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**MEETING MINUTES**

## Livingston County Phase II Watershed Planning Efforts Upper-2 Shiawassee River Watershed Initiative Public Meeting No. 2

Date: 5/4/05

Time: 7:00pm

Meeting Held: Howell Township Hall

HRC Job No. 20030566.26

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### Introduction to Watershed Planning Initiative

- Brian Jonckheere, Livingston County Drain Commissioner, welcomed attendees and provided an introduction to the watershed planning efforts being conducted throughout the County. An overview of the Phase II Stormwater Regulations was provided—one of the requirements of Phase II is the development of a Watershed Management Plan (WMP).
- Mr. Jonckheere began by introducing attendees to the “watershed concept”—where all precipitation (rain water and snowmelt) within a given topographical boundary runs off to a common drainage point. He made the very important point that the way the land is used and managed within that drainage basin, or watershed, highly dictates the water quality of the region.
- As a result of the realization that land practices dictate much of the water quality, what are called “nonpoint source pollutants” were identified. These pollutants can come from everywhere—which means it is much more difficult to manage—as opposed to point source pollutants, which are much easier to track and eliminate because they typically come from one point of discharge.
- In order to reduce the impacts from point and nonpoint source discharges, a variety of legislative initiatives were put into place that go as far back as 1972 with the creation of the Federal Clean Water Act. This act required permits for point source discharges to waters of the State. In 1990, an amendment was made to this Act, called Phase I, where municipal discharges with populations greater than 100,000 people had to have a permit to discharge their storm water. In 1999, the Phase II final rule was introduced which mandated that small municipal storm water drainage entities (populations less than 100,000 people, and outside of Phase I permitted areas) were required to obtain a permit for their storm water discharges to receiving waters of the State. All communities that have “urbanized area” were required to file an application for permit coverage by March 10, 2003. Both watershed groups for the County have been meeting for the past two years to prepare for and begin fulfilling the permit requirements.

- To comply with the Phase II requirements, Livingston County has chosen to take a watershed approach to managing their stormwater, meaning that there is a partnership between watershed communities instead of limiting actions only within jurisdictional boundaries. This approach is not only a cost savings to the communities, but also aims to produce a more comprehensive management approach to addressing water quality problems on a watershed-wide basis. One of the most important aspects of watershed management is help from the public to develop the Plan, as well as to implement it. Public support is crucial to the success of a management plan. During the course of development of the WMP, it is crucial to include input from the stakeholders (citizens, business, planning commissions, etc.) that shape the contents and recommendations that will be included in the WMP. The purpose of today's meeting was to do just that.
- One of the most important aspects of watershed management is educating those that live and work in the watershed. In addition, a large goal is to promote simple changes in personal behaviors that act to ensure watershed-friendly practices such as:
  - Lawn care (i.e. fertilizers and pesticides handling and application)
  - Car Maintenance (i.e. grease, oils, soaps, detergents)
  - Waste Disposal (i.e. household hazardous waste, pet waste disposal, manure management)
- Mr. Jonckheere stated that overall water quality for the County is good, but there are definitely a number of threats to the water resources, and with all the growth in the County, a forefront of the management will need to focus on current and future land use and how development is managed.

### **Overview of the Upper-2 Shiawassee River Watershed Plan**

Jacy Paul of Hubbell, Roth & Clark, Inc., the consulting firm that is coordinating the watershed planning efforts with the watershed communities, gave an overview of the components of the watershed plan. The Plan is due to be submitted to the Michigan Department of Environmental Quality (MDEQ) by November 1, 2005. A summary of those components is as follows:

#### *Geographic Scope of the Watershed*

- Watershed spans 13 communities, of which 5 communities (Hartland, Howell, Marion, Oceola and Tyrone Townships) and 2 agencies (Livingston County Road Commission and Drain Commission) are regulated by the Phase II regulations.
- There are eight (8) individual subwatersheds that make up the watershed. There are two discharge points that drain to the main branch Shiawassee River in Genesee and Shiawassee Counties. All drainage ultimately goes north out of Livingston County.
- Overall watershed area is 220 square miles (roughly 150,000 acres) with the subwatersheds ranging in size from 12 to 60 square miles.

#### *Current and Future Land Use*

- Current Land Use:

- **48.8% Open Space** (woodland, wetland, grassland, shrub, water, cultural and recreational land—basically any land that is undeveloped, except for agriculture);
- **28.3% Agricultural**
- **22.9% Developed land** (residential, commercial, industrial, transportation [roadways])
- Future Land Use:
  - The most rapidly growing Townships, in order of the highest rate of growth, are Oceola, Marion, Hartland, Genoa and Tyrone.
  - The most urbanized areas will occur in Howell, Genoa and Hartland Townships, as well as the City of Howell. These areas are projected to have the greatest amount of impact on water quality if measures to protect water quality are overlooked.

