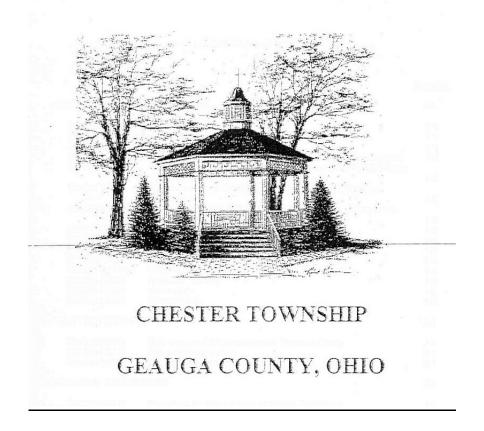
# **NPDES Phase II Annual Report**



Report to Ohio EPA Regarding Status of Chester Township Storm Water Management Program from January 1, 2008 through December 31, 2008, (year 6 of 6) in conformance with 3GQ00075\*AG

> **Chester Township Geauga County, Ohio**

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Township Trustees: Judith Caputo Clay Lawrence Ronald Cotman

### **Acronyms Used in this Storm Water Management Program Include**

BMP: Best Management Practice BOT: Township Board of Trustees

CRWP: Chagrin River Watershed Partners, E&SC: Erosion and Sediment Control

Inc.

GCSWCD: Geauga County Soil HSTS: Home Sewage Treatment System and Water Conservation District

MCM: Minimum Control Measure MOU: Memorandum of Understanding

MS4s: Municipal Separate Storm Sewer NOI: Notice of Intent

System

Control

NPDES: National Pollutant Discharge Ohio EPA: Ohio Environmental Protection Agency

SWMC: Storm Water Management SWMP: Storm Water Management Program

Committee

Elimination System

WMSC: Water Management & Sediment 3GQ00075\*AG: Permit Number

Geauga County Soil and Water Conservation
District

Public	Public Education & Involvement Plan MCM #1 and #2	
	2008 Best Management Practices and Measurable Goals	
Schedule	BMP and Measurable Goals	
	Best Management Practices	
December 23, 2008.	The Storm Water Management Committee members  Storm Water Committee members have changed. Judith Caputo, Township Trustee and resident, Ronald Cotman, Township Trustee and resident, Clay Lawrence, Township Trustee and resident, Charles Mascella, Township Road Superintendent, Carmella Shale, GCSWCD Director, Amy Brennen, CRWP Director and Meiring Borcherds, Chairman of SWMC, Township Zoning Inspector.	
	Responsible Person: Meiring Borcherds, Chairman Chester Township Storm Water Management Committee (CTSWMC).	
December 23, 2008.	The Storm Water Management Committee  The committee met in Chester on December 23, 2008. A quorum of Chester Township's Storm Water Management Committee did meet. Presentation was done by CRWP regarding next NPDES permit period and what the Township could look at doing. GCSWCD also presented to the committee on what their involvement will be with the next permit period. Planning was done for 2009 and discussions were held regarding the renewal of the Townships NPDES Phase II permit in 2009 and joining a co-permittee program with the county commissioners (see attachments for more information).	
	Responsible Person: Meiring Borcherds, Chairman CTSWMC.	
On-going	Survey of storm water understanding  The Geauga Soil and Water Conservation District (SWCD), with collaboration from Chagrin River Watershed Partners Inc. (CRWP) and Dana Oleskiewicz of	
	OSU Extension, created a public opinion survey in 2003. The data from these surveys has been entered into a database and the quantitative analysis and summary has been completed for each community. Geauga SWCD has been using the survey information to target storm water education efforts throughout 2008 and will create a new survey in 2009 with Geauga SWCD and CRWP. In addition, Geauga SWCD staff has been successful in securing funding for the follow-up survey from the Great Lakes Commission. This grant funding will pay for the mailing of the follow-up survey, which will be set to Phase II residents during 2009.	
Done by	Responsible Person: Meiring Borcherds, Chairman CTSWMC.  Resurvey Township residents by December 31, 2009 to evaluate the	
December 31, 2009.	effectiveness of Public Education/Involvement Plan.	
	Responsible Person: Meiring Borcherds, Chairman CTSWMC.	

