

Engineering & Environmental Services Department

2010 Annual Report



MISSION STATEMENT

Our mission is to provide professional engineering and environmental services in a respectful and efficient manner, which safeguards the Township's public infrastructure and natural resources for the well-being of our residents.



Engineering and Environmental Services Department Staff

The following are current EESD employees with their years of Township service included.

Wayne Domine PE, Director (19 years)

Department Head and Township Engineer, responsible for supervising the overall activities of the department in the implementation of engineering and environmental services, in conjunction with the Township's water supply system, sanitary sewer system, watershed management, and other public works activities.

Lance Scram, Project Coordinator (13 years)

Coordinates the project administration and field oversight of Township contracted public works projects with consultants, contractors and customers including the Township safety path and concrete repair programs. *Also, assisted the Department of Public Works with snow removal activities during 2009 and 2010.*

Olivia Olsztyn-Budry, PE, Staff Engineer (3 years)

Manages engineering services with consultants, contractors and customers during the construction of public improvement projects. Provides technical support associated with the planning and construction of public improvements and review of site development projects submitted for Building Permits. *Also, responsible for reviewing Building Permit applications on behalf of the D.P.W. - Water Division.*

Noah Mehalski, Environmental Specialist, Ordinance Officer (3 years)

Responsible for implementing the activities involving management of the Township's environmental programs to meet regulatory compliance in conjunction with the Township's Phase II Watershed-based Storm Water permit, wetlands, pest management, woodlands, and protection of other natural features. *Also, was sworn in as an Ordinance Officer in 2009 to assist the Planning, Building & Ordinance Department.*

Engineering and Environmental Services Department

The Engineering and Environmental Services Department (EESD) provides engineering and environmental support to Bloomfield Township residents, local businesses, commercial developments, and other Township departments. The department manages Township capital improvement projects, provides construction administration, and coordinates a variety of services. The EESD also provides technical oversight and manages several programs that have a potential impact on our community's public health and environment. Below are some of the services and programs provided by the EESD:

Services:

- Perform site plan reviews for new developments
- Review wetland permit and right-of-way permit applications
- Construction administration for public improvements
- Provide technical support to Lake Improvement Boards
- Review and apply for grant funding opportunities
- Provide technical assistance for the National Flood Insurance Program (NFIP)
- Provide assistance for miscellaneous residential concerns (Emerald Ash Borer, flooding/drainage, natural features, etc)
- Coordinate projects with other public agencies

Programs:

- Water System Capital Improvement Program
- Sanitary Sewer Rehabilitation Program
- Safety Path Construction Program
- Road Improvement Program
- Coordinate data acquisition for utility mapping
- Manage/coordinate Special Assessment Districts (SAD)/Escrow Accounts (EA)
- Manage Phase II Storm Water Permit requirements
- Gypsy Moth Management Program
- West Nile Virus Management Program
- Review of Wetland Permit applications
- Wetland inventory mapping updates
- Hazard mitigation planning projects
- Water Quality Monitoring activities
- Tree Preservation & Protection Ordinance management
- Fertilizer Ordinance management

Support and Technical Assistance

The EESD supports other departments in the review of projects that seek permits from the Township. In cooperation with the Planning, Building & Ordinance Department and Department of Public Works, the EESD reviewed 66 applications for building permits, 17 applications for right-of-way disturbance permits, 4 applications for Wetland Permits, and 35 Tree Permit applications. The EESD also facilitates the Township Wetland Committee meetings and performs site inspections for these projects. The EESD also has a sworn Ordinance Officer on staff to assist the Ordinance Division with natural resource related enforcement concerns. Additionally, one EESD staff member was utilized in the winter of 2010 by the DPW for snow removal activities.

In 2010, EESD staff provided technical support to the DPW Water Division throughout several emergency water and sewer repairs. In addition, EESD staff provides assistance to residents regarding connection to Township water and sewer services, drainage concerns impacting their property, and natural resource development regulations. EESD staff also provided project management and technical direction during the replacement and upgrading of public utilities. The EESD also works collaboratively with other jurisdictions, including MDOT, DWSD, and the Water Resource Commissioner's office.

