

Storm Water District

DEERFIELD REGIONAL STORM WATER DISTRICT PHASE II NPDES ANNUAL REPORT 2006-2007 (YEAR 4)

NPDES Permit Number: OHQ000001

Ohio EPA Facility Permit Number: 1GQ00036*AG

During the past year, Deerfield Township (“Township”) through the efforts of the Deerfield Regional Storm Water District (“DRSWD” or “District”) continued to make steady progress towards completing the compliance activities outlined in the Township’s Storm Water Management Plan (SWMP). The work completed during 2006/2007 reflected a continuation of activities performed during 2004/2005, as well as some new activities primarily related to Minimum Control Measure (MCM) 3 – Illicit Discharge Detection and Elimination. Some of the District’s major accomplishments completed over the past year include the following:

- Implementation of a storm water user fee billed by Warren County Water and Sewer.
- Development of administrative documents such as a Code of Regulations and an Adjustment and Credit Policy to address issues with the user fee. The District also began work on a policy to address storm water drainage issues on private property.
- Creation of an informational web site: www.deerfieldstormwater.com.
- Collaboration with other storm water districts and soil and water conservation departments in south west Ohio to implement a radio advertising campaign to raise awareness of storm water issues. This group also set up an informational web site: www.saveohiowater.org.
- Collaboration with the Warren County Soil and Water Conservation District to provide storm water education within the schools and to the public in general. This included tagging storm drains and distributing door hangers at many locations in the Township.
- Two open houses to discuss the user fee and continued to hold monthly District Board meetings.
- Initiation of mapping for septic systems and storm water outfalls within the Township.
- Development of a draft Illicit Discharge Detection and Elimination Plan.
- Staffed a booth at Deerfield Day to distribute storm water information to the community and raise public awareness of storm water issues.

A brief verbal description of the District’s 2006/2007 compliance efforts for each MCM is provided below. Following this discussion is a tabular summary (**Table 1**) of compliance status and accomplishments for each minimum control measure for the

2006/2007 reporting period. Subsequent to this is a second table (**Table 2**) outlining the District's planned compliance activities for the 2007/2008 reporting period.

Public Education & Outreach (MCM 1) – Over the past year the District has made efforts to educate and inform the public regarding local storm water issues through a variety of media including monthly and special, as-needed District Board meetings, public access TV (Deerfield Digest program and televised monthly Board meetings), and the Deerfield Day festival. The District created a website dedicated to the DRSWD activities (www.deerfieldstormwater.com). The District's website has garnered over 3,000 hits since its creation in July 2006. The District also participated with the Southwest Ohio Storm Water Collaborative, which consists of a group of MS4s in southwest Ohio, in funding storm water related public service announcements on local radio stations. The radio public service announcements reached nearly 34,000 people during the time of their airing. The District also assisted the Collaborative with the development of the www.saveohiowater.org website, which presents educational information regarding the Collaborative and storm water in general. This website has garnered over 27,000 hits as of the writing of this report. The Warren County Soil and Water Conservation District (SWCD) made storm water related presentations to area school children, installed and distributed storm drain tags and door hangers, and provided public service opportunities to area schools for the drain tagging effort.

The District distributed two mailings in 2006 to educate customers on the implementation of the District's storm water service fee and storm water management program. The following is a brief summary of activity highlights related to MCM 1. Additional details are provided in **Table 1**.

- The District created a dedicated Deerfield Regional Storm Water District website (www.deerfieldstormwater.com) and participation in the creation of the website for the Southwest Ohio Storm Water Collaborative (www.saveohiowater.org).
- The SWCD made over 40 presentations to school children in the Mason, Ohio city school district (approximately 50 percent of which are assumed to be Deerfield residents).
- The SWCD organized the installation of 155 storm drain tags and the distribution of 554 door hangers with educational storm water messages.
- The SWCD also provided public service opportunity information to both Mason and Kings school districts in relation to storm drain tagging efforts.
- Staffing a booth at the 2006 Deerfield Day festival
- Airing of 2 District-focused episodes of the Deerfield Digest TV show
- The District used the Township's general number as a hotline for storm water related concerns
- The District used the Southwest Ohio Storm Water Collaborative hotline number to route storm water calls related to Deerfield to SWCD staff for follow-up

Public Participation & Involvement (MCM 2) – Over the past year the District has continued to provide its residents with opportunities to participate in storm water related activities. A few of these activities completed over the past year include the following. These activities are also summarized in **Table 1**.

- Monthly DRSWD Board meetings are open to the public.
- Two open houses were held during 2006 to give the public an opportunity to provide feedback regarding the District’s storm water service fee.
- The SWCD provided public service opportunities regarding storm drain tagging and stream cleanups.

Illicit Discharge Detection and Elimination (MCM 3) – The District’s progress toward year 4 activity goals for MCM 3 is summarized in **Table 1**. The following is a brief summary of activity highlights related to MCM 3.

