

# Overview of Changes to the Non-Agricultural Performance Standards of Chapter NR 151

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# Outline for Today

- Brief background on storm water management program and NR 151
- Non-agricultural changes to NR 151
- Other storm water program updates
- Questions and answers



# Background

- Regulation of storm water discharges
  - Federal Clean Water Act
  - Section 283.33, stats.
  - Chapter NR 216, Wis. Adm. Code
- DNR directed by s. 281.16 (2), stats., to create non-agricultural performance standards
  - Subchapter III & IV of ch. NR 151, Wis. Adm. Code
    - Initially effective October 1, 2002
    - Amendments effective January 1, 2011
- Non-agricultural performance standards implemented through storm water permits
  - MS4 discharge permits
  - Construction site storm water discharge permit

## Non-Agricultural Revisions to Chapter NR 151, Runoff Management Rule

The Wisconsin Department of Natural Resources (WDNR) has revised Chapter NR 151, Wisconsin Administrative Code, an administrative rule that establishes runoff pollution performance standards for both agricultural and non-agricultural practices and manure management prohibitions for agricultural facilities and practices. These standards and prohibitions are intended to achieve water quality standards. Polluted runoff from both urban and agricultural land uses contribute to the nutrients that cause unsightly algae blooms, the loss of aquatic habitat, fish kills, and other water quality problems that affect Wisconsin's lakes and streams. The rule was originally promulgated in 2002. The revised rule was published in December 2010 and became effective on January 1, 2011.

Please note that under state budget bill 2011 Wisconsin Act 32, there were two provisions which became effective on July 1, 2011, that impact implementation of Chapter NR 151. Those provisions will be mentioned under the section related to the developed urban area performance standards.

This fact sheet includes a summary of major non-agricultural revisions to Chapter NR 151 and is not inclusive of all the revisions that were made to the rule. The complete version of Chapter NR 151 can be found at <http://legis.wisconsin.gov/rsb/code/nr/nr151.pdf>. This fact sheet includes information on the following:

[dnr.wi.gov/topic/stormwater/publications.html](http://dnr.wi.gov/topic/stormwater/publications.html)

Click on "Non-Agricultural Revisions to Chapter NR 151, Runoff Management Rule"

# Non-agricultural Changes to NR 151



- Subchapter I revisions
  - Key definitions
  - Location of BMPs on navigable waters
  
- Subchapter III revisions
  - Construction site performance standards
  - Post-construction site performance standards
  - Developed urban area performance standards
  
- Subchapter IV revisions
  - Transportation performance standards

# Subchapter I – General Provisions

- Key definitions
  - Added: direct conduits to groundwater, existing development, filtering layer, impaired water, silviculture activity, total maximum daily load
  - Modified: average annual rainfall, connected imperviousness, impervious surface, in-fill
    - MEP or Maximum extent practicable

## Subchapter I – General Provisions (cont.)

- Location of BMPs on navigable waters
  - For new development, no credit for BMPs located in a navigable water (no change)
  - For existing development, re-development, or in-fill, credit only given for new BMPs in intermittent streams for which all applicable permits have been received

# Subchapter III – Non-Agricultural Performance Standards

- **Construction site performance standards for non-permitted sites**
  - Standards apply to sites disturbing less than one acre, routine maintenance of road ditches < 5 acres, any other permit-exempt site
  - Standards do not apply to one- and two-family dwellings regulated by DSPS, agricultural facilities and practices, silviculture activities
  - Requirements:
    - Prevent tracking (pads or equivalent)
    - Inlet protection
    - Control of sediment into waterways
    - Control of sediment from drainage ways
    - Dewatering
    - Soil stockpile erosion control (7 days)
    - Manage runoff from other building materials (cement wash water, chemicals)

## Subchapter III – Non-Agricultural Performance Standards (cont.)

- **Construction site performance standards for permitted sites**
  - Applies to sites that disturb one or more acre of land requiring permit coverage under NR 216
  - Changes apply to sites for which a Notice of Intent is received on or after 1/1/2011
  - Added USEPA effluent limitation guidelines (prescriptive standards)

## Construction Site performance standards for permitted sites (cont.)



- Erosion and sediment control practices
  - Same prescriptive standards as non-permitted sites
  - Prevent or reduce erosive flows in channels
  - Prevent or reduce untreated wash water to waters of the states

