

**PUTNAM VALLEY
CENTRAL SCHOOL DISTRICT
146 PEEKSKILL HOLLOW ROAD,
PUTNAM VALLEY, NY 10579**

**MS4PY7 STORMWATER
PROGRAM**

**NEWSLETTER #1
NOVEMBER 2016**

**STORMWATER POLLUTION
AND THE INTEGRITY OF OUR
NATION'S WATERS**

**FOR MORE INFORMATION, CONTACT
YOUR STORMWATER COORDINATOR:**

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OR AT
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1. STORMWATER POLLUTION BACKGROUND INFORMATION

In 1972, Congress created the Clean Water Act (CWA) to address pollution that affects our nation's rivers, lakes and coastal water. Excessive amounts of nitrogen and phosphorus carried by stormwater runoff are the two primary sources of nutrient pollution in our water. In addition, sediment, oils greases, and construction chemical debris, as well as septic wastes and de-icing chemicals also impact our waterways. The central objective of the CWA is to restore and maintain the chemical, physical and the biological integrity of the nation's waters.

2. PRIMARY SOURCES OF STORMWATER POLLUTION

Stormwater comes from precipitation. Stormwater that does not soak into the ground becomes runoff. Runoff becomes polluted as it runs along roads, parking lots, lawns and construction sites. Runoff contains pollutants such as automobile fluids, fertilizers, pesticides and insecticides, bacteria, sediment, litter, de-icing chemicals and pet waste. Surface runoff flows into storm sewers that eventually flow into our streams, lakes and oceans.

3. STORMWATER POLLUTION ACCOMPLISHMENTS

Over the past 40 years since the Act was passed, the quality of our nation's waters has improved significantly. According to the USEPA, in 1972 only one third of our rivers, lakes and coastal waters were considered fishable and swimmable. Today, about

two thirds of our waters are healthy. In recent years, engineers and landscape architects have developed new options to reduce pollutants from stormwater runoff through the use of:

- Rain Gardens
- Roof gardens
- Wetland Gardens
- Bio-Retention Ponds
- Bioswales
- Porous Pavements
- Planter Boxes
- Native Plants

4. BENEFITS OF ONSITE GREEN INFRASTRUCTURE RETROFITS

Benefits of onsite green infrastructure retrofits include

- **Existing Infrastructure Burden Reduction:** Reduce the demand on existing storm sewers and catch basins
- **Flow Rate Reduction:** Reduce the quantity of stormwater being discharged offsite
- **Pollutant Load Reduction:** Significantly improve the quality of stormwater being discharged offsite
- **Reduction of Heating and Cooling Costs:** Green roofs and other vegetation incorporated on and around buildings, help shade and insulate buildings from wide temperature swings, decreasing the energy needed for heating and cooling
- **Pollutant Load Reduction through Soil Bacteria:** Plants in rain gardens and other vegetation absorb pollutants through bacteria and other microorganisms present in the soil

- **Runoff and Erosion Control:** Onsite rain gardens and other onsite infrastructure retrofits 1) dissipate the energy of the rain impact, 2) hold and recharge groundwater 3) evaporate water into the atmosphere 4) reduce flooding, 5) and dissipate the energy of sheet flow and 6) control soil/sediment erosion
- **Property Value Increases:** Studies indicate that property values increase when gardens are planted and vacant lots are greened providing more aesthetically pleasing environment to the community

5. THE ONGOING STORMWATER MANAGEMENT PROGRAM

The ongoing stormwater program, endorsed by your District will include:

- **A Stormwater Website:** The website will list contact persons, newsletters and fact sheets related to the stormwater program
- **Student/Staff Participation:** The District will explore how students and staff can participate in local stormwater programs
- **A Pollution Prevention Training Workshop:** A workshop will be provided to the Operations and Maintenance staff on how their operations can impact stormwater pollution
- **NYSDEC Annual Report:** An Annual Report will be submitted to NYSDEC in June of 2017 on the achievements of the stormwater program

You can help by visiting the stormwater website, learning about new stormwater issues and working in close collaboration with your environmental science teachers, participating in the program.