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Cass, VanBuren Counties
Date January 6, 2004

Jurisdiction

The geographic scope of the interview was St. Joseph County, Michigan and the portion of Kalamazoo County in the Watershed. The counties are adjacent and include the Rocky River, Portage River, Gourdneck Creek and Nottawa Creek Subwatersheds. The St. Joseph River flows southwesterly from the northeast portion of St. Joseph County to Three Rivers. It then flows south from Three Rivers. They counties lie in the Middle and Upper River Valley Segments. The region supports the largest area of seed corn production east of the Mississippi River. Soils in the Middle Segment (western and central portions of the counties) are sandy and drain well. Soils along the eastern side of the county contain more clays and have historically been tilled. The southern portions of the City of Portage and the Villages of Schoolcraft and Vicksburg lie in Kalamazoo County. The City of Three Rivers and the Villages of Constantine, White Pigeon, Mendon, Centreville, Colon and Burr Oak lie in St. Joseph County.

Projects/beneficial watershed features

A Watershed Management Plan has been completed for the Rocky River Watershed. It has identified that the watershed contains little impairments and good riparian buffers. Fabius Township, in St. Joseph County, is in the process of completing its Master Plan which was based on a Natural Resources Inventory and wetlands inventory, in part. The plan identified scenic views, farmland preservation areas, wildlife corridors and wetland to preserve. It incorporates preexisting wetlands and floodplain ordinances. Ordinances regarding Conservation by Design were suggested for the Plan, but not incorporated into it. A St. Joseph County land use policy task force was established and produced policy recommendations regarding county-wide land use. The county has not yet determined how it will use the recommendations.

Kalamazoo County contains the Gourdneck State Game Area, approximately 9,000 acres of protected forest and wetlands. The county has also received grants to conduct extensive bacterial sampling of beaches and rivers. The City of Kalamazoo is developing a wellhead protection ordinance, which will likely be adopted by townships in the county. It restricts certain land uses within the 1-, 5- and 10-year zones of capture of well fields. It will also include restrictions on application of biosolids.

It has been noted that overapplication of phosphorus and pesticides has ceased. Management of livestock and cropping systems has improved over time. Producers are beginning to utilized the MAEAPs certification program, which involves the development of Comprehensive Nutrient Management Plans. The program is voluntary, but has seen widespread participation. It was noted that some producers do not wish to participate, but are those who are most diligent about protecting water quality in lieu of the program. The first producer to earn certification in both the livestock and farmstead programs of the MEAPs is located in Kalamazoo County, and several good Comprehensive Nutrient Management Plans have been written. It has also been noted that nitrate levels in groundwater have been decreasing, and not considered a major concern.

The Right to Farm Act has resulted in a lack of township control of agricultural lands, as it was noted that township restrictions were generally not based on water quality parameters. Most producers in the counties utilize Generally Accepted Agricultural Management Practices, which have been developed with water quality in mind. Irrigation legislation, in which producers pumping at a certain rate are required to report those rates, has helped assure that aquifers are not overtaxed.

Challenges in the watershed

It was noted that more wind breaks are needed in Kalamazoo County, especially Prairie Ronde Township, where wind erosion is noted. However, typically wind breaks restrict irrigation. Some breaks have been installed in the county with plant species that do not exceed fifteen feet in height, thus providing clearance for pivot irrigation. It was also noted that many agricultural fields were historically tiled in the eastern side of Kalamazoo County. As the location of the tiles were not mapped, their location is not always known. This had resulted in nutrient inputs to surface waters where manure has been applied over tiles.

It was noted that few problematic animal access sites existing in the counties. There were only two located in the Rocky River Watershed, and one of the landowners is seeking funding for fencing. High pathogen levels have typically been tied to waterfowl and septic systems. An extensive waterfowl population was noted at the Memory Isle Park in the City of Three Rivers. The city has recognized the problem and is working on strategies to address it. It was noted that public perception often links high *E. coli* counts to agriculture. In St. Joseph County, it was noted that there is a public perception that diesel spills at irrigation pumps is a major concern. One to two spills have occurred over the past year, due to equipment failures. St. Joseph County contains a substantial number of irrigation pumps along rivers. They are stationary and typically located up on the banks above the river. Five of these such pumps are located on the Rocky River, which is not a heavily irrigated watershed. It was suggested that earthen dikes be constructed around the pumps to prevent spills from directly reaching the river. However, these spills occur very infrequently. There are no known irrigation pumps on rivers in Kalamazoo County. There are some on ponds and several which pump groundwater.

Agricultural protection ordinances for large parcels of land do not exist in Kalamazoo County. It was noted that two acres of preserved land is the approximate maximum for residential lot size requirements. This is due to a strong Home Builders Association in the county. Building in floodplains has been identified as a problem. However, it was noted that floodplain maps are rarely accurate because ongoing development causes the floodplains to change.

Some road-stream crossings were also noted to be improperly designed. Many are undersized and result in erosion. An example of an undersized culvert, which was almost entirely full during dry weather, was noted along Flowerfield Creek.

Additional Needs for the Jurisdiction

An electronic resource for environmental professionals is needed in which information on watershed education can be found. Professionals could use a password to submit and retrieve information on topics such as geese control, stormwater and elementary education topics. This would aid future Section 319 projects, which are typically required to produce educational materials. This could avoid duplications in project activities and help professionals find resource more rapidly.

It was noted that a Homeowners Resource Packet should be developed, as well. This would include materials on native landscaping, proper lawn care, stormwater and other topics. It could also include lists of regulatory contact for particular purposes. Packets could be geared toward particular land uses, such as urban, rural and riparian, and distributed to Realtors or neighborhood associations.

Storm drain stenciling programs were also recommended.