Public 1	Public Education & Involvement Plan MCM #1 and #2	
On-going	Township Website Since November 2004, the Township's website has been fully functional. The Storm Water Management Plan is an integral part of the website. The website was significantly expanded in 2008. Added to the website every year are many new storm water management education articles and links to several county, state and non-governmental storm water management groups and their websites. Also added was a new section educating Township residents on what to look for when making informed and responsible decisions regarding Oil and Gas well drilling as to so minimize the environmental impacts of the well drilling activities. The website had 3,273 visitors during 2008 (see attachments). The website address is www.chestertwp.net/watershed/watershed.html	
On-going	<ul> <li>Responsible Person: Meiring Borcherds, Chester Township Web Master</li> <li>Newsletter(s)  <ol> <li>All Chester Township residents receive "The Geaugrapher" twice a year as an insert in the "Geauga Magazine". The GCSWCD highlights issues pertaining to storm water pollution prevention (see attachments).</li> <li>GCSWCD also generated the following flyers for Chester Township's NPDES Phase II publication and distribution: <ol> <li>Better storm water management through landscaping: Rain Garden Presentation and installation (see attachments).</li> <li>Happy Health Streams, presentation and stream bank stabilization project, (see attachments).</li> <li>Great Lakes – Its History and Its Future, presentation (see attachments).</li> </ol> </li> </ol></li></ul>	
On-going	Responsible Person: Carmella Shale, Director GCSWCD.  "Chester Government Update" Published in the Chesterland News (weekly newspaper), has reported about Storm water related activities (see attachments).  Responsible Person: Chester Township Board of Trustees.	
On-going	Community Presentations  Both CRWP and GCSWCD presented/participated in public education series for residence on the following topics:  1) Better storm water management through landscaping: Rain Garden Presentation and installation (see attachments).  2) Happy Health Streams, presentation and installation of a stream bank stabilization project, (see attachments).  3) Great Lakes – Its History and Its Future, presentation (see attachments).  Responsible Person: Meiring Borcherds, Chairman CTSWMC.	
Since July, 2005	Both a VHS and DVD format Educational Documentary	

Education & Involvement Plan MCM #1 and #2
"Tempest in a Channel: Stormwater Runoff's Impact on Urban Streams" produced by the Ohio EPA are available at the Town Hall for use by residents. No one came in to view these resources. The Township will look at adding video to its website to expose more residents to possible education material and so involve more residents in MCM 1 and 2.
Responsible Person: Meiring Borcherds, Chairman CTSWMC.
"Adopt Your Street Campaign" Chester Township's Roadside Litter Clean-Up Day. This clean up day that traditionally took place on Earth Day did not take place during 2008. We hope to organize and mobilize this event again in the future.
to organize and moonize this event again in the ruture.
Responsible Person: Township Trustees
Chester Township Community Clean-Up Day Chester Township provided dumpsters and personnel to receive (and properly dispose of) sundry items from township residents, at no charge to the residents. Penn Ohio Corporation was contracted to remove the 2.9 tons of tires collected and 15.53 tons of other materials collected on the day of the event.
Responsible Person: Chuck Mascella, Road Superintendent
Juvenile Court Clean-Up Day This clean up day that traditionally took place during July did not take place during 2008. We hope to organize and mobilize this event again in the future.
Responsible Person: Township Trustees  Chester Township Senior Citizen Clean-Up Day Project
Township Road Department went to the homes of senior citizens who met the criteria to pick up and properly dispose of sundry items at no charge to residents. The Road department collected 1.27 tons of tires and 8.17 tons of material from 186 Senior Citizens.
Responsible Person: Chuck Mascella, Road Superintendent.
Welcome Wagon Education Packets  New Chester Township property owners are now receiving information packets (see attachments). The zoning department receives a list of new property owners on a weekly basis. The department then makes up the education packets and sends them out via U.S. Mail. 2008 saw the department sending out 78 packets to new property owners in Chester Township. The education packets consists of:  A letter from the Director of Geauga SWCD; Geauga SWCD brochures: "Who We Are and What We Do", "A Landowner's Guide for Developing an Erosion and Sediment Control Plan", "Watersheds and You", "Erosion and Sediment Control" and "Where Rivers Begin". It also contains 1 brochure from Geauga

