City of Mill City
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TMDL IMPLEMENTATION PLAN

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INTRODUCTION:

The City of Mill City is pleased to submit update #2; second five year cycle (2014-2018), of the Mill City TMDL Implementation Plan to comply with DEQ requirements for Willamette Basin total Maximum Daily Load. As a small city with limited financial resources, we are submitting our plan based on our best understanding of the issues, but without benefit of professional consultant assistance. DEQ comments and guidance are welcome in refining this document. The contents of this plan and attached matrices are intended to meet the OAR 340-042-0080 requirements for TMDL Implementation Plans.

BACKGROUND:

The North Santiam River runs east to west through the City of Mill City. Downstream from Mill City, this river serves as the drinking water source for the cities of Stayton, Sublimity and Salem. The flow in the North Santiam River is supplemented from Rock Creek. According to the Willamette Basin TMDL, Rock Creek is the largest tributary in this watershed. Rock Creek is east of the City between Mill City and the City of Gates. Within the city limits of Mill City there are several smaller creeks that empty into the North Santiam including the Snake/Deford which drains the area southwest of the city limits; Elizabeth Creek and Cedar Creek drain the hills to the north in the North Santiam River. Forestry dominates the land use along the river. Much of the forested land is under private ownership; however the BLM owns 11% of the watershed.

Mill City is a small municipal corporation with a population of 1865. The City owns and operates a STEP (Septic Tank Effluent Pumping) wastewater system consisting of individual septic tanks and small collection lines leading to a central waste water treatment plant. The City's water supply comes from two wells located at the well field on SE Kingwood Avenue. These wells were completed in 2005. There are some stormwater facilities, mainly owned by

Linn County, within the city, though they are not adequate to manage all the stormwater run-off that might reach the river.

The Willamette Basin TMDL: North Santiam Sub-basin report identifies water temperature as the issue of concern for the segment of the North Santiam running through Mill City. Mercury and Bacteria are also listed parameters.

EXISTING DOCUMENTATION: The following documents provide background information relevant to the City's efforts to manage temperature or other potential sources of pollution within the North Santiam River:

- Comprehensive Plan updated January 1991. Updates to the plan are currently being completed by the Mill City Planning Commission.
- Mill City Municipal Code including the following: 17.44.120 Review of land use action involving the North Santiam River. Riparian code amendments are in the process of being completed and should be adopted in the near future.
- Mill City Storm Drainage System Master Plan, Adopted October 9, 2007: Includes detailed evaluation for two of thirteen stormwater basins in the city limits.
- Mill City Sanitary Sewer Facilities: Pump Station Project complete.
- Mill City Sanitary Sewer System Improvements: Waste Water Treatment Plant; construction drawings and specifications; reviewed and approved by DEQ.
- City of Mill City Public Works Design Standards.
- Riparian Buffer Assessment prepared by Environmental Technology Consultants for Baughman Construction, Inc.: Addressing riparian assessment for the south bank of the North Santiam River east of the First Street Bridge.
- Wetland Determination and Delineation Santiam Point prepared by Fishman Environmental Services: addressing wetland and riparian issues on the north bank of the Santiam River east of the First Street Bridge.
- Minutes of the Mill City Planning Commission related to riparian and wetland monitoring and regulation within the City Limits.
- Minutes of the City Council related to Mill City Sewer Project, pump stations and waste water treatment plant.
- Minutes of the City Council expressing desire to work collaboratively with the North Santiam Watershed Council for restoration and enhancement projects.
- Ordinance No. 368 – Mill City Local Wetlands Inventory Map and Report

- Highway 22 (west end) improvement plans, including bioswale diagram and water filtration/dissipation information.
- Ordinance No. 372 – Amending Comprehensive Plan, Adopting Parks Master Plan.
- SE Fairview Street Improvement Project, including storm drainage upgrades.
- 1st Avenue South Drainage Basin Study

This list will be expanded as additional documents are developed consistent with the TMDL implementation.

EXISTING CONDITIONS: Oregon DEQ has identified temperature as the primary issue requiring attention for the City of Mill City. Bacteria and Mercury are also parameters requiring an action plan within the implementation plan. Before the city staff even heard of the concept "TMDL" the city began working to clean-up, protect and enhance the riparian zones along the North Santiam River. The North Santiam River is the central resource to the city, providing not only an invaluable water source, but also a spectacular recreation and scenic resource for the region. The City has undertaken efforts to reduce water temperature and enhance water quality by protecting existing tree cover and overhanging native shrubbery along the river banks. Because the City of Mill City owns a significant portion of the river frontage, the city has been able to use local volunteer groups to assist with cleaning out non-native plant species such as ivy and Himalayan blackberry. City owned property along the banks of the river includes:

