National Pollutant Discharge Elimination System (NPDES)

May 2, 2012

City Council Meeting
7:00 pm
Topics of Discussion

PART 1
- NPDES Introduction
  - What is NPDES?
  - Historical Background
  - Chronological Summary of Requirements
  - 2012 Annual Report Summary
  - Identified Deficiencies

PART 2
- Pollution Prevention
- Illicit Discharge Identification and Reporting
What is NPDES?
NPDES = National Pollutant Discharge Elimination System

It is a federal permit system for regulating point sources of pollution to surface waters.

Point sources include:

✓ industrial facilities

✓ municipal governments and other government facilities, and

✓ some agricultural facilities, such as animal feedlots.

Point sources may not discharge pollutants to surface waters without a permit from the National Pollutant Discharge Elimination System (NPDES).
Historical Background

The NPDES program was developed by the U.S. Environmental Protection Agency (EPA) in two (2) phases:

1. Phase I, promulgated in 1990, targeted the following pollutant sources:
   - "Large" and "medium" municipal separate storm sewer systems (MS4s) servicing municipalities with populations of 100,000 or more, and
   - Industrial activity, including large construction activity (5 or more acres of land).

2. Phase II, promulgated in 1999, targeted additional pollutant sources, including:
   - MS4s not regulated under Phase I; and
   - Small construction activity disturbing between 1 and 5 acres of land.
Historical Background

- In October 2000, EPA authorized the Florida Department of Environmental Protection (FDEP) to implement the NPDES stormwater permitting program in the State of Florida.

- The NPDES program regulates point source discharges of stormwater into surface waters of Florida from certain municipal, industrial and construction activities.

- As the NPDES permitting authority, FDEP promulgates rules and issues permits, manages and reviews permit applications, and performs compliance and enforcement activities.

- **Without coverage under the Generic Permit for Discharge of Stormwater from Phase II Municipal Separate Storm Sewer Systems, the MS4s located within the City of DeBary would not be authorized to discharge stormwater into any surface water of the State.**
## Chronological Summary

<table>
<thead>
<tr>
<th>Date</th>
<th>Action Taken</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/1/2004</td>
<td>Notice of Intent for Cycle I</td>
<td>Notice of Intent for Cycle I and Permit Fee of $5,325 due before June 1, 2004</td>
</tr>
<tr>
<td>8/12/2004</td>
<td>Phase II Permit - Cycle I was issued</td>
<td>Phase II Permit for Cycle I to expire on 08/11/2009</td>
</tr>
<tr>
<td>11/15/2007</td>
<td>Cycle I - Year II Annual Report AUDIT</td>
<td></td>
</tr>
<tr>
<td>9/14/2009</td>
<td>Phase II Permit - Cycle II was issued</td>
<td>Phase II Permit for Cycle II to expire on 09/13/2014</td>
</tr>
<tr>
<td>9/14/2009 - 9/13/2010</td>
<td>Cycle II - Year I Reporting Period</td>
<td>No Annual Report due</td>
</tr>
<tr>
<td>9/14/2011 - 9/13/2012</td>
<td>Cycle II - Year III Reporting Period</td>
<td>No Annual Report due</td>
</tr>
<tr>
<td>9/14/2012 - 9/13/2013</td>
<td>Cycle II - Year IV Reporting Period</td>
<td>Annual Report, Notice of Intent(1) for Cycle III and Permit Fee of $7,988 due 3/13/2014</td>
</tr>
<tr>
<td>9/14/2013 - 9/13/2014</td>
<td>Cycle II - Year V Reporting Period</td>
<td>No Annual Report due</td>
</tr>
</tbody>
</table>
The City of DeBary was responsible for documenting and reporting specifics regarding the following elements within the reporting period from September 2010 to September 2011:

- Webpage dedicated to stormwater management and NPDES related articles on Pollution Prevention and Illicit Discharge Detention and Elimination
- City Newsletter articles containing information on stormwater management
- Educational material for City residents about maintaining, landscaping, and improving stormwater ponds
- Annual Clean Up Day
- Curbside Recycling
2012 Annual Report Summary