## Construction Site performance standards for permitted sites (cont.)

- Sediment reduction performance standards
  - 80% sediment reduction until 1/1/2013
  - After 1/1/2013, standard changes to 5 tons/acre/year
  - Revised universal soils loss equation 2 (RUSLE2) can be used to predict soil loss
  - If RUSLE2 not ready by 1/1/2013, continue with current approach

# Construction Site performance standards for permitted sites (cont.)

- Preventative measures
  - Maintain existing vegetation where possible
  - Minimize soil compaction and preserve topsoil
  - Minimize land disturbance on slopes  $> 20\%$
  - Develop spill prevention and response procedures



# Construction Site performance standards for permitted sites (cont.)

- Location and implementation of BMP
  - Installation before land disturbance and in accordance with the plan
  - Maintain until final stabilization
  - Commence final stabilization when land disturbing activity ceases and final grades reached on any portion of the site.
  - Temporary stabilization when disturbance stops and will not resume for 14 or more calendar days
  - Remove BMPs that are no longer necessary

# Subchapter III – Non-Agricultural Performance Standards (cont.)



- Post-construction site performance standards
  - Changes only apply to sites requiring permit coverage under NR 216
  - Changes only apply to sites where Notice of Intent received on or after 1/1/2011
  - No change in TSS standard except for redevelopment

# Post-construction site performance standards (cont.)

## ■ Redevelopment

- Eliminated redevelopment exemption for no increase in exposed parking lots or roads
- Redevelopment performance standard of 40% TSS reduction applies to parking lots and roads
- Anti-backsliding provision for redevelopment sites subject to post-construction performance standards after NR 151 became effective in 2002

# Post-construction site performance standards (cont.)

## ■ New Development

- Peak discharge performance standard revised to include the 1-year, 24-hour design storm and the 2-year, 24-hour design storm to be more protective of bank full condition
- Specify the pre-development curve numbers
- Removed exemption of no increase over 0.01 ft. in receiving stream
- New exemption for lakes over 5,000 acres or streams and rivers segments draining more than 500 square miles

## ■ Infill

- Reminder: As of October 1, 2012, TSS standard is 80% for all infill sites requiring permit coverage under NR 216



