

Village of Brightwaters  
Municipal Separate Stormwater Sewer System (MS4) Educational Meeting  
February 15, 2012 7 PM

Guests:

Eileen Keenan, NY Sea Grant NEMO Program Manager on behalf of the DEC.  
Nancy Lenz, Cashin Associates, our environmental consultants.

Agenda:

Opening Remarks

Commentary by Ms. Keenan

Questions From Attendees

### Stormwater

Stormwater is water from rain or melting snow that doesn't soak into the ground but runs off into waterways. It flows from rooftops, over paved areas and bare soil, and through sloped lawns while picking up a variety of materials on its way. The quality of runoff is affected by a variety of factors and depends on the season, local meteorology, geography and upon activities which lie in the path of the flow.

### What's the Problem

As it flows, stormwater runoff collects and transports pollutants to surface waters. Although the amount of pollutants from a single residential, commercial, industrial or construction site may seem unimportant, the combined concentrations of contaminants threaten our lakes, rivers, wetlands and other water bodies. Pollution conveyed by stormwater degrades the quality of drinking water, damages fisheries and habitat of plants and animals that depend on clean water for survival. Pollutants carried by stormwater can also affect recreational uses of water bodies by making them unsafe for wading, swimming, boating and fishing. According to an inventory conducted by the United States Environmental Protection Agency (EPA), half of the impaired waterways are affected by urban/suburban and construction sources of stormwater runoff.

### Examples of Pollution in Stormwater

- Nutrients such as phosphorus and nitrogen can promote the overgrowth of algae, deplete oxygen in the waterway and be harmful to other aquatic life.
- Bacteria from animal wastes and illicit connections to sewerage systems can make nearby lakes and bays unsafe for wading, swimming and the propagation of edible shellfish.
- Oil and grease from automobiles causes sheen and odor and makes transfer of oxygen difficult for aquatic organisms.
- Sediment from construction activities clouds waterways and interferes with the habitat of living things that depend upon those waters.

- Careless application of pesticides, herbicides and fertilizers affect the health of living organisms and cause ecosystem imbalances.
- Litter damages aquatic life, introduces chemical pollution, and diminishes the beauty of our waterways.

### What can be done?

Significant improvements have been achieved in controlling pollutants that are discharged from sewage and wastewater treatment plants. Across the nation, attention is being shifted to sources of pollution, such as stormwater runoff, that are not normally treated by wastewater treatment plants. Stormwater management, especially in urban areas, is becoming a necessary step in seeking further reductions in pollution in our waterways.

The best way to control contamination to stormwater is usually at the source, where the contaminants can be identified, reduced or contained before being conveyed to surface water. More often than not, it's more expensive and difficult to remove the combination of contaminants that are present at the end-of-pipe where stormwater is finally discharged directly to a receiving waterbody. Sometimes, significant improvements can be made by employing best management practices, or "BMPs". Proper storage of chemicals, good housekeeping and just plain paying attention to what's happening during runoff events can lead to relatively inexpensive ways of preventing pollutants from getting into the runoff in the first place and then our waterways.

### Regulatory Requirements

The U.S.EPA and NYSDEC are increasing their attention in several ways. There are three State Pollutant Discharge Elimination System (SPDES) general permits required for activities associated stormwater discharges.

- The Multi- Sector General Permit for Stormwater Discharges Associated with Industrial Activities (MSGP) addresses stormwater runoff from certain industrial activities. This permit requires facilities to develop Stormwater Pollution Prevention Plans (SWPPPs) and report the results of industry-specific monitoring to the New York State Department of Environmental Conservation (NYSDEC) on an annual basis.
- A federal regulation, commonly known as Stormwater Phase II, requires permits for stormwater discharges from Municipal Separate Storm Sewer Systems (MS4s) in urbanized areas. Permittees are required to develop Stormwater Management Program (SWMP) and submit annual reports to the Department.
- Construction activities disturbing one or more acres of soil must be authorized under the General Permit for Stormwater Discharges from Construction Activities. Permittees are required to develop a SWPPP to prevent discharges of construction-related pollutants to surface waters.

(The above is excerpted from <http://www.dec.ny.gov/chemical/8468.html>)

### Other References:

- MS4 General Permit description:  
[http://www.dec.ny.gov/docs/water\\_pdf/ms4gp2011.pdf](http://www.dec.ny.gov/docs/water_pdf/ms4gp2011.pdf)
- "Illicit Discharge Detection and Elimination: A Guidance Manual for Program Development and Technical Assessment"  
The manual can be accessed at: <http://www.cwp.org/store/free-downloads.html>

## Stormwater and Coastal Flooding Q&A:

**Q.** How do I know if I have a flooding problem on my street?

**A.** The incidence of flooding is very dependent on road and property elevations and weather and drainage systems. Certain locations are prone to flooding and during certain weather events, flooding will occur. Often it is a temporary situation and clears up within 24 hours. The drainage systems are designed to handle a certain flow within a period of time. If conditions exceed that design capability, flooding will occur.

An area with significant flooding issues generally has standing water at the location 24 hours after a rain event. If water does not exist at the location 24 hours after a rain event, it is determined that, although flooding occurs, it is temporary and therefore within the design capability of the system.

The Village is continually updating its database of problem areas and, as resources allow, will address these problem areas. Flooding can also occur without a rain event in times of unusually high tides.

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**Q.** How do the tides affect flooding of my street and property?

**A.** Flooding can occur without a rain event in times of unusually high tides. When the tide rises above the outfall pipes in canals and on the bayfront, it pushes water back up into the drainage system. This prevents the road drainage system from discharging water and sometimes pushes salt water back up into the system and into the streets. This is a particular problem in many shore areas with homes built in the 50's and 60's which are very close to the shore and at low elevations.

