

SUMMARY ENVIRONMENTAL ACTIVITY REPORT

July 2009 (*updates in italics*)

<u>Project/Activity</u>	<u>Description</u>	<u>Status</u>
Portage City Landfill	Ongoing groundwater monitoring of former municipal landfill.	-City Council awarded a 3 year contract to American Hydrogeologic Corporation on April 10, 2007 to perform annual groundwater sampling. The site groundwater data will be monitored to confirm continuation of the natural attenuation process. Consultant completed 2007 sampling and analysis in June 2007 and submitted the report to MDEQ. Sampling shows continued improvement in groundwater quality. Sampling performed in May 2009. <i>Annual report submitted in June 2009.</i> General groundwater quality continues to improve.
Site Inspection/Development Project Review	Review of existing business & industries and review of proposed business and industrial development projects for environmental protection purposes and/or building plans completed.	-Coordination with property owners and City or State agencies ongoing. <i>-Review of 7 site/building plans and/or plats completed in July 2009.</i>
Sewer Connection Program	Groundwater protection program requiring residential/business hookup to the sanitary sewer where available.	<i>-Sanitary sewer hookup permits issued in July 2009: 4 residential, 1 commercial. On connection made in accordance with the Mandatory Sewer Connection Program.</i>
West Lake Management Program	Special assessment district designed to maintain/improve lake conditions.	-Five Year Lake Management Assessment District process initiated (Resolution #1) on December 7, 2004. Resolution #3 was approved by City Council on January 11, 2005. Resolution #5 was adopted by City Council on February 8, 2005. On March 22, 2005, City Council approved a contract with Aquatic Services, Goodrich, MI, to perform annual weed treatment. West Lake currently working with the Kalamazoo County Drain Commissioner to create a filtration system on the Austin Lake Drain. On July 10, 2007, City Council authorized the Administration to submit a grant application in the amount of \$5,000 to the Kalamazoo Foundation to assist funding the filtration system. Construction bids received by the Drain Commissioner on November 14, 2006. Construction began on the Austin Dam reconstruction in December 2006 and new structure completed in March 2007. Filtration system construction was substantially completed in July 2008. On July 8, 2008, City Council awarded

		<p>contracts to Aquatic Services, Inc. for the 2008 Weed Treatment Program and awarded a contract to ASI Environmental to perform watershed and vegetation survey. Weed treatment completed in July 2008. Fall weed and fish survey began in September and was completed in October. The Lake Association used Lake Shore Environmental, LLC. Spring 2009 weed control application was completed in June 2009.</p>
Retention Basin Sampling Program	Investigation regarding potential impact of retention basins on groundwater.	<p>-Historical monitoring continues to show minor impacts at most basins. From 1997 through 2005 the monitoring program showed stable groundwater impacts due to stormwater infiltration. Alternative road salt practices continue to be considered and evaluated. On April 11, 2006, City Council awarded contract to Kieser & Associates. 2008 semi-annual sampling complete. City staff has initiated a compilation of all city retention basin groundwater levels. 2008 annual report received with consistent water quality results. June 2009 sampling complete. A historical groundwater depth analysis is underway. <i>Results will be available in August.</i></p>
Wellhead Protection Program (WHPP)	Development of program to protect City well fields and surrounding area from contamination resulting from improper land use.	<p>-Wellhead Protection Grant award received from MDEQ on August 30, 1999 and Council accepted the grant on October 5, 1999. Council also awarded contract to Earth Tech to complete WHPP. Earth Tech completed the final wellhead protection plan and MDEQ submittal was made on October 14, 2000. Plan was reviewed by MDEQ with written approval received in March, 2001. City staff made a presentation to the American Water Works Association at their April 25, 2008 meeting to highlight current city initiatives. Implementation is ongoing.</p>
Leaf Compost Monitoring Program	Monitoring and analysis of groundwater at the new Oakland Drive Leaf Compost site.	<p>-City Council awarded contract on August 21, 2001 to Soil & Materials Engineers for monitoring and analysis of groundwater impact of the new compost operation. Drilling was completed in October 2001 and first sampling cycle was completed in February 2002. Semi annual sampling was performed from 2002 to 2008 in June and January. Sampling and analysis results continue to show no groundwater impacts from the leaf composting. Sampling schedule reduced to annual sampling with results showing continued minor impact on groundwater quality. Sampling completed in July 2008 with minimal groundwater impacts noted. <i>Sampling completed in July 2009.</i></p>
Creek Connection Elimination Program/Storm Sewer Outfall Replacement	Improve direct discharges to Portage Creek and lakes from stormwater outfalls.	<p>Current efforts are focused on West Lake and the Meredith Street/Lexington Green Park area. Meeting was held on July 31, 2008, with Lexington Green area residents to discuss drainage problems and possible solutions to rear yard flooding. Staff is currently working on a project to open up blocked area of the</p>

