Doing More than the MS4!

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9:30 - 10:00 AM
Overview of Topics

- Stormwater Regulations and Impacts
- Municipal Separate Storm Sewer System (MS4) Phase II Stormwater Permits and Requirements
- Greater Lansing Regional Committee
- Delhi Township Activities
Goals of the MS4

- Increase Awareness
- Reduce Nutrients and Pathogens
- Begin Making Changes as Necessary
- Maintain MS4 Permit Compliance
Separate Storm Sewer System
Pollution and Stormwater

- Pollutants fall on impervious surface
- Polluted stormwater enters storm drain
- Stormwater enters waterway
- Impaired waterway

- Oil in parking lot
- Typical roadside catch basin
- Storm drain outfall
- Sedimentation and flooding during rain event
Stormwater Regulations

- **Clean Water Act**
  - Regulated the discharge of pollutants since 1972
  - 1987 amendments developed regulations for stormwater discharges
  - 1990 Phase I - Municipalities with populations greater than 100,000 required to obtain NPDES Stormwater Permits

- **NPDES Phase II Stormwater Permit**
  - 1999 - Required all other "small" MS4's to obtain NPDES Stormwater Permits with the goal of reducing the discharge of pollutants to the waters of the State. This includes entities such as Universities, Hospitals and Prisons.
Why care about Stormwater?

Impacts:
- Erosion & sedimentation
- Runoff & Flooding
- Algae blooms, fish kills, closed beaches
- Decreased aesthetics & recreation opportunities
How does Phase II affect municipalities?

Six Minimum Measures:

- **Public Education Plan (PEP):** Educate the public including students, businesses, residents, and employees about reducing storm water pollution.

- **Illicit Discharge Elimination Plan (IDEP):** Map storm sewer systems, identify and eliminate pollution sources, look for failing septic systems.

- **Public Involvement and Participation:** Involve the public in the development of the SWMP.
How does Phase II affect municipalities?

Six Minimum Measures Cont’d:

- **Post-Construction Storm Water Management:** Developing policies and procedures to address storm water runoff.

- **Construction Site Storm Water Runoff Control:** The SESC Program is either administered through MCPWO or your community.

- **Pollution Prevention & Good Housekeeping:** Monitor, evaluate, and improve P2 measures at your facilities.
How does Phase II affect municipalities?

- The Phase II permit requires Good Housekeeping practices or the implementation of Best Management Practices (BMPs):
  - **Structural BMPs:**
    - Detention ponds
    - Swales
    - Infiltration basins
    - Stream buffers
    - LID practices
    - Oil/water separators
  - **Non-Structural BMPs:**
    - Ordinances & zoning
    - Education & outreach
    - Maintenance activities (drain cleaning, street sweeping)
Greater Lansing Regional Committee

- 16 separate entities including townships, cities, counties, and Michigan State University
- Collaboration allows for regional support of the local waterways
- Committee representation
Delhi Township Activities

- Gill
- Open House
- Greater Lansing Regional Committee
- Rain Garden and Green Roof
- Stormwater Sampling
- Holt Public Schools
- Training and Education
- Public Radio
Gill !!
Holt Community Arts Council – Public Participation
"Gill-Again" – 2011
Girl Scouts - Public Participation
Gill

- Awareness for recycling efforts
- Community involvement and excitement
- MSU Homecoming Parade
Water Quality Awareness
Open House
Treatment Plant tours
Educational Demonstrations
Fish release to Grand River
Pet Waste Pick-up Race
Green Roof
Sedum succulents planted on Green Roof
Catch Basin markers on all Township and School storm drains - Public Education
Buffer zones at Township owned water features
Training and Educating Employees

- Make sure that all employees are aware of the need for stormwater protection
- Conduct periodic good housekeeping and pollution prevention training
- Teach how to identify illicit discharges
Surface water monitoring
Seasonal student interns conduct sampling and analysis
Macroinvertebrate collection
Stormwater Educational Display

Now is the time to protect our rivers and lakes

You can play a role in protecting our water resources

Small sources add up to big pollution problems, so it is important to prevent pollution before it reaches the water:

- Soil test before you apply fertilizers, and use low or non-phosphorous fertilizers when possible.
- Never dump anything down storm drains or in streams.
- Use native vegetation and reduce turfgrass.
- Take your car to the carwash, or wash your car on the lawn instead of pavement.
- Pick up after your pet, and dispose of pet waste properly in the trash or toilet.
- Recycle and dispose of household chemicals properly (motor oil, household solvents, paint, etc.).
- Capture and reuse rainwater to control stormwater runoff.
- Maintain your vehicles, eliminating leaks and spills.
- Inspect and maintain your onsite septic systems and seepage fields.

It all ends up in the water

Greater Lansing Regional Stormwater Management

www.mywatersheds.org
Takeaways

▪ Collaborate and partner with your neighbors!
▪ Combine education and fun!
▪ Find a symbol!
▪ Support from the community and leadership!
▪ Try stuff!
Questions?

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