ordinance, the Policy Committee placed emphasis on the use of financial incentives to cost share practices.
BWSR	Mandatory - 12	2	Use information gathered in the 2014 Crooked Creek WD draft plan to address the WD planning requirement for a statement on the extent that the purposes for which the Crooked Creek WD was established have been accomplished. This should be covered in Section 5.5.3. Also within Section 5.5.3, it is acknowledged that the Crooked Creek WD does not have rules or a permit program. In order to meet WD planning requirements, it should be addressed whether there will be any consideration in establishing rules and a permit program after the plan has been approved. This may involve investigating whether existing county ordinances and state law (e.g. soil loss) are sufficiently protecting the watershed above their PL566 project.	Yes	5.5.3	See response to Mandatory - 9
BWSR	Discretionary - 1	2	To avoid confusion, ensure that the Crooked Creek WD is referred to using their full name. "District" is missing in a few instances.	Yes	All	Now referred to as Crooked Creek Watershed District
BWSR	Discretionary - 2	2	The status of the WRAPS should be specifically mentioned within the Executive Summary. The fact that the Minnesota Nutrient Reduction Strategy (NRS) was used as a surrogate for the water quality reduction goals is included as a footnote for Table ES-2 but should be discussed both in the Executive Summary as well as the beginning of Section 3.0, along with further discussion on how the plan will be updated with information from the recently completed WRAPS as well as the completed Root River Watershed Sediment Budget in the future.	Yes	5.4.4.3	See Response to Mandatory - 6
BWSR	Discretionary - 3	3	A reference in the plan was made to adding \$1 million for staffing in Table ES-4. It is recommended that the information from the pivot table that was developed by the plan consultant be included which shows how current dollars are spent by each of the planning entities and allocated back to each entity by planning area.	Yes	ES-4, pg 9	Sentence included to indicate the value of \$1 million is based on the need for technical support to implement practices - assumes 1.75 full time equivalent employee's per year.
BWSR	Discretionary - 4	3	The table title for Table ES-5 should be updated once the Joint Powers Agreement is officially approved by the Policy Committee.	No		Acknowledged
BWSR	Discretionary - 5	3	Since the "C" level priority resource concerns will not be directly addressed in the life of this plan, Figures 2-12 through 2-18 could be moved to the Appendix.	No		Acknowledged

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
BWSR	Discretionary - 6	3	Figure 2-13 is somewhat difficult to look at with so many data points displayed. If all Macroinvertebrate Sites and Fish Sites are found at the same location, consider combining them into one data point to reduce the clutter.	No		Acknowledged
BWSR	Discretionary - 7	3	Section 3.1 includes a number of definitions. It is suggested that all definitions be located at the front of the plan and then referenced when needed.	No		Acknowledged
BWSR	Discretionary - 8	3	Section 3.2 does a good job of defining the resource concerns related to restoration and protection status. However, more discussion is needed to tie this information to future implementation for this watershed. For example, which of these subcategories are a higher priority over the life of this plan? This discussion should tie in with the State Nonpoint Priority Funding Plan (NPPF) which sets Restoration: Low Restoration Effort and Protection: Threatened Impairment Risk as high-level state priorities. If planning partners are intending to pursue the Clean Water Fund as a source of funding, partners are strongly encouraged to consider the high-level state priorities, keys to implementation, and criteria for evaluating proposed activities outlined in the NPPF.	No		Acknowledged In accordance with the Nonpoint Priority Funding Plan, "streams that are nearly or barely impaired and have a high probability of staying unimpaired or becoming unimpaired with relatively small protection or restoration efforts" is listed among the factors on page 4 of the Executive Summary that will be considered in the framework for prioritizing and targeting during the annual planning process, in section 3.2 Defining Resource Concerns Subject to Restoration and Protection, and on page 4-38 in section 4.9 Implementation Table and Estimated Funding Needs.
BWSR	Discretionary - 9	3	Although Section 4.2 is important for explaining how PTMApp works, it is recommended to be moved into the plan appendix. This would allow the reader to get into the implementation tables quicker and allow those who are interested in the details on PTMApp to access that information at the end.	No		Acknowledged
BWSR	Discretionary - 10	3	It is highly recommended that an explanation be included on how the additional one million dollars discussed in the second paragraph on page 4-45 was estimated. The pivot table developed by the plan consultant on staff dollars, programs, and allocations should be utilized here to show how this number was calculated. The pivot table should also be added to Section 5.3.1 to provide information on the existing investments on local programs, funding allocations, and staffing.	Yes	pg 4-45	Sentence included to indicate the value of \$1 million is based on the need for technical support to implement practices - assumes 1.5 full time equivalent employee's per year.
BWSR	Discretionary - 11	3	It is recommended to include discussion on shared services that are currently taking place between local partners as well as potential shared services in the future in Section 5.4.1. Shared staffing for the administration of the Wetland Conservation Act has been discussed recently, for example.	Yes	5.4.1	Add text: Shared services are common throughout the 11 southeastern Minnesota counties, some of which serve the Root River 1W1P planning area. These include three SE MN Technical Support JPB engineering staff, two nutrient management specialists, a soil health technician, and two wastewater specialists. Discussions are in the works for a shared Wetland Conservation Act Specialist among three counties, two of which are in the Root River 1W1P planning area. These can serve as models for future shared services in the 1W1P planning area.