- Kimmel Park river frontage south of the river and east of First Street along Fairview Avenue.
- City Wastewater Treatment Plant related river frontage south of the river and east of Kimmel Park along Fairview Avenue (access from Remine Road).
- City shops property and First Street Pump Station (also known as the old water treatment plant site) at the intersection of South First Street and Wall Street.
- City open space, including the river trail, which fronts the North Santiam along the north bank from NE 5th Street to the eastern City Limits. (Includes the discharge point of Cedar Creek).
- Hammond Park on the west side of First Street which fronts on the north bank of the North Santiam and is a popular location for fishermen and kayakers (take-out) just below Mill City Falls.
- West abutment of the Mill City Pedestrian bridge is a significant, undeveloped, publicly owned space on the south bank of the North Santiam River.

- Point of discharge of Elizabeth Creek into the North Santiam, now in a pipe, is on city property just east of the City shops property.
- Unimproved street (SW 11th Avenue) south of the North Santiam River off of SW Spring Street.

The city has assisted private citizens on request by distributing information on riparian zones, native plant species and wetlands. The city has actively discouraged the removal of existing trees overhanging the water, unless those trees pose a health hazard to the public.

From a planning standpoint, the Planning Commission has been working to define "riparian" and areas within the Urban Growth Boundary in need of protection. The city Planning Commission is also looking at code language to regulate the use of riparian areas; currently the Conditions Covenants and Restrictions within each major subdivision are the only enforcement tool the city has to protect riparian zones. Additionally the city is investigating opportunities to work on riparian restoration projects and is in our third consecutive partnership with Lane Council of Governments (LCOG) on a wetlands study, approved by the Division of State Lands on December 14, 2011 and adopted by the Mill City Council June 11, 2013, which identifies wetlands within the city and surrounding area. This current phase of Wetlands study work with LCOG will continue to focus on owner education. The zoning regulations will establish development standards and review criteria for land use applications.

In addition to temperature, the City of Mill City has gone to extra measures in the design and construction of the new waste water pump stations to assure that there is no potential for bacteria to enter the water source.

The Mill City Sewer Facility includes three pump stations and a waste water treatment plant, all within 200 feet of the river. The system has redundant pumps, back-up power generation and the highest quality equipment to assure that there will not be an overflow that could potentially add bacteria to the North Santiam. In addition, each pump station has an overflow detention facility that will accommodate several hours or longer of effluent storage in the event of system failure. Should the overflow detention ever become necessary to use, it will be cleanable as it backflows back into the wetwell once the system failure is repaired. No one can guarantee that there will never be a spill into the river, but we have tried to anticipate all but the most catastrophic occurrences and design facilities to protect the water quality of the North Santiam.

As described in the "Background" section above, there are four streams that feed into the North Santiam within the Mill City jurisdiction, DeFord Creek, Snake Creek, Cedar Creek and Elizabeth Creek. Restoration work on these four creeks has the potential to limit mercury, bacteria and temperature. Some of the conditions these creeks run through include:

- Clear cut logged hillside
- Commercial development, including service stations

- Ranches where cattle and horses graze into the stream bed
- Homes where runoff from impervious surfaces may be directed toward the stream

According to our conversations and work with the North Santiam Watershed Council (NSWC), the Snake Creek watershed includes some spawning beds needing protection. The City has committed to working with, and local landowners have partnered with, the Watershed Council in efforts to restore and protect these shallow Snake and Deford Creeks which largely pass through farmland and under-developed residential land. Private property owners and The City of Mill City received grants in 2008 from the Marion County Soil and Water Conservation District (MSWCD) to address restoration of Elizabeth Creek. No project is identified for Cedar Creek which drains the hillside to the north of Highway 22 and passes through residential/commercial property in a narrow channel.

In addition to these creeks there are numerous run-off locations that are only wet when there is a storm. Some of these historic "flooding" locations have already been addressed. The City is attempting to address the remaining locations through development of the Stormwater Master Plan and implementation of current best management practices. Lacking funding for specific projects we have been limited to adding the stormwater management to private development and public projects as they come before the City for review.

While the city does not have the resources to fully develop a storm drainage master plan that evaluates all the storm drainage basins in the city, two of the thirteen basins have been more fully evaluated; Spring Street basin, which encompasses the south bank of the North Santiam in the western part of the city and identifies overflow and runoff issues in that area. As funds allow, the City will use our contract engineer to complete individual basin studies for eventual compilation into our overall storm drainage master plan. As proposals for new development have come in, this plan provides guidance for appropriate management of stormwater runoff, and the Snake Creek Basin evaluation.