- The District contracted with its consultant, Camp Dresser & McKee Inc. (CDM), to locate and map, via a global positioning system (GPS), the location of approximately one-half of the storm water outfalls within the Township. CDM mapped over 170 storm water outfalls within the District boundary (**Figure 1**) and subjected them to dry weather screening to determine the presence or absence of potentially illicit discharges.
- CDM also created a geographic information system (GIS) map of home sewage treatment system (HSTS) locations within the Township by geocoding the addresses of properties with HSTSs as provided by the Warren County Health Department. The HSTS locations were mapped using ESRI’s ArcGIS software. HSTSs for which the County Health Department has no electronic records remain to be mapped.
- The District also made strides in the development of a draft Illicit Discharge Detection and Elimination Plan (IDDEP). The IDDEP is currently under review by Township staff and will be implemented prior to the end of the permit term.

Construction Site Runoff Control (MCM 4) – The District’s progress toward year 4 activity goals for MCM 4 is summarized in **Table 1**. The District is relying on the efforts of the Warren County Soil and Water Conservation District for compliance with this Minimum Control Measure. The major progress related to MCM 4 involved the Warren County Board of Commissioners’ (BOCC) adoption of revised sediment and erosion control regulations in early 2007. The regulations were revised in order to comply with the requirements of Phase II NPDES. The implementation of these regulations in Deerfield Township was automatic upon passage by the BOCC, given the inter-relationship between county and township governments. The District also co-sponsored and attended, via one Board representative and one CDM representative, the annual Southwest Ohio Sediment and Erosion Control Field Day expo held in June 2006 at the Warren County Career Center, Lebanon, Ohio.

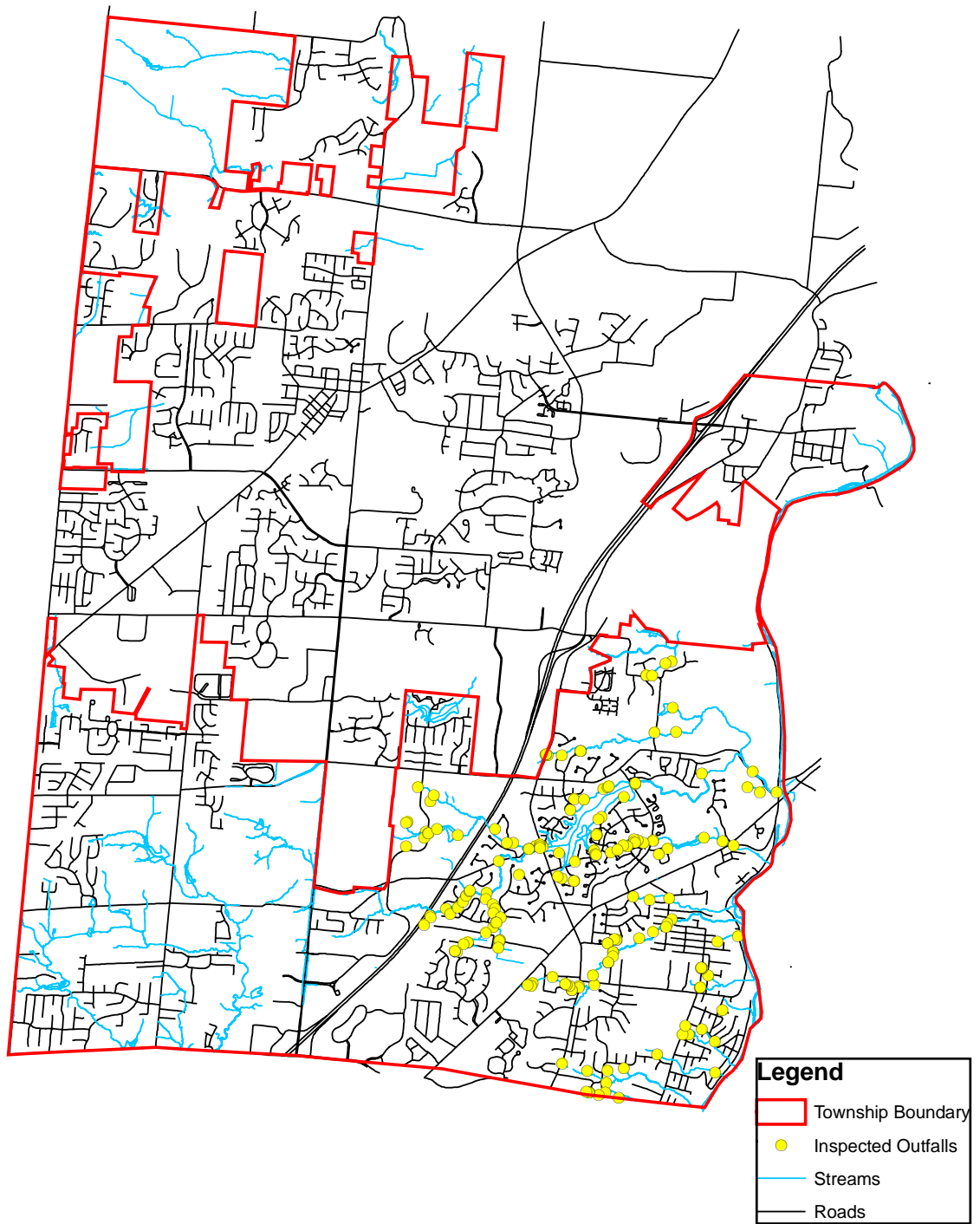
Post Construction Runoff Control (MCM 5) – The District’s progress toward year 4 activity goals for MCM 5 is summarized in **Table 1**. The District is essentially dependent on the Warren County Engineer’s Office for compliance with the requirements of this Minimum Control Measure. During 2006 Warren County Engineer’s Office staff and other participating County staff made strides toward the revision of the County’s storm water regulations in order to address the regulatory requirements of Phase II NPDES. Warren County Engineer’s Office staff anticipates adoption of the revised regulations during 2007.

