

LWMP Page	LSWMP Text	BCWMC Comment on December 3, 2018 draft LWMP (orange = required revision) (green = recommended revision)	Where and how it was addressed (actual change represented by underlined text)
2	The City will demonstrate through the LWMP: Proposed plans and projects that will require stormwater management rate control, volume control and erosion control. BMP protection measures will require City and Bassett Creek Watershed Management Commission (BCWMC) approval prior to construction.	Water quality performance standards are an important part of the BCWMC requirements for improvements. This statement must be revised to include "water quality treatment" in addition to rate control, volume control, and erosion control.	To accomplish this goal the City will demonstrate through the LWMP: A.1.2 Proposed plans and projects that will require <u>water quality treatment</u> , stormwater management rate control, volume control and erosion control. BMP protection measures will require City and Bassett Creek Watershed Management Commission (BCWMC) approval prior to construction. The City of Medicine Lake will have permitting authority.
2-3	A.2. To adopt by reference.... A.3. To authorize the BCWMC to continue to apply all of its rules and regulations... A.4. To authorize the BCWMC to be the LGU...	There is no subject in statements A.2, A.3, and A.4. It is unclear if these statements are objectives of the LWMP, goals of the City, or otherwise. Please revise the text to add a subject and/or clarify the intent.	A.2. <u>Policy Statement:</u> The City adopts by reference.... A.3. <u>Policy Statement:</u> The City will continue to collaborate with the BCWMC to continue to apply all of its rules and regulations... A.4. <u>Policy Statement:</u> The City will authorize the BCWMC to be the "local unit of government" (LGU)... (LWMP Pages 1 and 2)
4	C.5 State and Federal laws pertaining to National Pollution Discharge Elimination System (NPDES); C.6 (NPDES) permitting for stormwater outfalls to designated	It is unclear how items C.5 and C.6 differ. If these are intended to be one item, please revise accordingly.	C.5 State and Federal laws pertaining to National Pollution Discharge Elimination System <u>permitting for stormwater outfalls to designated drainage ways</u> ; (LWMP Page 3)(Combined C.5 and C.6)
6	F.5 To continue water resource educational programs and partner with the BCWMC, Association of Medicine Lake Area Citizens (AMLAC), Three Rivers Park District, other lakeside communities and other agencies to provide educational	The other items in this list contain a subject for the recommendation (e.g., "The City should..."). Consider revising the text of this recommendation to mirror the language of the adjacent recommendations.	F.5 <u>The City should</u> continue water resource educational programs and partner with the BCWMC, Association of Medicine Lake Area Citizens (AMLAC), Three Rivers Park District, other lakeside communities and other agencies to provide educational opportunities for the community. (LWMP Page 6)
8	This section provides a localized description and summary of land and water resource factors affecting the water resources within the City of Medicine Lake to supplement the BCWMC "Comprehensive Water Resource Plan".	The BCWMC "Comprehensive Water Resource Plan" is not a current reference. The text must be revised to remove this reference or update the reference to the current intended document (e.g., BCWMC 2015 Watershed Management Plan).	This section provides a localized description and summary of land and water resource factors affecting the water resources within the City of Medicine Lake to supplement the <u>BCWMC 2015 Watershed Management Plan</u> . (LWMP Page 8)
10	Table 2 - Storm Event Tabulation Further documentation regarding these storms can be found at: Minnesota Hydrology Guide prepared by the NRCS, the U. S. Weather Bureau Technical Papers 40 and 49	Table 2 includes design storms based on TP-40. Current industry practice is to use design storms based on the National Oceanographic and Atmospheric Administration (NOAA) Atlas 14, Volume 8 (Midwest region). Design storms published in Atlas 14 are generally greater than those published in TP-40. Use of Atlas 14 for stormwater design is required per the BCWMC Requirements for Improvements and Development Proposals and BCWMC 2015 Watershed Management Plan. Table 2 must be revised to include Atlas 14 precipitation amounts for the 2-year, 10-year, and 100-year 24 hour events. The supporting <del>text must be revised to reference NOAA's Atlas 14 as the source of the</del>	The use of synthetic storms and the cumulative rainfall amounts are consistent with BCWMC standards. Further documentation regarding these storms can be found at <u>National Oceanographic and Atmospheric Administration (NOAA) Atlas 14, Volume 8 (Midwest Region)</u> . (LWMP Page 10)