#### *Land Use Planning Initiatives*

- Land Use Planning must address storm water management and protection of water quality and quantities from degrading the water resources, as well as addressing natural resource protection to protect water quality and quality of life for the residents of the area.
- Suggestions regarding smart growth principles, low-impact development, watershed-based zoning and cooperation among planning commissions/boards and township officials occur beyond jurisdictional boundaries.

#### *Pollutant Impairments/Threats to Water Quality*

- Impairments to Water Quality as determined by the MDEQ:
  - Toxic chemicals—polychlorinated biphenyls (PCBs) and hexavalent chromium (Chromium VI)
  - Poor fish and macroinvertebrate communities in some stream reaches
- Threats to Water Quality:
  - Land Use Changes that increase impervious surfaces and create loss of natural features
  - Soil erosion and sedimentation
  - Nutrient inputs
  - Bacteria and pathogens
- Most common sources of pollutants:
  - Development/Construction (loss of natural features, soil erosion, etc.)
  - Residential/Commercial areas (Grease, oils, fertilizers, etc.)
  - Agriculture (soil erosion, nutrients, etc.)
  - Septic systems or land-application of seepage sites (nutrients, bacteria/pathogens, etc.)

#### *Watershed Plan Goals and Objectives*

- Goals and Objectives of the plan are outlined to ensure that waters of the state are meeting water quality standards (WQS) and a set of “Designated Uses” for water.
  - In the watershed, the following designated uses for water are addressed:
    - Warmwater fishery
    - Aquatic life and other indigenous wildlife
    - Partial body contact recreation
    - Total body contact recreation (full head immersion)
  - A series of “Desired Uses” in the watershed have also been identified to be addressed in the Plan:
    - Protection of the public drinking water supply (groundwater)

- Preservation of rural character
- Increased opportunities for passive and active recreation

*Selection of Best Management Practices (BMPs) to Address Problems/Concerns*

- BMPs may include educational initiatives or vegetative or structural practices put in place to reduce the discharge of pollutants to surface waters of the state to the maximum extent practicable (MEP).
- Regulated watershed-communities will be required to select appropriate BMPs that will address water quality and quantity threats and impairments.
- Some examples are provided below:
  - On-site storm water runoff controls, such as detention ponds or rain gardens, that reduce storm water runoff quantities or improve runoff quality;
  - Illicit discharge elimination program implementation that ensures illegal/improper connections to storm sewer systems from sanitary systems are disconnected. These connections are a threat to public health and impair water quality by the introduction of excess nutrients and pathogens;
  - Municipal operations such as catch basin cleaning and street sweeping programs to reduce the amount of sediment or trash/debris from getting into streams/lakes from storm water runoff traveling through storm sewer systems.

*Critical Areas*

- Critical areas are identified in a watershed plan in an effort to prioritize areas of concern and that will be addressed first when the watershed plan is implemented. Preliminary critical areas have been identified for the watershed and are included in the table below:

**Table 1 Critical Areas in the Upper-2 Shiawassee River Watershed**

Subwatershed	Location	Problem/Concern Cited
South Branch Shiawassee River	1. From the vicinity of the City of Howell downstream to the main branch Shiawassee River	1.1 FCA for PCBs (contaminated river and floodplain sediments)
	2. From Mason Road upstream to the Marion and Genoa Drain	2.1a Poor macroinvertebrate community (2007 TMDL)
		2.1b Hexavalent chromium contamination (2007 TMDL)
	3. From M-59 upstream to Pinckney Road	3.1 Poor fish community (2007 TMDL)
	4. Road/Stream Crossing: SB-07	4.1 Residential lawn manicured to edge of stream
	5. Road/Stream Crossing: SB-15	5.1 "Please Feed the Ducks" graffiti on guardrail of bridge
	6. Entire Subwatershed	6.1 Land Use Planning
6.2 Protection of Priority I High-Quality Natural Areas and riparian corridors		
Marion and Genoa Drain	1. From the confluence with the South Branch Shiawassee River upstream to the stormwater discharge pipe just upstream of Howell WWTP Outfall 001	1.1a Hexavalent chromium contamination (2007 TMDL) of soils and groundwater at Diamond Chrome Plating Facility, also affected stream water quality through storm water runoff discharge from property
		1.1b Poor macroinvertebrate community (2007 TMDL)
	2. Road/Stream Crossing: MG-17	2.1 Hydromodifications upstream and downstream of crossing
	3. Entire Subwatershed	3.1 Land Use Planning
3.2 Protection of Priority I High-Quality Natural Areas and riparian corridors		
Bogue Creek	1. Thompson Lake in the vicinity of the City of Howell	1.1 FCA for PCBs ( 2009 TMDL, contaminated lake sediments)
	2. Road/Stream Crossing: BC-09	2.1 Large woody debris blocking 1 of 2 culverts— flow restricted
	3. Road/Stream Crossing: BC-11	3.1 Residential lawn manicured to edge of stream
	4. Entire Subwatershed	4.1 Flashy Hydrology
4.2 Land Use Planning		
4.3 Protection of Priority I High-Quality Natural Areas and riparian corridors		
Yellow River Drain	1. Road/Stream Crossing: YR-01	1.1 Erosion and sedimentation of east bank at downstream end of road crossing
	2. Road/Stream Crossing: YR-05	2.1 Bridge scupper drains provide direct conduit for sediment to wash into stream below
	3. Entire Subwatershed	3.1 Land Use Planning
3.2 Protection of Priority I High-Quality Natural Areas and riparian corridors		

