

# Town of Bethlehem Annual Stormwater Program Report

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# Town of Bethlehem Annual Stormwater Program Report

## ξ Agenda:

- Background Information on Phase II Stormwater Regulations
- Required Program Elements
- Current & Future Program Development Efforts
- Local Law Development
- Organizational Impacts
- Costs
- Funding Opportunities
- How Our Residents Can Help

# Phase II Stormwater Regulations

## *Background*

- § Originated from Clean Water Act
- § Requires “Regulated MS4s” to develop, implement, and enforce a stormwater management program
- § Unfunded Mandate passed down to local level by EPA and NYS DEC
- § Goals:
  - Reduce discharge of pollutants to water bodies
  - Protect water quality
  - Meet defined water quality requirements
  - Control quantity of stormwater discharge

# Phase II Stormwater Regulations

## *MS4*

ξ What is an MS4?



MS4 = Municipal Separate Storm Sewer System

Regulated MS4s - “urbanized areas” as determined by  
Census data

Where is the “Regulated MS4” boundary in Town?



# Phase II Stormwater Regulations

## *Background*

### § First Permit Deadline: 8 January 2008

- Town local laws must be enacted
- DEC will still fine violations, both the permittees and the municipalities, for not complying with their permit requirements
  - Fines can be up to \$25,000 per violation per day
  - The DEC can file a civil suit in State or the U.S. District Court
  - Stiffer penalties for criminal violations : fines and prison time
- Citizen Action litigation

# Phase II Stormwater Regulations

## *Program Requirements*

### § Six Minimum Control Measures

- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Runoff Control
- Public Education and Outreach
- Public Involvement and Participation
- Pollution Prevention and Good Housekeeping

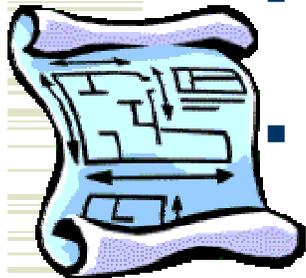


# Annual Stormwater Program Report *Illicit Discharge Detection & Elimination*

*Required to map location of all outfalls and receiving waters and adopt a local law – illegal to discharge stormwater pollution into conveyance system.*

## ξ Permit Year 4 Activities:

- Located and mapped in GIS  
130 Outfalls
- Scanned all existing Storm Sewer Mapping
- Baseline Water Quality Testing of Outfalls
- Database to track inspections of Outfalls



## ξ Permit Year 5 Goals:

- Enact local law / Ordinance
- Locate remaining outfalls
- Continued Development of GIS Base Map
- Begin follow up water quality testing
- Begin importing scanned mapping into GIS

# Annual Stormwater Program Report

## *Construction Site Runoff Control*

*Required to develop a law which oversee stormwater management on construction sites.*

### ξ Permit Year 4 Activities:

- Preliminary identification of key personnel, necessary organizational changes and responsibilities
- Training of staff for inspections
- Site Plan & Subdivision Review



### ξ Permit Year 5 Goals:

- Enact Local Law / Ordinance
- Revise Grading, Erosion & Sediment Control Provisions in Zoning Law
- Site Plan & Subdivision Review Process
- Storm Water Pollution Prevention Plan (SWPPP) Submission
- Field Inspector Training

# Annual Stormwater Program Report *Post-Construction Runoff Control*

*Required to develop a law to address stormwater runoff from development projects; Establish maintenance requirements and authority to inspect & enforce maintenance.*

## ξ Permit Year 4 Activities:

- Creation of Drainage Districts – Milltowne Plaza, Carriage Hill, Trinity Manor, etc.
- Maintenance Agreements
- Structural Management Practices (Ponds, filters, etc.)
- Training for Inspectors

## ξ Permit Year 5 Goals:

- Enact Local Law / Ordinance
- Ensure Long-term Maintenance & Operation through maintenance agreements for new development
- Creation of inspection, monitoring, testing and tracking system
- Continued creation of drainage districts

# Annual Stormwater Program Report

## *Public Education & Outreach*

*People appreciate water resources – help them understand what they and their communities can do to protect them.*