Pollution Prevention & Good Housekeeping (MCM 6) – The District’s progress toward year 4 activity goals for MCM 6 is summarized in **Table 1**. The following is a brief summary of activity highlights related to MCM 6.

- The Township Public Works Department has 3 of its 11 employees certified for pesticide application.
- The Township annually cleans and inspects all storm sewer inlets (catch basins).
- Township maintenance staff has implemented spill prevention measures in the Township service garage area.

Accomplishments and Anticipated Activities

Table 2 provides a summary of anticipated compliance activities for the 2007/2008 (Year 5) reporting period.



**Figure 1 – Known outfall locations within Deerfield Township
(current as of March 2007)**

TABLES

TABLE 1
Deerfield Regional Storm Water District
Status of Phase II NPDES Compliance Activities
2006-2007

Minimum Control Measure	Measurable Goals	2006/2007 BMP Status
MCM 1 - Public Education and Outreach		
1. BMP: Storm water information distribution to the general public.	The district will secure brochures and/or fax sheets from Ohio EPA and USEPA and possibly develop its own newsletter or fact sheet to distribute to all residents of the Township throughout the five (5) year implementation. The Township will try to ensure that each resident receives at least one (1) publication. Additional distribution will be dictated by budget availability.	<ul style="list-style-type: none"> * Two open houses held for outreach regarding the storm water service fee. Educational materials were distributed to attendees of this event. * The District again set up a booth at the Deerfield Days Festival, displaying the storm water drainage system model and distributing educational materials * The District distributed 2 mailings to Township residents, businesses, and non-profit organizations regarding Phase II NPDES, the Township's regulatory compliance responsibilities, and the implementation of the storm water service fee. * Deerfield digest show (2 shows) - 2x/week (June 6 - late October 2006) 1st was DRSWD board and Phase II NPDES; November and December mainly focused on Phase II NPDES and the storm water service fee. * Deerfield digest article about watersheds and an annual report of District activities (to every address within the Township). * The District also received some newspaper coverage in both the Mason Community Press and the Pulse Journal during 2006.
2. BMP: Develop alternative information sources such as websites, billboards, and refrigerator magnets.	Either the Township website or the new district's website will include storm water information and will be posted within one (1) year after the formation of the district. The district, Township and WCSWCD will develop refrigerator magnets and place billboard advertisements as budget availability dictates.	<ul style="list-style-type: none"> * In July 2006 the DRSWD developed their own website (http://www.deerfieldstormwater.com/) independent of the Deerfield Township website, while maintaining a weblink from the Township's website to the DRSWD website. (3164 hits since July 2006) * In 2006 the DRSWD participated in radio outreach campaigns through the efforts of the Southwest Ohio Storm Water Collaborative (http://www.saveohiowater.org/). (Radio outreach - 4 stations with total Warren County estimated reach of 33,900 adults between 21 and 54 years old each week. Ran from April through October 2006, the first week of each month. Adds were scattered among the 4 participating radio stations.) * The www.saveohiowater.org website was developed in March 2006 (27,464 hits). * The DRSWD also maintains a link to the District's website from the Southwest Ohio Storm Water Collaborative website.
3. BMP: Conduct storm drain stenciling, tagging project with accompanying door hangers for residents.	The district, Township and WCSWCD will develop drain stenciling or tagging to place on every storm sewer within the Township by the end of the permit term. As those storm drain stenciling and tags are installed, neighboring residents will also receive doorhangers providing information about storm water runoff as budget availability dictates.	<ul style="list-style-type: none"> * 155 storm drains were tagged/labeled and 554 door hangers were distributed. * A number of new development sites within the Township have included installation of storm inlets with stampings such as "Do Not Dump! Drains to Stream!" in the curb casting. The SWCD intends to estimate or count these and report their numbers in the 2007 annual report.
4. BMP: Storm water education program for school children.	Fifty percent (50%) of all school children (K-12) within Deerfield Township will be educated every two (2) years on storm water pollution by providing the schools with materials, live presentations, brochures, and other appropriate and feasible media as budget availability dictates.	<ul style="list-style-type: none"> * 42 classroom presentations (by Warren County SWCD) in Mason City schools were given, reaching 846 students. Approximately half these children are believed to be residents of Deerfield Township. * 1 SWCD presentation to the Boy Scouts reached approximately 25 attendees. * 1 presentation to the Mason, Ohio area leaders of the Girl Scouts regarding the USEPA Water Drop Patch program and the availability of SWCD presentations and public service opportunities such as storm drain tagging. * 1 classroom presentation by DRSWD personnel reaching 50 students. * Kings Mills Elementary had a presentation by Crystal Science that included water quality as a focus reaching approximately 300 students.
5. BMP: Organize school/community sponsored action projects such as stream cleanup, riparian tree planting, stream bank stabilization.	The district, Township and WCSWCD will organize one (1) action project per year to cleanup various streams within the Township. They will also organize one riparian tree planting and stream bank stabilization project twice during the five (5) year permit term.	<ul style="list-style-type: none"> * The SWCD provided information to both Mason City and Kings schools districts with information on public service opportunities (storm drain tagging/labeling). * The SWCD and the DRSWD Board provided public service opportunity information to the girl scouts regarding storm drain tagging/labeling. * The DRSWD has also approached the Deerfield Township Parks Department in relation to coordinating volunteer stream cleanup programs.
6. BMP: Create a storm water hotline.	If funding permits, the three (3) entities will create a storm water hotline for residents to call and report any storm water pollution violations. This number may be a separate number or may simply be a direct line to the Township, district or WCSWCD offices.	<ul style="list-style-type: none"> * Continue use of Deerfield Township main phone number (513-683-5805) as contact number for the District. * The WCSWCD may also receive calls for the DRSWD either directly to the SWCD phone number or as a referral from the hotline number established by the Southwest Ohio Storm Water Collaborative.
7. BMP: Develop watershed/tributary signage to identify streams.	The district, Township, and WCSWCD will develop signage to be placed at strategic locations along all tributaries throughout the Township. This effort will be completed by the end of the five (5) year permit term as budget availability dictates.	<ul style="list-style-type: none"> * All major stream crossings within Deerfield Township now have stream signage. * The District, in partnership with Deerfield Township Public Works, installed tributary signs at 19 streambed crossings in 2005. * Warren County installed signs at four crossings in Deerfield Township in 2005.