Escrow Accounts

Escrow accounts are established to retain funds from applicants in the administration and construction oversight of private developments. In 2010, the EESD managed 8 escrow accounts. Below is a brief summary for each.

2010 Escrow Accounts

EA#	EA Name	Deposit	Description
836	Telegraph Reconstruction - North	\$ 8,800.00	Construction Inspection/Utility Coordination
837	Telegraph Reconstruction - South	\$ 5,300.00	Construction Inspection/Utility Coordination
838	Bowers Farm Water and Sewer Extensions	\$ 7,500.00	Fire suppression and sewer main
840	Brother Rice Fire Hydrant Extension	\$ 3,900.00	Fire suppression and hydrant
842	37000 Woodward Development	\$ 14,000.00	Site Development; water main
843	1330 Oxford Sanitary Sewer Extension	\$ 2,000.00	Sanitary sewer extension
844	Tim Horton's Development	\$ 3,000.00	Site development
845	Bloomfield Town Square: Dick's Sporting Goods	\$ 1,200.00	Sanitary sewer and hydrant relocation

Construction Cost Summary

The Engineering and Environmental Services Department provides construction oversight and management to a variety of projects. Some key programs include: safety path construction and replacement, water system improvements, special assessment district project oversight, and tri-party road construction projects. The EESD managed over \$8,000,000 in project funds during 2010.

Woodward Water Main Extension South Berkshire to Highland Drive

Project Cost: \$117,000

The Township's Water System Reliability Study (2001) recommended the water supply system to be looped from the west side to the east side of Woodward Avenue, north of Square Lake Road, in order to sustain sufficient pressures at the north end of the Township. A new safety path was constructed along the west side of Woodward from Highland to Square Lake Road the summer of 2010. The installation of a new water main prior to the safety path construction along this route was practical and cost effective. The project consisted of directional boring over 1,300



feet of eight-inch water main from S. Berkshire Drive to Highland Drive along the west side of Woodward Avenue. The new water main connected to the existing mains that cross Woodward near both of the two streets. Funding for this project is part of the Water & Sewer's Improvement & Replacement Fund dedicated for the water system capital improvement program.

SOCWA Contract for Water Supply

Project Cost: No Outside Costs

Bloomfield Township has been a wholesale water customer with DWSD since 1964. In recent years, the Township has been exploring the possibilities of how to serve the Township's water system from the SOCWA water system at a reduced cost. In the fall of 2010, DWSD approved the request for Bloomfield Township to terminate our contract with DWSD beginning July 1, 2011. This allowed Bloomfield Township to negotiate an agreement to become a customer of SOCWA shortly after. SOCWA will officially begin providing water to Bloomfield Township starting July 1, 2011. This can result in a reduction of the water rate by approximately 20%.

SOCWA Agreement and Study

Agreement Service Fee: \$195,000 per year for three years

Study Cost: \$47,000

Part of becoming a customer of SOCWA, Bloomfield Township entered into an agreement with SOCWA which had several requirements and goals set within it. The requirements included that Bloomfield Township pay a one-time "service fee", connect to the SOCWA water supply system, connect to the Bloomfield Hills water supply system, agree to work with the city of Bloomfield Hills to integrate the two water systems, and possibly remove at least one of the DWSD connections.

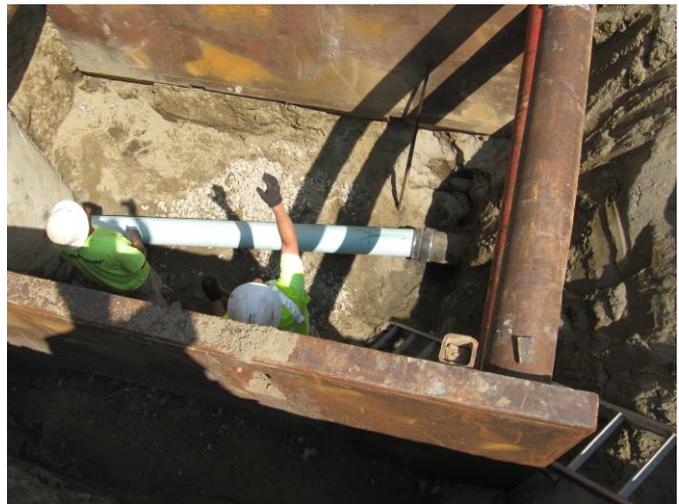
The service fee was addressed in the agreement between Bloomfield Township and SOCWA. To meet the other three requirements, Bloomfield Township contracted with HRC to study the existing Township water system and evaluate the most economical and supply beneficial connection points. Part of the study involves reviewing possible connection points to the SOCWA system on the Bloomfield Hills water system, resulting in one connection meeting both requirements. The study involves reviewing existing data, modeling the water system and partnering with the Water Division in obtaining current pressures and flows by conducting hydrant flow tests. Work on the study on a future connection will continue into 2011.

