

## **Minimum Measures of the NPDES – MS4, Phase II Program (aka Storm Water Management Program, SWM Program)**

### **Public Education and Outreach (minimum measure #1)**

Whenever a MS4 Program attempts to inform the general public of what impacts polluted storm water runoff has on water quality, it is considered to be 'Public Education and Outreach'.

Examples of this would be:

- ✓ Established the citizens' hotline where you can express your desire to receive SWM information by calling 355-5789 and leaving your name and contact information,
- ✓ Created the website you are now perusing as part of the Town of Smyrna Public Works Department,
- ✓ Held three annual Stewart Creek WaterFests at Volunteer Park, Sam Davis Home, and Stewart Creek Boat Ramp in 2005, 2007, and 2008, where seven to ten individuals spoke about water quality issues through their displays assisted the attendees in their valuable learning experience,
- ✓ Displayed the SWM Program at partnered lake bank cleanup events sponsored by the Tennessee Department of Military and Tennessee Army National Guard (Smyrna Airbase),
- ✓ Gave individual presentations to local and regional groups such as the Green Committee of the Bob Parks Realty, Inc.,
- ✓ Broadcasted the very informative Weather Channel/EPA production 'After the Storm' on Channel 3. This production explains how the everyday activities of citizens can impact the quality of surface water,
- ✓ Broadcasted two TDEC source water protection productions on Channel 3, explaining how everyday activities of citizens can impact the quality of our ground water, a resource we depend upon for drinking, bathing, and many other essential activities,
- ✓ Broadcasted numerous Public Service Announcements produced by Water Works and Bill Hudson and Associates seen on Channel 3, explaining a wide array of water quality issues including motor oil disposal and littering,
- ✓ Partnered with the SWM programs of Rutherford County, Murfreesboro, and Smyrna and Austin Peay State University to convince the Rutherford County School Board to adopt a nationwide in and out of class educational program, known as Water Education for Teachers (WET) Program. This valuable program enables our teachers to instruct our children in-class as well as in the field of how urban growth and everyday activities of citizens impact our own water quality,
- ✓ Met with MS4 coordinators and three Rutherford County educators to craft the project description document to support a future Project WET contract,
- ✓ Assisted Smyrna Town Attorney in her effort to craft a contract that will enable an educator to perform the Project WET program. This will enable the principals to learn more about Project WET, strengthen the abilities of existing Project WET teachers, and enlist even more Project WET teachers,
- ✓ Assisted in the facilitation of fifth graders monitoring stream water in Stewart Creek in 2007 and 2008,
- ✓ Participated in presentations to hundreds of third graders from throughout Rutherford County at the annual Kid City event in 2005, 2006, and 2007, and
- ✓ Gave presentations to elementary school students throughout middle Tennessee at the Discovery Center's 'Walk on the Wild Side' program.

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**Public Participation and Involvement (minimum measure #2)**

Whenever a MS4 Program plans and hosts a public event that demonstrates the impacts polluted storm water runoff has on water quality to the general public, it is considered to be 'Public Participation and Involvement'.

Examples of this would be:

- ✓ Established the citizens' hotline where you can express your desire to become involved in SWM activities by calling 355-5789 and leaving your name and contact information,
- ✓ Citizens participated in the Storm Water Advisory Committee (SWAC), a group focused on tracking the successes and future efforts of the SWM Program (minutes to all of these monthly meetings can be viewed by going to the end of this site and clicking on any of the listed SWAC meeting minutes). The SWAC reviews and approves all policies and ordinances as well as the annual report to TDEC. The SWAC meetings began in 2004 as a monthly meeting, but became a quarterly meeting in 2005,
- ✓ SWAC members also served as a review board for all appeals, adjustments, and credits associated with the newly founded Storm Water Utility user fee. This is now a televised monthly meeting,
- ✓ Planned and facilitated the first annual Boat Day at Stewart Creek Boat Ramp in 2008 with the assistance of the Stones River Watershed Association and Town of Smyrna staff. Together, ~114 citizens used kayaks and canoes to navigate a small embayment and learn the joy of non-motorized boating, while visiting the adjacent WaterFest,
- ✓ Held two to three stream cleanup efforts, along the banks as well as in the stream, every year as the Town of Smyrna's contribution to the statewide Great American Cleanup program, sponsored by the Keep Tennessee Beautiful Program and the Tennessee Department of Transportation. All citizens are encouraged to participate in these events and are advertized on Channel 3, webpage, and in the newspaper,
- ✓ Facilitated two Stewart Creek float (canoes & kayaks) trips have occurred where the second trip was facilitated as a stream cleanup, collecting debris and litter by boat (2007),
- ✓ Participated in the Percy Priest Lake Cleanup program, a partnered effort between Keep Nashville Beautiful and several local municipalities and counties where several islands were cleaned up. All citizens are encouraged to participate in this event,
- ✓ Participated in the partnered lake bank cleanup event sponsored by the Tennessee Department of Military and Tennessee Army National Guard (Smyrna Airbase),
- ✓ Citizens stepped forward by alerting the SWM Program of illicit discharges,
- ✓ Citizens alerted of hazardous waste and electronic (computer) collection days via Channel 3 and website. These events are sponsored in Murfreesboro by Rutherford County bi-annually then annually, and
- ✓ Facilitated the storm drain labeling project implemented throughout the Town of Smyrna by an Eagle Scout candidate from Murfreesboro.