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
BWSR	Discretionary - 12	3	Consider removing "Native Buffer Grant Program" from BWSR grants in Table 5-8. This grant program has not been available since 2010. Instead, consider adding the "SWCD Local Capacity" grant which could be used to fund all of the initiatives in this table.	Yes	Table 5-8, pg 5-27	Replaced Native Buffer Grant Program grant with SWCD Local Capacity grant in the table and placed "x"s in all the initiative columns.
BWSR	Discretionary - 13	3	Section 5.4.4.2 (Biennial Evaluation) is likely not needed since you have chosen to complete an Annual Workplan as well as an Annual Evaluation. Instead, you could move the text from this section to Section 5.4.3.2 as it would be more appropriate there.	Yes	5.4.4.2	Changed to Biennial Budget Request
BWSR	Discretionary - 14	3	It is recommended to complete a final spelling and grammar check, look for word omissions and punctuation errors that software will not catch, and table and page breaks.	No		Acknowledged
Minnesota Department of Natural Resources (MnDNR)	1	1	An area of concern to the DNR is the application of the Prioritize, Target, and Measure Application (PTMApp). The apparent use of the 100K digital line graph leaves an unknown number of digital dams that result in a filled digital elevation model (DEM) for analysis. This can result in a modeled flow network that does not follow the true network. Questions we would like to see addressed are: What are the effects on the resultant flow network? How does this influence load reduction estimates at both the catchment and watershed level? Providing more transparency in this regard would increase our confidence in the PTMApp results and subsequent use in targeting best management practices (BMPs) in the watershed.	No		This comment was previously provided by the MnDNR and a response was provided in Appendix F. See also the attached letter of August 2016 to Mr. Parker. Other tools, such as HSPF, SWAT, PTMApp or any other tool may be used to refine future work plans. We acknowledge the lack of specific scientific data needed to understand the complex water movement within the area. The dye study work in cooperation with the MnDNR has been very useful in developing this plan. A research initiative is included in the plan, with the intent of cost sharing research to fill these science gaps. We strongly encourage the MnDNR to fund studies to better understand hydrology within the plan area. The best available modeling from any source is welcome for future work plan implementation.
MnDNR	2	1	Sediment fingerprinting techniques have been used to identify sediment sources and sinks within the Root River watershed (Stout et al. 2014) <a href="http://www.tandfonline.com/doi/abs/10.1080/00045608.2013.843434?journalCode=raag20">http://www.tandfonline.com/doi/abs/10.1080/00045608.2013.843434?journalCode=raag20</a> . They found that most of the suspended sediment in the Root River originates from floodplains and terraces. The PTMApp does not model these sediment sources and may not account for the largest contributors to suspended sediment. Given this limitation, how is targeting of BMPs to reduce the sediment load from near channel sources being accomplished? Should a different tool such as the Hydrologic Simulation Program FORTRAN (HSPF) be used? The HSPF model was used by the Minnesota Pollution Control Agency (MPCA) to estimate sediment load reductions in the Root River Watershed Restoration and Protection Strategies report. <a href="https://www.pca.state.mn.us/sites/default/files/wq-ws4-18a.pdf">https://www.pca.state.mn.us/sites/default/files/wq-ws4-18a.pdf</a> . Could results from this modeling effort be applied in the One Watershed, One Plan report?	No		See Section 4-6 for specific reference to the work completed by Patrick Belmont. There are strategies and actions included in the plan to fill this information gap. The recent publication of the Root River Sediment Budget and completion of the Root River WRAPS will be important sources of information for future prioritization and targeting.

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MnDNR	3	2	The flashy hydrology of the Root River system as well as the impacts of the large floods in 2007 and 2008 could be presented within the body of the report instead of in Appendix D (page 7). The infrastructure and environmental costs associated with these events could be used for funding justification. The causes of flashy hydrology and strategies to address it could also be discussed. Since a large proportion of the suspended sediment load originates from floodplains and terraces, strategies that decrease peak flows could be emphasized as a means of reducing the sediment and phosphorous load as well as protecting infrastructure.	No		<p>Comment acknowledged. This is an additional information gap, where the MnDNR could provide value in a planning process.</p> <p>Completing a hydrologic study is an action item within the plan. An important technical question where leadership by the MnDNR would be valuable is how does one determine whether the hydrology of a watershed is altered, and storage goals established to mitigate the adverse effects of altered hydrology. Water storage practices are among those in Table 4-7 to be used to meet quantitative measurable goals for excess runoff based on PTMAApp calculations.</p>
MnDNR	4	2	The issue of time lag between the time when BMPs are implemented and improvements in surface and ground water quality are first measured, is a very important aspect of watershed restoration. Improvements in water quality parameters may take decades to be observed in monitoring results <a href="https://www.epa.gov/sites/production/files/2016-5/documents/tech_notes_4_dec2013_lag.pdf">https://www.epa.gov/sites/production/files/2016-5/documents/tech_notes_4_dec2013_lag.pdf</a> . This length of time can exceed the monitoring period for watershed restoration plans. This can create the perception that changes made to land management and the dollars spent via a watershed management plan were unsuccessful at improving water quality, when in reality, the changes may be successful but not measured because the monitoring period was too short to account for the time lag. Rapid reductions in nutrient and bacteria loads can occur when BMPs are installed close to streams, such as fencing to exclude livestock. However, improvements in stream biota and associated biological indices often occur much more slowly. We suggest that the issue of time lag be addressed in this plan. It is an important aspect of water quality restoration that needs to be understood by participants in the watershed restoration planning process.	Yes	4.1	<p>Added paragraph to Section 4.1:</p> <p>Improvements in surface and groundwater quality will require time. Typically, the amount of time required to “see” improvements is long, and similar in magnitude to something called the “mass residence time.” The time scale is typically decades.</p>
MnDNR	5	2	Item 3.3.15 on page 2-7, lists the lack of fish species diversity representative of a healthy, multi- species complex as a potential issue facing trout streams. Coldwater streams typically have very few fish species and some of the best trout streams in the Root River watershed may have only two fish species present. This is accounted for in coldwater indices of biological integrity <a href="http://course1.winona.edu/nmundahl/hp/documents/MundahlandSimon1998.pdf">http://course1.winona.edu/nmundahl/hp/documents/MundahlandSimon1998.pdf</a>	Yes	3.3.15	<p>Text change to:</p> <p>A fish community representative of a healthy warm or coldwater stream.</p>
MnDNR	6	2	Table 2-1 on page 2-8 under item 3.5 the description of karst as “holes” in the surficial land should be revised. This is a description of a sinkhole which is just one aspect of the karst landscape. A karst landscape also has sinking streams, caves, and springs which develop from the dissolution of limestone by water. See <a href="https://www.pca.state.mn.us/water/karst-minnesota">https://www.pca.state.mn.us/water/karst-minnesota</a> for information regarding the characteristics of a karst landscape.	Yes	3.5	<p>Added to the description:</p> <p>A karst landscape also has sinking streams, caves, and springs which develop from the dissolution of limestone by water.</p>

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MnDNR	7	2	Table 2-1 on page 2-11 under resource concern 5.2, consider changing the heading from "Rural Environmental Health" to "Environmental Health and Agriculture". This would be more in line with the resource concern description as it is written. Protecting surface and ground water resources from contamination through installation of BMPs could be added to bring groundwater in as a resource concern from both environmental and human health standpoints.	No		Comment acknowledged.
MnDNR	8	3	Table 2-1 page 2-11 under item 5.4.4 managing land use and development processes could include agricultural land as well as urban/developed land. For example, there are areas in the Root River watershed that are better suited to agricultural uses other than row crops due to slopes that are excessive. Yet these lands are planted in row crops annually and require constant diligence to keep soil erosion and runoff in check. Smart "development" should include smart agriculture as well.	No		Comment acknowledged.
MnDNR	9	3	Regarding Figure 2.1 on page 2-15, we suggest removing well points where the nitrogen level was less than 6 mg/l. This would improve clarity of the figure.	No		Comment acknowledged.
MnDNR	10	3	Improving soil health.... However, current soil health information is not easily obtainable because it is time consuming to collect and may be limited to the scale of individual fields <a href="http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/assessment/">http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/assessment/</a> . Perhaps pointing out the importance of this information and suggesting a larger emphasis on collecting soil health data could be added to the report.	No		Comment acknowledged. See Actions SW-1.3, page 4-28 and SW-9.7, page 4-31
MnDNR	11	3	<i>Section 3.2.1 under iii-Threatened Impairment Risk -c- on page 3-6 change "naturalized" to "native" Brook Trout.</i>	Yes	3.2.1	Change made.
MnDNR	12	3	Strategy GW-2 on page 3-14 states "Manage groundwater quality to achieve the <b>total coliform drinking</b> standard by maintaining appropriate bacterial loading in areas contributing to groundwater recharge. The word "water" should be added after the word "drinking" where highlighted in bold above. Also regarding this strategy, what is an appropriate level of bacterial loading to groundwater recharge areas? What is the typical background level of bacteria in groundwater for the Root River watershed? Supportive information would improve this strategy.	Yes	GW-2, pg 3-14	Change made.
MnDNR	13	3	Action GW 2.7 [2.6] on page 3-14 We suggest stronger wording of this action from "use" existing rules to "enforce" existing rules regarding siting of feedlots, animal confinement areas, and the application of manure.	No		Comment acknowledged. Refers to Action GW- 2.6