TABLE 1
Deerfield Regional Storm Water District
Status of Phase II NPDES Compliance Activities
2006-2007

Minimum Control Measure	Measurable Goals	2006/2007 BMP Status
MCM 2 - Public Participation and Involvement		
1. BMP: Conduct public meetings to obtain community input.	The district, Township, and WCSWCD will hold one (1) public meeting in 2003 and one (1) meeting in 2004 to inform citizens about storm water impacts and gain support for the proposed storm water management plan. These meetings will both educate the public and provide a forum for public input.	* During 2006 the District continued holding monthly District Trustee meetings, in addition to holding 2 open house events to educate the public about the storm water service fee that was implemented during 2006.
2. BMP: Creation of "adopt a storm drain program", and "adopt a stream" within the Township.	The Township will work with community groups to adopt as many storm drains within the Township as possible to help clear debris from the drain entrances and report any illicit discharge. The program will be tailored to allow participation from any group or organization within the Township. By adopting the stream, the adopter will clean up, monitor, and inspect their portion of the stream through guidelines adopted at a later date. The program and activities will be publicized through the various items distributed in the public education and outreach minimum control measure and will also be partnered with the local schools to perform various functions including water quality testing.	* The SWCD has offered coordination of efforts for adoption of streams and storm drains, but no one has volunteered for the program.
MCM 3 - Illicit Discharge Detection & Elimination		
1. BMP: Create a map of the home sewage treatment systems.	Within the five (5) year permit term, the Township and the district will work with Warren County GIS to create a map of the home sewage treatment systems. An associated database containing the owner's name and address as well as other information about the HSTS will be connected to the map by Warren County GIS. The District will complete the mapping on the following schedule: 2005 – 30%, 2006 – 35%, 2007 – 35%. After this mapping is complete, the District will be better able to identify problems with older sanitary sewer lines and will work with the Warren County Health Department on a case by case basis to correct these problems.	* During 2006, CDM created a map of the HSTSs within the Township for which the Warren County Health Department has electronic records.
2. BMP: Identify illicit connections through dry weather screening and targeted video inspection.	A survey during dry weather of the twenty percent (20%) of the storm drain system outfalls per year will be conducted to identify non storm water flows. Once each year's survey is complete, areas with suspicious discharges will be inspected again to detect suspected direct connections to the wastewater system and identify areas where wastewater might be leaking into adjacent storm water pipes. In 2005 the District will meet with the Warren County Health Department to discuss this screening.	* During 2006, the District through its consultant (CDM) performed mapping and dry weather screening for approximately 1/2 of the storm water outfalls within the Township (over 170 outfalls). * During 2006, the District drafted an Illicit Discharge Detection and Elimination Plan to address various types of illicit discharges in the event that they are detected within the Township.
3. BMP: Develop a storm drain system map.	Within the five (5) year permit term, the Township and the district will work with the Warren County Engineer's Office to develop a storm drain system map showing the location of all pipes, structures, outfalls, detention basins, and the names and locations of all surface waters of the state within the Township. The Township and the district will also develop and prioritize a list of outfalls that discharge into the Deerfield Township MS4, based on the degree of development and/or other determining factors. The District will complete this goal on the following schedule: 2005 – 30%, 2006 – 35%, 2007 – 35%.	* Several years ago the Warren County Engineer's Office mapped a portion of the outfalls within the Township as part of a mapping pilot project. * CDM mapped 1/2 of the storm water outfalls within the Township during 2006 by walking Township streams and obtaining GPS coordinates for outfall locations.
4. BMP: Illicit discharge/illegal dumping hotline.	A hotline for citizens to report illegal dumping and suspicious discharges will be established during the five (5) year permit term if funds are available. If no independent hotline is established, residents will be educated through the various publications and outreach materials of the need to report illicit discharges and the appropriate district or township phone number to call to report such discharges.	* Continue use of Deerfield Township main phone number (513-683-5805) as contact number for the District. * The WCSWCD may also receive calls for the DRSWD either directly to the SWCD phone number or as a referral from the hotline number established by the Southwest Ohio Storm Water Collaborative. * The DRSWD also posted directions on the District website for reporting of illicit discharges.