Telegraph and Maple Sanitary Sewer Repair

Project Cost: \$60,000

During routine inspection, a sanitary sewer located under the north bound lanes of Telegraph Road south of the Maple Road intersection was identified as needing repair. Replacing the sanitary sewer without disturbing Telegraph Road would require easements from the adjacent property owner, which the Township was unsuccessful in obtaining.

Upon notification from MDOT that portions of Telegraph Road would be reconstructed in 2010, the Township requested use of the existing traffic control for the MDOT work to open cut and replace the damaged sanitary sewer, which would require no easements. MDOT approved this request, and the Township coordinated our contractor with MDOT to replace a portion of the sewer without causing additional disruption in Telegraph Road Traffic. The sewer was then lined to extend its useful life under Telegraph Road. MDOT's pavement contractor performed the



pavement repair over the sewer relocation, thereby saving the Township money on hiring a separate contractor and paying the costs for mobilization.

Oakland County Interceptor Sewer Repairs

Project Cost: WRC Project

In late 2010, Bloomfield Township was made aware of two County Sanitary Sewer Interceptor sewers needing emergency repair. The first was located along the east side of Lahser Road between Long Lake and Lone Pine Roads. The second repair was along the private properties between Telegraph and Shallowbrook Roads. The County managed both projects. Coordination was required at times from several Township Departments such as Engineering and Environmental, and Public Works. The second sewer was located within a wetland, requiring review and exemption of the wetland permit necessary for the emergency sewer repair. These repairs benefit Bloomfield Township since the Township owns several sanitary sewers that discharge to the County Interceptor as well as individual homes being directly connected.

Exeter Road Reconstruction Tri-Party Agreement

Project Cost: \$205,000

In 2009 Bloomfield Township was made aware that funding from the County Tri-Party program was available. The Township selected Exeter and Andover Roads for reconstruction. In the summer of 2010, the Township received public bids for the work. The bids came in higher than the available tri-party funding, so the project scope was reduced to the reconstruction of Exeter Road only. The work began late summer and was completed early October.

Oakland County Recovery Zone Bond Sale: Bloomfield Township CSO Chapter 20 Drainage District Rehabilitation Project

Project Cost: \$3,000,000

Bloomfield Township partnered with Oakland County in obtaining Recovery Zone Bonds for sanitary sewer rehabilitation. By utilizing the bonds available from Oakland County, the Township receives a rebate on the bond interest rate. Oakland County also funds a portion of the project leaving the Township's portion to only 77% of the total costs. The area selected for the project is the Bloomfield Township Chapter 20 Drainage District which includes Oakland Hills Country Club, Bloomfield Village, Westchester and surrounding subdivisions within the combined sewer district. The scope of the project includes cleaning, inspecting and rehabilitating sanitary sewers and manholes in order to reduce infiltration and inflow (I/I) and restore structural integrity of the aging sewer system. The existing sewers still in service were originally installed as early as the 1920's. The selected sewers include those that were slated for reinspection from the 1996 rehabilitation project as well as those identified needing repair. Inspection began in the summer of 2010 and the remaining inspection and rehabilitation will continue through fall 2011.