13	Medicine Lake has been added to MPCA's impaired waters list for nutrient/eutrophication biological indicators.	The TMDL for the Medicine Lake nutrient impairment was completed in 2010. This section must be revised to acknowledge the completion of the TMDL and reference the TMDL report.	Medicine Lake has been added to the MPCA's impaired waters list for nutrient/eutrophication biological indicators. A TMDL report addressing nutrient impairment was completed for the MPCA and the BCWMC in 2010. The TMDL report can be found at: <a href="https://www.pca.state.mn.us/sites/default/files/wq-iw8-19e.pdf">https://www.pca.state.mn.us/sites/default/files/wq-iw8-19e.pdf</a>
16	When site specific stormwater management plans are required per city ordinance (Section 1700 of the zoning code attached as an appendix) the City will use a HydroCAD or similar computer program to estimate stormwater flows.	Does the City perform the modeling, or does the City require developers to perform the modeling? Consider revising this text to clarify.	When site specific stormwater management plans are required per city ordinance (Section 1700 of the zoning code attached as an appendix) the City <u>will work with developers to</u> use a HydroCAD or similar computer program to estimate stormwater flows. (LWMP Page 16)

17	The City will comply with the BCWMC's requirement that all regulated stormwater be treated to Level 1 standards for new or re-developed properties.	The BCWMC water quality performance standards no longer reference "Level 1" standards. In its 2015 Watershed Management Plan, the BCWMC adopted water quality performance standards based on MIDS. This section must be revised to note that the City will enforce water quality performance standards consistent with the BCWMC 2015 Watershed Management Plan and BCWMC Requirements for Improvements and Development Proposals.	The City will comply with the BCWMC's <u>water quality performance standards</u> for new or re-developed properties. <u>All stormwater will be treated in accordance with the MPCA's Minimal Impact Design Standards (MIDS) performance goal for new development and redevelopment. If the MIDS performance goal is not feasible and/or is not allowed for a proposed project, then the project proposer must implement the BCWMC flexible treatment options, as shown in the BCWMC Design Sequence Flow Chart. The City will enforce water quality performance standards consistent with the BCWMC 2015 Watershed Management Plan and BCWMC Requirements for Improvements and Development Proposals.</u> (LWMP Page 17)
17-18	In 2008 the MPCA added Medicine Lake to their "impaired waters list" for Nutrient/Eutrophication Biological Indicators. Therefore, the development of a TMDL is required. A TMDL was prepared in November 2010, and a TMDL Implementation Plan was prepared in February 2011. All the communities in the Medicine Lake watershed have been given phosphorous reduction goals to help restore and protect the water quality of the Lake.	The statement that "all communities in the Medicine Lake watershed have been given phosphorus reduction goals" is not precisely accurate. The text must be revised to note that a "categorical wasteload allocation" has been assigned for Medicine Lake. The text must note that the BCWMC serves as the "convener" of the categorical wasteload allocation and includes projects to address phosphorus loading to Medicine Lake in its capital improvement program (CIP).	Medicine Lake borders the west, north and east sides of the City and receives the majority of storm water generated in Medicine Lake. In 2008 the MPCA added Medicine Lake to their "impaired waters list" for Nutrient/Eutrophication Biological Indicators. Therefore, the development of a TMDL is required. A TMDL was prepared in November 2010, and a TMDL Implementation Plan was prepared in February 2011. <u>The BCWMC plan identifies phosphorous as the primary nutrient pollutant. A categorical wasteload allocation (WLA) of 8.44 lbs/day or 3,082 lbs/year total phosphorus (TP) has been assigned to the City of Medicine Lake MS4. The BCWMC serves as the convener of the categorical WLA and includes projects to address phosphorus loading to Medicine Lake in its capital improvement program (CIP).</u> (LWMP Page 18)