TABLE 1
Deerfield Regional Storm Water District
Status of Phase II NPDES Compliance Activities
2006-2007

Minimum Control Measure	Measurable Goals	2006/2007 BMP Status
MCM 4 - Construction Site Storm Water Runoff Control		
<p>1. BMP: The WCSWCD currently administers construction site runoff control within Deerfield Township for projects involving areas of disturbances of five (5) acres or greater in size. After the storm sewer district is formed, that district will adopt similar regulations for all projects disturbing one (1) acre or more within the Township.</p>	<p>Draft regulatory guidelines will be developed within one (1) year after the formation of the proposed storm sewer district. Final regulations will be available within two (2) years after the establishment of the district. In any event, these regulatory mechanisms will require the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites. These procedures will also include site plan review of construction plans that consider potential water quality impacts; procedures for site inspection and enforcement of control measures; sanctions to ensure compliance; and procedures for the receipt and consideration of information submitted by the public. Maximum compliance with the ordinance should be achieved after three (3) years. Improved clarity and reduced sedimentation of local water bodies should be measurable.</p>	<p>* The Warren County Soil and Water Conservation District worked during 2006 to modify the Warren County sediment and erosion control regulations to be consistent with the requirements of Phase II NPDES. The regulations were enacted in January 2007.</p>
<p>2. BMP: Develop a certification program for contractors.</p>	<p>Achieve eighty percent (80%) compliance with the requirements by the end of the first permit term.</p>	<p>* Continue ongoing activities by Warren SWCD in holding the Annual Southwest Ohio Erosion and Sediment Control Field Day. * Warren SWCD can make certificates available for attendees who are developers or contractors that perform work in Deerfield Township.</p>
MCM 5 - Post Construction Storm Water Runoff Control		
<p>1. BMP: Continue to administer, in cooperation with the Warren County Engineer's Office, the "post development runoff management" program through the existing "Warren County, Ohio Rules and Regulations for the design of sewer and storm water management systems.</p>	<p>The WCEO Rules and Regulations will be immediately implemented within the Township. The newly developed district and township will work with the engineer's office to modify those rules in any way, including expansion of the Rules and Regulations, to ensure adequate long term operation and maintenance of the controls.</p>	<p>* During 2006 the Warren County Engineer's Office worked to revise the County's design requirements for storm water management facilities to meet the Phase II NPDES requirements for water quality.</p>
<p>2. BMP: Develop master plans, comprehensive plans, and integrated zoning ordinances to promote and improve water quality by guiding the growth of the community away from sensitive areas and restricting certain types of growth to areas that can support it.</p>	<p>By the end of the five (5) year permit term, a master plan would be developed to direct development away from sensitive areas and which integrates post construction runoff regulations.</p>	<p>The Township anticipates the initiation of a new comprehensive planning process for the Township during 2007.</p>
MCM 6 - Pollution Prevention / Good Housekeeping		
<p>1. BMP: Training for public employees of the Township.</p>	<p>Within the first year of the permit, all Township and district employees will receive pollution prevention materials. Within the first year, the district, working in conjunction with the Township, will develop a pollution prevent workshop for all Township employees responsible for grounds maintenance and landscaping at public facilities. Each year after that, the district and Township will hold an additional workshop once per year for new employees and crew managers. By the end of the five (5) year permit term, the goal is to achieve a reduction in fertilizer and pesticide use by the Township, as budget availability dictates.</p>	<p>* Deerfield Township sent 3 employees for training and certification in pesticide application in 2006.</p>
<p>2. BMP: Develop a pollution prevention plan within the first year of the permit term.</p>	<p>The district, working with the Township, will develop a Pollution Prevention Plan which details controls and programs to promote recycling, minimize pesticide use, insure the proper disposal of animal waste, storm drain system cleaning procedures and schedules, street sweeping, etc. This plan should be completed within the first year and fully implemented within the third year of the permit term.</p>	<p>* During 2005 the District, with Township input, developed a pollution and spill prevention plan. * The Township maintenance staff have implemented spill prevention measures in the service garage area.</p>
<p>3. BMP: Develop spill prevention and control plans for Township facilities.</p>	<p>The Township will develop a plan to reduce spill prevention, including spill containment, spill response training and additional training to reduce pollution from Township facilities resulting from automobile maintenance, vehicle washing, and other pollution causing activities.</p>	<p>* The spill prevention plan is included as part of the pollution prevention plan, developed in 2005. * The Township maintenance staff have implemented spill prevention measures in the service garage area.</p>