### ξ Permit Year 4 Activities:

- Information in Spring Cleanup & Household Hazardous Waste Flyer
- Annual Report Publication
- Stormwater Display & Flyers
- Stormwater Bulletin Boards
- Utility Bill Inserts
- Stormwater Website

### ξ Permit Year 5 Goals:

- Repeat Year 4 Activities
- Tributary Signage
- Install Curb Markers
- Another Stormwater Bulletin Board
- More Utility Bill Inserts
- Stormwater Website Tracking



# Annual Stormwater Program Report *Public Involvement & Participation*

*Involving people yields better programs, improved compliance and rich partnerships.*

## ξ Permit Year 4 Activities:

- Annual Report Available for Public Review & Comment
- Household Hazardous Waste Day
- Presentation at Town Board Meeting
- Ordered Storm Drain Stencils with Albany Co. MS4 Intermunicipal Committee

## ξ Permit Year 5 Goals:

- Repeat Year 4 Activities
- Promote Stormwater Hotline
- Promote Town's Online Complaint Submission Forms
- Install a Rain Garden (Bethlehem Garden Club)
- Install Curb Markers with Volunteers
- Track Stormwater website traffic
- Stormwater Survey

# Annual Stormwater Program Report *Pollution Prevention & Good Housekeeping*

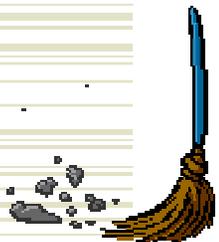
*Develop a plan to reduce and prevent pollutants from Town operations.*

## ξ Permit Year 4 Activities:

- Household Hazardous Waste Collection
- Street Sweeping Program
- Leaf/Brush Pick-up
- DPW, Highway, & Parks Staff Training
- Recycling Program
- Pet Waste Ordinance

## ξ Permit Year 5 Goals:

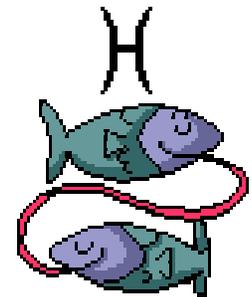
- Continue year 4 activities
- Continue staff training as necessary
- Establish Standard Operating Procedures (SOPs)
- Assess internal operations & facilities
- Continue bi-weekly stormwater staff meetings, including several departments



# Annual Stormwater Program Report

## *Local Law Development*

- § Legislation to empower the Town to regulate & enforce Stormwater activity
- § Town Board to enact 2 Local Laws
  - Illicit Discharge and Detection
  - Stormwater Management and Erosion & Sediment Control
- § NYSDEC Model Laws
  - Modify thresholds to match current Zoning Law
- § Modification to existing code and laws
  - Zoning Code - Grading permit
  - Dumping Section of Town Code
  - Sewer code & Subdivision Guidelines
- § Schedule
  - Draft to Town Board by August 2007
  - Enact by late September 2007
  - Effective January 1, 2008



# Annual Stormwater Program Report

## *Long Term Program Requirements*

- § Continued Water Quality Monitoring of Outfalls
- § Tracking & Locating Illicit Discharges
  - Use a tablet PC and handheld GPS to locate & track outfalls
  - Test for pH, temperature, chlorine, ammonia & phosphate
- § Enforcement of Illicit Discharges & Construction Activities
  - Identifying violators
  - Notices of violation, Stop Work Orders
  - Violators that come into compliance will be recorded, Violators that remain non-compliant face:
    - Fines
    - Court Appearance



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# **Annual Stormwater Program Report**

## *Long Term Program Requirements Continued*

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- § Review Stormwater Pollution Prevention Plans (SWPPP)
- § Construction Site Inspection
- § Albany County Stormwater Committee
  - May develop to an organized coalition
- § Annual Inspection of Stormwater Treatment Facilities
  - Public & private
- § Routine Maintenance of Public Stormwater Treatment Facilities
- § Continued Efforts of Program Development For Each Required Program Elements