**Table 1 Critical Areas in the Upper-2 Shiawassee River Watershed (continued)**

Subwatershed	Location	Problem/Concern Cited
Cranberry Creek	1. From Yellow River Drain confluence upstream seven (7) miles	1.1 Poor fish community (2007 TMDL)
	2. Road/Stream Crossing: CC-02	2.1 Bridge scupper drains provide direct conduit for sediment to wash into stream below
	3. Entire Subwatershed	3.1 Land Use Planning
		3.2 Protection of Priority I High-Quality Natural Areas and riparian corridors
4. Upstream Reaches	4.1 Reported by MDEQ to be heavily impacted by agricultural runoff	
North Ore Creek	1. Road/Stream Crossing: NO-07	1.1 Trash/Debris (construction barrel and grass clippings) instream at downstream end of road crossing
	2. Entire Subwatershed	2.1 Flashy Hydrology
		2.2 Land Use Planning
		2.3 Protection of Priority I High-Quality Natural Areas and riparian corridors
Denton Creek	1. Road/Stream Crossing: DC-02	1.1a Impervious surfaces cover streambanks at upstream and downstream ends—no vegetation to filter stormwater runoff
		1.1b Utility line runs above stream in open air (downstream end)
	2. Entire Subwatershed	2.1 Land Use Planning
		2.2 Protection of Priority I High-Quality Natural Areas and riparian corridors

*Educational Opportunities and Additional Resources*

- A series of upcoming opportunities to learn more about watershed planning and watershed stewardship were discussed and are provided below, in addition, a series of web links were given to attendees to learn more information (those links will be included in a separate document attached to these minutes):
  - **Livingston Clean Waterfest 2005:** June 11, 2005 at the Howell City Park—hosted by the Livingston County Drain Commissioner’s office and a number of local sponsors, a host of activities will be occurring on this day:
    - Fishing contest,
    - Tour of MHOG wastewater treatment plant,
    - Information booths manned by MDEQ, Michigan Lakes and Streams, Ducks Unlimited, etc.
    - Games and activities for children (and adults) of all ages to learn about water quality;
  - **Watershed Management Short Course:**
    - Two sessions are being held:
      - Session I: Mondays, May 16 – June 13 (Basic Training)
      - Session II: Thursdays, Sept. 7 – 28 (Advanced/Specialized Training)

- Attendance is recommended for local officials, residents and landowners, educators and teachers, builders and developers, real estate agents, and anyone concerned with water quality and land use issues in the Livingston County watersheds.
- Sessions will cover the following topics:
  - Watershed management
  - Hydrological features and functions
  - Common water quality parameters
  - Watershed management plans
  - Best management practices for water quality
  - Being active in your watershed
  - Stormwater management
  - Land use planning for water quality
  - Government departments & organizations that address water issues
  - Flooding issues
  - Volunteer opportunities.
- Contact info for Course: Mike Gaden with the MSU-Extension office at 517.546.3950 or [gaden@msu.edu](mailto:gaden@msu.edu).

## Discussion

Attendees were given the opportunity to voice their water and natural resource concerns in the watershed, provided below are a summary of those concerns:

- Uncontrolled Growth and Development and related Urban Sprawl
- Lack of enforcement of local ordinances (soil erosion, loss of natural features, etc.)
- Water quality protection
- Storm water runoff into area lakes from roadways
- Road salt in runoff discharging to area lakes
- Communication among jurisdictions during Land Use Planning process
- Residents interested to learn more about the resources available to conduct water quality studies on area lakes
- Concern regarding lack of education in township officials and land use planning boards and commissions as it relates to storm water management.

All of these issues will be addressed to the maximum extent practicable in the watershed plan.

These minutes are intended to be a summary of those items discussed. Any corrections and/or comments should be noted to the writer as soon as possible.

Respectfully submitted,

HUBBELL, ROTH & CLARK, INC.

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Jacy L. Paul

JLP/jp

pc: All present  
HRC; W. Stone; J. Booth; File