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MnDNR	14	3	Action WI-6.1 on page 3-28 conflicts with item 3.3.17 on page 2-7 and actions SW-9.4 and SW-9.6 on page 3-20. The use of undersized culverts to hold back floodwaters is highly discouraged by the DNR. Undersized culverts cause water to impound and deposit sediment upstream and create vertical and lateral scour downstream due to increased water velocity through the culverts. This can lead to destabilization of the stream channel and stream bank erosion. Where undersized culverts already exist, floodplain culverts can be installed to alleviate pressure on road crossings and reduce impounding upstream. These damaging effects of undersized culverts can easily be seen in aerial photos of southeast Minnesota watersheds. Additionally, there are safety concerns associated with undersized culverts because the impounding effects can cause stress to road crossings. We suggest removing this action item entirely.	No		Comment acknowledged. Culvert downsizing has not been specifically identified in these actions; rather hydrologic modeling will determine the best design.
MnDNR	15	4-Mar	Table 4-6 Action SW-8.3 page 4-31 what is meant by "public infrastructure" in this action? Does this refer to public drainage ditches, or roads and bridges? This isn't clear as stated. We suggest rewording this to "minimize damage to public, private, and agricultural lands" as this is more inclusive than protecting agricultural lands alone.	Yes	SW-8.3, pg 4-31	words added: "including culverts, bridges and drainage systems to minimize damage to public, private, and agricultural lands"
MnDNR	16	4	Finally, we believe the issue of the potential impacts of climate change on streamflow and groundwater recharge would be an important addition to this plan. A regional climate model for the Upper Mississippi River (UMR) basin <a href="http://onlinelibrary.wiley.com/doi/10.1029/2003JD003686/pdf">http://onlinelibrary.wiley.com/doi/10.1029/2003JD003686/pdf</a> predicts a 51% increase in surface runoff and a 43% increase in groundwater recharge on an annual basis by the 2040's. This is mostly attributed to more intense rainfall events during summer onto soils that are at or near saturation. These potential changes in the hydrology of the UMR basin, including the Root River watershed, would have significant impacts on the effectiveness of water quality improvement strategies and actions.	No		Comment acknowledged. See 2.6.1.1 on page 2-36
Minnesota Department of Agriculture (MDA)	1	1	The report covers an extensive amount of information without clearly stating watershed specific needs; it is suggested that a plain-language outcome summary be incorporated at the beginning of the report to clearly identify action items, goals and focus areas. This summary should include an approach for accomplishing the Level A resource concerns. The intent of this summary would be to brief a new user on the 1W1P report value. The current Executive Summary does not provide this information.	No		Comment acknowledged. We have discussed the need for an easy-to-understand handout-style summary for the public which we will work to develop in conjunction with our annual work plans.

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MDA	2	1	In the future it is suggested that prior to the public comment period, an internal review process take place amongst the members of the technical advisory committee. It is suggested that each member has an opportunity to provide feedback.	No		Advisory Committee meetings were held throughout the process and every section of the plan was reviewed. Those that participated in the planning process were asked for comments. As a pilot project, we learned that a more structured process is needed for state agency input. For future plans, we would recommend to BWSR that the internal agency review process be improved for more effective involvement and comment.
MDA	3	1	Map figures are included throughout this section; however, the information provided is often not clearly explained in the graphic. Figures should be able to stand alone without text so it is important that all data sources be labeled. For example, Figure 2-1 does not include a source for the Private Well Nitrate data. The explanation boxes generally state "readily accessible public data" without much clarification. The source should be explicitly stated. Additionally, the period of data should be included. For example, Figure 2-4 summarizes the Total Nitrogen Yield, without a source citation or a period of record. Figure 2- 11 includes the 10-year, 24-hour event runoff volume without stating where it is from (TP-40 or Atlas 14?). These are just a few examples; it is suggested that each figure be reviewed and edited to ensure that sufficient details are provided. This should apply to the entire report (Figures 3-1 through 3-3 should also include data citations).	No		The figures within this plan have been the subject of considerable comment. We acknowledge there are challenges with providing large amounts of data graphically. Specific text boxes were added to the figures as a means of explaining their content.
MDA	4	1	Additionally, since this is a watershed dominated by agricultural production, figures should be included summarizing livestock and septic system locations.	No		The purpose of the Figures is to physically identify the locations of the priority resource concerns and the issues affecting those concerns.
MDA	5	2	Page 2-37, fifth paragraph discusses water movement challenges within karst systems. Clarification should be added to the sentence stating that "the presence of karst also affects the fate and transport particularly of dissolved substances like nitrate-nitrogen." It is important to be clear about practices to address surface losses versus sub-surface leaching losses. Cropping rotation and proper nitrogen rate, timing, form and placement are key practices for reducing sub-surface losses.	No		Comment acknowledged. See section 4.4 on page 4-14.

