# Stormwater Safety Policies, Procedures And Implementation Of Bmps Environmental Health And Safety



### How Can Pollution Occur?

- Erosion
  - > Sediment—soil particles detached (during erosion process)
  - ➤ Organic matter
- Grounds/maintenance
  - ➤ Green waste
  - > Fuel
  - > Oil
  - > Pesticides
  - > Herbicides



### How Can Pollution Occur?

- Litter (A large portion of pollution)
  - ➤ Garbage
  - ➤ Cigarettes
  - > Bottles
  - ➤ Other objects
- Paints
  - > Runoff paint drainage
    - Latex-based is better than oil-based



### How Can Pollution Occur?

- Parking lot runoff
  - ➤ Oil/grease
  - > Litter
  - > Heavy metals
- Sewage Runoff
  - ➤ Sewage waste
  - ➤ Debris



### Why Does It Matter?

- Pollutants deposited into the waterways discourage recreational use of the resource and interferes with
  - Fish
  - Other aquatic organisms
  - Wildlife



Water pollution. Retrieved on April 17, 2019 from http://www.onlinebiologynotes.com/wp-content/uploads/2018/07/water-pollution.jpg.

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- Never dump anything directly into a storm drain.
- Never throw anything down a storm drain. Dumping into storm drains is not just wrong. IT IS ILLEGAL.
- Keep work areas clean; sweep up litter and debris.
- Keep oils, solvents, chemicals, pesticides, fertilizers and other hazardous fluids under cover and away from the street and storm drains.



- Cover storage containers and dumpsters; clean them regularly.
- Never discharge wastewater to the ground or storm drains.
- Wash vehicles or equipment on the lawn or in wash bays and never wash off detergents, oils and greases into streets or storm drains.
- Spills are required by law to be reported, so report any chemical spill to 6911.

- Public education and outreach on Storm water impacts
- Public involvement and participation
- Illicit Discharge Detention and Elimination
- Pollution Prevention and Good housekeeping
- Construction Site Storm Water Runoff Control
- Post-Construction Storm water Management in New Development and Redevelopment

# Public Education And Outreach On Storm Water Impacts

- Goal: To develop and distribute Educational materials and perform outreach about the impact of polluted storm water runoff discharges to inform
  - Students
  - Faculty
  - Staff
    - Their actions can make a positive impact on water quality

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### Public Involvement And Participation

 Goal: To provide opportunities for students, faculty, and staff to participate in program development and implementation on a storm water management working-group.

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### Illicit Discharge Detection And Elimination

- Goal: To develop and implement a place to detect and eliminate nonstorm water discharges (illicit discharges) such as
  - Process water
  - Wash water
  - Chemical Spills
  - Other non-rainwater to the storm drain (not applicable to exempt discharges)



### UAH Policy – Established 2020

- All employees, students, and community members are required to follow the ms4 requirements. What does this mean to you primarily?
- Don't pour anything down the storm drains.
- Don't litter.
- Cover the trash cans.
- Report any leaks or spills that you see in a parking lot.

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## Pollution Prevention And Good Housekeeping For Facilities Operation And Maintenance

- Goal: To develop and implement a program to prevent or reduce pollutant runoff from facilities operation and maintenance activities.
- Program must include training to relevant staff on pollution prevention measures and techniques
  - Regular street sweeping
  - Reduction in the use of pesticides
  - Frequent sump grate cleaning
- In 2020, the grounds department is establishing PMs to track grate cleaning and clearing.
- In 2020, OEHS developed an assessment tool for quarterly monitoring of grates and drains.

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### Construction Site Storm Water Runoff Control

- Goal: To develop, implement, and enforce an erosion and sediment control program for construction activities.
- As of 2020, Facilities and operations is working with the city of Huntsville to improve maintenance of drainage ditches around the perimeter of campus.
- As of 2020, funding has been requested for dredging the ponds to improve stormwater management efficiency

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### Post-construction Storm Water Management In New Development And Redevelopment

- Goal: to develop, implement, and enforce a program to address discharges of post-construction storm water runoff from new development and redevelopment areas.
- Post-construction storm water management controls include permanent structural and non-structural bmps
  - Conservation of natural and permeable areas
  - Permeable pavers
  - Rooftop runoff infiltration galleries
  - Mechanical storm drain filters

That remain in place after the project is completed and prevent pollution from the new development in the long-run.

Beginning in 2020, the campus architect is working with f&o maintenance director to establish a formal policy for handoff of this portion upon completion of projects.

April 2020

#### Grounds

- Street sweeping
- Keeping drains clear
- Regular litter collection

#### Maintenance

- Vehicle maintenance conducted over drain pit by garage
- Oil and oil filters are recycled by garage
- Garbage truck inspected and permitted annually to prevent trash and liquids from leaking the garbage truck is no longer used and is contracted out as of 2020
- Leak detection system was installed at fuel pumping station protect against leaks.

- Recycling program implemented campus wide to decrease litter
- Campus architect contracts with third party to ensure construction projects are conducted in compliance with the national pollutant discharge elimination system (NPDES).
- Clean loading docks (removing pellets and cardboard) to make sure it doesn't block storm drains. Performed regularly by custodial services.

- Tobacco-free campus has prevented cigarette butts and tobacco packaging from washing into storm drains.
- Checking storm drains around the property to ensure storm drains aren't blocked by grounds and oehs.



### Water 101

- Help keep our ponds, creeks and rivers clean! Storm drain water goes directly into them.
- Storm drains are for storm water only!

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