19	1. The city will require that proposed stormwater discharges as a result of development be equal to or less than existing conditions. <b>Increase in discharge rates and volumes in areas of development will be allowed provided the downstream facilities can handle the increases.</b>	Increases in discharge rates from developments conflicts with Policy 31 of the 2015 Watershed Management Plan. This policy must be revised to be consistent with BCWMC rate control policy. <i>(Note that while variances may be allowed on a case-by-case basis, it is recommended that such</i>	The city will require that proposed stormwater discharges as a result of development be equal to or less than existing <u>rates for the 2-year, 10- year, and 100-year events; in conformance with the BCWMC Flood Control Project system design and the BCWMC 2015 Watershed Management Plan.</u> (LWMP Page 19)
20	6. The City will encourage the utilization of natural ponding areas <b>and wetlands</b> for stormwater storage and treatment if not in conflict with the classifications and management strategies of this LWMP, and any Wetland Functional Assessments prepared	Consider removing wetlands from this policy, as there are significant regulatory hurdles to using wetlands for stormwater management.	The City will encourage the utilization of natural <u>ponding areas for stormwater storage and treatment</u> if not in conflict with the classifications and management strategies of this LWMP, and any Wetland Functional Assessments prepared on a project by project basis. (LWMP Page 20) Removed 'and wetlands'
21	12. The City will continue to enforce its floodplain ordinance. This ordinance shall apply to all lands designated as flood plain within the jurisdiction of the City of Medicine Lake. Floodplain areas within the City of Medicine Lake shall encompass all areas designated as Zone A, Zone AE, Zone AO, or Zone AH as shown on the FIRM adopted in the ordinance.	This policy must be revised to note that the City floodplain ordinance applies to the BCWMC-designated floodplain as well as FEMA-delineated floodplain.	The City will continue to enforce its floodplain ordinance. This ordinance shall apply to all <u>BCWMC-designated floodplain and FEMA-delineated floodplain</u> within the jurisdiction of the City of Medicine Lake. Flood plain areas within the City of Medicine Lake shall encompass all areas designated as Zone A, Zone AE, Zone AO, or Zone AH as shown on the FIRM adopted in the ordinance. (LWMP Page 21)
22	1. All regulated stormwater will be treated from Level 1 standards for new development to non-degradation (no increase in phosphorus load) for redevelopment projects that result in increased impervious surface. All stormwater will be treated in accordance with the MPCA's Minimal Impact Design Standards (MIDS) performance goal...	The BCWMC water quality performance standards no longer reference "Level 1" standards. The BCWMC adopted water quality performance standards based on MIDS as part of the 2015 Watershed Management Plan. The first sentence of this policy must be removed.	1. <u>All stormwater will be treated in accordance with the MPCA's Minimal Impact Design Standards (MIDS) performance goal for new development and redevelopment. If the MIDS performance goal is not feasible and/or is not allowed for a proposed project, then the project proposer must implement the BCWMC flexible treatment options, as shown in the BCWMC Design Sequence Flow Chart.</u> (LWMP Page 22)
23	8. For proposed land development adjacent to Medicine Lake and wetlands, the City will follow city ordinance requirements for setbacks and buffers.	Consider adding a cross-reference to wetland buffer requirements included in Policy E.11 (Page 26 of the LWMP).	<u>8. For proposed land development adjacent to Medicine Lake and wetlands, the City will follow city ordinance requirements for setbacks and buffers. (see wetlands policy E.11) (LWMP Page 23)</u>
26	9. The City authorizes the BCWMC to be the "local unit of government" responsible for implementing the Minnesota Wetlands Conservation Act within the City of Medicine Lake.	Consider deleting this policy as it is redundant to policy E.1 (Page 25 of the LWMP).	Deleted (LWMP Page 23)