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MDA	6	2	<p>The plan does provide any detail on how high priority areas will be systematically addressed and how farmers and landowners will be engaged in a way that results in high participation and removal of participation barriers. It is suggested that additional text be devoted to the 'how'. The current business model for SWCDs and NRCS offices is to engage landowners who walk through the door asking for assistance. To address water quality issues at the watershed scale, a consistent and successful conservation planning process is necessary to engage producers who may not be seeking assistance.</p> <p>This could be further developed in section 2.6.2.4 on page 2-40. This same section could incorporate text mentioning how private crop advisors, seed dealers and crop retailers can be involved in the implementation process.</p>	No		<p>This is the purpose of the select components of the Implementation Program described in Section 5. Specific strategies and actions are focused on addressing this issue. See Action SC-2.7, page 4-34 to develop a comprehensive civic engagement plan. This will involve targeting the landowners that we want to engage with rather than waiting for them to come through the door. This will require adequate funding to actively engage with these landowners on a long term basis.</p>
MDA	7	2	<p>Measurable goals are summarized in Table 4-4. It is suggested that the goals from pollutants that are associated with surface runoff and those with groundwater be separated. For instance, a 45% reduction goal is included for nitrate in the groundwater sections. This reduction should only apply to surface water reductions to address the statewide Nutrient Reduction Strategy (NRS). For groundwater, it is suggested that the goals set forth in the MDA Nitrogen Fertilizer Management Plan be used (i.e. no more than 10% of wells exceed 10 mg/L). For additional information please see: <a href="http://www.mda.state.mn.us/chemicals/fertilizers/nutrient-mgmt/nitrogenplan.aspx">http://www.mda.state.mn.us/chemicals/fertilizers/nutrient-mgmt/nitrogenplan.aspx</a> (Additionally, goals for groundwater resources on Page 3.4, in item #3 are not consistent with the MDA NFMP.)</p>	No		<p>Goals that are expressed as concentration levels were purposely avoided in the plan, because of a lack of technical ability to make them measurable. How can you deterministically predict which wells will no longer exceed 10 mg/l as a result of implementation activities on the landscape?</p> <p>We acknowledge that it would be nice to separate groundwater and surface water load reduction goals. However, given the fiscal and technical resource available for plan development fell short. We also suggest that the basic science and technical tools for doing this do not currently exist.</p> <p>We have the SE MN Volunteer Nitrate Monitoring Network and the SE MN Water Quality Lab nitrate concentration data in well water and spring monitoring data as secondary metrics to track progress. We acknowledge that PTMApp is a surface water tool which does not apply to setting groundwater goals. New information from the Groundwater Restoration and Protection Strategy and other sources will be used to set more realistic groundwater goals. We will work with MDH and MDA to refine this for the five-year plan update.</p>
MDA	8	2	<p>Quantifiable measurable goals for sediment, nutrients in surface runoff may not be appropriate or consistent with other plans and need further justification and refinement. For example, a 45% reduction goal for sediment and phosphorus may not be appropriate. The NRS states a 12% reduction goal for TP. For sediment, current standards are based on TSS concentrations and turbidity. Perhaps a table could be included which states the current load and what period of load record the 45% reduction applies to: perhaps this is attempted in Table 4-5?</p>	No		<p>In the absence of completed of a TMDL study, with existing loads estimated and the load reduction needed to achieve numeric water quality standards, nutrient reduction strategy goals were used. Current loads are shown in Table 4-7 for each planning region. This section of the plan is simply an illustration of how PTMApp products can be used. The recent publication of the Root River Sediment Budget and completion of the Root River WRAPS will also be important sources of information for future prioritization and targeting.</p>
MDA	9	2	<p>On page 4-12, it is unclear how the 46% value was derived in the first paragraph. It appears based on Table 4-1 that this value should be 21%.</p>	Yes	Table 4-1, page 4-12	<p>Reword last sentence to read: "The results of this project suggest that implementing the practices used in this targeted example would provide a 21% reduction in sediment in 10 years for the South Fork Root River set by the Root River Watershed 1W1P (Table 4-1)."</p>

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MDA	10	2	The heading for Table 4-7 should be clarified. The table shows PTMApp estimated reductions over the 10 year life of this plan and the percent progress towards the overall reduction goals. It is critical that a reader be able to clearly review this table and understand the plan and what is intended to be accomplished on the ground. What time period are the existing conditions derived?	No		See BWSR response Mandatory -3.
MDA	11	3	4.8 Practical Considerations for Achieving the Measurable Goals. It is suggested that completed NFMP be mentioned as a process to help address the plans Priority A drinking water protection goal and help avoid duplication. This could also be included in the Executive Summary.	Yes	4.8	Revise the text to read: For example, an agricultural producer may complete nutrient management plans, residue management plans, or soil health initiatives outside of the context of the plan to improve business practices. These actions will make progress towards measurable goals, especially those goals associated with groundwater (e.g. MN Nitrogen Fertilizer Management Plan goals) and surface water (e.g. MN Nutrient Reduction Strategy goals) resource categories.
MDA	12	3	5.4.2.2 Collaboration with Others and 5.4.3 Work Planning. The now completed Root River Watershed Restoration and Protection Strategies (WRAPS) should specifically be referenced in this plan. Additionally, the MDA Clean Water Fund Research Root River Watershed Sediment Budget project (PI: Patrick Belmont), and data and future reports being generated from the Field to Stream Partnership (both field/stream water quality and conservation delivery lessons learned) should be referenced as new data and information to be incorporated into the plan through the Five-Year Evaluation.	No		See response to BWSR Mandatory - 6
MDA	13	3	The plan should clarify that the PTMApp cannot estimate nitrate losses through groundwater. The model can only address total nitrogen losses in surface runoff. The South Fork example shows the highest amount of sediment derived near the outlet. This makes sense if it is a cumulative routing routine, however, this does not aid in prioritization of sub-watersheds. The PTMApp uses 100k stream resolution vs. 24k resolution. How much variability does this add to the planning process or is this negligible?	No		See response to MnDNR comment 1
Minnesota Pollution Control Agency (MPCA)	1	1	Page 1-4 states that the planning region for the Plan is consistent with the MPCA's Watershed Restoration and Protection Strategy (WRAPS) process. This statement is not accurate. While MPCA does develop total maximum daily loads (TMDLs)/WRAPS on an 8 Hydrologic Unit Code (HUC) watershed basis, the Plan includes three separate 8 HUC watersheds (Root River, Mississippi River-Reno and Upper Iowa River), two of which will have completed WRAPS in 2019. It should be noted there is a difference in program schedules/boundaries at this point.	Yes	1.4, pg 1-4	Following sentence struck from the text:  The planning regions for the Root River are consistent with the watershed boundaries used by the Minnesota Pollution Control Agency (MPCA) when developing the approach for improving water quality through their WRAPS process.