Public Education & Involvement Plan MCM #1 and #2	
	Zoning Application How To" brochure and one "Zoning Inspector Business Card" for contact information (see attachments).
	Responsible Person: Meiring Borcherds, Chairman CTSWMC.
On-going	Community Document shredding day This clean up that traditionally took place during June did not take place during 2008. We hope to organize and mobilize this event again in the future.
	Responsible Person: Meiring Borcherds, Chairman CTSWMC.
On-going	Print Media Six (6) distribution boards are maintained for public education and information. The five (6) locations are as follows: Fire Station # 1, the Police Station, and Town Hall x 2 (one distribution unit in the lobby of Town Hall one larger distribution unit by the Zoning Office), and one (1) in the Township's Road Department (see attached examples of education material used during 2008). The Township added an additional poster and brochure display in 2008. This display is a mobile display that holds ten brochures and one 24x36 inch poster. The theme and information will be changed biannually and the display will be hosted in the local library (see attachments).
	Responsible Person: Meiring Borcherds, Chairman CTSWMC.
May 21-22, 2008.	Workshops Attended by Personnel 2008 Northeast Ohio Storm Water Conference, at Cuyahoga Community College, East Campus. Attended by Meiring Borcherds (see attachments).
September 4, 2008.	Sustainable Code workshop, Columbus Ohio, Presented by Ohio State University. Attended by Meiring Borcherds and Margaret Muehling (see attachments).
November 5, 2008.	US EPA Storm Water Program's Webcast Series, attended by Meiring Borcherds.
November 6, 2008.	Ohio Department of Transportation, Title Stormwater Management Overview; Location ODOT District 4 office in Akron Ohio. Attended by Chuck Mascella, (see attachments).
	Responsible Person: Meiring Borcherds, Chairman CTSWMC.
March 19, 2008	Geauga County Storm Water Task Force Clay Lawrence (Chester Township Trustee), Carmella Shale (Director of the Geauga County Soil and Water Conservation District), Amy Brennan (Director of the Chagrin River Watershed Partners, Inc.) and Meiring Borcherds (Chester Township Zoning Inspector, Chairman of the Chester Township Storm Water Management Committee) all attended the county-wide task force meeting hosted by Bob Phillips of the Geauga County Engineer's Office (All

# Public Education & Involvement Plan MCM #1 and #2

mentioned above except Bob Phillips are members of the Chester Township Storm Water Management Committee). See attachments for more information on the meeting.

Responsible Person: Robert Phillips, Geauga County Engineer.

#### Compliance Status, Goals or Activities in 2007 Activities

Many of the 2008 goals were reached under Public Education & Involvement Plan MCM #1 and #2. Areas that need additional effort are educating residents and contractors, on erosion and sediment control BMPs and measures needed to be in place when soil-disturbing activities are taking place on a parcel. Inspections help assure that the BMPs are functioning and regulations are adopted.

Chester Township needs to maintain a better schedule for its annual Clean Up/Collection Days Program this will be held during the spring each year. In addition to this there was, for the second year in a row, a 3-day trash pick-up for seniors whereby Chester Road Department and Department on Aging personnel went to all the homes of registered senior citizens that met the criteria to collect sundry items for proper disposal. Chester Township also started up two good programs of getting better education material out to new property owners. The Township is also working diligently with Geauga SWCD and CRWP to create better participation programs for the residents to take part in.

