



MS4 Program Phase II Factsheet

MS4 Program Phase II

What is MS4?

- **M**unicipal **S**eparate **S**torm **S**ewer **S**ystems, or MS4s, are conveyances for rainwater. A conveyance may include roads with drainage systems, municipal streets, curbs, gutters, ditches or storm drains.
- When it rains or when snow and ice melt, the water run-off flows through these systems and drains, typically untreated, into lakes, rivers and streams.

Why is polluted storm water a problem?

- Run-off from urbanized areas may contain pollutants ranging from road salt and oil to gasoline and debris. It is a source of pollution in 13 percent of the nation's impaired rivers and 21 percent of impaired lakes, ponds and reservoirs, according to the U.S. Environmental Protection Agency's 1996 National Water Quality Inventory Report to Congress.
- Polluted storm water run-off can damage plants and animals that live in the water and can reduce the available uses for a waterbody.

Rule 13 as part of the solution

- The MS4 Rule, or Rule 13, is required by the federal Clean Water Act and requires about 170 communities and other urban entities in Indiana (for example, universities and prisons meeting the designation criteria) to implement six minimum control measures that will reduce the amount of pollutants entering the waterway as a result of storm water run-off.
- Regulated entities will need to apply for a National Pollutant Discharge Elimination System (NPDES) general permit by March of 2003.
- Once a permit application is reviewed and IDEM grants a permit, the regulated entity will have a compliance schedule to implement various water quality improvement components during the five years of the permit term.



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What are the six minimum control measures?

1. Public Education and Outreach
 - Making the public aware of the MS4 program, the importance of cleaning up storm water and the potentially negative impact disposal practices and everyday activities may have on storm water quality.
2. Public Participation and Involvement
 - Including Hoosiers and other interested parties in the processes of storm water program development and implementation.
3. Illicit Discharge Detection and Elimination
 - Identifying and eliminating illegal discharges and connections into the storm sewer system.
4. Construction Site Run-off Control
 - Ensuring that developers and other people responsible for construction activities that disturb one or more acre of land have appropriate plans implemented to prevent sediment and other pollutants from running off construction sites.
5. Post-Construction Storm Water Management
 - Designing long-term best management practices and control measures to reduce or eliminate polluted storm water run-off that will leave a newly developed, or redeveloped, area after construction has been completed.
6. Pollution Prevention/Good Housekeeping for Municipal Operations
 - Reducing exposure of potential pollutants to storm water at municipal facilities and during municipal operations, such as road salting and pesticide application.



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What is Rule 5?

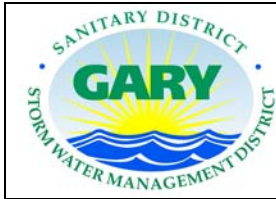
- Rule 5 (327 IAC 15-5) requires that developers of any construction activity that disturbs five acres or more of land:
 1. File a Notice Of Intent for the land disturbing activity withto IDEM in order to obtain a general storm water permit and
 2. Submit an erosion control plan to either the Department of Natural Resources or the local county soil and water conservation district
- The erosion control plan is one of the principle elements of Rule 5. Erosion control is any practice that keeps the exposed soil from being washed off site during a rain event. Some of the most common erosion control measures include planting grass seed, placing wheat or oats over the exposed soil, erecting silt fences and creating sediment ponds.

How will the rule change under Phase II?

- The rule, once adopted, will change the minimum land-disturbing size from five acres to one acre. This change will require developers of land-disturbing activities that displace one or more acres of land to obtain a National Pollutant Discharge Elimination System (NPDES) permit from IDEM.

How does erosion affect water quality?

- When soil enters a waterway, it causes the water to become turbid, or murky. High turbidity causes water to become warmer because the suspended soil particles absorb heat from sunlight, causing oxygen levels to lower.
- Turbidity causes less light penetration in the water, which results in decreased photosynthesis and further drops in oxygen concentrations.
- The combination of warmer water, less light and oxygen depletion makes it impossible for some forms of aquatic life to survive.
- Soil particles can have a profound impact on aquatic life by clogging gills, reducing growth rates, decreasing resistance to disease and inhibiting, or even preventing, the development of eggs and larva.



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What is Rule 6?

- Rule 6 (327 IAC 15-6) requires operators of industrial facilities to obtain a general National Pollutant Discharge Elimination System permit from IDEM.
- The permit requires industries to monitor their storm water run-off as well as develop and implement best management practices (BMPs) to minimize or eliminate their impact on the environment.
- Eligibility for an NPDES permit is determined by several factors including:
 - Type of industry;
 - Activities exposed to storm water; and
 - The industry's storm water conveyance connection to a municipal separate storm sewer system (MS4) or waters of the state.

Why is storm water run-off from industries a concern?

- When it rains or when snow and ice melt, the water run-off picks up pollutants along its route and carries them into rivers, lakes and streams.
- Some industries store materials in areas where it can contribute to polluted storm water run-off. Materials may include petroleum products, solvents, heavy metals, solids and road salt.
- If carried into the waterway, these pollutants can cause environmental damage and potentially affect aquatic life.

How will the rule change under Phase II?

- Additional sampling requirements, including total copper, total zinc, total lead and E. coli bacteria, are under consideration to be added to improve the overall storm water quality monitoring from industrial sites.
- IDEM will establish a 5-year permit term limit (currently, permits do not expire).
- Conditional No Exposure Certification option will expand to all categories of industry. Currently, only "light industry," such as printing and publishing, food products, electronic equipment and general warehousing, may apply for the exclusion.

What is Conditional No Exposure Exclusion?

- "No exposure" means all industrial activities and material storage areas are not exposed to precipitation through moving activities and storing materials indoors, which eliminates contact with storm water run-off from the site.
- Once a completed certification form is filed with IDEM, the Conditional No Exposure Exclusion would exclude the operator of such a facility from storm water permitting requirements.