

Village of Croton-on-Hudson  
1 Van Wyck Street  
Croton-on-Hudson, NY 10520  
  
Website:  
[http://www.crotononhudson-ny.gov/Public\\_Documents/index](http://www.crotononhudson-ny.gov/Public_Documents/index)



## The Duck Pond

### Step By Step

Your Guide to Cleaner Water  
at the Duck Pond

Created By Croton Harmon High School  
Advanced Placement Environmental  
Science Students  
2011-2012

Dear Resident,

You have received this brochure because your home lies within the Duck Pond storm watershed.

Did you know that storm water pollution sends water directly into the Duck Pond without any filtration?

Storm water runoff is untreated and is potentially contaminated water that drains from the streets of Croton-on-Hudson, within the Duck Pond watershed, to the municipal storm drain system, and then to the Duck Pond.

This brochure will provide you with information about storm water pollution and its impact on the Duck Pond.



We feel that the Duck Pond is important to our community because it provides a vital habitat for many plants and animals.

The Duck Pond adds charm to our beautiful little town. We hope that with this information you will help us keep the Duck Pond safer and cleaner.

Thank you,

Ms. Cardellichio's 2012 AP  
Environmental Science Classes

## Storm Water in Our Environment

Storm water runoff:

- occurs when precipitation from rain flows over the ground
- is most severe on impervious surfaces, such as paved driveways, sidewalks, and streets (these surfaces prevent the runoff from naturally soaking into the ground)
- transports debris, chemicals, dirt, and other pollutants into the storm drains and eventually into bodies of water
- is not treated before entering water used for swimming, fishing, and drinking



## How Storm Water Impacts The Duck Pond

Polluted storm water runoff:

- can adversely affect many life forms, such as plants, fish, and even humans
- decreases water clarity because of the sediments it transports
- makes it difficult for aquatic plants and fish to survive
- transports excess nutrients causing overgrowth of algae
- lowers dissolved oxygen levels, making it difficult for aquatic organisms to survive

## Car Washing

Washing your car at home can send detergents and other contaminants through the storm sewer system.

### Problems

- detergents containing phosphates run off into the Duck Pond causing excessive algae and duckweed growth
- overgrowth of algae and duckweed cover the surface of the water, blocking sun penetration
- dissolved oxygen levels drop, harming or killing aquatic organisms



### Solutions

- wash your car on gravel or grass
- use only phosphate-free detergents
- use a commercial car wash where water is treated before it is released into waterways



## Pet Wastes in Our Environment

Pet wastes:

- are washed into storm drains leading to the Duck Pond during rainfall if left on the ground in yards and woods
- contain bacteria that pose human health risks
- contain nitrates and phosphates which speed up eutrophication of water bodies and stimulate the growth of algae, duckweed, and parasitic organisms

### How to Prevent Polluting the Duck Pond with Pet Wastes

- pick up pet wastes
- dispose of pet wastes by flushing them down the toilet or placing them in the garbage



## Fertilizers and Pesticides in Our Environment

Fertilizers and pesticides from home lawns and gardens:

- become runoff during excessive watering and rain storms
- are harmful to both humans and wildlife when they enter the Duck Pond
- can be toxic and can build up in the environment
- can cause algal blooms disrupting the balance of the pond food webs



Artwork by Kate West  
(AP Environmental Science Student)

## Residential Runoff Impacts

Source	Effects
Cars	Oil and grease leak from cars, enter storm water, then introduce toxins into water bodies.
Household Chemicals	Chemicals pollute water bodies harming wildlife, decreasing their population.
Lawn Care	Excess lawn clippings get blown into storm drains, decreasing depth of water bodies.
Home Maintenance	Excess sediments fill in water bodies, harming aquatic wildlife.
Pet Waste	Fecal bacteria in water bodies can pose a health risk to people and wildlife.



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