Illicit	Illicit Discharge Detection and Elimination MCM #3	
	2008 Best Management Practices and Measurable Goals	
On-going	Chester Township map storm water sewer system with:	
	Location of outfalls	
On-going	Partners have mapped all outfalls in the Phase II area in Chester Township. N	
	inspections of outfalls were done in 2008. Chester Township Road	
	Department will start inspection of dry weather outfalls again in Summer 200	
	while the county agencies will work on legislation to control/eliminate dry	
	weather outfalls in the future.	
	Responsible Person: Carmella Shale, GCSWCD.	
On-going	Outfalls	
	Three hundred and forty-nine (349) outfalls have been identified in the	
	Township including all County facilities. Of the 349 identified outfalls three	
	hundred and sixteen (316) have been inspected as of December 31, 2007. Of	
	the 316 inspected forty four (44) were found to be in need of further	
	investigation. This investigation will commence during the dry season in	
	2009.	
	Responsible Person: Chuck Mascilla, Chester Township Road Superintendent.	
On-going	Names and location of surface waters to which outfalls discharge	
- 8- 8	Data to be added to the County Auditor's GIS system.	
	Completed.	
	Responsible Person: Robert Phillips, Geauga County Engineer	
	Location (address) of HSTS	
On-going	All of the Geauga County General Health District's data has been collected	
- 8- 8	and compiled into a database comprising more than 80% of the existing HST	
	in the Township. The information in the database was found by reviewing al	
	paper files on file at the County Health District's office. There were no onsit	
	inspections done by GCHD due to a lack of resources. This task will be	
	ongoing until 100% completed. This will mainly be achieved through	
	GCHD's continuous inspection of all point of sale real estate transactions.	
	Responsible Persons: Robert Weisdack GCHD.	
On-going	Type and size of conduits/ditches through which HSTS discharge	
	Identify type and size of conduits or ditches conveying HSTS discharges.	
	Responsible Person: Robert Weisdack GCHD.	
	List HSTS	
	Update storm sewer mapping to include storm sewers, locations of HSTSs, and	
On-going	the names of surface waters. All Geauga County Health Department data has	
	been collected. No fieldwork was done to locate where the remaining system	

Illicit Discharge Detection and Elimination MCM #3	
	are located at this time. Until we start to actually detect an illicit discharge, we will not begin the fieldwork to determine where the remaining HSTSs are located. This plan was decided upon as a way to allocate resources to the best use.
	Responsible Person: Robert Phillips, Geauga County Engineering Department.
	Develop program to detect and eliminate illicit discharges
On-going	Program has been developed, but there were no dry weather water flows tested during 2008. The plan calls for the initial testing to be done by the Geauga County Water Resources Department. When illicit discharges are detected follow-up testing will be conducted by the Geauga County General Health District. This task will be started during the next five-year permit period 2008 to 2013.
	Responsible Person: Robert Weisdack GCHD.
	Study existing Model Resolution to prohibit illicit discharges
On-going	Chester Township Zoning Commission is planning to study the Model Illicit Discharge Resolutions in the near future along with Riparian Setback Resolutions.
	Responsible Person: Margaret Muehling, Chairperson, Zoning Commission.

## **Effectiveness of 2008 Activities:**

Much of the work needed to support MCM #3 activities were completed in 2005. New plans were developed by the township and by the county agencies in the areas of illicit discharge detection and mapping of HSTS and storm water outfalls. These have been implemented and reported on in this document. All illicit discharges will be tested by 2013.

Construction Site Storm Water Runoff Control MCM #4  2008 Best Management Practices and Measurable Goals	
On-going	Erosion and sediment control resolution  No changes are needed to the Chester Township Zoning Resolution at this time. The Zoning Resolution meets or exceeds Phase II Erosion and Sediment Control Regulation. Section 5.00.06 is in place at this time. See attachments.  Responsible Person: Township Trustees through the Zoning Resolution.
On-going	Define the amount of lot coverage permitted in each of the zoning districts in Chester Township. Sections 5.01.15, 5.02.15, 5.03.16, and 5.04.16 of the

ction Site Storm Water Runoff Control MCM #4
Chester Township Zoning Resolution are in place at this time. See attachments.
Responsible Person: Township Trustees through the Zoning Resolution.
GCSWCD Erosion and Control Regulation # 98 is in place at this time.
Responsible Person: Carmella Shale, GCSWCD.
Enter into Memorandum of Understanding (MOU) with GCSWCD MOU and fee schedule are in place at this time.
Responsible Person: Township Board of Trustees.
Attend GCSWCD trainings
Zoning Inspector attended all training sessions and refresher courses offered by GCSWCD during 2008.
Responsible Person: Meiring Borcherds, Chairman CTSWMC.
Field Visits
Chester Township Zoning Inspector and Field Technician from GCSWCD met at several field locations to discuss situation and to train on field conditions, (see attached report by Geauga SWCD).
Responsible Person: Meiring Borcherds, Chairman CTSWMC, Zoning Inspector.
Field Visits
Chester Township Zoning Inspector and Field Technician from CRWP met at several field locations to discuss situation and to train on field conditions, (see attached report by CRWP).
Responsible Person: Meiring Borcherds, Chairman CTSWMC, Zoning Inspector.
Review Site Plans
All site plans for construction that will disturb more then 300 square feet on lots less then 5 acres in area are reviewed by Chester Township Zoning Inspector. All site plans for construction activities disturbing more then one (1) acre were reviewed by GCSWCD. See attachments.
Responsible Person: Meiring Borcherds, Chairman CTSWMC, Zoning Inspector.
Planning Commission and Health District Approval of New Lots
Continuing existing practice of Geauga County Planning Commission and Geauga County Health District.
Responsible Person: Geauga County Planning Commission and Geauga County Health Department.
Setbacks
Continuing existing practice as defined in Sections 5.01.15, 5.02.15, 5.03.16, and 5.04.16 of the Chester Township Zoning Resolution. See attachments.

