George Washington Memorial Parkway and
Clara Barton Parkway

Stormwater Pollution Prevention Training

wood.

Welcome to Today's Training

Your participation is important and appreciated:

- Training is required by permits issued to the GWMP/CBP under the authority of the federal Clean Water Act.
- Conservation of our natural resources is a core mission of the National Park Service.
- Our economy and quality of life all depend on clean water and a healthy environment.

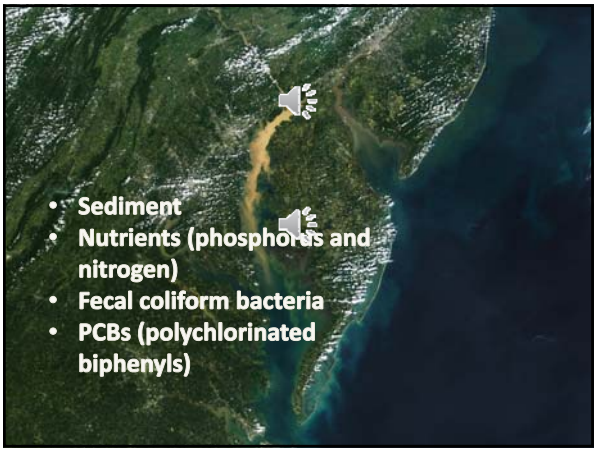
Three Key Take Aways!

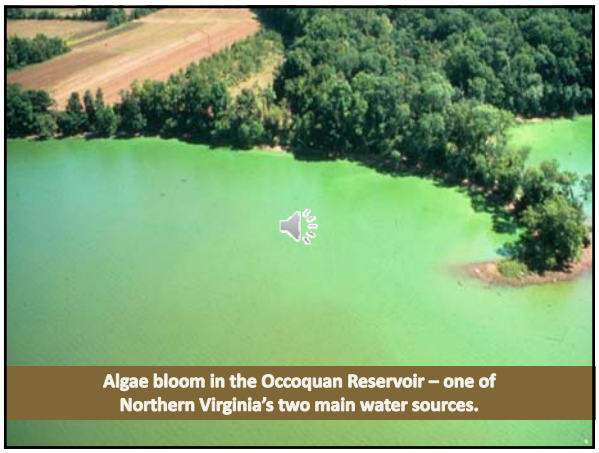
At the end of this presentation, we hope to strengthen your understanding of:

- Your roles and responsibilities as a member of the pollution prevention team.
- Actions you can take to prevent pollution of our water resources.
- How to recognize and report illicit discharges of pollutants.

Stormwater Jeopardy

- Stormwater is defined as water flowing over the land during and immediately after a rain storm or snow event.
  TRUE
- Stormwater from the Maintenance Complex is treated at a state-of-the-art wastewater treatment facility.
  FALSE
- Water from GWMP and CBP eventually flow to the Potomac River and the Chesapeake Bay.
  TRUE
- Sediment is a pollutant of specific concern for the National Park Service.
  TRUE





Algae bloom in the Occoquan Reservoir – one of Northern Virginia's two main water sources.

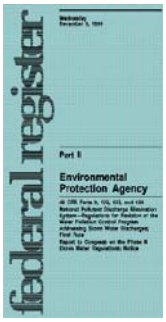
Stormwater Jeopardy

- Preventing one ton of sediment pollution can be worth $80,000.
  TRUE
- Pollution costs our region $500 million in lost economic activity each year.
  FALSE
- The most effective way to keep our streams clean is to capture the pollution and treat it before it is discharged to a stream.
  FALSE
- Specific plans have been developed to prevent pollution at the Maintenance Complex and Dairyfield Island.
  TRUE

Pollution Prevention Requirements

Stormwater Permits

- GWMP/CBP operates under a Municipal Separate Storm Sewer System (MS4) permit.
- Regulates anything that is discharged from a GWMP/CBP operated stormwater outfall.
- The Maintenance Complex also operates under a NPDES industrial stormwater permit.



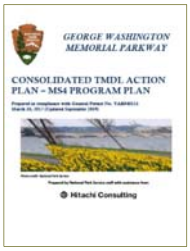
MS4 Permit Basics

- Prohibits all non-stormwater discharges unless explicitly authorized.
- Requires the development of an MS4 Program Plan.
- Establishes specific documentation and reporting requirements.
- Fine of up to $32,500 per violation, per day!

What's in the MS4 Program Plan?