The National Weather Service often issues flood advisories due to high tides. For those living in low lying areas near tidal water, this type of flooding will occur.

**Please note** that when there are weather forecasts for tidal flooding and when these warnings are issued, elevate anything that might be damaged from water or saltwater. In addition, homes in these areas should have flood insurance.

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**Q.** How do I report flooding on my property?

**A.** Flooding issues should be reported to the Village at 665 4646. Once a significant rain event has occurred, the area in question is surveyed and inspected.

An area with significant flooding issues generally has standing water at the location 24 hours after a rain event. If water does not exist at the location 24 hours after a rain event, the case is closed. If standing water still exists at the location, the case is recorded and a solution sought.

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**Q.** Who do I contact about my street basin backing up after a rain storm?

**A.** All storm water basin (dry well) issues should be reported to Village Hall (631) 665-4646. The Village will schedule an inspection of the affected area 24 hours after the next rain event.

At that time, the inspection will investigate the storm drain for blockage, damage, etc. If it is determined the storm drain is blocked, a service request will be created and scheduled.

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**Q.** When and who cleans the drains in my neighborhood?

**A.** Village storm water drains are cleaned on a regular basis. Residents are encouraged to post a service request for those drains that need an immediate cleaning. Call Village Hall at 665 4646 to make a request.

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**Q.** Can I dump oil or chemicals down a storm drain?

**A.** No. These storm drains are either a pathway to public waterways or the groundwater system where we get our drinking water and do not lead to a sewage treatment plant. The storm drains are there to solely collect stormwater from the public roads and right-a-ways.

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**Q.** Can I pump water into the street, in a storm drain or onto another property?

**A.** No, pumping water into the street, storm drain or onto another property is prohibited by village code. Clean water may be discharged on one's own property.

**Q.** Can I pump my flooded basement water into the sewer system from my sump pump?

**A.** No. It is illegal, causes severe stress on the sanitary sewers at peak times, and can create unsanitary conditions. Basement water must be discharged onto the homeowners land only.

The following is courtesy of and adapted from the Town of Babylon  
( <http://www.townofbabylon.com/forms/169.pdf>)

### **Best Management Practices for Homeowners to Reduce Stormwater Pollution**

We would like to provide homeowners with recommendations to help protect our surface waters. Many common activities can inadvertently pollute our environment. After a rain or snow storm, pollutants from certain activities can easily runoff into stormdrains located in streets. Stormdrains are often connected to nearby surface waters, so the pollutants that may flow into them can end up in our creeks, lakes, the Great South Bay, and our ocean.

- Never dump oil, paint, garbage, or any other chemicals down a stormdrain. They don't lead to sewage treatment plants and these materials can end up in our creeks, lakes, and bay!
- When washing your car, don't direct the flow of runoff toward your street and into stormdrains. One way to prevent this is to wash your car on the lawn, or direct water flow to the lawn. Also consider taking your car to a car wash, because they recycle the water that is used during the wash.
- Don't empty pool water down a storm drain! Water from swimming pools and hot tubs often contain high levels of chlorine. Discharging chlorinated pool/spa water into storm drains is potentially harmful to fish and other aquatic life. The proper procedure to dispose of pool water is to stop adding chlorine well before discharge, and then discharge it on your lawn slowly without creating runoff.

- If you have pets, make sure to clean up after they eliminate! Failure to clean up after your pet on public property is a violation of Village Code. Pet waste reduces water quality in our watersheds and bay. The Village provides free poop-bags for pet owners at Gilbert Park.

As homeowners, we can put ourselves, our families, our pets, wildlife, and our environment at risk when improperly using lawn chemicals. Many of these chemicals, once introduced to the environment, may persist for many years. When these chemicals are applied on your lawn, they can easily runoff into stormdrains after a precipitation event, and migrate into our groundwater and surface waters. A chemically dependent lawn is more prone to disease and less able to handle stresses from drought, heat, and insects.

- Applying fertilizer to your lawn between November 1st and April 1st is prohibited in Suffolk County! The lawn does not utilize fertilizer in the months outside the growing season. The best time to fertilize is in the spring, and make sure to apply only as much as is indicated on the label of the manufacturers guidelines. If you fertilize midsummer, you're feeding the weeds! Over-fertilizing leads to nitrogen loading of our water bodies, which leads to algae growth and low dissolved oxygen which can suffocate fish.

- If you absolutely must use pesticides, make sure to follow the directions on the label for the pest you are trying to treat, the site of infestation, the life stage of pest, and whether the product is specified for indoor or outdoor use. Always follow precautionary statements on the product label, including statements of practical treatment and notes to physicians. Ensure that children and pets are not to be in the area being treated, remove toys, cover pools, sandboxes, and playgrounds, remove shoes before entering the house, and wash your clothes separately after treating. If something is toxic to pests you can assume it may also be dangerous for other biologic life including ourselves! Many pesticides are known carcinogenics (cancer causing) so be very careful where you apply.

- Please don't blow leaves, and dirt into the town streets. This material will clog the stormdrain system and introduces leaves and sediment into waterways.

- There are many alternatives to using herbicides: In garden beds, a 2-3 inch deep layer of mulch will help keep weeds down and allow your plants to grow. A "living mulch" of ground cover plants or low perennials planted beneath trees and shrubs will add beauty and shade out annual weeds. A non-toxic way of controlling weeds is to use lemon juice, vinegar, or citrus oils such as thyme, and spray onto weeds. Another method is to pour boiling water over weeds, or you can get your hands dirty and pull out the weeds yourself!

For more information on green lawns, garden tips, and non-toxic lawn care visit the New York State Department of Environmental Control website at [www.dec.ny.gov/public/43593.html](http://www.dec.ny.gov/public/43593.html)