- NPDES-related public meetings
- Mapped outfalls discharging into Waters of the State
- Proactive Illicit Discharge Inspection Program
- Hazardous spills that occurred within the City
- Stormwater Pollution Prevention training sessions to existing and new employees
- Educational materials distributed to local businesses identifying the hazards associated with illegal discharge and improper disposal of waste
- Erosion and sediment control practices at active construction sites
2012 NPDES Annual Report

- Construction site stormwater complaints
- Development permits, construction site stormwater plans and development orders
- Construction site inspections regarding erosion, sedimentation, and waste control
- Proper Animal Waste Removal from public walks, recreation areas or private property other than the animal owner’s property
- City’s Solid Waste code related to the Florida Litter Law
- Stormwater Pond Maintenance
- Storm Sewer Maintenance
2012 NPDES Annual Report

- Proper disposal of solid waste, including construction and demolition debris, at active construction sites

- Training of City employees on municipal operations, pollution prevention, waste management, spill response, good housekeeping, outdoor material storage, and construction site inspection

- Changes to the City’s Code of Ordinances related to non-stormwater discharges into the City’s MS4

- Changes to Ordinance Number 02-09 which defines an illicit connection, illicit discharge, and inspection and monitoring for compliance

- Changes to Article II of the City’s Land Development Code regarding the Design and Construction Standards (Division 4) and Stormwater Management Standards (Division 5)
### 2012 NPDES Annual Report

<table>
<thead>
<tr>
<th>Element ID/BMP #</th>
<th>BMP Description</th>
<th>Required Goals</th>
<th>Summary of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a 1</td>
<td>The City currently maintains its own website and has developed a web page devoted to stormwater management and NPDES related activities within the community. The web page includes articles on steps the public can take to reduce stormwater pollution</td>
<td>1. Maintain stormwater NPDES webpage and document the number of “hits” on the web page.</td>
<td>Information is not available.</td>
</tr>
<tr>
<td>1a 2</td>
<td>The City distributes newsletters 6 times per year to all City residents. The City includes one article in two of the newsletters on stormwater management practices and NPDES related activities.</td>
<td>1. Distribute newsletters containing one article on stormwater management 2 times per year to all City residents. Document the number of newsletters distributed.</td>
<td>No articles related to NPDES related activities were published.</td>
</tr>
<tr>
<td>Element ID/BMP #</td>
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</tr>
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<tr>
<td>1a 3</td>
<td>The City has distributed education material about the impacts of stormwater discharge and the steps the public can take to reduce pollutants.</td>
<td>1. Distribute educational material about maintaining, landscaping, and improving stormwater ponds.</td>
<td>Educational materials, such as the “Neighborhood Guide to Stormwater Systems” were distributed to residents during the National Night Out event. 20 pamphlets were distributed.</td>
</tr>
<tr>
<td>2a 3</td>
<td>Hold Stormwater Management Program related public meetings</td>
<td>1. Document the number of people in public meetings relating to the Phase II MS4 permit requirements. 2. Document and report the number of public meetings held related to Phase II MS4 permit requirements.</td>
<td>No public meetings related to the MS4 permit requirements have been held during this reporting period.</td>
</tr>
</tbody>
</table>
## 2012 NPDES Annual Report

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| 3c 1             | The City will implement a program to detect and eliminate illicit discharges and illegal dumping as defined by BMP 2. City personnel will continue proactive inspection efforts to deter and eliminate illicit discharges to all components of the MS4. | 1. Document and report the number of proactive illicit discharge inspections performed.  
2. Document and report the number of illicit discharges / connections / dumping detected.  
3. Document and report the number of illicit discharges / connections / dumping eliminated. | This program has not been implemented. |
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<tr>
<td>3d 1</td>
<td>The City has developed a web page devoted to stormwater management and NPDES activities. On this web page, the City posts educational information on their illicit discharge detection and elimination program. City contact points are provided so that citizens can report illicit discharges to the proper authorities.</td>
<td>1. Document the number of visits to the City web page on an annual basis.</td>
<td>Information is not available.</td>
</tr>
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<tr>
<td>3d 3</td>
<td>Educational material is distributed to local businesses identifying the hazards associated with illegal discharge and improper disposal of waste.</td>
<td>1. Document the number of materials distributed to businesses.</td>
<td>137 materials were distributed to businesses during the reporting period.</td>
</tr>
<tr>
<td>4e 1</td>
<td>The City currently has its own complaint system in place which is maintained using a database management system. When complaints regarding construction activity are received, the information is entered into the database and City staff investigates and works to resolve the problem. The complaints are organized by category so they can be easily tracked.</td>
<td>1. Document and report the number of construction site stormwater complaints received.</td>
<td>No stormwater complaints were received during the reporting period.</td>
</tr>
</tbody>
</table>
2012 NPDES Annual Report