Six Minimum Control Measures

1. Public Education and Outreach
2. Public Involvement and Participation
3. Illicit Discharge Detection and Elimination
4. Construction Runoff Control
5. Post-Construction Runoff Control
6. Pollution Prevention Good Housekeeping Practices



Stormwater Pollution Prevention Plans (SWPPPs)

- Facility Description
- Potential Pollutant Sources
- Procedures and Control Measures
- Training, Inspections, and Record Keeping

Spill Prevention, Control, and Countermeasures Plan

- Description of Oil and Fuel Storage
- Spill and Rupture Prevention and Control Measures
- Training, Inspections, and Record Keeping
- Located at the Maintenance Complex

Potential Source of Pollution

Maintenance Complex and Daingerfield Island

Activities	Pollutants
Vehicle and Equipment Storage	Oil Antifreeze Grease Fuel
Equipment Fueling	Gasoline Diesel
Hazardous Materials Storage	Cleansers Paints Solvents Pesticides Lead Acid Batteries
Salt Loading and Storage	Sodium Chloride

Maintenance Complex and Daingerfield Island

Activities	Pollutants
Vehicle Washing	Cleansers Oil Antifreeze Grease Fuel
Stockpiles	Dirt and Other Materials
Waste Disposal	Trash Liquids

On GWMP/CBP Property

Activities	Pollutants
Vehicles	Petroleum Hydrocarbons Vehicle Parts Wear Trash
Hikers and Bikers	Trash
Dog Walkers	Pet Waste/Bacteria



Procedures and Control Measures

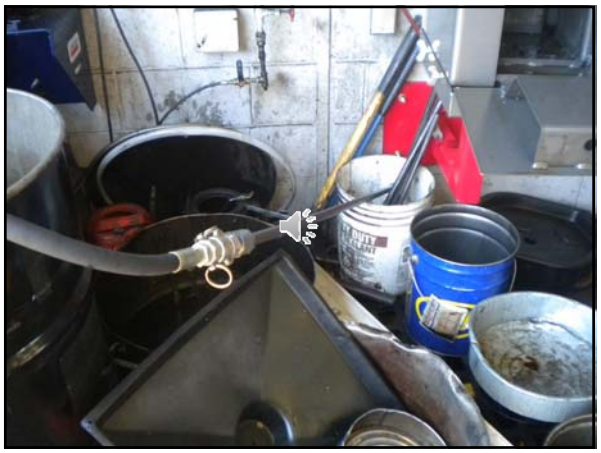
At the Maintenance Complex

Reduce the chance for contamination.

- Conduct maintenance indoors.
- Store materials under cover when at all possible.
- Keep liquid materials away from bay doors.
- Provide secondary containment for all containers.
- Ensure that caps and lids fit tight.
- Use drip pans for leaks and when changing fluids.

Be prepared for a leak or spill.

- Know where your spill kit and safety equipment are located.
- Label all hazardous substance containers in plain English.
- Clear access to storage drums and other containers.



Take ownership of the situation.

- Clean up spills and drips promptly.
- Sweep up used dry absorb daily and dispose of properly.
- Any spill requires attention. There is no minimum amount.

Dealing with small spills.

When to call the professionals!

Photo Credit: Fairfax County Fire & Hazardous Materials Investigative Services

Special requirements for salt management.

- Regularly sweep salt and sand into the covered structure after transfers.
- Clean up any spills that may occur during transfer of salt to the brine-making area.
- Cover the stormwater inlet when brine transfers are made from the mixer to the spray trucks.

Special requirements for wash water.

Most importantly, be observant.

- Observe tanks and drums for leaks and corrosion.
- Inspect equipment for signs of wear, excessive noise, vibration, etc.
- Look for unusual staining.
- Investigate and report unusual odors.
- Make sure all valves are in proper position.
- Check for torn bags or bags exposed to rainwater.
- Ensure used absorbents are cleaned up.
- Pick up trash and debris.

In the Field

Before you leave…

- Check the weather.
- Bring a portable spill kit.
- Bring brooms and other equipment to clean up loose materials.
- Bring a tarp to cover stockpiled materials.
- Ask, do I really need it at the site?

At the site…

- Employ inlet protection if working near a storm drain.
- Conduct routine site inspections to observe any problems.
- Broom sweep or vacuum surfaces frequently.
- If it is necessary to hose or blow materials, direct them toward a grassy area.
- Materials (including millings and paint chips) must be collected and disposed of properly.

Pesticides and Herbicides

- Staff and contractors MUST be properly state certified.
- Use method least likely to result in pollution.
- Limit spraying to the problem area.
- Do not apply if windy.
- No spraying within 50 feet (or more if possible) of a water feature.