TABLE 1
Deerfield Regional Storm Water District
Status of Phase II NPDES Compliance Activities
2006-2007

Minimum Control Measure	Measurable Goals	2006/2007 BMP Status
<p>4: BMP: Incorporate the use of road salt storage control and implement road salt alternatives for roadway de-icing.</p>	<p>Within the first year, the Township will develop a program to improve salt storage controls, including siting and design considerations. The Township will also investigate the feasibility of less toxic alternatives for roadway de-icing. The implementation of these alternative de-icing mechanisms will be somewhat dependent on budget considerations.</p>	<p>* The Township's plans to build a salt storage facility have been delayed due to their incorporation in larger plans to design and build new township offices and facilities. * Concerning salt application practices, the Township continues to review alternative practices but currently follows procedures similar to peer communities in southwest Ohio.</p>



TABLE 2
Deerfield Regional Storm Water District
Planned Phase II NPDES Compliance Activities
2007-2008

Minimum Control Measure	Measurable Goals	2007/2008 Planned Compliance Activities
MCM 1 - Public Education and Outreach		
1. BMP: Storm water information distribution to the general public.	The district will secure brochures and/or fax sheets from Ohio EPA and USEPA and possibly develop its own newsletter or fact sheet to distribute to all residents of the Township throughout the five (5) year implementation. The Township will try to ensure that each resident receives at least one (1) publication. Additional distribution will be dictated by budget availability.	<ul style="list-style-type: none"> * Continue District participation at the Deerfield Days Festival, displaying the storm water drainage system model and distributing educational materials. * Continue to distribute informational mailings as needed to Township residents, businesses, and non-profit organizations regarding Phase II NPDES, the Township's regulatory compliance responsibilities, and/or the implementation of the storm water service fee. * Continue to hold and televise monthly District Board meetings. * Publish another Deerfield digest article with an annual report of District activities (to every address within the Township).
2. BMP: Develop alternative information sources such as websites, billboards, and refrigerator magnets.	Either the Township website or the new district's website will include storm water information and will be posted within one (1) year after the formation of the district. The district, Township and WCSWCD will develop refrigerator magnets and place billboard advertisements as budget availability dictates.	<ul style="list-style-type: none"> * Maintain the District website (http://www.deerfieldstormwater.com/), as well as maintain the link from the Township website to the DRSWD website, and monitor hits during 2007. * Continue participation with the Southwest Ohio Storm Water Collaborative in radio outreach campaigns. * The DRSWD also maintains a link to the District's website from the Southwest Ohio Storm Water Collaborative website (http://www.saveohiowater.org/).
3. BMP: Conduct storm drain stenciling, tagging project with accompanying door hangers for residents.	The district, Township and WCSWCD will develop drain stenciling or tagging to place on every storm sewer within the Township by the end of the permit term. As those storm drain stenciling and tags are installed, neighboring residents will also receive doorhangers providing information about storm water runoff as budget availability dictates.	<ul style="list-style-type: none"> * Continue storm drain tagging and labeling efforts and distribution of door hangers. * Begin estimating or counting storm inlets in new development sites within the Township with stampings such as "Do Not Dump! Drains to Stream!" in the curb casting.
4. BMP: Storm water education program for school children.	Fifty percent (50%) of all school children (K-12) within Deerfield Township will be educated every two (2) years on storm water pollution by providing the schools with materials, live presentations, brochures, and other appropriate and feasible media as budget availability dictates.	<ul style="list-style-type: none"> * Continue classroom presentations in Mason and/or Kings School Districts. * The District intends to contact Mason and Kings School Districts about the possibility of distributing age-appropriate storm water educational materials to targeted student age groups.
5. BMP: Organize school/community sponsored action projects such as stream cleanup, riparian tree planting, stream bank stabilization.	The district, Township and WCSWCD will organize one (1) action project per year to cleanup various streams within the Township. They will also organize one riparian tree planting and stream bank stabilization project twice during the five (5) year permit term.	<ul style="list-style-type: none"> * Continue to provide information to both Mason City and Kings schools districts with information on public service opportunities (storm drain tagging/labeling). * Continue to provide public service opportunity information to the girl scouts and/or boy scouts regarding storm drain tagging/labeling. * Explore with the Deerfield Township Parks Department opportunities to coordinating volunteer stream cleanup programs. * Explore with Deerfield Township the distribution of educational and public service materials to Homeowners Associations (HOAs) within the Township.
6. BMP: Create a storm water hotline.	If funding permits, the three (3) entities will create a storm water hotline for residents to call and report any storm water pollution violations. This number may be a separate number or may simply be a direct line to the Township, district or WCSWCD offices.	<ul style="list-style-type: none"> * Continue use of Deerfield Township main phone number (513-683-5805) as contact number for the District. * The WCSWCD may also receive calls for the DRSWD either directly to the SWCD phone number or as a referral from the hotline number established by the Southwest Ohio Storm Water Collaborative.
7. BMP: Develop watershed/tributary signage to identify streams.	The district, Township, and WCSWCD will develop signage to be placed at strategic locations along all tributaries throughout the Township. This effort will be completed by the end of the five (5) year permit term as budget availability dictates.	<ul style="list-style-type: none"> * All major stream crossings within Deerfield Township now have stream signage. * The District, in partnership with Deerfield Township Public Works, installed tributary signs at 19 streambed crossings in 2005. * Warren County installed signs at four crossings in Deerfield Township in 2005.
MCM 2 - Public Participation and Involvement		
1. BMP: Conduct public meetings to obtain community input.	The district, Township, and WCSWCD will hold one (1) public meeting in 2003 and one (1) meeting in 2004 to inform citizens about storm water impacts and gain support for the proposed storm water management plan. These meetings will both educate the public and provide a forum for public input.	<ul style="list-style-type: none"> * Continue holding monthly District Trustee meetings and as-needed special meetings.