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MPCA	2	1	2. The goals from the Nutrient Reduction Strategy (NRS) were used without any sort of focused discussion or explanation of how goals were considered (and presumably adopted). The NRS takes great care and forwards an unprecedented amount of technical information to confirm that in southeast Minnesota, the primary delivery of nitrogen (N) to surface waters is via "ag groundwater" i.e. vertical leaching loss to groundwater and then transport to streams via baseflow. The only text found in the Plan that acknowledges this is in 2.6.1.3 which notes the complications of karst, but concludes that "The recommended practices are defensible regardless of the ability to understand the details about the influence of karst on water movement." This directly contradicts NRS findings and the generally accepted understanding of how N moves in the karsted landscape; geographic areas for N reduction focus cannot be well- prioritized using tools that are based on runoff dynamics and ignore the vertical transport component.	No		Plan participants worked diligently to develop the "predominant hydrologic influence" maps with MnDNR (see section 4.4 on page 4-14). These maps can be used to identify those areas on the landscape where practices location will be expected preferentially to benefit surface water, ground water or both surface water and groundwater.
MPCA	2.a.	1	Figure 2-4 suggests that the bottom of the South Fork Root River watershed is somehow a priority for N reduction. It reads "total nitrogen yield" however, this map seems to indicate to the general reader a prioritization for N load reduction.	Yes	Figure 2-4, pg 2-19	Words added: via surface flow (as part of the title)
MPCA	3-bullet 1	2	The Plan does list allocations for sediment and nitrate TMDLs. However, it fails to list the bacteria allocations. MPCA communicated in the fall of 2015 that bacteria data and TMDLs exist and should be incorporated into the Plan since bacteria is one of the main pollutants of concern in the watershed. The load duration curve files were provided. This is a large oversight and it is strongly recommended incorporating at minimum the most recent bacteria TMDL information into the Plan. Previous bacteria impairments addressed in the Regional Total Maximum Daily Load Evaluation of Fecal Coliform Bacteria Impairments in the Lower Mississippi River Basin in Minnesota (MPCA 2006) should also be included as well.	No		Table 4-3 excludes measurable goals for bacteria, which impact surface water resources throughout the plan area. No measurable goals were adopted for this issue due to a lack of bacteria "existing loads" data to compare to the load capacity and estimate the load reduction necessary. The Revised Regional Total Maximum Daily Load Evaluation of Fecal Coliform Bacteria Impairments in the Lower Mississippi River Basin in Minnesota (MPCA 2006) report was reviewed for data on local bacteria existing loads. However, the TMDL calculations in the report are based on Load Duration Curves, with no existing loads computed or presented. The measurable goals and the targeted implementation schedule will be adjusted as data becomes available within the plan area. However, there are practices in the plan to address bacteria, and some practices implemented to address sediment and nutrients are also expected to reduce bacteria loads. We will continue discussions with MPCA and BWSR to establish the bacteria reduction goals.
MPCA	3-bullet 2	2	It is misleading to suggest the Plan identifies sources of pollutants at the field scale. It is strongly recommended that rewording happen to reflect the PTMAp is best used to approximate sources of overland TN, total phosphorus (TP) and sediment at a catchment scale. This would align with wording on 4-2 that "...some surface water boundaries at the local field scale may be inaccurate."	Yes	4.6, pg 4-16	Reword Page 4-16 "The plan incorporates the strategies identified within the WRAPS, but adds detail about the sources of pollutants."
MPCA	3-bullet 3	2	It is unclear what the "new and consistent programs for constructing BMPs" are within the Plan. This should be explained and clearly labeled.	No		See Section 5.1

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MPCA	3.a.	2	Bacteria-there are many aquatic recreation impairments based on high bacteria in the watershed. It is a critical oversight to not include this in planning simply because the PTMApp "was not programmed to analyze bacterial issues impacting surface and groundwater resource categories" (page 4-2). While some BMPs used for sediment and nutrients may also impact bacteria reduction, inclusion of bacteria in analysis may direct BMP implementers to different areas on the landscape.	No		Actions are included Strategies GW2 and SW4 to reduce bacteria loading using practices to reduce runoff from feedlots, improve manure application on the land and update non-conforming septic systems.
MPCA	3.b.	3	Sediment- lack of accounting for channel sources of sediment is an oversight that may direct practitioners to select BMP placement locations that are not most beneficial to the resource. One finding from Belmont et al, 2016, is that "nearly half (43percent) of the sediment that reaches the mouth of the Root River is derived from channel sources, specifically, bank erosion." (P. Belmont, Dogwiler, T. and Kumarasamy, K. 2016. An integrated sediment budget for the Root River watershed, southeastern Minnesota).	No		We agree the lack of information about specific near channel sediment sources is an issue, which is why a strategy is included in the plan, to address the concern. Refer to SW-1, page 3-16 and 4-28. The five year evaluation will consider the applicability of information from the MDA Clean Water Fund Research Root River Sediment Budget Project. This area represents an important opportunity for MPCA. This is a gap also in the WRAPS, and would help local water quality practitioners implement projects.
MPCA	3.c.	3	Nitrate-the lack of nitrate-N information is a critical oversight since it is this form of nitrogen that is a concern in the watershed, especially in ground water. If the App can currently only show reductions in overland TN, a suggestion would be that it is not the right tool to use to track TN reduction potential in this circumstance since, as stated previously, a vast majority of TN leaves the landscape via vertical flow to groundwater (as shown in the watershed's TMDL and WRAPS, as well as the State of Minnesota's Nitrogen in Surface Waters report (MPCA 2013). Perhaps it should be removed as a tool used for TN while still relied upon for TP and portions of sediment where it seems to have the most strength.	No		See previous comment responses to DNR-1 and MPCA-2 relative to predominant hydrologic influence mapping.
MPCA	4.a.	3	Protection and restoration classifications are established in this section, but not used elsewhere in the document. For example, the protection and restoration classifications were not used as a way to prioritize actions. Additionally they are not listed in any tables for planning and prioritization. It is recommended that these classifications be incorporated in a way that provides consistency, helping local planners identify and implement proper actions on the landscape.	Yes	3.2	Sentence added:  The protection and restoration classifications are intended to align with the categories described by the Nonpoint Source Priority Funding plan and used to categorize and prioritize future requests for clean water funds and the annual work planning process.
MPCA	4.b.	3	a. Section 3.2.1, 4a: The third subcategory listed is named differently in the introductory paragraph than point iii; "Heightened" and "Threatened".	Yes	3.2.1	Change made.

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MPCA	4.c.	3	b. Section 3.2.1, 4ai2: The wording here attempts to set a new assessment methodology when data does not exist that meets MPCA's strict assessment methodology. Having five samples may or may not give a good picture of water quality depending on many factors like flow conditions at the time of sampling, time of year, timeframe in which they were collected, etc. The MPCA recommends removing this method.	No		This approach is an effort to use water quality data to describe categories consistent with the Nonpoint Source Priority Funding plan. Please refer to 3.2, paragraph 4 on page 3-2.
MPCA	4.d.	3	Figures 3-1 through 3-5 should give a data source.			Data sources are listed below each map on the lower right corner.
MPCA	5	3	Page 3-10 mentions "presumed background nitrate-nitrogen concentration of three milligrams per liter (mg/L)." However a number of streams in the watershed are <three mg/L baseflow N; more generally background concentrations of nitrate were 0.24 mg/L in watersheds dominated by non-urban and non-agricultural land uses (Dubrovsky, et al., 2010). Please correct.	Yes	3.2.2, pg 3-10	Remove the word "presumed background".
MPCA	6.a	3	SW-1: This strategy includes "in-channel sources". How will in-channel sources of sediment be measured to determine status of this strategy and associated actions if the PTMApp does not account for in channel sediment?	No		Other data sources from HSPF, the sediment budget, etc. will be considered in the future along with additional research in cooperation with MPCA and others. See SW-3.3 on page 3-17 and Table 4-6 on page 4-28.
	6.b.	4	SW-3: Consider rewording this statement to: "Improve or protect aquatic biological communities by ensuring stream total suspended solids (TSS) concentrations meet or are less than the water quality standards for TSS".	No		Comment acknowledged. Rewording does not change the intent of the strategy and actions.
	6.c.	4	SW-4: Consider rewording this statement to "Manage sources of human and animal waste to improve or protect stream bacteria concentrations to the E. coli water quality standard."	No		Comment acknowledged. Rewording does not change the intent of the strategy and actions.
	6.d.	4	SW-5 is based on nitrate-N, which is the main portion of TN of concern in the watershed. However, when targeting, setting metrics and reductions, the Plan switches to TN. BMPs and actions vary when addressing one versus the other. Consider continued consistent use of nitrate-N throughout the document.	No		Comment acknowledged. BMPs in this plan are geared toward reducing nitrate-nitrogen which will also reduce TN which, as stated, is the main portion of TN in the watershed. Until a measurable goal can be established for nitrate-nitrogen, partners will continue to rely on PTMApp and it measurement of TN in its place. More research in collaboration with state partners is needed to validate PTMApp results.
	6.e.	4	SW-6: It should be noted that there are currently no identified TP impairments in the watershed. This strategy should be reworded to 'protect' instead of reduce.	No		Even though there are no TP impairments, the plan still sets a goal to reduce TP in alignment with the MN Nutrient Reduction Strategy.
	6.f.	4	SW-7: It should be noted that there are currently no identified dissolved oxygen (DO) or temperature impairments in the watershed. Also, Action 7.4 addresses habitat, not DO/temperature, and should be removed from this strategy.	No		The Root River Stressor Identification Report identifies DO as a stressor to biology. Although there are no DO or temperature impairments, practices that help maintain appropriate DO levels and temperature are important to protecting coldwater species that are integral to the local economy and ecology.