Construction Site Storm Water Runoff Control MCM #4	
	Responsible Person: Meiring Borcherds, Chairman CTSWMC, Zoning Inspector.
January 2008 – December 2008	Water Quality Ponds Modification of the BMPs for water retention/detention ponds in subdivisions to include dry hydrants for the Fire Department was made during 2008, (see attachments).
	Responsible Person: Chester Township Zoning Commission.
January 2008 – December 2008	Low Impact Developments Chester Township Zoning Commission will be studying this in the future.  Responsible Person: GCWSCD and CRWP.
January 2008 – December 2008	Database of Storm Water Basins Information was gathered through the Public Access System (PAS), field visits, and old records to develop a map of existing storm water basins. The storm water basin map was developed using Arc View GIS and is a living document; new information is added as it becomes available.  Responsible Person: Carmella Shale, GCWSCD.

### **Compliance Status of 2008 Activities**

The current controls that are in place will be maintained as they meet or exceed the minimum requirements of MCM #4. Inspections have assured that the methods are installed correctly.

#### **Effectiveness of 2008 Activities**

Between January and December 2008, there have been six (6) new homes, nineteen (19) home additions, forty five (45) residential accessory buildings, zero (0) commercial buildings, zero (0) commercial additions, and six (6) in-ground swimming pools added or under construction in Chester Township needing sediment/erosion control measures. Most of the projects require multiple site inspections for sediment/erosion control. The actual number of inspections varied due to the length of time it took to complete the projects and to stabilize the soil. Some sites are still under construction at this time. The number of sites that were required to repair soil and sediment control measures increased due mainly to an increased number of on-site inspections by the Zoning Inspector and Geauga County Soil and Water Conservation District.

Post Co	onstruction Storm Water Management MCM #5
	2008 Best Management Practices and Measurable Goals
Schedule	BMP and Measurable Goals
January 2008 – December 2008	Measures for reducing impervious cover Have maintained existing practices as defined in the Storm Water Management Plan and the Chester Township Zoning Resolution. The Zoning Commission
	is reviewing possible changes to the zoning resolution to reduce parking space sizes and numbers per land use. This will help reduce impervious cover in Chester Township.
	Responsible Person: Meiring Borcherds, Chairman CTSWMC, Zoning Inspector  Approval of new lots and subdivisions
On-going	Have continued existing practices. Geauga County Planning Commission
8 8	reviewed and approved plans. Approval based upon approval of Geauga
	County Health Department, application of existing regulations, no wetlands
	impact, and compliance to local Zoning Resolution. Initial and final plans are
	reviewed by Zoning Inspector for input to the County Planning Commission.
	Responsible Person: Geauge County Planning Commission
	Riparian/Wetlands Setbacks
On-going	County "model zoning" suggests BMPs to be incorporated into local Zoning
	Resolutions by the local Township Zoning Commissions. Chester's Zoning Commission is studying the proposal.
	Responsible Person: Margaret Mueling, Chairperson, Chest Zoning Commission
	Water Quality Ponds
January 2008 – December 2008.	Updated Chapter 927 to include provisions for preference of dry or wet ponds instead of underground pipes or culverts for stormwater storage.
	Responsible Person: Geauga County Engineering Department.
On-going	Document the reduction of impervious surfaces associated with new and
	redevelopment projects. Evaluation of the effectiveness of the dry/wet pond.
On and	Responsible Person: Geauga County Engineering Department.
On-going	Low impact development Chester Township Zoning Commission will be studying this in the future.
	Responsible Person: GCSWCD and CRWP
	Database of Storm Water Basins
Ongoing	Information was gathered through the Public Access System (PAS), field
-	visits, and old records to develop a map of existing storm water basins. The
	storm water basin map was developed using Arc View GIS and is a living
	document; new information is added as it becomes available.