Lexington Green ditch. Bids received for ditch restoration on December 22, 2008 and City Council awarded a contract to JMB Demolition on January 13, 2009. Construction of the ditch completed in March with a dramatic improvement in water levels. On April 14, 2009, City Council authorized cleaning and restoration of 850 feet of the Schuring Drain from Schuring Road north. Work substantially complete. *Final restoration is complete.*

Portage Creek Water Quality Sampling

Expanded program of water quality testing of Portage Creek.

City Council awarded a contract in November 2001 to Kieser & Associates to expand the Consolidated Drain testing to include additional sampling points in Portage Creek. Monitoring and analysis of the basic creek water quality indicates effectiveness of current stormwater practices. Quarterly reports show no detection of hydrocarbons in the South Westnedge Avenue Stormwater Treatment and Enhancement Project area and lower levels of water turbidity and nutrients. Sampling completed for June 2006 through 2008 with results continuing to show improved water quality. Semiannual sampling completed February 27, 2007. Latest sampling completed in May 2007 with results showing stable water quality. Current sampling completed in November 2007 and report received in December. Report shows consistent water quality in Portage Creek and West Fork of Portage Creek. Sampling completed in May 2008. Annual report received with consistent water quality results. Staff is currently working on water quality testing at Barberry Avenue and West Lake.

National Pollution Discharge Elimination System (NPDES) permit implementation

Five year plan to implement the current NPDES stormwater permit.

-Received NPDES general permit on August 15, 2001. Renewal Application submission was made to MDEQ on March 7, 2003. Permit implementation is ongoing. New permit received in 2004 mandates involvement in several county watershed groups. City staff completed the submission of a Stormwater Pollution Prevention Initiative (SWPPI) as required by NPDES permit. SWPPI submitted on October 21, 2005. Revised SWPPI to incorporate watershed management plans. Annual report was submitted December 29, 2006. SWIPPI comments received from the MDEQ and revisions resubmitted. Public education plan submitted to MDEQ on October 31, 2007. Additional NPDES SWIPPI data and public education plan submitted on November 6, 2007. Annual report was submitted December 31, 2007. The MDEQ approved the revised public education plan and SWIPPI on January 15, 2008. Re-application for permit extension was submitted on March 24, 2008. New permit applications are due August 1, 2008 for a 5 year permit cycle. The permit application for the city was submitted to MDEQ on July 31, 2008. Annual permit report submitted in December 31, 2008. *Next five year permit expected in fall 2009, no date known for new permit.*

National Pollution Discharge Elimination System (NPDES) permit implementation

Kalamazoo River Mainstem Watershed Management Plan

First meeting was held September 17, 2004. The public participation plan for the Watershed was submitted on November 22, 2004. The Public Education Plan was submitted December 31, 2004. Proposals for completing the watershed plan were received by Kalamazoo County on September 15, 2005 and a contract awarded to Kieser & Associates in November 2005. Watershed Committee meeting held November 22, 2005. Watershed planning focused on threatened uses and potential correction of water quality. Draft watershed plan submitted to MDEQ on December 30, 2005. Review comments received from MDEQ and revised watershed plan due in December 2006. Public information meeting was held at County Fairgrounds on October 24, 2006. Revised Watershed Plan submitted November 30, 2006. A letter not to revise the Watershed Plan was submitted to the MDEQ on March 17, 2008.