# Post-construction site performance standards (cont.)

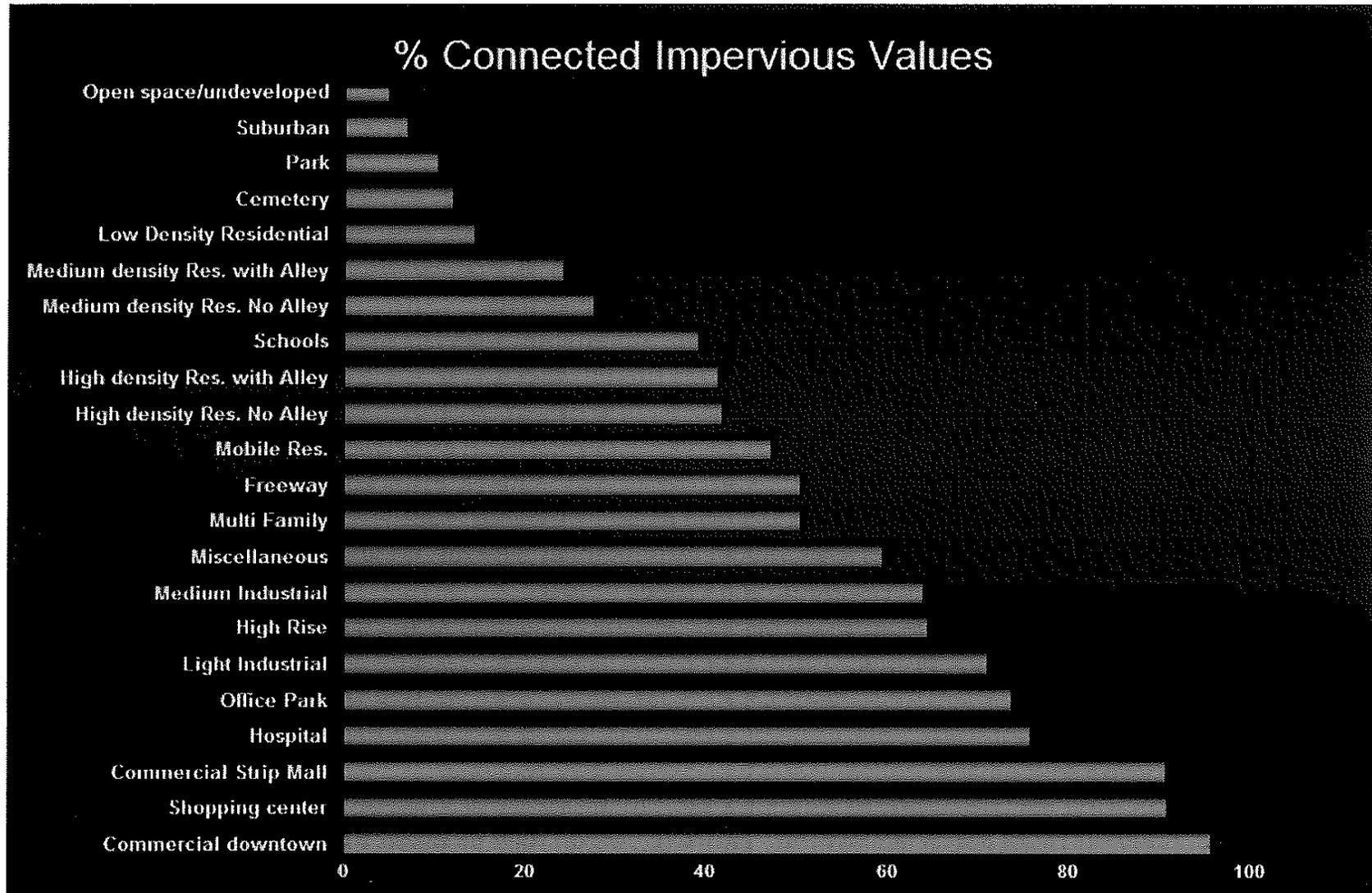
## ■ Infiltration

- Standard now based on connected imperviousness
- New Definition of filtering Layer



# Infiltration

<b>Level of Connected Imperviousness</b>	<b>Performance Standard</b>	<b>Max % area</b>
<u>Low Imperviousness</u> <i>Up to 40%</i>	90% of the pre-development infiltration volume	1%
<u>Moderate Imperviousness</u> <i>&gt; 40% and up to 80%</i>	75% of the pre-development infiltration volume	2%
<u>High Imperviousness</u> <i>&gt; 80%</i>	60% of the pre-development infiltration volume	2%



[dnr.wi.gov/topic/stormwater/standards/ms4\\_modeling.html](http://dnr.wi.gov/topic/stormwater/standards/ms4_modeling.html)

Download PDF "MS4 Modeling – NR 151.13"

# Post-construction site performance standards (cont.)

## ■ Source Areas

- Prohibitions – Source Areas that may not be infiltration
- Exemptions – Source Areas that are optional

## ■ Location of Practices

- Prohibitions – Do not infiltrate in these areas
- Separation Distances
- Exemptions – Low permeable soils

# Post-construction site performance standards (cont.)

## ■ Protective Areas

- Increased buffer for highly sensitive wetlands from 50 to 75 ft.
- Sedge Meadows, Open and Coniferous Bogs, Low Prairies, Calcareous Fens, Coniferous Swamps, Lowland Hardwood Swamps and Ephemeral Ponds
- Information on wetland types can be found at: <http://dnr.wi.gov/wetlands/types.html>

# Developed Urban Area Performance Standards

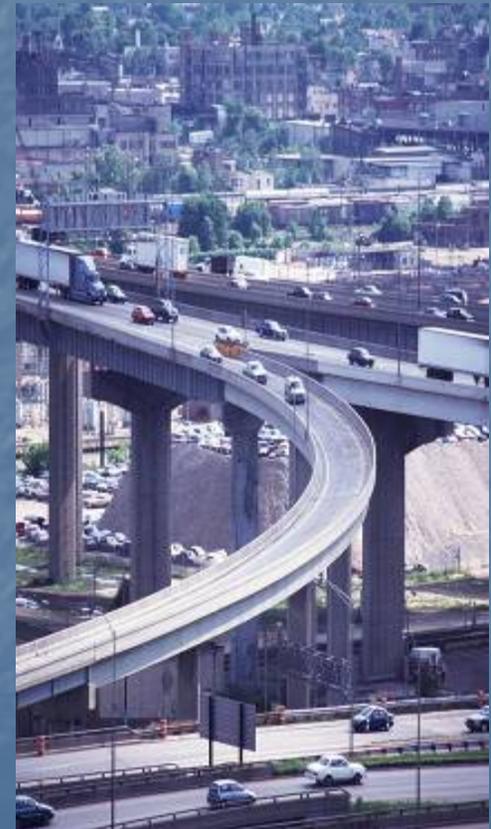
- Extends the compliance deadline if 40% TSS standard cannot be met by 2013. However...
- Impact of 2011 Wisconsin Act 32
  - Prohibits DNR from enforcing 40% TSS standard by a certain date
  - Does not impact other performance standards in NR 151
  - As of 7/1/2011, requires permitted MS4s that have achieved greater than 20% TSS reduction to maintain all BMPs

