

Pollution Control and Stormwater Management

Developed by:

Monarch Environmental, LLC

General Goals and Objectives of Stormwater Management

- Protect water quality
- Develop standard operating procedures
- Pollution prevention and good housekeeping practices
- Prevent or reduce pollutant runoff
- Identify pollutants and potential sources



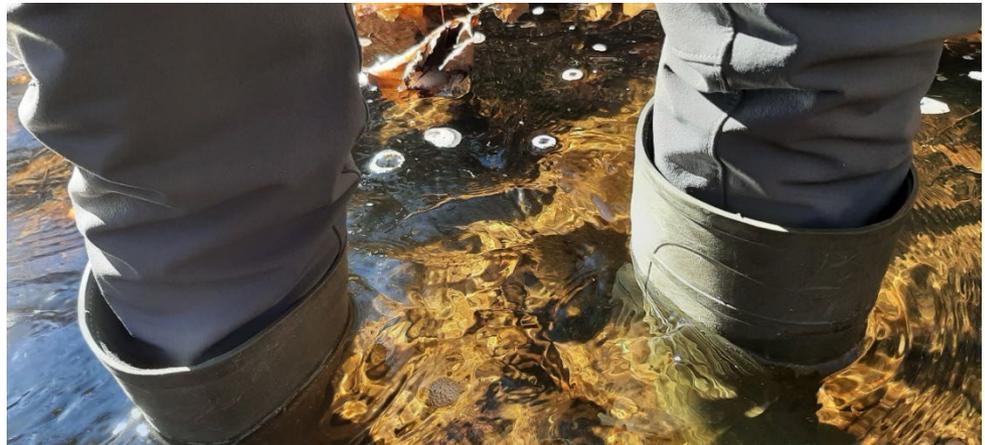
Major Topics

1. Identification/Reporting of Illicit Discharges or Improper Disposal
2. Property and Operations Maintenance:
 - Open Space
 - Pet Waste and Waterfowl Management
 - Buildings, Facilities, Vehicles and Equipment
 - Leaf Management and Street Sweeping
 - Catch Basin Cleaning
 - Snow Management and Deicing
3. Spill Response Protocols and Responsibilities

Impaired Rivers/Brooks

The following rivers are identified as impaired:

- Connecticut River
- Mattabesset River
- Sawmill Brook
- Coginchaug River
- Sumner Brook
- Miner Brook
- Crystal Lake



Bacteria is the main “pollutant of concern”.

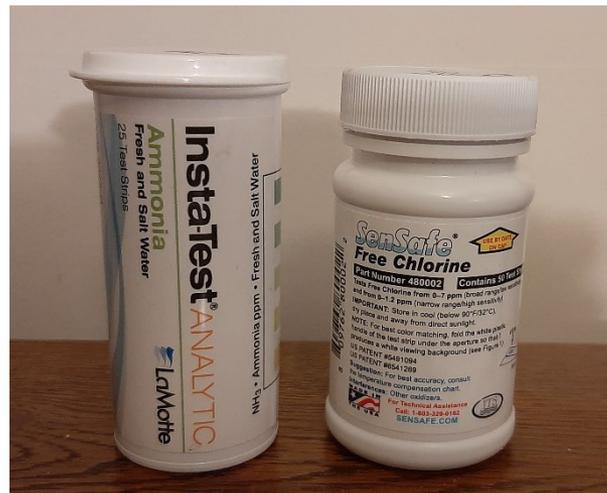
Sources of Bacterial Impairments

- Waste storage
- Septic systems
- Sanitary cross connections
- Waterfowl or pet waste
- Manure piles associated with livestock



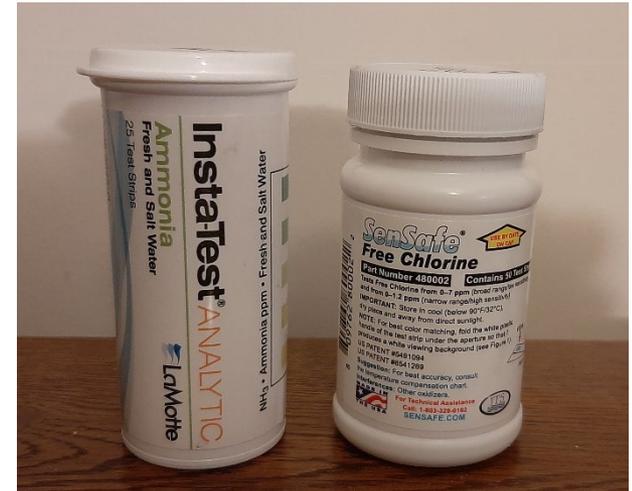
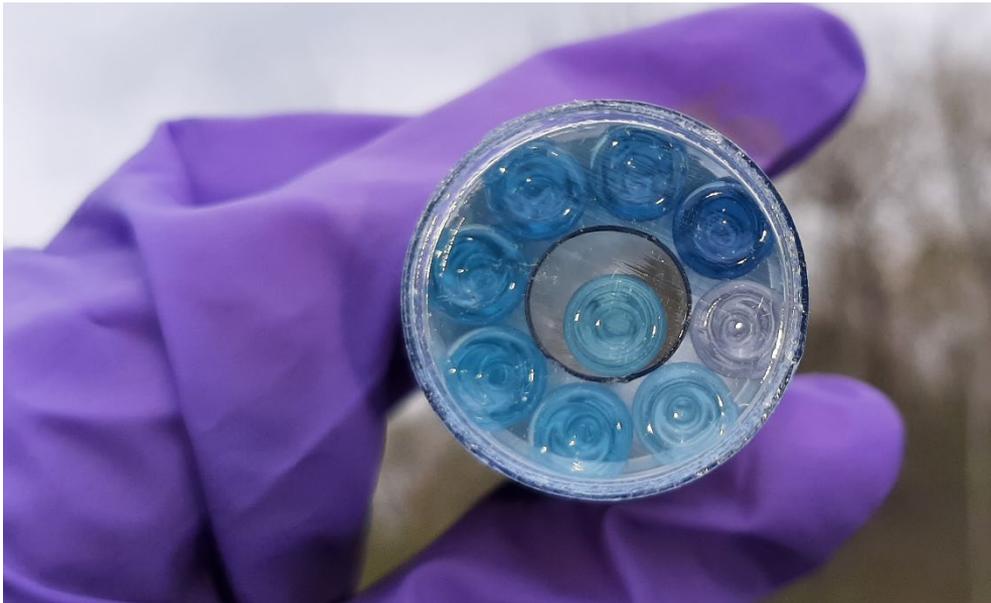
How to Identify Impairments

