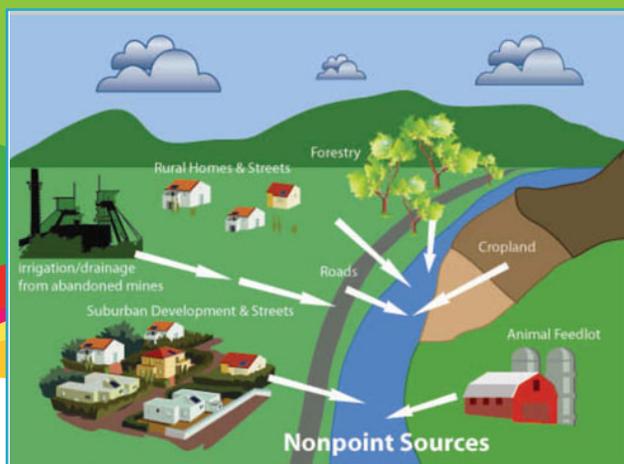




Best Management Practice (BMP)

Use of Pesticides, Herbicides, Fertilizer with Turf and Landscaping

Practices and techniques deemed to be the most effective and practical in reducing the amount of pollutants entering the City of Hallandale Beach's stormwater system



Indirect drainage into water

The City of Hallandale Beach Public Works department owns and maintains several stormwater (drainage) structures throughout the City. These structural components can be obvious and evident (run-off swales and catch basins) or hidden and underground (stormwater carrying pipes or especially designed drain fields).

Any runoff water transporting pesticides, herbicides, and/or fertilizers that enters our stormwater drainage system has the potential to pollute our City's bodies of water such as canals, lakes and the Intracoastal Waterways, or even the ground water, seriously endangering the environment we share.



Pollution in water runoff contaminates canals, lakes and oceans, closes beaches, harms aquatic life, and increases the risk of flooding by clogging gutters and catch basins.



Fertilizers, pesticides, and herbicides are washed off lawns and landscaped areas. These chemicals not only kill garden invaders, they also harm useful insects, poison fish, and contaminate canals, lakes and ocean water.



Over watering turf, lawns, and landscape during the dry season is wasteful and increases the flow of pollutants into stormwater drainage systems. It also carries leaves, grass and clippings that clog catch basins and increases the risk of City street flooding.

Nonpoint Source Pollution Chart: Urban Runoff

POLLUTANT	SOURCES	PROBLEMS
Sediment	Construction; Tree Removal	Increases Turbidity; Affects Aquatic Organisms; Can Contain Toxins
Phosphates /Nitrates	Fertilizers; Detergents; Organic Debris	Algae Blooms; Eutrophication (*)
Toxins; Carcinogens	Heavy Metals; Pesticides; Herbicides	Disrupt Food Chain; Carcinogenic; Cause Fish Kills
Organic Debris	Animal Wastes; Raw Sewage; Grass/Leaves	Deplete Oxygen; Disrupt Food Chain; Cause Fish Kills
Petroleum Products	Motor Oil; Gasoline; Axle Grease	Disrupt Food Chain; Deplete Oxygen; Harms Birds & Mammals
Pathogens	Animal Wastes; Raw Sewage	Health Hazards
Man-Made Litter	Plastic Debris; Tires; Others	Unightly; Harms Organisms

(*) - The process by which a body of water becomes enriched in dissolved nutrients (as phosphates) that stimulate the growth of aquatic plant life usually resulting in the depletion of dissolved oxygen.



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Environmental Compliance

Engineering prepares and obtains permits required by the Federal and State Environmental Protection Agencies and Broward County's Department of Natural Resource Protection. It also works with Broward County for the protection and restoration of the City's beaches.

Clean Water Act and National Pollutant Discharge Elimination System (NPDES)

In 1972, Congress enacted the Federal Water Pollution Control Act, known as the Clean Water Act, to prevent\decrease pollutants from reaching our nation's waterways. An amendment to this act in 1977 made it unlawful to discharge any pollutant into navigable bodies of water without a permit.

The City of Hallandale Beach, like other cities, obtained a National Pollutant Discharge Elimination System (NPDES) permit from the Florida Department of Environmental Protection (DEP). NPDES was designed to improve the quality of our water throughout the United States. The permit requires the City of Hallandale Beach to develop and implement various stormwater management programs, monitor pollution of the City's waterways, and increase public awareness to generate proactive behaviors that prevent stormwater pollution. This permit for the City is prepared by the Engineering Division. It is renewed on an annual basis and the City must continuously fulfill certain requirements on a daily basis to ensure re-certification. DEP closely monitors the City's program and progress through annual inspections of the City's facilities and records.

Helping to Protect Florida's Water Quality

It is illegal to dump anything down our storm drains. This is a statewide regulation as only rain is allowed in Florida's stormwater systems.

Residents are also encouraged to protect the water quality in our lakes, streams, canals, the Intracoastal, and the ocean by taking the following steps:

1. Minimize fertilizer, herbicide, and pesticide use. This helps prevent algae blooms, fish kills, loss of native species, and other water quality problems.
2. Prevent oil, grease, and other toxic chemicals from entering our storm systems by properly maintaining cars, boats, mowers, and other mechanical equipment.
3. Mulch or bag lawn clippings, leaves, and other organic debris that can clog storm drains or overburden our water bodies.
4. Pick up pet waste and do not feed shore birds bread or other human foods, especially near the beach or other large water bodies. Dog waste adds harmful bacteria to our stormwater system and feeding human foods to birds is not only harmful to their health, but also causes unnatural flocking behavior that leads to local increases in bird droppings and bacteria input. Excessive bird droppings have been directly linked to beach advisories in Hollywood and elsewhere.

For more information regarding any environmental questions or concerns, you may use the following links for guidance:

[DEP \(Dept. of Environmental Protection\)](#)
[National EPA \(Environmental Protection Agency\)](#)
[County Environmental Protection Department](#)
[South Florida Water Management District](#)