Rouge Program Office Round 10 Grant – Hickory Heights Area Sewer Rehabilitation

Project Cost: \$770,000

Grant: \$391,000

In 2010 Bloomfield Township applied for, and was awarded, a federal grant from Wayne County's Rouge Program Office. The grant funds up to 40% of a project to reduce I/I from sanitary sewers. Reduction of I/I is necessary since the Oakland County Water Resource Commissioner's Office now bills the Township for sewage based on sewer meters. Inflow and infiltration is ground water or rain water that can be discharged to rivers and lakes without being treated. Any I/I that is collected by the sanitary sewer is unnecessarily being treated as sewage, adding to the sewage expense paid for by the sewer customers, i.e. residents. The project area includes the Hickory Heights Subdivision and surrounding area between Adams and Squirrel roads and Long Lake to Wattles roads. A majority of the sewer rehabilitation will be performed by no-dig technologies, in which equipment is inserted into the manholes and the sewer pipe rehabilitated from within. These practices include grouting joints or lining the sewer with a resin filled felt liner. A few areas will require the pipe to be replaced. The grant application was made and the project designed and bid in 2010. Work will begin in spring of 2011 and continue through fall 2011.

MDOT Water Main Replacement

Project Cost: MDOT Project

As part of the MDOT project to reconstruct the north bound lanes of Telegraph Road north of Square Lake Road, MDOT relocated a portion of Bloomfield Township's existing water main. The motivation for the water main relocation and reason the expense was paid by MDOT was to remove the existing water main from under the newly paved lanes of Telegraph road. The water main was relocated to under the medians of Telegraph Road. A new connection was made to the transmission line that supplies the area. The exiting water main was abandoned.



WRC EFSDS Participation

Project Cost: No Outside Cost

In 2008, the WRC's office unveiled a new method of billing communities for sewage disposal to the Evergreen Farmington Sewage Disposal System (EFSDS). Historically, communities have been billed on sewage based on water consumption. The WRC's office

has installed approximately eighty sanitary sewer flow meters throughout the EFSDS with over a dozen meters located in the Township. The flow meters collect sewage flow data and through a mathematical equation known as "mass flow balancing" the WRC calculates the sewage flows from each community.

The EESD has continued to work with other communities and the WRC's office to refine and improve the metering system and calculations used to equate sewage flows to the communities. The EESD actively participates in the EFSDS Technical meetings, Flow Based Billing Workgroup meetings, CSO RTB Workgroup meetings, and general EFSDS meetings. The RTB Workgroup's focus was to evaluate the current practices of using the CSO basins to manage flows into the EFSDS, and to determine the future use, timeframe and compensation of the CSO basins. The group consisted of representatives from the WRC and their consultants, Bloomfield Township, Beverly Hills, Bloomfield Hills, Birmingham and occasionally Southfield and Farmington Hills.

In the fall of 2010 the WRC disbanded the RTB work group due to the inability for the participating members to come to a consensus on the expiration date and reimbursement of the current agreement for use of the CSO basins. Following a series of meetings by the CSO community staff and attorneys, and WRC staff and attorneys a memorandum of understanding was tentatively agreed to which spelled out the dates for use of the CSO basins by the EFSDS and reimbursement of costs for use of the basins. The MOU will be finalized in the later part of 2011.