# **Post Construction Storm Water Management MCM #5**

Responsible Person: Carmella Shale, GCSWCD

#### **Compliance Status of 2008 Activities**

Present post-construction policies are being maintained. Policy includes follow-up inspections by Zoning Inspector and GCSWCD to assure the necessary silt fence and erosion controls are kept in place until the soil is stabilized.

#### **Effectiveness of 2008 Activities**

The number of inspections needs to be increased. GCSWCD has an excellent record of responding to calls from Zoning Inspector. All sites are inspected but not all sites are inspected as often as required. An example would be after a heavy rain event during the building season, this could require many site inspections in a single day. It is not always possible for the Zoning Inspector to visit all of these sites in a single day. GCSWCD have appointed one more Urban Specialist to their staff to assist Phase II communities with single lost construction activities and compliances to the sediment and erosion control enforcement (see attachments).

## **Proposed Changes in Post-Construction Storm Water Control Plan**

The Storm Water Management Committee will be discussing this problem and will be searching for a solution. Ideas will be discussed with the Zoning Commission to study the feasibility of implementing changes into the Zoning Resolution.

Good Housekeeping and Pollution Prevention MCM #6	
	2008 Best Management Practices and Measurable Goals
Schedule	BMP and Measurable Goals
January 2008 – December 2008	Fleet maintenance Continuing existing fleet of 17 trucks. 350 gallons of oil were recycled by Advance Auto Clinic during 2008. Normal maintenance practices were performed as outlined in the OSHA guidelines.
	Responsible Person: Chuck Mascella, Road Superintendent
January 2008 – December 2008	Salt storage and applications Continuing current storage and application practices as defined in Storm Water Management Plan. During the winter of 2008, the Township used 4,247 gallons of Geo-Melt in combination with 2421.18 tons of salt and 1,160 tons of cinders. This combination helped to reduce the salt application by 30% on the roads in Chester Township.
	Responsible Person: Chuck Mascella, Road Superintendent
April 2008	Street sweeping 12 Miles of roads were swept once during the month of April 2008 to remove winter debris from the road and the storm water system. The Township will be using a vacuum truck system starting in April 2009; therefore the next report will have miles cleaned and tonnage of material removed from the road and storm water system.
	Responsible Person: Chuck, Mascella, Road Superintendent
January 2008 – December 2008	All public roads close to construction access driveways are cleaned by the construction crews working on the different projects. Contractors are required to remove all mud and/or debris that the construction driveway fails to remove from truck/vehicle tires at the end of each workday.
	Responsible Person: Mark Purchase, Chief, Chester Police Department
January 2008 – December 2008.	Storm water system maintenance Continuing current roadside ditch cleaning practices as defined in Storm Water Management Plan. Road Department has implemented the plan to seed the disturbed areas due to ditch maintenance. Four (4) miles of ditches were cleaned during 2008 and 50% of all ditches were reseeded and 100% of all excavation work was reseeded after work was completed.
	Responsible Person: Chuck Mascella, Road Superintendent
January 2008 – December 2008	Disposal of waste collected through community operations Disposal program was reviewed and it was determined that the current practices would be continued.

Good Housekeeping and Pollution Prevention MCM #6	
	Responsible Person: Chuck Mascella, Road Superintendent
February 21, 2008	The following Toolbox Stormwater Pollution Prevention Talks were presented to all 9 employees of the Township's Road Department: "Construction Site Spill Response – Petroleum Products.", "Erosion and Sediment Control Establishing Vegetation.", "Erosion and Sediment Control Silt Fences", "Maintenance Facility Spill Response – Petroleum Products", "Erosion and Sediment Control Storm Drain Inlet Protection.", "Good Housekeeping Parking Lot and Street Sweeping". See attachments.
	Completed training program for the Township Road Department employees using video from Ohio LTAP Center titled "Municipal Stormwater Pollution Prevention" The employees then had a brief discussion about the Township facility and housekeeping. See attachments.
	Responsible Person: Chuck Mascella, Road Superintendent