

## Federal 9 Minimum Elements of Watershed Planning

Watershed: **Portage Lake**

Plan(s): **Portage Lake Watershed Management Plan -- September 2019**

Reviewed by: Greg Goudy

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a. An identification of the causes and sources or groups of similar sources that will need to be controlled to achieve the load reductions estimated in this watershed-based plan (and to achieve any other watershed goals identified in the watershed-based plan). Sources that need to be controlled should be identified at the significant subcategory level with estimates of the extent to which they are present in the watershed.

*Plan(s) meets requirement as demonstrated* **The plan meets this requirement for a watershed where the focus is on protecting good water quality from existing and potential future land use sources of pollution. Pollutant causes and sources are identified, mapped, ranked, and linked to state designated uses as well as local watershed concerns. Michigan's water quality standards are appropriately described.**

*Plan(s) Does Not meet requirement. The following addition information is required.*

b. An estimate of the load reductions expected for the management measures described under paragraph (c) below. Estimates should be provided at the same level as in item (a) above.

*Plan(s) meets requirement as demonstrated* **Pollutant loads were calculated for over a dozen parameters using several methods including modeling land cover runoff, inputs from septic systems, and atmospheric deposition, as well as actual monitoring results of tributaries, all of which well address loads in this small rural lake watershed. Specific actions are proposed throughout the watershed to achieve protection-based load reductions to enhance the already high quality water of the watershed.**

*Plan(s) Does Not meet requirement. The following addition information is required.*

c. A description of the NPS management measures that will need to be implemented to achieve the load reductions estimated under paragraph (b) above (as well as to achieve other watershed goals identified in this watershed-based plan), and an identification (using a map or a description) of the critical areas in which those measures will be needed to implement this plan.

*Plan(s) meets requirement as demonstrated* **Plan goals and objectives are appropriate for protecting the existing good water quality conditions in the watershed. Objectives are linked to goals, pollutants, sources and proposed actions. Appropriate land use management actions and specific tasks linked to objectives are proposed to address pollutant threats. Both priority and critical areas are identified and described, including many site-specific locations. Proposed management measures are comprehensive; include partners, costs, and priorities; have appropriate timeframes; and, outline a strategy for taking the next steps forward in plan implementation. A 'Notes' entry for most tasks adds additional helpful details that can not be fully captured in task descriptions.**

*Plan(s) Does Not meet requirement. The following addition information is required.*

d. An estimate of the amounts of technical and financial assistance needed, associated costs, and/or the sources and authorities that will be relied upon, to implement this plan.

*Plan(s) meets requirement as demonstrated* **Cost estimates are provided for each task and include an overall cost summary table. Organizations and potential partners that could provide technical assistance are identified for each task. There are numerous tasks identified for maintaining partner participation, enhancing capabilities, and overall management of plan implementation.**

*Plan(s) Does Not meet requirement. The following addition information is required.*

e. An information/education component that will be used to enhance public understanding of the project and encourage their early and continued participation in selecting, designing, and implementing the NPS management measures that will be implemented.

*Plan(s) meets requirement as demonstrated* **An information/education strategy is presented in addition to a specific management measures section that includes prioritized tasks with individual costs, general target audiences, general messages, methods of message delivery, and task timelines. This I&E effort is a prioritized part of ongoing plan implementation and future actions.**

*Plan(s) Does Not meet requirement. The following addition information is required.*

f. A schedule for implementing the NPS management measures identified in this plan that is reasonably expeditious.

*Plan(s) meets requirement as demonstrated* **A schedule is provided for each task to facilitate implementation planning and coordination. The task implementation timeline is aggressive, but the plan partners and local community have been very successful in completing past plan tasks and it is expected this success will continue in the future.**

*Plan(s) Does Not meet requirement. The following addition information is required.*

g. A description of interim, measurable milestones for determining whether NPS management measures or other control actions are being implemented.

*Plan(s) meets requirement as demonstrated* **Appropriate interim milestones are identified to help track task implementation. The milestones are measurable and add additional important detail to the task schedules and timelines.**

*Plan(s) Does Not meet requirement. The following addition information is required.*

h. A set of criteria that can be used to determine whether loading reductions are being achieved over time and substantial progress is being made towards attaining water quality standards and, if not, the criteria for determining whether this watershed-based plan needs to be revised or, if a NPS TMDL has been established, whether the NPS TMDL needs to be revised.

*Plan(s) meets requirement as demonstrated* **Numerous environmental criteria have been set based on state water quality standards as well as for desired conditions as appropriate. Since water quality in the watershed is generally better than state standards, the plan goes beyond those, setting three criteria levels for some water quality parameters, such as phosphorus, which does not have a state numerical standard. The three categories are: Acceptable Level, Awareness Level, and Action Level. These numbers are based on historical and ongoing monitoring results throughout the watershed. An annual State of the Lake Report summarizes current conditions.**

*Plan(s) Does Not meet requirement. The following addition information is required.*

i. A monitoring component to evaluate the effectiveness of the implementation efforts over time, measured against the criteria established under item (h) immediately above.

*Plan(s) meets requirement as demonstrated* **There is a thorough discussion of the extensive ongoing environmental monitoring and assessment efforts in the watershed. Future monitoring will characterize existing conditions, fill information gaps, facilitate tracking trends, and detect/evaluate emerging issues. An annual State of the Lake Report summarizes current environmental conditions in the lake and its tributaries. A management framework is already in place and is being used to track plan implementation and modify tasks as needed, including the compilation of an annual status report and fundraising efforts.**

*Plan(s) Does Not meet requirement. The following addition information is required.*