- Visual: excrement, toilet paper, or sanitary products
- Odor: septic smell
- The city conducts field and lab testing of outfalls: ammonia, chlorine, surfactants and bacteria



Field Testing

- The city uses colorimetric tests to detect surfactants. Ammonia, chlorine test strips are also used.
- Most facilities are **not required** to test.



Identify Issues Onsite

Notice any of the following:

- Excrement, toilet paper, or sanitary products in outfall pipes
- Unusual odors or septic smell
- The condition of drainage pipes
- Debris buildup blocking flow
- Foam

Identify Issues Onsite

Notice any of the following:

- Oil sheens
- Debris and buildup of sticks and/or soil



Identify Issues Onsite

- Outfalls buried in soil or overgrown



Buried outfall pipe



Foam in discharge

Prohibited Disposals to Storm Drainage Systems

- Residential, industrial & commercial wastes
- Used motor vehicle fluids
- Pesticides and fertilizers
- Food preparation waste



Prohibited Disposals to Storm Drainage Systems

- Leaf litter
- Grass clippings
- Animal wastes



Fat, Oil and Grease Ordinance (FOG)

- Restaurant establishments must comply with the city's FOG ordinance.
- Uncovered grease containers overflowing with oil/grease and pooling on the ground is prohibited.



Fat, Oil and Grease Ordinance

- Containers should be covered, not left open.



Keep Your Site Clean and Report Any Ongoing Issues

Report observations of illicit discharges or improper disposal to the DPW:

- Howard Weissberg 860-638-4856
- Tom Nigosanti 860-638-4862

Take Action on Observations

- Contact property owner or supervisor.
- Educate employees, students and consumers.
- Keep all containers covered when not in use.
- Sweep parking lots at least once per year in the spring.
- Properly dispose of lot sweepings (not into the storm system).

Property & Operations Maintenance

Fertilizers contribute phosphorus & nitrogen to the storm system when not used and applied properly.

- Closely manage the application, storage and disposal of fertilizers, pesticides and herbicides.
- Reduce or eliminate use of fertilizers.
- Adhere to manufacturers' instructions for application.



Property & Operations Maintenance

Fertilizers - Phosphorus & Nitrogen

- Use alternatives (reduced, slow-releasing, or insoluble phosphorus compositions).
- Avoid applying to paved walkways or 'over spray' into parking lots.
- Apply during appropriate season/month.
- Minimize runoff (do not apply before a major rain storm).

Property & Operations Maintenance

Grass Planting and Clippings

Phosphorus & Nitrogen issues

- Use alternative landscaping materials: drought resistant & native plants. (Fescue)
- Grass clippings and leaves must not enter the storm drainage system or any other water body.
- Grass clippings can be composted onsite or transported to the Recycling Center.



Property & Operations Maintenance

Pet Waste Management - Bacteria

- Minimize and eliminate potential for direct contact of waste to the stormwater system, lakes, rivers and ponds.
- Post and maintain educational signs.
- Provide pet waste baggies and disposal receptacles.



Property & Operations Maintenance

Waterfowl Management - Bacteria

- Discourage the congregation and feeding of waterfowl in sensitive areas.
- Discourage public feeding.
- Control the direct drainage from these areas away from storm systems and water bodies.



Property & Operations Maintenance

Buildings and Facilities - Minimize Runoff of Pollutants

- Keep dumpster covers closed when not in use.
- Look for evidence of oil leaks or staining and loose connections or abraded hoses.
- Waste batteries must not be stored outside.
- Sweep parking lots regularly but do not dispose of sweepings into the storm system
- Keep surrounding areas clean.

Property & Operations Maintenance

Vehicles and Equipment

- Notice fluid leaks from employee vehicles.
- Place drip pans or absorbents under vehicles/equipment while awaiting maintenance.

Catch Basin Cleaning

- Inspect catch basins annually.
- Create an annual cleaning schedule.



Snow Management and Deicing

- Discuss options with your snow removal contractor
- Minimize the use and optimize the application of chloride-based or other salts or deicing product.
- Place snow in upland areas where sand and other debris will remain after snowmelt for later removal such as open fields.

Do not deposit snow in the following areas:

- In or near freshwater or tidal wetlands;
- On top of storm drain catch basins;
- In storm drainage swales;
- On stream or river banks which slope toward the water;
- In areas within 100 feet of any drinking water well supply.

Spill Response Protocols and Responsibilities

Spill Response Protocols and Responsibilities

- Basic procedures to contain, report and clean up spills.
- Use sand to absorb small spills or leaks, then clean up and put in a proper container.



Spill Response Protocols and Responsibilities

- Contaminated material must be properly disposed.
- Keep spill kits and equipment in handy locations.
- Shovels, sand/kitty litter, absorbent fabric, container with cover should be available.
- Notify the Fire Department in case of a large spill.



End of Program