Sewer Bond Sale

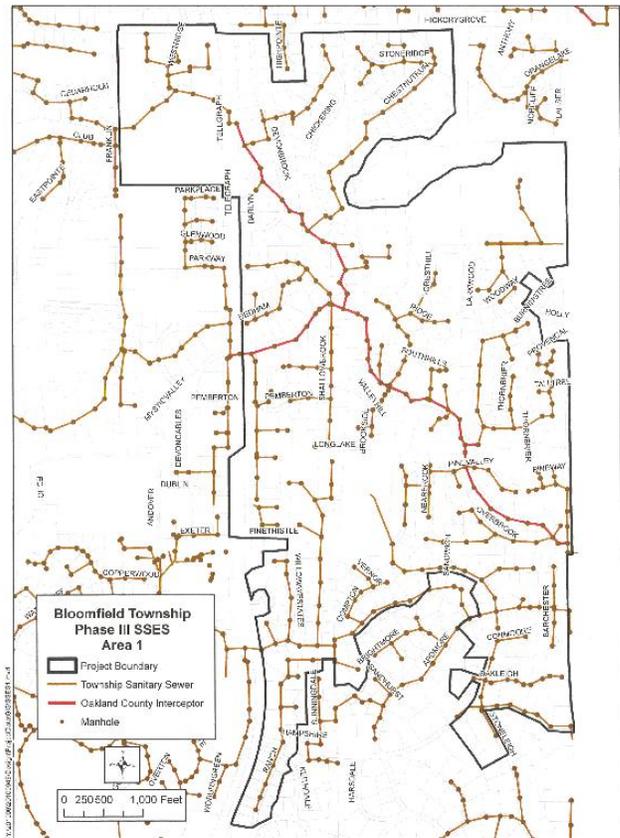
Project Cost: \$3,000,000

Because of the Township's current Amended Consent Order (ACO) requirements to reduce flow from the sanitary sewers and the implementation of the WRC's flow based billing, bonds for sanitary sewer capital improvements were sold early 2011. The timing of the bond sale was significant as the Township was recently awarded a AAA bond rating. The projects outlined for the bond sale included: Township match funds for the Hickory Heights Area Sewer Rehabilitation grant, flood prone area sewer and manhole rehabilitation, Phase III SSES follow up rehabilitation, manhole rehabilitation throughout several areas within the Township including the manholes identified during the Inkster Road SSES (2008) and the Phase II SSES (2010), and miscellaneous sewer repair and rehabilitation. The bonds are expected to be sold early spring 2011 with the projects beginning shortly after in 2011.

Phase III SSES

Project Cost: \$73,000

As a continuing effort to reduce I/I from the sanitary sewer system the EESD contracted with HRC to perform a sanitary sewer evaluation and survey (SSES) of two areas within the Township previously identified to having high flows in the sewers. The work consists of surveying all sanitary sewer manholes to identify sources of I/I and then smoke testing the sewers. Smoke testing provides visual confirmation of misconnections, cross connections, and open cleanouts. Once the survey is complete, the survey results will be reviewed and the manholes requiring rehabilitation will be included in a manhole rehabilitation program, slated to begin summer of 2011. Any other items resulting from the study, such as the replacement of cleanout caps, and removal of any storm water to sanitary sewer connections will be incorporated into a repair program as well. Areas included in the Phase III SSES were in Section 16 and Section 28.



Administrative Consent Order (ACO)

Project Cost: No Outside Costs

The EESD continues to implement the requirements to remain in compliance with the Township's Administrative Consent Order (ACO) issued in 2004. This includes sanitary sewer flow metering on the Township's sanitary sewer, continuing investigation of locating and eliminating I/I sources from the sanitary sewer, and meeting all reporting deadlines. As part of the ACO, the EESD submitted an extension request in accordance with the WRC compliance dates to the MDEQ in November 2010. This extension request includes the extension of 12 to 18 months on several mile stone reports and tasks. The reason for the extension request is that the WRC's office is revising the sewer model currently used by all communities to determine if individual communities are in compliance with respect to the sanitary sewer flows. The WRC's office made a extension request to the MDEQ as well. Since Bloomfield Township relies on the WRC's office for flow data to determine compliance, a similar extension request was logical for Bloomfield Township. The MDEQ has given verbal approval of the extension, but has yet to issue any formal approval or revised ACO.

Safety Path Program: \$1.25 Million

In 2010, 3.4 miles of new safety paths were constructed as part of the master plan approved with the 2008 millage renewal. These areas include:

- Square Lake Road – north side from Klingensmith Road to the west Township line. (1.2 miles)
- Square Lake Road – south side from Fieldway Drive to Telegraph Road (.3 miles)
- Telegraph Road – west side from Square Lake Road to Franklin Road (.2 miles)
- Franklin Road – east side from Square Lake Road to Kendry Drive (.1 miles)
- Woodward Avenue – west side from Highland Drive to Square Lake Road (.5 miles)
- Long Lake Road Reconstruction – south side from Franklin Road to the west Township line. (1.1 miles)



Maintenance of the Township's existing safety paths or sidewalks is an ongoing project. During 2010 a total of 15,000 sq. ft. of concrete was replaced or repaired on existing paths or sidewalks. These areas include:

- Bloomfield Village - 13,800 sq. ft.
- Outlying Areas – 1,200 sq. ft.