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### Illicit Discharge Detection and Elimination (minimum measure #3)

Whenever a MS4 Program attempts to establish means of detecting illicit discharges then eliminating these water pollution sources, it is considered to be 'Illicit Discharge Detection and Elimination (IDDE)', an act of non-compliance with existing SWM ordinance and policies.

Examples of this would be:

- ✓ Established the citizens' hotline where you can file sightings of IDDE and dumping by calling 355-5789 and anonymously leaving an informative message,
- ✓ Citizens stepped forward by alerting the SWM Program of IDDE and dumping on several occasions,
- ✓ SWM Program staff responded to two sanitary sewer line leaks, two illicit motor oil dumpings, one lunch wagon, and numerous littering sightings,
- ✓ Completed reconnaissance that established the location of all outdoor grease receptacles, oil change businesses, and paint and body shops, thus enabling the SWM Program to perform impromptu field inspections of them,
- ✓ Established procedures that enabled the SWM Program to track all IDDE sightings then serve the perpetrators of these illicit acts with notices of violation,
- ✓ Inspected all of the aforementioned possible sources of IDDEs at least twice annually, once an environmental technician/inspector was hired in 2006,
- ✓ Issued notices of violation to all owners of IDDEs,
- ✓ Updated the aforementioned list every time a potential source is added in the Town of Smyrna, and
- ✓ Partnered with the Utilities Department to detect and as soon as possible correct sanitary sewer line discharges at two mobile home parks.

*The Town of Smyrna depends on you to call in your sightings!!*

The reader may find the following text is a bit lengthy and laborious to read, yet important issues are discussed that may assist you in determining if a discharge is actually illicit or acceptable under the Clean Water Act. Remember, storm water is water that runs over the surface during and after storm (precipitation) events.

EPA's definition of:

Illicit discharge is "any direct or indirect non-storm water discharge to the storm drain system, except as exempted by the EPA (see below).

Non-storm water discharge is "any discharge to the storm drain system that is not composed entirely of storm water".

Storm drain system is "publicly-owned facilities by which storm water is collected and/or conveyed, including but not limited to any roads with drainage systems, municipal streets, gutters, curbs, inlets, piped storm drains, pumping facilities, retention and detention basins, natural and human-made or altered drainage channels, reservoirs, and other drainage structures".

Illicit connections is "any drain or conveyance, whether surface or subsurface that allows an illegal discharge to enter the storm drain system, including but not limited to any conveyances that allow any non-storm water discharge, including sewage, process wastewater, and wash water to enter the storm drain system and any connections to the storm drain system from indoor drains and sinks, regardless of whether said drain or connection had been previously allowed, permitted, or approved by an authorized enforcement agency" or "any drain or conveyance connected from a commercial or industrial land use to the storm drain system that has not been documented in plans, maps, or equivalent records and approved by an authorized enforcement agency".

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EPA's examples of illicit discharged pollutants may include, but are not limited to:

- Paints, varnishes, and solvents,
- Oil and other automotive fluids,
- Non-hazardous liquid and solid wastes and yard wastes,
- Refuse, rubbish, garbage, litter, or other discarded or abandoned objects,
- Ordinances and accumulations, so that same may cause or contribute to pollution,
- Floatables,
- Pesticides, herbicides, and fertilizers,
- Hazardous substances and wastes,
- Sewage, fecal coliform, and pathogens,
- Dissolved and particulate metals,
- Animal wastes,
- Wastes and residues that result from constructing a building or structure,
- Noxious or offensive matter of any kind, and
- Any substance reaching the storm drain system via an illicit connection as previously defined.

EPA's examples of non-illicit (or exempted) discharges are:

- Water line flushing,
- Landscape irrigation,
- Diverted stream flows,
- Rising ground waters,
- Uncontaminated ground water infiltration,
- Uncontaminated pumped ground water,
- Discharges from potable water sources,
- Foundation drains,
- Air conditioning condensation,
- Irrigation water,
- Springs,
- Water from crawl spaces pumps,
- Footing drains,
- Lawn watering,
- Individual residential car washing,
- Flows from riparian habitats and wetlands,
- De-chlorinated swimming pool discharges,
- Street wash water,
- Discharges or flow from firefighting,
- Dye-trace testing, and
- Any uncontaminated water flowing over an uncontaminated surface.

## **Minimum Measures of the NPDES – MS4, Phase II Program (aka Storm Water Management Program, SWM Program)**

### **Pre- and During-Construction Site Runoff Control (minimum measure #4)**

Whenever a MS4 Program attempts to establish means of detecting erosion and sediment control violations then eliminating them, it is considered to be 'Pre- and During- Construction Site Runoff Control'.