TABLE 2
Deerfield Regional Storm Water District
Planned Phase II NPDES Compliance Activities
2007-2008

Minimum Control Measure	Measurable Goals	2007/2008 Planned Compliance Activities
<p>2. BMP: Creation of "adopt a storm drain program", and "adopt a stream" within the Township.</p>	<p>The Township will work with community groups to adopt as many storm drains within the Township as possible to help clear debris from the drain entrances and report any illicit discharge. The program will be tailored to allow participation from any group or organization within the Township. By adopting the stream, the adopter will clean up, monitor, and inspect their portion of the stream through guidelines adopted at a later date. The program and activities will be publicized through the various items distributed in the public education and outreach minimum control measure and will also be partnered with the local schools to perform various functions including water quality testing.</p>	<ul style="list-style-type: none"> * Continue the SWCD efforts to offer coordination of adoption of streams and storm drains. * Continue to explore volunteer opportunities with the Deerfield Township Parks Department. * Explore with Deerfield Township the distribution of educational and public service materials to Homeowners Associations (HOAs) within the Township.
<p>MCM 3 - Illicit Discharge Detection & Elimination</p>		
<p>1. BMP: Create a map of the home sewage treatment systems.</p>	<p>Within the five (5) year permit term, the Township and the district will work with Warren County GIS to create a map of the home sewage treatment systems. An associated database containing the owner's name and address as well as other information about the HSTS will be connected to the map by Warren County GIS. The District will complete the mapping on the following schedule: 2005 – 30%, 2006 – 35%, 2007 – 35%. After this mapping is complete, the District will be better able to identify problems with older sanitary sewer lines and will work with the Warren County Health Department on a case by case basis to correct these problems.</p>	<ul style="list-style-type: none"> * During 2007 CDM will work with the Warren County Health Department and Water and Sewer Department to map the locations of HSTSs for which the County only has paper files.
<p>2. BMP: Identify illicit connections through dry weather screening and targeted video inspection.</p>	<p>A survey during dry weather of the twenty percent (20%) of the storm drain system outfalls per year will be conducted to identify non storm water flows. Once each year's survey is complete, areas with suspicious discharges will be inspected again to detect suspected direct connections to the wastewater system and identify areas where wastewater might be leaking into adjacent storm water pipes. In 2005 the District will meet with the Warren County Health Department to discuss this screening.</p>	<ul style="list-style-type: none"> * During 2007, the District anticipates finalizing the Illicit Discharge Detection and Elimination Plan to address various types of illicit discharges in the event that they are detected within the Township. * The remaining 1/2 will be performed during 2007.
<p>3. BMP: Develop a storm drain system map.</p>	<p>Within the five (5) year permit term, the Township and the district will work with the Warren County Engineer's Office to develop a storm drain system map showing the location of all pipes, structures, outfalls, detention basins, and the names and locations of all surface waters of the state within the Township. The Township and the district will also develop and prioritize a list of outfalls that discharge into the Deerfield Township MS4, based on the degree of development and/or other determining factors. The District will complete this goal on the following schedule: 2005 – 30%, 2006 – 35%, 2007 – 35%.</p>	<ul style="list-style-type: none"> * The District will map the remaining outfall locations as part of 2007 dry weather screening activities. * Concerning mapping of the entire drainage system, the Township plans to hire a GIS technician during 2007. Part of this hire's responsibilities would be to use a GPS system, to be purchased by the Township, to map the coordinates of drainage system features such as catch basins and manholes. * The Warren County Soil and Water Conservation District will begin to map the location of both public and private detention basins within the Township during 2007.
<p>4. BMP: Illicit discharge/illegal dumping hotline.</p>	<p>A hotline for citizens to report illegal dumping and suspicious discharges will be established during the five (5) year permit term if funds are available. If no independent hotline is established, residents will be educated through the various publications and outreach materials of the need to report illicit discharges and the appropriate district or township phone number to call to report such discharges.</p>	<ul style="list-style-type: none"> * Continue use of Deerfield Township main phone number (513-683-5805) as contact number for the District. * The WCSWCD may also receive calls for the DRSWD either directly to the SWCD phone number or as a referral from the hotline number established by the Southwest Ohio Storm Water Collaborative. * The DRSWD also posted directions on the District website for reporting of illicit discharges.