# Annual Stormwater Program Report

## *Organizational Impacts*

- ξ Large complex program requiring focused, dedicated effort
- ξ Effectively expands our regulatory & enforcement obligations
- ξ Create a position in Engineering for Stormwater Program Coordinator (1 FTE)
  - Responsibilities:
    - Continued stormwater program development & maintenance
    - Review Stormwater Pollution Prevention Plans & associated permits
    - Field inspection & enforcement of construction activities
    - Field inspection, tracking & enforcement of illicit discharges
    - Field inspection of stormwater treatment facilities
    - Maintain compliance with our MS4 permit

# Annual Stormwater Program Report *Organizational Impacts Continued...*

## § Assistance from other Town departments

- Economic Development & Planning – Continue to include SWPPP submission with development site plan review
- Building & Code Division – include inspection of erosion & sediment control in building inspections
- Highway Department – maintenance of public treatment facilities & improve operations to comply with Phase II stormwater regulations
- Department of Public Works and Parks & Recreation Department – improve operations to comply with Phase II stormwater regulations

# Annual Stormwater Program Report *Costs*

- § What has Stormwater Activity cost the Town in 2006:
- Household Hazardous Waste Collection Day cost the Town **\$48,500**.
  - Highway staff spent **30,335** hours doing street sweeping, leaf vacuuming, brush pick-up, etc.
  - Engineering staff spent **1,100** hours in stormwater training, and program development
  - Building Dept. staff spent **75** hours in stormwater training.
  - Support from the Town Clerk's office, DPW administrative division and Supervisor's office on stormwater initiatives (Spotlight advertisements, stormwater survey collection, etc.)