# Transportation Performance Standards

- Specifically for transportation-related construction sites, e.g., highways, railroads, public mass transit, airports
- Changes apply to sites for which a Notice of Intent is received on or after 1/1/2011; or...
- Sites for which bids advertised or construction contracts signed after 1/1/2011

# Transportation Performance Standards (cont.)

- Minor reconstruction
  - Exemption removed if conversion to urban cross-section
- Prescriptive construction site standards for small sites and routine maintenance
- Construction site performance standards for sites disturbing one acre or more of land



# Transportation Performance Standards (cont.)

	<b>Minor Highway Reconstruction</b>	<b>Highway Reconstruction</b>	<b>New Highway Construction</b>
TSS Reduction	No	Yes (40%)	Yes (80%)
Peak Discharge	No	No	Yes
Infiltration	No	No	No
Protective Areas	Yes	Yes	Yes

# Swale Treatment

- Meet the following standards with properly designed swales (Tech Std. 1005)
  - Post construction TSS
  - Peak flow
  - Infiltration



Exception – discharges to certain waters such as ORWs, ERWs or impaired waters

# Other Storm Water Program Updates

- USEPA July 2011 program review letter
  - 75 items on omissions/deviations, 11 related to storm water
- USEPA construction site turbidity limit
  - January 3 Federal Register notice seeking information (March 5 was the deadline)
- USEPA post-construction storm water rule
  - EPA is working on a cost/benefit analysis
  - Mid-2012 is the soonest for a draft

# Storm Water Program Updates (cont.)

- Rule-making Economic Impact Analysis
  - Required by 2011 Wisconsin Act 21
  - Must contain:
    - Quantification of the policy problem
    - Implementation and compliance costs
    - Actual and quantifiable benefits
    - Alternatives to the rule
    - Consultation with businesses, local governments, and individuals
  - Will add considerable time to the rule making process

# Storm Water Program Updates (cont.)

- Reissuance of MS4 general permit
  - Expired December 2010
  - Reissued permit will need to address both existing and new permittees
  - TMDL issues
    - Address within current permitting framework
    - Allow up to a 15-year compliance period
    - Interim requirements with demonstration of some progress
    - Possible long-term storm water management plan
    - Demonstration compliance through modeling or monitoring

# Storm Water Program Updates (cont.)

- Electronic Notice of Intent (eNOI)
  - Online process for submitting application for construction site storm water permit  
[dnr.wi.gov/topic/stormwater/construction/forms.html](http://dnr.wi.gov/topic/stormwater/construction/forms.html)
- DNR website  
[dnr.wi.gov](http://dnr.wi.gov)



Wisconsin has more than 15,000 lakes.  
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- Licenses & Regulations
- Recreation
- Education
- Topics
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Search or Keywords

Search

HELP

Quick tasks

- Reserve a campsite
- Call center FAQ
- Online license center
- Buy tree seedlings
- Burn permits
- Register boat/ATV/snow

Popular links

- Parks and recreation
- Spring hearings
- Fishing
- Natural Resources Board
- Green Tier
- Electronics recycling
- Conservation Congress
- Hunting
- Hearings and Meetings

Top news

- Lac du Flambeau Band of Chippewa Indians and Department of Natural Resources announce bag limit agreement for 2012
- Fire danger is very high in central Wisconsin counties
- Final 2011 deer harvest numbers available
- Program to increase lands for hunting, fishing and trapping enrolls 30,000 acres

Features | Weekly news | Outdoor Report | All news



Firewise teaches people to work together to reduce wildfire risks throughout their community. Becoming Firewise is a process, not an endpoint. Being Firewise is not difficult, but requires commitment. [Learn more about Firewise.](#)

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## Water topics

Water resources are the foundation for Wisconsin's economy, environment and quality of life. Managing, conserving and restoring them for the benefit of Wisconsin citizens now and in the future is a big job, and one that DNR staff share with local governments, citizens and businesses.



photo credit: Eric Poppemann (Port Washington)

### Agricultural business



Agricultural business is an important part of Wisconsin's economy.

