

**PUTNAM VALLEY
CENTRAL SCHOOL
DISTRICT
PUTNAM VALLEY, NY**

**MS4PY6 STORMWATER
PROGRAM**

**FACT SHEET # 3
DECEMBER 2015**

**POLLUTION FROM
PHOSPHORUS: RE-VISITED**

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

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1. PHOSPHORUS POLLUTION

Phosphorus from lawn fertilizers, dishwashing detergents and floor cleansing products, if discharged into our streams, ponds and lakes, not only seriously impact our water resources, but may have health as well as economic impacts on our local communities. High concentrations of phosphorus in our freshwater streams and lakes promote excessive algae growth, resulting in:

- **Oxygen Depletion:** Heavy mats of algae deplete the water of oxygen that fish need to survive
- **Toxins:** Algal blooms of toxic algae, can cause health risks to people and animals
- **Drinking Water Carcinogens:** Algae growth may cause carcinogens to form in drinking water during chlorination
- **Water Recreation Unpleasant:** Swimming, boating and fishing in water containing algal blooms makes water recreation unpleasant and potentially harmful
- **The Speeding of Lake Eutrophication:** Algae blooms, if not controlled, can lead to the speeding of lake eutrophication from the constant filling up of the lakes with dead algae, silt and other organic matter. With the build-up of bottom sediments, the lake water capacity is reduced, and ultimately, the lake can turn to dry land
- **Loss in Tourism Revenues:** Excessive algae growth can cause potential loss in tourism revenues from restricted boating activities and shellfish bed closures

2. NYSDEC LAWN FERTILIZER LAW

The ban on the excessive use of phosphorus on lawns went into effect in New York on January 1, 2012. The law applies to:

- **Application of Fertilizers by Homeowners by Themselves**
- **Pesticide Applicators**
- **Landscapers and Lawn Care Professionals**
- **Retailers, Distributors and Manufacturers of Lawn Fertilizers**

3. KEY REQUIREMENTS OF THE LAWN FERTILIZER LAW

The sale or use of phosphorous fertilizer, which means fertilizer, in which available phosphate content is greater than 0.67% by weight, is restricted. Key requirements are as follows:

- **Phosphorus Soil Test:** Do not use fertilizer unless a soil test indicates additional phosphorus is needed for the growth of the lawn. If your lawn might need extra phosphorus, test your soils. Tests cost \$10 to \$20. There are several options to test your soil:
 - **Extension Office:** Have testing done through your local extension office
 - **Commercial lab:** A commercial lab can test your soil
 - **Home test Kit:** There are home test kits you can use to test your soil
- **First Growing Season:** Do not use fertilizer unless you are establishing a new lawn and only during the first growing season
- **Impervious Surfaces:** Do not use or spill fertilizer on impervious surfaces, such as sidewalks or driveways
- **Near Surface Water:** Do not apply any fertilizer within 20 feet of any surface water, unless there is a buffer at least 10 feet wide of planted or naturally occurring

vegetation, or unless the fertilizer is applied at least 3 feet, by a spreader guard, deflector shield or drop spreader

- **Restricted Application Season:** Do not apply any lawn fertilizer between December 1st and April 1st
- **Retailers:** Retailers must display phosphorus-containing fertilizers separately from phosphorus-free fertilizers. Retailers must also post a sign near the display

4. DETERGENTS AND CLEANSING PRODUCTS LAW

In 2010, New York State enacted a law that requires all household and commercial soaps and detergents, as well as floor cleansing agents to be phosphorous-free. Under the New York State Environmental Conservation Law (ECL), Article 35, distribution and sale, possession and use must meet the following requirements:

- **Household Use:** Effective August 14, 2010, dishwasher detergents for household use that contain phosphorus may not be distributed, sold, or offered for sale in New York State
- **Commercial Use:** Effective July 1, 2013, commercial establishments in New York State may not possess or use or authorize the possession or use of dishwasher detergents that contain phosphorus
- **Trace Amounts of Phosphorus:** Trace amounts of phosphorus (0.5% or less elemental phosphorus by weight) are allowed in dish detergents, after the above effective dates
- **Domestic or Commercial Use of Cleansing Products:** ECL 35 also restricts the distribution and sale, possession or use by domestic and commercial facilities, of cleansing products containing phosphorus

- **Cleansing Products:** means any product, including but not limited to soaps and detergents, containing surfactants as a wetting or dirt emulsifying agent and used primarily for domestic or commercial cleaning purposes, including but not limited to, the cleaning of fabrics, dishes, food utensils in household and commercial premises
- **Food, Beverage Processing and Dairy Equipment:** ECL 35 also restricts the use of cleansing products in food, beverage and dairy processing equipment, which contains phosphorus in excess of 8.7% by weight

The number of states with detergent phosphate bans has steadily increased and currently 27 states and the District of Columbia have complete or partial bans.

5. ALTERNATIVE CLEANERS AND DETERGENTS

Several manufacturers are offering green alternative cleaners and detergents. Look for phosphate free detergents containing the words:

- Zeolites (chemicals that soften water)
- Phosphorus or phosphate free detergents
- No Phosphorus detergents
- No STPP (sodium tri-polyphosphates)

In order to comply with new state laws, many name brand detergents and household cleaners are now offered with low-phosphate formulas. In addition, many homes are now equipped with water softeners which work more efficiently with phosphate-free detergents.

6. WASHING CARS IN OUR DRIVEWAYS

Few people still do not realize that washing our cars in our driveways is bad for our environment:

- Phosphate detergents from the wash water enter the storm drain and our waterways
- Even when using green-friendly phosphate free cleaners, it is better to avoid the driveway
- Instead wash your car on your lawn or over dirt so that the wash water can be absorbed and neutralized in soil instead of flowing directly into storm drains or open water bodies
- One way to avoid such problems altogether is to wash your car using any number of waterless formulas available, which are especially handy for spot cleaning and are applied via spray bottle and then wiped off with a cloth

7. UTILIZING A COMMERCIAL CARWASH

Going to a commercial carwash is a much greener option than washing your own car:

- Most carwashes have to comply with strict water contamination rules, so their runoff is often filtered before it enters the public wastewater system, where it then gets treated again
- Commercial car washes use computer controlled systems that minimize water usage
- Many also recycle and re-use the rinse water
- Automatic car washes use less than half the water of even the most careful home car washer