MDOT Project

As part of the Telegraph Road Reconstruction project, MDOT included 1.1 miles of safety path construction along Telegraph Road in Bloomfield Township from Humphrey Avenue to Klingensmith Road and from Andover Road to Lone Pine Road. This was done at the Township's request, courtesy of the Michigan Department of Transportation, using Federal American Recovery and Reinvestment Act funding. MDOT will also construction an additional 1.36 miles of safety path in 2011 during the completion of the reconstruction Telegraph Road. These locations are also identified on the 2008 millage renewal.

Concrete Replacement Program: \$181,000.00

Each year, funds are allocated to perform concrete repair on road surfaces within the Township. Although the roads are under the jurisdiction of the Road Commission for Oakland County, the roads are evaluated by Township staff and selected for repair. Selection criteria include the number of complaints, age of road, location of repair, and type of pavement issue. In 2010, 46,000 sq ft of concrete removed and replaced in ten locations throughout the Township.

Township Gateway Program

The Township's Gateway Signage Program completed its fourth year with removal of the sign located at Telegraph Road and 14 Mile Road. This was done to accommodate the complete reconstruction of Telegraph Road in the area and protect the gateway sign. In addition the signs at the Township Hall and at Woodward Avenue and Hadsell Drive were fully accepted by the Township. All gateway signs have a similar design that compliments the sign which was installed at 14-Mile Road and Telegraph Road in 2008. Each sign is constructed of condensed styrene foam with fiberglass coating meant to resemble natural stone. The landscaping at the each site includes Ginko trees, Dawn Redwood trees, and clusters of daylilies among others. Water and electrical services had to be brought to each site and many other technical challenges had to be overcome to create these new Bloomfield Township landmarks. Township staff from Engineering & Environmental Services, Public Works, Planning, Building & Ordinance and Community Relations Departments directed the project.

Telegraph Road Reconstruction

The Engineering and Environmental Services Department partnered with the Michigan Department of Transportation to implement improvements to Township utilities during the reconstruction of Telegraph Road. Township staff provided support to MDOT and their contractors throughout the design and construction phase of the Telegraph Road reconstruction projects within the Township. These projects were paid for by the American Recovery and Reinvestment Act and performed by MDOT's contractors.

In addition, MDOT included the following infrastructure improvements, which provide a direct benefit to the Township and its residents: water main relocation in Telegraph Road north of Square Lake Road, and the construction of 2.46 miles of safety path along Telegraph Road between Fourteen Mile Road and Orchard Lake Road. These projects have been discussed in detail earlier in the report.

Lake Board Webpage

In cooperation with the Clerk's Office, the Lake Improvement Board webpage has been updated to include information useful to riparian property owners and other interested parties. The main page of the site provides general public education regarding the impacts property owners can have on adjacent streams and lakes and also explains how Lake

Improvement Boards are formed and what their functions are. A link is also provided for each of the eight Lake Improvement Boards which exist in the Township. Information regarding this includes; contact information and photos of Lake Board members, engineering assessment reports for the lake, tax assessment maps and an archive of past meeting minutes. This new webpage provides a great public education and information sharing tool for all those interested in Lake Board matters.

Implementation of Tree Preservation & Protection and Fertilizer Ordinances

The EESD along with the Planning, Building & Ordinance Department developed a draft Tree Preservation & Protection Ordinance. The Ordinance was enacted in order to protect Bloomfield Township's woodland areas and the quality and character of the neighborhoods within our community. After a two-year long drafting process, the Township Board of Trustees adopted the Tree Preservation & Protection Ordinance on March 29, 2009.

During the second year of the ordinance, the EESD worked with the Planning, Building & Ordinance Department to assist nearly over two hundred (100) residents and contractors as they seek to put the new ordinance into practice. Much of this assistance was in the form of pre-application meetings, site visits, plan evaluation and phone conversations with perspective applicants and interested residents. In all 35 Tree Preservation and Protection permits were issued for Township properties.

Also In 2009, the existing Fertilizer Resolution was codified into an Ordinance. This was done to provide the regulatory mechanism needed to ensure the provisions of the ordinance are enforced. Through a Registered Fertilizer Applicator Program, commercial fertilizer firms agree to follow the requirements of the Fertilizer Ordinance for all fertilization done in the Township. During the inaugural year of the Fertilizer Ordinance 33 Commercial Fertilizer Applicators registered to do work within the Township.