• Previously presented permit elements require immediate attention for the City to become compliant with the NPDES Program and avoid any violation notices and potential fines.

• Future FDEP audit to be scheduled for late 2012 / early 2013.

• Presentation of extensive supporting documentation justifying the claims made in the 2012 Annual Report.

• FDEP may request a site visit to a City-owned municipal storage garage / fleet maintenance area or to an active construction site.
  - Barwick Maintenance Facility
  - Bill Keller Park Maintenance Storage Building, Storage Barn, Chemical Shed & Chlorine Building
Florida Department of Environmental Protection

May 1, 2012

Bob Garcia
City Mayor
City of Delray
16 Columbia Road
Delray Beach, FL 33483

Subject: City of Delray; Phase 2E; Municipal Separate Storm Sewer System (MS4)
NPS Permit ID Number: FL08R13-030, Cycle 3-2006
Departmental Annual Report Submittal

Dear Mr. Garcia,

Thank you for your submission of the Year 2 Annual Report of the Stormwater Management Program (SWM Program) activities required under the General Permit for Discharge of Stormwater from Phase II Municipal Separate Storm Sewer Systems. This purpose of this letter is to inform you that the Department’s review of your Annual Report indicates that the City of Delray is not in compliance with the permit.

Failure to comply with a permit issued by the Department is a violation of Section 367.05(1), Florida Statutes and may lead to penalties of up to $10,000 per day for each day of violation.

Required Improvements: The following required improvements must be implemented in a timely manner to avoid penalties and to bring your permit into compliance with the requirements in the General Permit:

1. For BMP 1-01, ensure the City’s NPSIS web page allows the user to track the number of visits to the web page. If the City is unable to count the number of visits to the stormwater NPSIS web page, please remove this BMP and replace it with another public education BMP that is measurable and quantifiable. Failure to implement this measurable goal is unacceptable. It constitutes non-compliance with the approved NOI and may subject the permittee to penalties of up to $10,000 per day for each day of violation.

2. For BMP 1-02, ensure the City’s newsletter contains articles pertaining to stormwater management. In addition, the City must document and report the number of newsletters distributed in accordance with your approved NOI. Failure to implement this measurable goal is unacceptable. It constitutes non-compliance with the approved NOI and may subject the permittee to penalties of up to $10,000 per day for each day of violation.

3. For BMP 4-04, pursuant to Part B.C. “Baseline Development Stormwater Management Program” of the general permit, the City is required to develop an implementation plan to eliminate illicit discharges and illegal dumping. In addition, the City is required to implement the approved implementation plan. The City reported “This program has not been implemented” in the Summary of Results column on the annual report. Failure to implement this measurable goal is unacceptable. It constitutes non-compliance with the approved NOI and may subject the permittee to penalties of up to $10,000 per day for each day of violation.

If you have any questions or need further assistance, please do not hesitate to contact us.

Sincerely,

Hansel T. Vazquez Jr.
Secretary
ANY QUESTIONS?
Topics of Discussion

PART 1

- NPDES Introduction
  - What is NPDES?
  - Historical Background
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PART 2

- Pollution Prevention
- Illicit Discharge Identification and Reporting
POLLUTION PREVENTION
The Federal Clean Water Act was established in 1972 to protect our waterways.

This legislation was passed in response to growing public concern for serious and widespread water pollution.

As a result, the National Pollutant Discharge Elimination System (NPDES) was developed, and our nations waterways have shown an increase in quality.

Please participate with the City of DeBary in this work by finding ways that you can help.
POLLUTION PREVENTION

How Can We Protect Our Local Waterways?