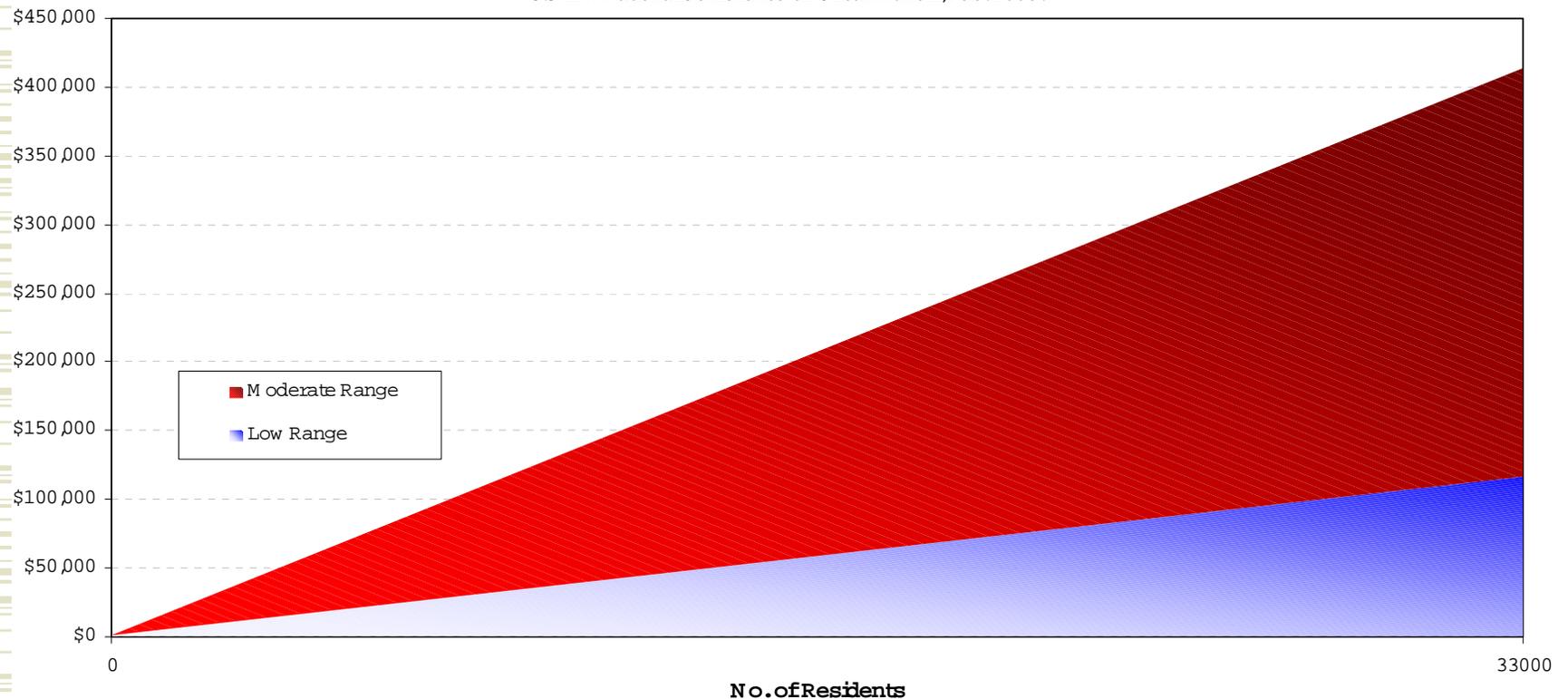


# Annual Stormwater Program Report

## Long-term Costs

### Possible Annual Stormwater Costs

Data Source: "Funding Phase II Stormwater Programs." A. Reese.  
US EPA National Conference on Urban Runoff, Feb. 2003.



# Annual Stormwater Program Report

## *Probable Annual Costs*

- ξ Additional Staffing – Stormwater Program Coordinator
    - Estimated \$70,000 (Salary + Fringe)
  - ξ Continued Efforts from Existing Engineering Staff
    - Estimated \$30,000 (Opportunity Cost)
  - ξ Equipment & Supplies (Office Equipment, Tools, Test Kits, Computer, Phone, Reference Materials, etc.)
    - Estimated \$10,000
  - ξ Training - Estimated \$3,000
  - ξ Consulting Services - Estimated \$20,000
- Total: Approximately \$105,000 additional real costs annually

# Annual Stormwater Program Report *Funding Opportunities*

## § How do we pay for this *unfunded mandate*?

- Proposed Stormwater Pollution Prevention Plan review fees
- Proposed Grading & Erosion Control Permit fees
- Proposed stormwater field inspection fees
  - ◆ Additional fees for re-inspection of non-compliant sites
- Proposed fines for stormwater violations
- Continued Drainage District formation – local maintenance efforts only
- General & Highway Funds
- Future NYS DEC grants???

## § Future Opportunities

- DEC preparing a local review of all currently available funding opportunities
- Stormwater utility creation – requires state legislation to empower municipalities



# How Can Our Residents Help?

Volunteer in  
Stormwater  
Activities

Recycling &  
Proper Disposal of  
Waste

Properly Cleanup  
and Dispose of  
Yard and  
Construction  
Debris

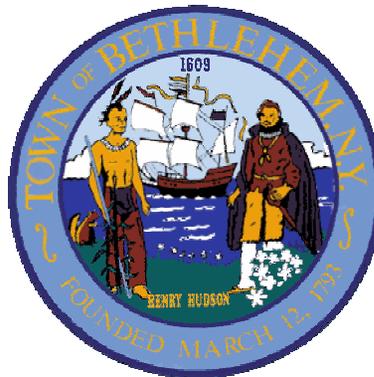
Proper Storage of  
Chemicals,  
Including Pool  
Maintenance  
Chemicals

Report Illicit  
Discharges

Proper Disposal of  
Pet Waste

Inspect and  
Maintain Septic  
System

Reduce Use of  
Pesticides and  
Fertilizers



# References

## ξ Town of Bethlehem

- Town Engineer – Erik Deyoe
- Highway Superintendent – Gregg Sagendorph
- Town's Stormwater Website:

<http://www.townofbethlehem.org>

## ξ US EPA Website

- <http://cfpub.epa.gov/npdes/index.cfm>

## ξ NYS DEC Website

- <http://www.dec.ny.gov>

## ξ Capital District Regional Planning Commission Website

- <http://cdrpc.net/WQ/waterquality.html>

Any Questions?



**Thank You for Your Time!**