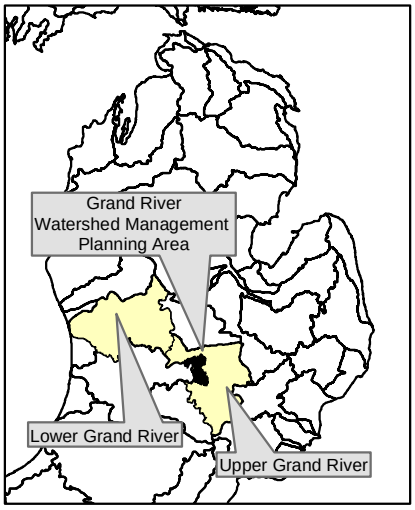
1. Executive Summary

"The significant problems we face cannot be solved at the same level of thinking we were at when they were created."

- Albert Einstein



Michigan Watersheds, Grand River Watershed, Tetra Tech, 2005

The Grand River Watershed is one of three watersheds that were delineated as a result of the formation of the Greater Lansing Regional Committee on Phase II Nonpoint Source Pollution Prevention (GLRC) on May 21, 2004. The GLRC is comprised of 22 political agencies (i.e. communities, drain commissioner's offices, and road commission) that each chose to fulfill the requirements of the Michigan Watershed-Based National Pollutant Discharge Elimination System (NPDES) Phase II Storm Water Permit. The Grand River Watershed contains 12 of the 22 political agencies. Working together as a Grand River Watershed Committee, the permittees have developed this Watershed Management Plan (WMP) to fulfill the permit requirements.

The Grand River Watershed includes both rural and urban areas. Urban land use makes up approximately 34% of the watershed and is mainly located within the City of Lansing, Delta Township and Delhi Township. Water quality monitoring has been and continues to be conducted by the Michigan Department of Environmental Quality (MDEQ), the Michigan Department of Natural Resources (MDNR), and local volunteer monitoring groups to determine the effects of various land uses and specific problem areas. As part of this WMP, the permittees will support water quality monitoring to help show changes in water quality as the WMP is implemented.

Priority water bodies within the watershed include the Grand River and the Carrier Creek. Both of these water bodies have multiple designated uses that are impaired as listed by the MDEQ. The Grand River is impaired for 'Warm Water Fishery' and 'Total and Partial Body Contact'. The Carrier Creek is impaired for 'Warm Water Fishery'. It is anticipated that successful completion of the WMP will help protect and restore designated uses of the water bodies within the Grand River Watershed.

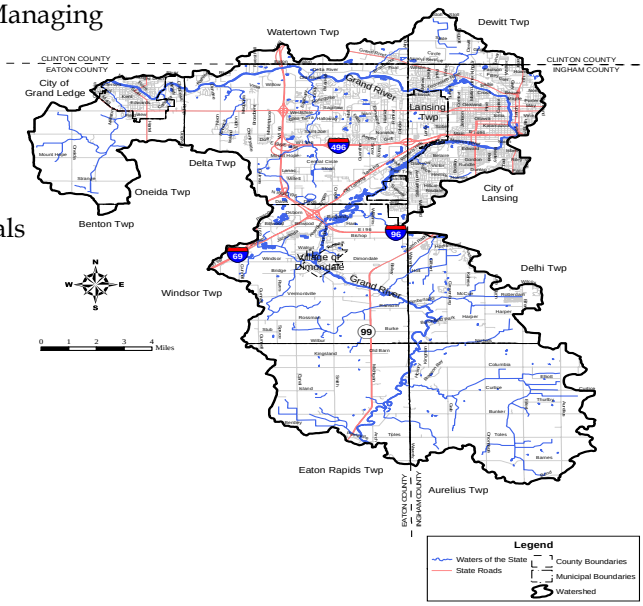
The Grand River Watershed has a number of key problems which are discussed in detail in Section 4. Macroinvertebrate and fish communities are only as strong as the habitat available to them in the river corridor. Within that portion of the Grand River Watershed covered under this plan, the habitat ranged from good to poor. This mixed bag of data tells us that there are areas of the watershed that need protection while other areas need restoration. Poor habitat is evident in the Reynolds Drain as well as Carrier Creek near I-496. Macroinvertebrate and fish populations in these waterbodies are rated poor to fair. Since 1950, there have been several reports of fish kills in the Grand River, each of which lead to water quality investigations. Areas of poor macroinvertebrate populations in the Grand River, shown by past studies, include the confluence of the Red Cedar River, and the Lansing Wastewater Treatment Plant (WWTP). More recent studies show that water quality in the Grand River has significantly improved near the Lansing WWTP.

Development of the WMP and the decision making process of the watershed committee has involved input from the general public and the stakeholders. Public meetings were held at the start of the WMP development and again near completion of the WMP, and three stakeholder workshops were held throughout the planning process. At these meetings,

the WMP stakeholders and the general public expressed their concerns and vision for the watershed which includes having swimmable and fishable water bodies and significant public education as top priorities. In addition to the vision of the general public and stakeholders, consideration was given to the restoration and protection of the designated uses of the water bodies. The following goals were developed through the public participation and input process:

- Educate the Public about the Importance of Protecting and Managing the Watershed.
- Provide a Sustainable and Equitable Funding Source
- Encourage Water Quality Friendly Development
- Restore and Enhance Recreational Uses Through Development of a Watershed Recreation Plan
- Protect and Enhance Habitat for Wildlife and Aquatic Animals Through Development of a Watershed Habitat Plan
- Protect and Increase Wetlands Through Development of a Watershed Habitat Plan
- Provide Pollution Prevention/Good Housekeeping Practices for Municipal Operations
- Strive to Eliminate Pathogens to Meet Total and Partial Body Contact for Recreational Uses
- Encourage Water Quality Friendly Agricultural Practices

Figure 1-1 Watershed Location Map



The goals and objectives were then used to guide the development of the Action Plan in Section 8. The Action Plan is a comprehensive set of actions which support the nine goals and subordinate objectives for the watershed. The goals listed above include the following actions: developing a public education campaign; a funding strategy; development standards; riparian recreation and habitat projects; pollution prevention practices; an illicit discharge elimination program; and agricultural best management practices. The actions are presented in a table under their corresponding goal and objective and are accompanied by a schedule, responsible party, evaluation mechanism, and cost. Permittees are expected to incorporate portions of the WMP Action Plan, which are applicable to their agency, into their individual Storm Water Pollution Prevention Initiatives (SWPPI).

Implementation of the WMP will be predominately through sub-committee actions as discussed in Section 10 of this WMP. As part of the WMP Action Plan, a funding strategy will be developed for procuring start-up and continual funding for WMP implementation. The GLRC currently uses a funding allocation formula based on population and land area of the permitted communities within the watershed.

The GLRC will continue to oversee watershed management throughout the tri-county region under their current organizational structure but will consider additional or alternate legal organizational structures if necessary to implement the WMP in the future. This WMP is intended to be a fluid adaptive document that can be changed as needs arise.