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MPCA	7	4	Table 4-5: under AUID 07040008-563, it does not indicate the bacteria impairment that exists. This AUID was included in the most recent Root River watershed TMDL report. Please include information on bacterial loading for this AUID in this table. The moderate flow load is set at 27.08 billion organisms/day.	Yes	Table 4-5, pg 4-24	Change made in Table 4-5.
MPCA	8	4	It is recommended that the number of BMPs implemented as the only metric for reporting a measurable goal be revised, especially when those are reported in fractions of BMPs (i.e. 10.4 BMPs/year in Crooked Creek per Table 4-7). It is suggested that a better metric might be the cumulative estimated reduction provided by those BMPs since various BMPs provide various estimated pollutant reductions. It would also allow a more quantifiable calculation. For example, if one landowner installs a 10,000 foot grassed waterway and another landowner install a restored wetland that would be two BMPs. A metric of two BMPs does not seem to capture the magnitude of these practices. Instead, the estimated reduction of each BMP could be calculated and reported giving a more accurate depiction. If the PTMAApp can estimate reductions, could it not be used to calculate these numbers?	No		See BWSR Mandatory - 1 comment response.
MPCA	9	4	Page 5-13: The MPCA is removing the three continuous nitrate monitoring stations at the Lanesboro Fish Hatchery. They will be used at other southeast locations to characterize groundwater nitrate in the region. Please change language to reflect this.	Yes	5.1.2.2.2, pg 5-13	Reword: MPCA previously operated three continuous nitrate monitoring stations....
MPCA	10	4	Appendix B, Section 4: Lotic Systems, 4.2.1, overview is given of Root River streams, but the other streams in the planning area are not discussed. These should be included in this discussion. Also, it is stated that the streams are Class 1B and 2A. While there are streams of these classes, other classes exist in the entire planning area (shown in table below) in accordance with Minn. Stat. §115.44 and Minn. R. 7050.0140:(Source of table information: MPCA Geographic Information System layer "stream_AUIDs_current").	No		Comment acknowledged
MPCA	Suggested 1	5	Figure 2-2: It should be clarified that impairments shown on this map are on streams that have been assessed for various uses. While it is true that the light blue line indicates "Assessed Streams", impaired streams are also assessed. A more accurate label would be Full Support/Insufficient Findings.	No		Comment acknowledged

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MPCA	Suggested 2	5	Figure 2-13: It is unclear how the presence of a fish and/or aquatic macroinvertebrate Index of Biological Integrity (IBI) score itself helps with aquatic habitat analysis. It would be more informative if the IBIs were qualified by being "bad" or "good" based on information in the MPCA's Root River Watershed Biotic Stressor Identification report.	No		Comment acknowledged. The maps are only meant to show where aquatic habitat analysis may be available.
MPCA	Suggested 3	5	Clarify the linkage between Figures 2-1, 2-2, 2-3, 2-5, 2-6, 2-7, 2-8, 2-9, 2-10, 2-12, 2-13, 2-14, 2-15, 2-16, 2-17, 2-18 and the actions and targeted implementation areas to address the resource concerns. As the Plan reads, these are background maps and are not used in the prioritization process. Is this conclusion correct?	No		Explanations for each of the figures are included within the text document and serve to illustrate the information in the text. These maps are not being used in the prioritization process but only to show where data is available.
MPCA	Suggested 4	5	Section 2.4.1: While it is agreed that the Level 'A' resource concern priorities are good, it seems that they encompass the entire watershed area and therefore are not identifying actual priorities. It is noted later in Section 2 that these 'A' level priorities will be implemented first. It is assumed this means strategies and actions associated will be implemented. It would be more useful if recommended associated actions were ranked identifying which would be implemented first.	No		See BWSR Mandatory - 5 comment response.
MPCA	Suggested 5	5	There is only one mention of the "nonpoint priority funding plan" (page 3-2). It would seem that this plan and any 1W1P should be well connected; e.g. a citation saying waters that are close to meeting goals should be a priority. The Plan gets to this by showing maps of low and high effort needed to achieve goals, but the linkage to the funding plan should be underscored to confirm that these plans/documents/mandates do indeed coordinate and support broader efforts.	No		See BWSR Discretionary 8 comment response
MPCA	Suggested 6	5	Figure 4-3: Consider defining what "50 percent sediment and 50 percent nutrients" means in the figure legend. Is it 50 percent delivery? The top 50 percent loading subwatersheds? Clarification would help the reader understand what the data is representing.	No		The water quality index is explained in the text with Figure 4-3 on page 4-5: "One of the products is called a 'water quality index' and shows the combined contribution of sediment and nutrients to the outlet of the South Fork Root River (Figure 4-3)."