Fertilizers

- Apply fertilizers only if necessary.
- Adhere to the manufacturer's recommended application rates.
- If an area is greater than one acre, STOP! A nutrient management plan is required.

Mowing

- Direct clippings away from impervious areas when possible.
- Never purposefully blow or dump clippings into storm drain inlets.

Sand, Dirt, and Gravel

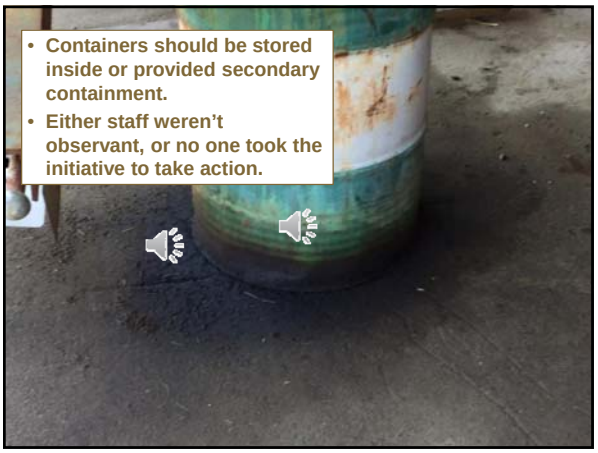
- Minimize the amount and time of storage.
- Store under cover when possible.
- Sweep area around the pile frequently.
- Locate piles away from inlets.
- Provide inlet protection.

Liquid Storage

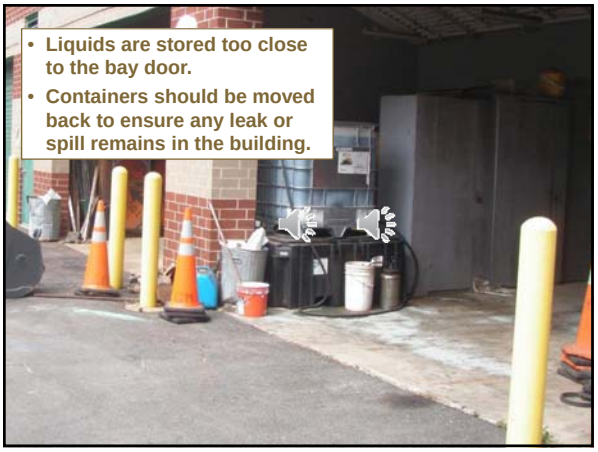
- Place containers on a paved surface.
- Place away from storm drain inlet.
- Ensure that the containers are away from active vehicular traffic.
- Keep a spill kit in close proximity.

Let's Review!


• Even undamaged containers should be stored inside or provided secondary containment.
• Damaged container should be immediately dealt with.


• Containers should be stored inside or provided secondary containment.
• Either staff weren't observant, or no one took the initiative to take action.


• Salt must be swept back into storage areas to prevent mixing with stormwater after winter events.


• Liquids are stored too close to the bay door.
• Containers should be moved back to ensure any leak or spill remains in the building.


• Covered storage bins are a great practice.
• Materials must be swept back in after each day of use or prior to a rain event.


• Keep trash bins and dumpster tops closed.
• Frequently clean up any loose trash or debris.

Recognition and Reporting of Illicit Discharges

What is allowed?

- Water line flushing
- Landscape irrigation
- Discharges of potable water
- Foundation and footing drains
- Air conditioning condensation
- Water from crawl space pumps
- Individual residential car washing
- Dechlorinated swimming pool discharges
- Street wash water

What is an illicit discharge?

Everything else that is not covered by a separate state or federal permit.

Signs of an Illicit Discharge

Some illicit discharges are obvious – but not always!

- The key is to be observant.
- Is the water discolored, sudsy, or oily?
- Is there an unusual odor?
  - Petroleum?
  - Rotten Eggs?
  - Sewage?
  - Rancid/sour?
  - Chlorine?
- Are there deposits or stains visible?


Restaurant Grease


Chemical Discharge


Residential/Commercial Contractors

Residential/Commercial Contractors


Dumpsters


Multiple Potential Illicit Discharges

What if I find a potential illicit discharge?

- Observe where it is coming from.
- Take photos.
- Capture a sample (if safe).
- Report the discharge immediately to the appropriate personnel.
- All illicit discharges must be logged and annually reported to state regulators.

Contact for Illicit Discharges

Robert Mocko
(703) 289-2500
Robert_Mocko@nps.gov

Park Police Non-Emergency
(703) 285-1000

Emergencies
Park Police Emergency – (202) 610-7500
Or 911