30	This section contains an assessment of existing and potential water resource related problems presently known within the City and a description of structural, non-structural, or programmatic solutions that could be used to address or correct the problems. The problems and concerns have been identified by MFRA as part of the land and water resource data collected in the preparation of the 2010 LWMP. Additional problems and concerns may be included in this LWMP by City Staff at a later date.	The text implies that the LWMP does not include issues that have developed since the 2010 LWMP and that identification of issues after 2010 will be performed at a later date. Minnesota Rules 8410 requires that local water plans include a current assessment of issues. The LWMP must be revised to clarify that current issues are included or add current issues if not included.	This section contains an assessment of existing and potential water resource related problems presently known within the City and a description of structural, non-structural, or programmatic solutions that could be used to address or correct the problems. The problems and concerns have been identified by MFRA as part of the land and water resource data collected in the preparation of the 2010 LWMP. <u>Since the 2010 LWMP, Medicine Lake has been considered impaired for excess phosphorus. A TMDL, along with a TMDL Implementation Plan has been created to address this issue. Many of the problems addressed in 2010 continue to be problems that need to be managed on a project by project or ongoing basis. Some of the topics discussed herein are repetitive because they are presented according to the State rules and outline for local management plan preparation.</u> (LWMP Page 30)
31	B.1.2 The MPCA is determining the TMDL for the City of Medicine Lake and the other communities in the Medicine Lake watershed. When the TMDL is determined the City will implement a strategy and stormwater facility plan to meet the requirements.	The text regarding the Medicine Lake TMDL is outdated. The text must be revised to note (and reference) the completed TMDL and TMDL Implementation Plan. The text should note that the BCWMC has assumed the role of "convener" for a categorical wasteload allocation.	<u>A TMDL for Nutrient/Eutrophication Biological Indicators was prepared in November 2010, and a TMDL Implementation Plan was prepared in February 2011. The BCWMC serves as the convener of the categorical wasteload allocation (WLA) of 8.44 lbs/day or 3,082 lbs/year total phosphorus (TP) assigned to the City of Medicine Lake. The TMDL report can be found at: <a href="https://www.pca.state.mn.us/sites/default/files/wq-iw8-19e.pdf">https://www.pca.state.mn.us/sites/default/files/wq-iw8-19e.pdf</a>. The TMDL Implementation Plan can be found at: <a href="https://www.pca.state.mn.us/sites/default/files/wq-iw8-19c.pdf">https://www.pca.state.mn.us/sites/default/files/wq-iw8-19c.pdf</a> (LWMP Page 31)</u>
31	B.2.4 Continue to reference BCWMC rules and regulations.	It is unclear what is meant by "reference." Consider revising this text to note that the City will continue to implement water quality performance standards consistent with BCWMC policies and requirements.	Continue to <u>implement water quality performance standards consistent with BCWMC policies and requirements.</u> (LWMP Page 31)
31	B.2.6 Develop a CIP strategy and program to construct phosphorous reduction facilities and BMP's. The City will implement the improvement options listed in the BCWMC's CIP to address the water quality of priority waterbodies based on	Consider revising this text to acknowledge the City's ongoing role of cooperating with the BCWMC and its member cities to implement projects identified in the BCWMC CIP to address Medicine Lake water quality.	<u>The City will continue to collaborate and cooperate with the BCWMC and its member cities to implement the projects identified in the BCWMC's CIP to address Medicine Lake water quality.</u> (LWMP Page 32)
35	H.1.1 In the near future, the city will be updating its Capital Improvements Plan (CIP) to further identify and prioritize capital improvements needed within the community. The CIP will also identify funding sources for the improvements.	Minnesota Rules 8410 requires that local water plans include a "capital improvement program that sets forth, by year, details of each contemplated capital improvement that includes the schedule, estimated cost, and funding source." If this task is to be completed in the future, the LWMP must identify this task as a top priority and include a detailed timeline for completion. If issue H.1.1 is an outdated reference to a capital improvement plan to address Medicine Lake (i.e., a plan superseded by items in the BCWMC CIP), the issue should be deleted.	<u>The City will be considering a stormwater utility fund, which generates revenues to fund stormwater management projects and programs deemed by the City to be in the public's best interest.</u> (LWMP Page 35)