National Pollution Discharge Elimination System (NPDES) Permit Management

On May 22, 2008 the Michigan Department of Environmental Quality (MDEQ) issued a new National Pollutant Discharge Elimination System (NPDES) General Permit for our Municipal Separate Storm Sewer System (MS4). On November 30, 2010, the MDEQ rescinded that permit in response to over seventy communities contesting the requirements in that permit as being unduly prescriptive and costly. On this action, the Township was forced to revert back to its 2003 Watershed Permit requirements.

As a result of the 2008 MS4 permit being rescinded and in an effort to gain consensus regarding any new permit requirements, the MDEQ formed a stakeholders group to drive the formation of new permit language. In order to represent the interests of the Township, the EESD is an active member of this stakeholder group.

West Nile Virus Management Program

In 2010, the Township West Nile Virus Management Program continued to address the WNV problem through an integrated pest management program that consisted of identifying and

prioritizing approximately 1900 catch basins and detention basins. Public areas found to be in high priority of mosquito control treatment are sampled and treated on a monthly basis.

The Township program began in June and was completed in early October. Throughout the year the EESD provided public education and community outreach activities through the WNV hotline, Township newsletter articles, and printed materials. The website provides additional information, such as the modes of virus transmission; means of prevention; and how to reduce the risk of exposure. There were no reported cases of the WNV in the Township for 2010. However, the risk for contracting the disease is still present in Southeast Michigan.

Gypsy Moth Management Program

Since 1993 Bloomfield Township, together with the National Gypsy Moth Management Group, has implemented an integrated pest management approach to reduce and contain the Gypsy Moth problem. Components of the program include: public education, intensive biological monitoring, and treatment plus evaluation.

In 2010, the National Gypsy Moth Management Group personnel collected data from biological surveys at permanently established survey locations to determine Gypsy Moth population, density and health, susceptibility and vulnerability of trees and infestation trends. In the spring, fungus inoculations were applied to 28 locations throughout the Township.

Grant Projects

Multi-Hazard Mitigation Planning Grant: \$21,700.00

Through a grant from the Federal Emergency Management Agency (FEMA), a Flood Hazard Mitigation Plan was developed by the Township in 2009. Recent changes in administration require that eligible communities also have a Multi-Hazard Mitigation Plan before applying for any additional FEMA funding. Through another FEMA grant, the Township began work in 2010 to broaden the scope of its current Flood Hazard Mitigation Plan to include other hazards such as wildfire, civil disturbance or tornadoes. A draft of the Multi-Hazard Mitigation Plan has been submitted to the Michigan State Police and FEMA for review and it is expected that this Grant project will be completed during the 2011 fiscal year.

Energy Efficiency and Conservation Block Grant: \$169,500.00

As part of the American Recovery and Reinvestment Act (ARRA) of 2009, Bloomfield Township was awarded funding from the Department of Energy to perform an Energy Efficiency Audit and Retrofit Program. The program involved conducting comprehensive energy audits for all Township-owned facilities. The Technical Energy Audit (TEA) report

was then used to determine and prioritize any and all recommended energy efficiency retrofits for the buildings. As of the end of the 2010 fiscal year, the Township has completed many of the energy efficiency projects recommended by the TEA report. This includes the retrofit of Township Hall lighting, the purchase of natural gas from a third-party supplier, and real-time tracking of energy usage. We feel that by implementing the recommended energy conservation measures, we will be able to work towards our goal of a 15% energy usage decrease Township-wide by 2012.

A look Ahead

As we look ahead to 2011, the EESD will continue to oversee the Township's construction projects and continue to provide support to all Township departments regarding the environment, natural features, building projects, and Township utilities.

Projects planned for 2011 include:

- Completion of the SOCWA Water Study
- Implementing water system improvements for SOCWA
- Rehabilitating the sewers in Hickory Heights Area under the RPO Grant
- Rehabilitating the sewers in the Bloomfield Township CSO Drainage District
- Rehabilitating the manholes and sewers in flood prone areas
- Constructing the Gateway Sign and landscaping on north Telegraph
- Constructing new safety paths