### Beaches



Wisconsin's beaches provide wildlife habitat, recreation areas and tourist destinations.

### Dam safety



There are approximately 3,800 dams in Wisconsin.

### Drinking water



The DNR works to provide Wisconsin residents with safe, clean drinking water.

### Fishing



Plan on Fishing Wisconsin, where we have 160 different fish species.

### Floodplains



A Floodplain is that land that has been or may be covered by floodwater during a regional flood.

### Great Lakes



Discover and protect our Great Lakes.

### Groundwater



Approximately two thirds of the people living in Wisconsin get their drinking water from Groundwater.

### Impaired waters



Learn about impaired waters which do not meet water quality standards.

### Lakes



It's easy to fall in love with Wisconsin's 15,000 lakes.

### Nonpoint



Nonpoint Source Pollution is a leading cause of water quality problems in Wisconsin.

### Rivers & streams



Explore Wisconsin's beautiful rivers & streams.

### Shorelands



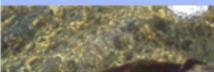
In addition to their natural beauty, Wisconsin's shoreland areas protect water quality, and provide habitat for fish and wildlife habitat and areas for recreational activities.

### Storm water runoff



Storm water runoff contains pollutants from roads, parking lots, construction sites, industrial storage yards and lawns.

### Surface water



Wisconsin residents are fortunate to live in a state bountiful with natural resources, including our many surface waters.

### TMDLs



Impaired waters in Wisconsin are addressed through an analysis, known as a Total Maximum Daily Load (TMDL).

### Wastewater permits



### Water use



### Watersheds & basins



### Waterways



## Storm water runoff permits

Construction

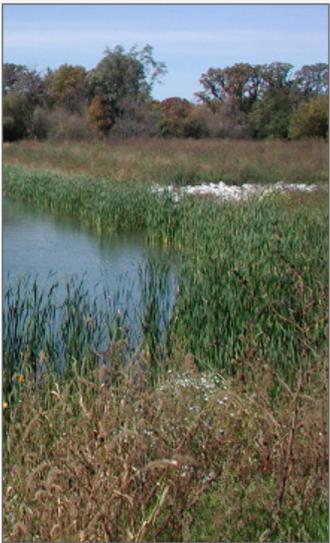
Industrial

Municipal

### Storm water permits, forms, and other information



Urban storm water runoff contains pollutants from roads, parking lots, construction sites, industrial storage yards and lawns. The Storm Water Program regulates storm water discharges from construction sites, industrial facilities, and municipalities. Find program news, permit forms, permit data, and technical assistance information here.



### Learn more



Catch basin

- [What is Storm Water](#)
- [Problems](#)
- [Regulations](#)
- [Pollution Prevention](#)
- [Photo Gallery](#)
- [Frequently Asked Questions](#)

### Technical standards



- [Construction Standards](#)
- [Post-construction Standards](#)
- [Turf Nutrient Management](#)
- [SLAMM and P-8 Models](#)
- [Recarga Model](#)
- [MS4 Modeling Guidance](#)
- [Groundwater Mounding Calc.](#)
- [West Nile Virus](#)

### Guidance & resources



- [Publications](#)
- [Wisconsin Storm Water Manual](#)
- [Industrial Sites](#)
- [Contacts](#)
- [Links](#)
- [Disclaimer](#)

### Contact information

For information on this page, contact:

[Jim Bertolacini](#)  
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608-264-8971

### Construction permits



- [Permit Overview](#)
- [Erosion Control and Storm Water Management Plans](#)
- [Permit Forms](#)
- [Permit Data](#)

### Industrial permits



- [Permit Overview](#)
- [Permit Forms](#)
- [Permit Data](#)
- [No Exposure Certification](#)

### Municipal permits



- [Permit Overview](#)
- [Municipal Permittees](#)
- [Presentations and Fact Sheets](#)
- [Whose Pond is it Anyway](#)

# Storm Water Program Updates (cont.)

- Technical Standards
  - Inlet Protection
  - Pervious Pavement
  - Bioretention for Infiltration
  - Compost
  - Polymer
  - Proprietary Filter
  - Infiltration trench



# Storm Water Program Updates (cont.)

- Illicit Discharge Guidance
  - Prioritizing outfalls for screening
  - Frequency and timing of screening
  - Indicator Parameters and test methods
  - Action Levels



# Questions?



Wetland Lakes

UW-Extension Lakes Program