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MPCA	Suggested 7	5	Table 4-1 indicates plans for a 45 percent reduction in TP which would exceed the contribution to the State level reductions needed (12 percent per NRS). Consideration could be made to reduce target levels for TP to 12 percent and put the remaining effort toward sediment and nitrogen loading reduction. On a similar note, the expected Nutrient Reduction Strategy based watershed reduction for TN in this 10 year plan is 20 percent. Since the Root River watershed has TN concerns, we support going beyond that target toward the long term goal of 45 percent and meeting the TMDL and groundwater objectives within the watershed.	No		The TP reduction goal is tied to the sediment reduction goal which remains at 45% by 2025. The implementation actions aimed at sediment reduction will result in a corresponding reduction in TP. Table 4-1 sets a long term 45% reduction goal for TN in the example for the South Fork Root River. Refer to Table 4-4 for long term measurable goals.
MPCA	Suggested 8	6	Table 4-6: "Maintain compliance with wastewater treatment plant point source permit requirements." This should also be listed as an action item under nitrate-nitrogen and sediment since some permits address these pollutants.	No		Comment acknowledged.
MPCA	Suggested 9	6	Section 5.1.1.4: The MPCA is in full support of the development of a Social Capacity Initiative as described in this section. A broader understanding of the social complexity in the watershed and how it affects adoption of BMPs that will improve water quality would in turn inform many programs working in the watershed.	No		Comment acknowledged.
MPCA	Suggested 10	6	The use of multiple tables within the Plan makes it hard to follow the relationship between action and outcome. A suggestion is to take a high priority outcome and demonstrate how the programs and actions the Plan supports will work its way through a strategic outreach to target BMPs and ultimately result in a specific water quality outcome. Perhaps following the South Fork Root subwatershed as an example since those were the maps provided in the Plan as examples.	No		Comment acknowledged.
MPCA	Suggested 11	6	The amount of information in the document is overwhelming. It lacks clear statements on main issues, goals for improving conditions, or main strategies for how to get things done and best places to work. It is recommended that these are laid out clearly in the Executive Summary.	No		Comment acknowledged.
Minnesota Department of Health (MDH)	1	1	<i>Concern – Strategy GW-1 uses the phrase to achieve the Safe Drinking Water Act nitrate- nitrogen standard. The wording of this strategy seems to imply that the nitrate standard is a positive standard. However, the nitrate-nitrogen standard under the Safe Drinking Water Act is a maximum contaminant level(MCL).</i>	No		Comment acknowledged. Rewording the strategy does not affect the actions proposed. Refer to page 3-1, GW-1.6.

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MDH	2	2	It is stated in 2.4.1.1 that "identifying the locations of the resource concerns on the landscape within the plan area allows for the development of a targeted implementation schedule focused on specific locations. Figure 2-1 shows specific locations of DWSMAs and also results of some private well testing for nitrate. However, it is not clear how this map is used to develop the targeted implementation schedule.	No		Practices should be implemented within DWSMA's and upstream of areas where nitrate-nitrogen reductions need reduction. These maps are not being used in the prioritization process but only to show where data is available.
MDH	3	2	Looking at the maps for total nitrogen yield, it is unclear how these yield maps show a relation to elevated nitrate in groundwater.	No		Those areas with high nitrate loads leaving the landscape and a predominant hydrologic influence of groundwater within a DWSMA should be targeted for practices which reduce loadings to groundwater. The plan establishes a program to work toward the recommendation you suggest. See Section 4.4 on page 4-14.
MDH	4	3	Concern - Measurable Goals and Metrics for Drinking Water Supplies in Table 4-4. The 45 % reduction goal from the Nutrient Reduction Strategy was developed for the Mississippi River Basin. The metric used as a measurable goal is Annual Load (mass/yr.). These do not seem appropriate for groundwater.	Yes	GW-1.7, pg 3-13 and 4-26	Unfortunately, there is presently no technical data nor method available which allows us to estimate the amount of nitrate leaching to groundwater, the load leaching groundwater and the reduction in nitrate-nitrogen concentrations in wells. We wish that capability existed. Perhaps this is an area where MDH can work with other agencies to solve this data gap. Refer to the last paragraph on page 4-20. Reword GW-1.7: "Continue research...modeling and monitoring groundwater,...." on page 3-13 and 4-26.
MDH	5	3	<i>Concern – Strategy GW-2</i> Manage groundwater quality to achieve the total coliform drinking standard is an inappropriate use of this standard. Coliform are a group of related bacteria that are (with few exceptions) not harmful to humans. US Environmental Protection Agency considers total coliforms a useful indicator. For public water suppliers, total coliform sampling along with E. coli is used to determine the adequacy of water treatment and the integrity of the distribution system. The approach is a "find and fix" approach that is used to determine sanitary defects in the system and subsequently to take action to correct them. In most cases the source of the problem is not in the drinking water groundwater source. In regard to private wells and total coliform testing, if a positive result for total coliform testing is found, the well is typically disinfected and that hopefully will resolve the problem. However, if a well is improperly constructed and does not meet sanitary standards, then it should be replaced. There are also additional ways that a private well owner can keep their drinking water safe.	Yes	GW-2, pg 3-14	Reword per MDH recommendation: "Properly manage sources of human and animal waste and protect water supply wells to minimize the introduction of microbial contamination to drinking water supplies." on page 3-14. Refer to actions in GW-2.
MDH	6	4	Concern - Total coliform counts for the reason stated above is not an appropriate Quantitative Measurable Goal and sample concentration (mg/l) is not an appropriate metric.	Yes	Table 4-4, pg 4-21	Change Table 4-4 Bacteria Metric to "Number of wells having drinking water samples that have positive test for E. coli" and Amount to "No water supply wells test positive for E. coli". Change Explanation to "Developed for this plan based on MDH recommendations"
MDH	7	4	Page 1 Plan Abbreviations DWSMA stands for Drinking Water Supply Management Area	Yes	Page 1	Change made.
MDH	8	4	5.5.1.7 Well Management should state the Minnesota Department of Health Well Management Program administers the Minnesota Well Code MN Rules Chapter 4725 and that Olmsted and Winona counties within the 1W1P area have delegated Water, Monitoring and Dewatering Well Programs.	Yes	5.5.1.7	Text changed to:  The Minnesota Department of Health (MDH) Well Management Program administers Minnesota Rules Chapter 4725 that sets standards for wellhead protection planning. Cities within the 1W1P have completed or will be completing wellhead protection plans. The most recent listing of completed wellhead protection plans can be obtained from MDH. In addition to wellhead protection plans, two counties (Olmsted and Winona) participating in the 1W1P have also been delegated water, monitoring and dewatering well programs.