Portage River Watershed Management Plan

Public participation plan submitted June 28, 2004. The Public Education Plan was submitted December 31, 2004. Proposals for a Watershed Management Plan were received by the Kalamazoo County Road Commission and a contract awarded to the Kalamazoo County Conservation Service in November 2005. First watershed meeting was held November 29, 2005. Meeting focused on water quality in the watershed and identification of pollution sources. Draft watershed plan submitted to MDEQ on December 30, 2005. Follow-up meetings are held monthly to facilitate an implementation schedule. Portage River Watershed public meeting held in Vicksburg on April 11, 2006. Review comments received from MDEQ and revised watershed plan due November 2006. Revised Watershed Plan submitted November 30, 2006, follow up meetings to be held as necessary. A letter not to revise the Watershed Plan was submitted to the MDEQ on March 17, 2008.

Five year plan to implement an Illicit Discharge Elimination Plan (IDEP).

-On October 21, 2001, City Council awarded a contract to Fishbeck, Thompson, Carr and Huber for the Portage Creek element of the IDEP, which was completed in July 2002. On February 19, 2002, City Council approved a new ordinance as required by the NPDES permit titled "Storm Water Illicit Discharges and Connections". On May 27, 2003, City Council awarded a contract to Fishbeck, Thompson, Carr and Huber for the West Fork element of the IDEP. On April 28, 2004, City Council accepted a grant from the State of Michigan in the amount of \$152,264 and awarded a contract to Fishbeck, Thompson, Carr and Huber in the amount of \$184,264 for the remainder of the IDEP for the entire city. Due to a less than anticipated number of illicit connections, city staff asked MDEQ to expand mapping activities under the grant program. *Program implementation is ongoing as funding allows.*

Garden Lane Arsenic Removal Facility	Construction of a water treatment facility at the Garden Lane Wellfield to remove arsenic, iron and manganese from the groundwater.	City Council approved an agreement with Fishbeck, Thompson, Carr & Huber, Inc. on January 10, 2006 to prepare a feasibility study to meet new USEPA arsenic standards for drinking water. Feasibility study completed in August 2006. Feasibility study recommended construction of a filter system using various filter media materials. Small scale pilot studies began in spring 2007. Pilot studies completed with generally favorable results. Geotechnical soils report completed in April 2007 and wetlands delineation received in May. Operating plants visited in May to familiarize staff with various arsenic removal processes. City staff currently evaluating three possible treatment vendors to make a final equipment selection. Engineering proposals for the project were received August 14, 2007. Project engineering awarded to Earth Tech by City Council on September 11, 2007. Project design to include Leadership in Energy and Environmental Design (LEED) criteria. Project construction bids were bids received on November 25, 2008. Contract awarded by City Council on December 16, 2008 to Adams Building Contractors, Inc., Jackson, Michigan. Preconstruction meeting was held January 29, 2009. Construction underway with clearing and earth work complete. Underground piping and foundation work complete. Concrete floors and wall construction underway. Anticipated completion in January 2010.
Environmental Incident/Spill Clean Up Notification	Environmental Protection Program to assist Portage Police/Fire Departments with spill containment and spill cleanup.	<i>The number of environmental incident/spill investigations performed in July 2009-0. The number of incidents requiring city forces/contractor emergency cleanups-0. City staff updated hazardous waste disposal permits and documents.</i>
Localized Groundwater Table Investigation	Hydrogeologic study of the Portage area, especially in the Sprinkle Woods plat area, to determine causes of increase in groundwater elevation.	On April 29, 2008, City Council awarded a contract to American Hydrogeology Corporation to investigate the reason and extent of seasonally high groundwater elevation. Special emphasis will be placed on the Black Forest plat area to suggest possible solutions to the basement leaking problems experienced in the area. Study was transmitted to City Council on July 22, 2008. Current activities are focused on assisting the affected property owners with possible solutions. A storm drainage line extension project has been designed with a bid opening set for September 18, 2008. City Council awarded a contract to Peters Construction Company on September 23, 2008. Construction began in mid October. Project was extended to serve 3 additional properties. Work was completed on October 31, 2008. City staff continues to investigate other

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remedies for local groundwater table issues. Work underway on compiling a history of local groundwater table elevations at 19 city-owned retention basins with data from 1994 to 2009. Five monitoring wells were installed in the Jamaica Lane area as a result of a number of citizen concerns. Analysis of the groundwater level is continuing. Analysis of the Jamaica Lane wells shows that June groundwater table levels have dropped approximately 18" from spring 2009 levels. *July sampling shows a total drop of 36" from spring 2009 levels.*