TABLE 2
Deerfield Regional Storm Water District
Planned Phase II NPDES Compliance Activities
2007-2008

Minimum Control Measure	Measurable Goals	2007/2008 Planned Compliance Activities
MCM 4 - Construction Site Storm Water Runoff Control		
<p>1. BMP: The WCSWCD currently administers construction site runoff control within Deerfield Township for projects involving areas of disturbances of five (5) acres or greater in size. After the storm sewer district is formed, that district will adopt similar regulations for all projects disturbing one (1) acre or more within the Township.</p>	<p>Draft regulatory guidelines will be developed within one (1) year after the formation of the proposed storm sewer district. Final regulations will be available within two (2) years after the establishment of the district. In any event, these regulatory mechanisms will require the implementation of proper erosion and sediment controls, and controls for other wastes, on applicable construction sites. These procedures will also include site plan review of construction plans that consider potential water quality impacts; procedures for site inspection and enforcement of control measures; sanctions to ensure compliance; and procedures for the receipt and consideration of information submitted by the public. Maximum compliance with the ordinance should be achieved after three (3) years. Improved clarity and reduced sedimentation of local water bodies should be measurable.</p>	<p>* The Warren County Soil and Water Conservation District worked during 2006 to modify the Warren County sediment and erosion control regulations to be consistent with the requirements of Phase II NPDES. The regulations were enacted in January 2007.</p>
<p>2. BMP: Develop a certification program for contractors.</p>	<p>Achieve eighty percent (80%) compliance with the requirements by the end of the first permit term.</p>	<p>* Continue ongoing activities by Warren SWCD in holding the Annual Southwest Ohio Erosion and Sediment Control Field Day. * Warren SWCD can make certificates available for attendees who are developers or contractors that perform work in Deerfield Township.</p>
MCM 5 - Post Construction Storm Water Runoff Control		
<p>1. BMP: Continue to administer, in cooperation with the Warren County Engineer's Office, the "post development runoff management" program through the existing "Warren County, Ohio Rules and Regulations for the design of sewer and storm water management systems.</p>	<p>The WCEO Rules and Regulations will be immediately implemented within the Township. The newly developed district and township will work with the engineer's office to modify those rules in any way, including expansion of the Rules and Regulations, to ensure adequate long term operation and maintenance of the controls.</p>	<p>* The Warren County Engineer's Office anticipates the completion of the revised Warren County storm water management regulations during 2007 to be consistent with the Ohio EPA Construction General Permit requirements for BMP treatment of the water quality volume. * Upon passage by the Warren County Board of Commissioners, the regulations will automatically apply to the Township.</p>
<p>2. BMP: Develop master plans, comprehensive plans, and integrated zoning ordinances to promote and improve water quality by guiding the growth of the community away from sensitive areas and restricting certain types of growth to areas that can support it.</p>	<p>By the end of the five (5) year permit term, a master plan would be developed to direct development away from sensitive areas and which integrates post construction runoff regulations.</p>	<p>The Township anticipates the initiation of a new comprehensive planning process for the Township during 2007.</p>
MCM 6 - Pollution Prevention / Good Housekeeping		
<p>1. BMP: Training for public employees of the Township.</p>	<p>Within the first year of the permit, all Township and district employees will receive pollution prevention materials. Within the first year, the district, working in conjunction with the Township, will develop a pollution prevent workshop for all Township employees responsible for grounds maintenance and landscaping at public facilities. Each year after that, the district and Township will hold an additional workshop once per year for new employees and crew managers. By the end of the five (5) year permit term, the goal is to achieve a reduction in fertilizer and pesticide use by the Township, as budget availability dictates.</p>	<p>* Continue training and certification of Township employees in pesticide application.</p>
<p>2. BMP: Develop a pollution prevention plan within the first year of the permit term.</p>	<p>The district, working with the Township, will develop a Pollution Prevention Plan which details controls and programs to promote recycling, minimize pesticide use, insure the proper disposal of animal waste, storm drain system cleaning procedures and schedules, street sweeping, etc. This plan should be completed within the first year and fully implemented within the third year of the permit term.</p>	<p>* Continue implementation of spill prevention measures in the service garage area.</p>
<p>3. BMP: Develop spill prevention and control plans for Township facilities.</p>	<p>The Township will develop a plan to reduce spill prevention, including spill containment, spill response training and additional training to reduce pollution from Township facilities resulting from automobile maintenance, vehicle washing, and other pollution causing activities.</p>	<p>* Continue implementation of spill prevention measures in the service garage area. * The planned new Township maintenance facilities are expected to more effectively address all garage spill prevention, containment, and clean-up issues, as well as have a vehicle wash area.</p>



TABLE 2
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2007-2008

Minimum Control Measure	Measurable Goals	2007/2008 Planned Compliance Activities
<p>4: BMP: Incorporate the use of road salt storage control and implement road salt alternatives for roadway de-icing.</p>	<p>Within the first year, the Township will develop a program to improve salt storage controls, including siting and design considerations. The Township will also investigate the feasibility of less toxic alternatives for roadway de-icing. The implementation of these alternative de-icing mechanisms will be somewhat dependent on budget considerations.</p>	<p>* The Township's plans to build a salt storage facility have been delayed due to their incorporation in larger plans to design and build new township offices and facilities. * Concerning salt application practices, the Township continues to review alternative practices but currently follows procedures similar to peer communities in southwest Ohio.</p>