Examples of this would be:

- ✓ Established the citizens' hotline where you can file sightings of sediment control violations by calling 355-5789 and anonymously leaving an informative message,
- ✓ Mass-mailed in October and November, 2004 of revised versions of the Construction Site Requirements and Fundamentals of Erosion Prevention and Sediment Control Measures, an introductory packet assembled by the SWM Program, in 2004, 2005, 2006, and 2007 to most, if not all, developers and builders, defining exactly what was needed at each construction site to eliminate sediment loss (Newcomers receive this introductory packet as well),
- ✓ Attended almost all staff plan review meetings, where all sediment control measures are required to be found on submitted plans. Plan deficiencies are noted and sent to design engineers and developers by Planning Office,
- ✓ Distributed aforementioned document to every developer and contractor in attendance of pre-construction meetings,
- ✓ Partnered with the Utilities and Streets departments to meet with all developers in a pre-construction meeting to define exactly what is needed to control sediment loss,
- ✓ Established an even earlier pre-construction meeting, hosted by the SWM Program, to define exactly what is needed to control sediment loss immediately preceding any issuance of a grading permit,
- ✓ Established procedures that enable the SWM Program to review grading plans, in addition to the staff plan review meetings, partnered with a very thorough review by the engineer of record,
- ✓ Established procedures that enable the SWM Program to inspect for proper sediment control measure installation at all construction sites prior to the issuance of any grading permit,
- ✓ Established tracking table of all grading permits ever issued,
- ✓ Established procedures that enable the SWM Program to meet on-site with developers and builders to assist them to do a better job at sediment control,
- ✓ Established procedures and documentation that enables the SWM Program to perform impromptu monthly inspections of all construction site activities as they pertain to sediment control measures since November, 2004,
- ✓ Established procedures that enable the SWM Program to track the progress of all construction sites, assuring that all required documents and all notices of violation are filed in an easily accessible manner,
- ✓ Established procedures and documentation that enables the SWM Program to issue notice of violations against developers and builders who have not heeded warnings. Early in 2005, the Codes Department initiated a policy to cease all construction inspections of any kind if the individual served with the notice of violation did not correct the sediment control violations within ten (10) working days, and
- ✓ Established procedures that enable the SWM Program to work with the Codes Department to unilaterally approve final inspections of all construction sites only when all of the required work is complete.

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### **Post-construction Runoff Control (minimum measure #5)**

Whenever a MS4 Program attempts to establish means of detecting improper discharges from or poor maintenance of detention or retention basins or any other device designed and installed to treat and detain storm water runoff then eliminates them, it is considered to be 'Post-Construction Runoff Control'.

Examples of this would be:

- ✓ Established the citizens' hotline where you can file sightings of improper discharges from or poor maintenance of detention or retention basins by calling 355-5789 and anonymously leaving an informative message,
- ✓ Completed reconnaissance that established the location of all detention and retention basins and any other devices that were designed and installed to treat and detain storm water runoff, thus enabling the SWM Program to perform impromptu field inspections of them,
- ✓ Established procedures that enable the SWM Program to track all detention and retention basins and any other devices designed and installed to treat and detain storm water runoff then serve all owners of basins non-compliant with existing SWM ordinances and policies with notices of violation,
- ✓ Inspected the aforementioned basins and devices at least twice annually, once an environmental technician/inspector was hired in 2006,
- ✓ Issued notices of violation to all owners of basins and devices non-compliant with existing SWM ordinances and policies, and
- ✓ Updated the aforementioned list of basins and devices every time one is constructed.

### **Pollution Prevention and Good Housekeeping (minimum measure #6)**

Whenever a MS4 Program attempts to establish means of detecting and eliminating pollutant runoff from municipal operations, it is considered to be 'Pollution Prevention and Good Housekeeping'.

Examples of this would be:

- ✓ Established the citizens' hotline where you can file sightings of improper discharges from and activities at properties owned or leased by the Town of Smyrna by calling 355-5789 and anonymously leaving an informative message,
- ✓ Established classification of the 65 Town of Smyrna properties or lease holdings into three levels of oversight by the SWM Program and facility staff,
- ✓ Established Municipal Pollution Prevention Plan (MPPP or MP3) for 11 of the 65 Town of Smyrna properties. These plans established oversight teams, inspection procedures, violation reporting procedures, and training classes to ensure that all 11 properties or lease holdings comply with all SWM ordinances and policies,
- ✓ Established the requirement that all Town of Smyrna department projects follow the same grading permit procedures required of all other construction projects,
- ✓ Oversaw the issuance of a grading permit and the proper use of sediment control measures at five Parks Department projects, two Street Department projects, two Utility Department projects, one Fire Department department, and one major Waste Water Treatment Plant during the past four years, and
- ✓ Advised the Golf Course Department to pursue the 'Clean Water' certificate as its next Audobon Society effort.