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
MDH	9	4	Table 5-2: field practice management category under Groundwater Initiative includes Rain Gardens. Stormwater infiltration is not always beneficial to drinking water. Check Stormwater infiltration and constraints on infiltration in the MPCA Minnesota Stormwater Manual.	No		Comment acknowledged.
	<b>PUBLIC HEARING COMMENTS</b>		<b>Stewartville Public Hearing held Wednesday, September 7, 2016, at 7:30 pm at the Stewartville Civic Center Caledonia Public Hearing held Thursday, September 8, 2016, at 7:30 pm at the Houston County Criminal Justice Center</b>			
Public Comment-Stewartville Public Hearing	1	Dave Erickson	How is this project different from a watershed district? What about taxing authority?	No		This project is not intended at this time to form a watershed district but rather to work collaboratively together on a watershed basis to set local priorities and coordinate efforts across county boundaries for more effective and efficient water management. The county's could choose to levy additional taxes to pay for activities in the watershed plan, but that is not the intent at this time. Funding is expected to continue to come from the state to the counties and SWCDs through competitive and non-competitive grants, some from the Clean Water Fund, the difference being that implementation will be within the watershed boundary versus the county boundaries. A watershed district has taxing authority and can set its own rules and regulations. To form a watershed district, there is a specific process required involving petitions and county board approvals that can take more than a year to complete.
Public Comment-Stewartville Public Hearing	2	Ted Olson	What conservation practices are being done on state-owned land, such as dams, wider grass waterways, diversions, etc? I've not seen any of this being done.	No		State-owned lands are managed by state agencies, and like private lands, best management practice implementation is voluntary. DNR and the other state agencies have been involved in the planning process so it is expected that the state agencies will take actions on state-owned land that help meet the priorities in the watershed plan.
Public Comment-Stewartville Public Hearing	3	Nick Feltis	Nitrogen cycling in the soil, organic matter and natural soil materials may be contributing a higher percentage of nitrogen and sediment as a natural source through the natural cycling of nutrients. This needs to be considered in the calculations of point and nonpoint sources of nitrogen and sediment.	No		We acknowledge that there are natural sources of nitrogen and sediment. The reduction goals in this plan are aimed at the human-caused sources. The goals do not expect a 100% reduction in any of the parameters.
Public Comment-Stewartville Public Hearing	4	Lori Feltis	Is this program voluntary or mandatory? Are municipalities required to follow this plan?	No		The plan is built on voluntary adoption of practices using many existing programs. No new rules or ordinances are proposed in the plan. Anything that is mandatory would already be required under existing ordinances and rules. Municipalities are included in this plan as partners for implementation and are encouraged to participate, but they are not required to adopt or be held to this plan.
Public Comment-Stewartville Public Hearing	5	Dave Erickson	What does the Policy Committee expect as a result from this hearing? What are they hoping to receive as comments from the public?	No		We are seeking good comments that can help to improve the plan and how it is implemented. Holding a public hearing is a requirement in the planning process to ensure that the public has a chance to voice any concerns about the plan's contents.
Public Comment-Stewartville Public Hearing	6	Jerry Cleveland	The committee deserves praise for doing this and taking an entire watershed to make it work together.	No		Acknowledged with thanks.
Public Comment – Caledonia Public Hearing	1	Matt Feldmeier	Will funding come through EQIP or other programs? It is a long process for EQIP vs. the capacity funds that SWCDs receive which can be approved quickly. Faster funding will help promote more farmer participation.	No		The same funding streams will be available that exist now, and other funds will hopefully come through the Clean Water Fund. The Local Government Round Table initiated 1W1P, and the Clean Water Council recommends how Clean Water Funds are used. The trend is to get stable funding for 1W1P versus relying on competitive grants.

Commenter	Comment #	Comment Letter Page #	Comment	Plan Change Made (Yes/No)	Plan Section	Comment Response / Action
Public Comment – Caledonia Public Hearing	2	Glen Haag	Are these policies to be put in place or voluntary? How does this go along with the Ag Certainty program? Why do we think this is better on a larger scale rather than on a smaller scale? Does this help us get a better chance at securing money for implementation of practices? How are you going to get at the high priority areas?	No		This committee will not serve a purpose different than what it has been. It has been a voluntary, collaborative approach, and it will remain that way. No zoning rules or policies will come from this committee. Counties will still do zoning. The direction of the state is towards managing water on a watershed basis. The difficult part will be for counties that have more than one watershed. Streamlined reporting is one positive that is hoped for. As a pilot, we are unsure about how it will all work, whether or not we are duplicating, simplifying, or creating another layer of government. The work will still get done locally on a smaller scale.
Public Comment – Caledonia Public Hearing	3	Adam Beilke-BWSR	The purpose of this process is to manage water on watershed basis by looking at upstream and downstream influences. The partners should be commended for being a pilot and for starting from scratch to develop this plan.	No		Acknowledged with thanks.
Public Comment – Caledonia Public Hearing	4	Bill Rowekamp	There are multiple agencies in the counties so what is the people equation? Will this be a smooth transition? Do you think there will be any turf wars or difficulties? Will the funding be the same or more?	No		There are few changes anticipated initially. We will still have SWCD and county staff that will do the work together. There may be employees who work throughout the watershed across county boundaries. The biggest competition for funding may be with state agencies. In Dodge County, where there is a small portion of their county in the watershed, their focus may be more on the Zumbro that makes up the majority of their county. We want to avoid any infighting and maintain high customer service. There are difficulties with writing competitive grant applications which should be reduced by working together.
Public Comment – Caledonia Public Hearing	5	Wayne Feldmeier	Does this have a lot to do with water quality? There are so many rules and regulations. You need to be careful if making new rules. They may not work as expected.	No		Yes, this is a water quality plan. No new rules are proposed in this plan; this is not a regulating board. The purpose is to collaborate on a watershed basis in order to get funding. BWSR's only rulemaking power lies with the Wetland Conservation Act and the MN Soil Loss Law. Local powers remain in place. The focus of 1W1P is on planning and how to target implementation. Many of the issues (municipal wastewater treatment, DNR water appropriation fees, rip rap, etc.) mentioned by this commentor are discussed in the plan but are regulated by the state agencies.
Public Comment – Caledonia Public Hearing	6	Tom Fairbanks	Does the SWCD have a map of the aquifers in the watershed? Is there monitoring of the aquifer? Has there been a baseline established on current conditions, vis a vis erosion and water quality? How do you measure progress? Does 1W1P impact municipal sewer treatment? Many plants were built in the 1970s. With the amount of tourism, could sandy beaches be developed for recreation? Japanese hops are found along the Root River; does 1W1P have any impact on this?	No		There are aquifer maps available from such agencies as USGS, MDH, MGS, and DNR. There are county geologic atlases available or in progress (Houston and Dodge counties) which include aquifer maps. Comprehensive groundwater monitoring is in progress but is still in the early stages. The Root River has impairments due to bacteria, sediment, and nitrates as shown on the maps in the plan. Fish and macroinvertebrate impairments are also on the maps. The goals in the plan are to improve streams that are impaired so they will meet the water quality standards and to protect those that are not impaired so they don't become impaired. Municipal sewage treatment plants are regulated by MPCA, and that does not change with this plan. Recreation is considered in this plan so projects may be considered that enhance recreation. Invasive species is among the emerging issues mentioned in the plan.
Public Comment – Caledonia Public Hearing	7	Glen Haag	How do you get at the high priority areas with this plan? How do you get those stubborn ones to participate? Pond costs are extremely high, even the cost to clean out existing ponds. It is difficult to get funds; yet these are big issues that need to be addressed.	No		All projects and practices are voluntary unless there is an identified problem that relates to existing regulations, such as existing enforcement mechanisms in feedlot and septic system rules. However, even those that are not out of compliance with any rules can cause problems. The plan places an emphasis on civic/landowner engagement to encourage voluntary adoption of practices. One anticipated outcome of the plan is to secure additional funds for financial assistance to landowners.
Public Comment – Caledonia Public Hearing	8	Wayne Feldmeier	How much money will it take to do this? This plan is to get money but others will set the regulations?	No		The total cost for all the "A" and "B" priority activities in the plan, including capital projects, is estimated to be \$19 million to reach the ten year reduction goals.