TMDL IMPLEMENTATION PLAN GOALS: The City of Mill City proposes the following goals:

Improve water temperature in the North Santiam River as outlined in the Willamette Basin North Santiam Sub-basin TMDL and improve water quality in the North Santiam River as outlined in the Willamette Basin TMDL for mercury and bacteria through the following:

1. Protect critical riparian habitat through effective planning, code language, riparian design and code enforcement for private properties abutting the North Santiam River
2. Protect and enhance riparian habitat on City owned properties abutting the North Santiam River and local streams feeding into the North Santiam River.
3. Collaborate with agencies and individuals who are working toward achievement of similar goals in the North Santiam Canyon.

4. Educate and inform the public regarding the importance of protection of the water resource.

5. Develop the TMDL Implementation plan as an ongoing project with a goal of continuous improvement incorporating current best management practices.

IMPLEMENTATION PLAN ACTIONS:

Implementation Matrices

Keeping the above goals in mind, the City proposes to follow the general timeline and actions included on the enclosed Implementation Matrices, attached as Appendix A: Temperature; Appendix B: Bacteria; and Appendix C: Mercury. In general, each management strategy in the matrix has one or more interim goal intended to successfully implement the larger strategy. Sub-tasks and internal processes for each interim goal are not always listed in the matrix, but will often include planning, budgeting and staff assignment. Those functions will be managed internally to meet the stated completion dates.

Evidence of Compliance with Land Use Requirements

All of the strategies discussed in this Plan and listed in the attached matrices A-C are consistent with Mill City's land use plans and development code. The plan underwent review by City staff for consistency with local and statewide land use laws. Any revisions to the Plan will include a review for land use compatibility.

Plan Review, Revision, and Reporting Requirements

This Plan embodies the concept of "Adaptive Management Strategies" in achieving compliance with the TMDL's established for the Willamette River. The matrix anticipates the requirement for an annual report to the DEQ describing the status of the various implementation strategies contemplated. The Plan also anticipates the requirement for the five year evaluation report describing the effectiveness of the contemplated strategies and adaptations to the plan, if strategies are not effective.

The matrix is designed to provide a clear summary to DEQ of the progress made toward each interim goal, and the corresponding management strategy, in the annual reports which will be due each year on the anniversary of the plan implementation approval date from DEQ. In the annual reports, the City will highlight progress made on each strategy's timeline, measure, and milestone by updating the "Status" column and providing any additional comments either in a text report or on the matrix itself. The annual reports will also highlight any new management strategies or interim goals the City develops either as part of adaptive management of the Implementation Plan or as a result of new or revised TMDL requirements from DEQ.

The City will complete a comprehensive review of TMDL Implementation activities and create a summary report every five years. The review will evaluate the effectiveness of this Implementation Plan in making progress toward the water quality goals of the TMDL. The review will provide the basis for revision of this Implementation Plan and will contribute to the adaptive management of TMDL-associated activities. The year five report will take the place of the annual report required for that year and will also summarize the TMDL implementation results from the previous four years.

The City of Mill City will review and revise this Implementation Plan as needed following DEQ reevaluation of the TMDL.

Fiscal Analysis/Resources

The resources necessary for each management strategy are listed in Matrices A-C under the Fiscal Analysis column. Resource requirements included in the matrix are estimates based on the City's current understanding of existing tasks, and future tasks, requirements, staffing and funding levels. Because of this, the resource requirements for each step in the plan will be more fully defined as the City moves forward. Significant changes to resource requirements will be identified in the annual and five-year progress reports to DEQ.

Public Involvement and Outreach

This plan has been acknowledged by the City Council and is posted on the City's website as well as is available at City Hall. Comments from the public will be recorded as input for the City's adaptive management of the TMDL Implementation Plan. Code development, changes, etc will go through a formal public process. As discussed in the plan and illustrated in the matrix, many education and outreach activities that involve the public are currently underway and will continue throughout the period of this Plan.

Stormwater Control Measures

The Willamette Basin TMDL states that cities less than 10,000 in population should consider the six stormwater control measures similar to those required by National Pollutant Discharge Elimination System Municipal Separate Storm Sewer System Discharge Permittees. The control measures are designed to reduce bacteria and mercury contamination of receiving waters. The six control measures are:

1. Pollution prevention in municipal operations
2. Public education and outreach on stormwater impacts
3. Public involvement/participation
4. Illicit Discharge Detection and Elimination (IDDE)
5. Construction site stormwater runoff control
6. Post-construction stormwater management in new development and redevelopment

The City has already initiated some management strategies that directly relate to the six stormwater control measures. Examples of City programs and policies already underway include:

- Pollution prevention in municipal operations (Riparian improvements at City owned parks; Stormwater Master Planning for future attenuation of stormwater; Enhancing collection system of sewer)
- Public education and outreach on stormwater impacts (Provide materials that promote water quality and how it relates to high quality riparian vegetation)
- Public involvement/participation (Collaborating with MSWCD and NSWC)