- Do not pour household products such as cleansers, beauty products, medicine, auto fluids, paint and lawn care products down the drain.

- Dispose of excess household grease (meat fats, lard, cooking oil, shortening, butter, margarine, etc.) diapers, condoms and personal hygiene products in the garbage can.

- Don’t pour used motor oil down the drain. Take it to service stations or to AutoZone.

Not Down My Drain!

- Cleaners
- Beauty Products
- Medicine
- Auto Fluids
- Paint
- Lawn Care Products
- Grease
- Diapers
- Condoms
- Feminine Products
- Motor Oil
- Photographic Chemicals
Whether your house is serviced by a septic tank or a sanitary sewer system, the water that is flushed down the toilet or drained into sinks is treated by a variety of processes to reduce or eliminate pollutants from organic materials, not hazardous chemicals.

These have the potential to eventually end up in local waterways (i.e., rivers and lakes).
Did you know that when someone pours, blows, or sweeps anything into the street, it will eventually end up in one of our City’s lakes?

Many businesses and individuals discard wastewater, pollution, and debris onto the ground and into the storm drains unaware that these actions may cause lake pollution.

A storm drain is part of the stormwater system that collects rainwater from streets, parking lots and rooftops. In most cases, this polluted runoff drains directly into a lake through the underground storm sewer system.
Sediment is one of the greatest pollutants by volume entering our lakes and streams and is a product of uncontrolled erosion.

Why control sediment and erosion?

- Erosion and sedimentation result in loss of fertile topsoil, filling of lakes and streams.
- Increased flooding.
- Endangerment to plant and animal life, damage to streets and roads.
- Other pollutants such as pesticides, herbicides, and oil can become attached to eroded soils and enter lakes and streams along with the soil.
How Can You Help?

• Plant and maintain vegetation on bare and sloped areas.

• Route roof drainage to lawns, paved driveways, or collection barrels.

• Preserve existing vegetation.

These measures will help curb erosion and sedimentation and will maintain the aesthetics and cleanliness of our lakes and streams.
Leaves and grass clippings that are able to reach a lake through the storm drain system will decrease the amount of oxygen in the water as they decompose.

Released nutrients can cause excessive algal growth which may result in a fish kill.

PLEASE do not add to the burden by raking or blowing leaves and grass into the street.
How Can You Help?

• Start a compost pile for leaves and other yard waste.
• Invest in a mulching blade for your lawn mower.
• If you have a lawn services, please be sure they comply with these guidelines.

Data collected has shown that grass clippings and leaves contain high concentrations of nitrogen and phosphorous which are the most common cause of urban lake pollution.
When grease or oil from restaurants and households is discharged to the sanitary sewer system it mixes with other wastes and becomes solidified. This creates a blockage in sewer pipes, preventing the sewage from flowing and causing it to overflow into streets, buildings, and lakes.

How Can You Help?

- Do Not put greasy food items down the drain or garbage disposal.
- Wipe dishes, pots and pans with a paper towel to remove excess grease before washing.
- Clean grease spills with a rag or paper towel, and place grease in a container to solidify and throw away with the garbage.
- Maintain septic systems regularly.
POLLUTION PREVENTION

Pesticides, Herbicides, & Fertilizers

Unwise or excessive use of chemicals can harm people, pets, beneficial organisms and the environment. Use non-toxic alternatives whenever possible and pull weeds by hand.

Avoid overuse of fertilizers, especially near the water’s edge. Rain and lawn watering can wash excess fertilizers into ponds and waterbodies, causing algal blooms and weed growth.

Use pond water to irrigate your lawn. It not only saves drinking water supplies, but also recycles nutrients so that you can fertilize less frequently. You save on both your water and your fertilizer bills.

Use only aquatic herbicides in maintaining stormwater ponds. Land-based herbicides contain nutrients that are harmful to water bodies.
Report any pollutant material that you see being discharged into a street, alley, or storm drain.

If you see a violation occurring, call the City Safety Coordinator, Mr. Alan Williamson at (386) 668-2040, ext. 323, and provide the location, time, and any other observations you may have witnessed.

Violations that are reported while they are in progress can often be corrected quickly and may result in little or no pollution entering a lake.
ANY QUESTIONS?