36	I.1.1 General – Development and re-development projects may add areas of impervious surfaces which have the potential to decrease water quality and increase the volume of runoff during construction and after development is complete. During construction, erosion and sedimentation can degrade water quality and in the longer-term, additional phosphorus and other	Consider including references to City official controls (i.e., ordinances) and the BCWMC Requirements for Improvements and Development Proposals.	<u>(See City Zoning Ordinance Section 1700: Stormwater Pollution and Erosion Control and BCWMC Requirements for Improvements and Development Proposals)</u>
38	A.3 Wetland Protection The City will continue to enforce its rules as set forth in the Zoning Regulations pertaining to Wetland Systems Overlay District. The City will also encourage implementation of wetland buffers where practical and feasible.	Consider adding text to note that encouragement of buffers is additional to the requirements for wetland buffers included in Policy E.11 (Page 26 of the LWMP).	<u>Encouragement of buffers is additional to the requirements for wetland buffers included in Policy E.11.</u> (LWMP Page 38)

39	<p>C. Storm water Design and Performance Standards</p> <p>The City adopts the BCWMC "Requirements for Improvements and Development Proposals." The City is the permitting authority, but will forward all development and redevelopment plans to the BCWMC for review. The BCWMC will review non-linear projects and developments to evaluate compliance with the MPCA's Minimal Impact Design Standards (MIDS) performance goals, triggers, and flexible treatment options. See Section 3 of the BCWMC requirements document, for the types of improvements and development proposals that must be</p>	<p>This section must be revised to note that the BCWMC will review projects for consistency with performance standards in addition to water quality (e.g., floodplain, rate control, wetlands). The text must also be revised to note that the City will perform initial project review to determine consistency with local requirements before BCWMC review, and will only issue permits once the BCWMC has determined the project is consistent with BCWMC requirements.</p>	<p>The City adopts the BCWMC "Requirements for Improvements and Development Proposals." <u>The City will perform initial development and redevelopment project review to determine consistency with local requirements before BCWMC review. The City is the permitting authority, but will only issue permits once the BCWMC has determined the project is consistent with BCWMC requirements.</u> The BCWMC will <u>review projects and developments</u> to evaluate compliance with performance standards and the MPCA's Minimal Impact Design Standards (MIDS) performance goals, triggers, and flexible treatment options. (LWMP Page 39)</p>
40	<p>Table 4 - LWMP Implementation Program Priorities</p>	<p>Minnesota Rules 8410 requires that local water plans include "a table that briefly describes each component of the implementation program and clearly details the schedule, estimated cost, and funding sources for each component including annual budget totals."</p> <p>To comply with Minnesota Rules 8410, Table 4 must be expanded to include the proposed year of implementation. While some estimated costs and funding sources are included in Section B - Financial Considerations on Pages 40-41 of the LWMP, consider including the proposed cost and funding source in Table 4 for organizational purposes. The implementation table must also be revised to include the planned Jevne Park project.</p>	<p>Proposed Year of Implementation' and 'Estimated Capital and Funding Source' columns, and additional projects were added to Table 4 (LWMP Pages 40-41)</p>
40	<p>Table 4 - LWMP Implementation Program Priorities</p> <p>Update City Ordinance and Regulatory Agreements to be consistent with the BCWMC Plan, including updated shoreland regulations. Shoreland regulations for the city of Medicine Lake are planned to be updated in calendar year 2019.</p>	<p>The City's zoning ordinance must be updated to include water quality performance standards consistent with the BCWMC 2015 Watershed Management Plan and BCWMC Requirements for Improvements and Development Proposals. The update to water quality performance standards in the zoning ordinance must be referenced in item 2 of Table 4.</p>	<p>As a matter of practice and as a policy of the City, that any proposed project within the City, which meets or exceeds the BCWMC triggers for review as defined in the Requirements and Development Proposals will be reviewed by the BCWMC pursuant to its policies and regulations and including the determination of the proposed project's compliance with such policies and regulations. This policy applies to all projects within the City of Medicine Lake. As the City updates its Zoning regulations in 2019/2020, we will make sure that this policy get incorporated into the Zoning Code.</p>