



NR 151 Updates Construction Sites

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Waukesha County Stormwater
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Outline

- Changes to NR 151 – Construction Sites
- Effective 1-1-11
 - Construction
 - Post-Construction
 - Transportation
- EPA proposed changes

Construction

- Non-permitted Sites
- Permitted Sites



Small Construction Projects

- Will apply to :
 - Sites disturbing less than one acre
 - Routine maintenance of road ditches < 5 acres
 - Any other permit exempt site
- Does not apply to:
 - One- and two-family dwellings regulated by Commerce
 - Agricultural facilities and practices
 - Silviculture activities

Small Construction Projects

- Requirements
 - Prescriptive - Yes
 - Performance Standard - No
 - Plan – No
 - State Permit or Fee – No and No

Requirements

- Prevent tracking (pads or equivalent)
- Inlet protection
- Control of sediment into waters
- Control of sediment from drainage ways
- Dewatering
- Soil stockpile erosion control (7 days)
- Manage runoff from other building materials (cement washwater, chemicals)

Construction Sites \geq 1 Acre

- Erosion Control Standards
 - Erosion and Sediment Control Measures
 - Prevention Measures
 - Implementation Measures
- Post Construction Standards



Erosion and Sediment Control Measures

- Same as for non-permitted sites plus:
 - Prevent erosive flows at outlets and downstream channels
 - Prevent the transport of untreated wash water from vehicle and wheel washing



Construction Site Performance Standard

Changed 80% sediment reduction to maximum of 5 tons/ac/yr.

- Increases requirements on highly erodible sites
- Fits better with TMDLs
- RUSLE2 not ready – 2 year delayed implementation

Preventive Measures

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

Implementation Measures

- 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

The background of the slide features a dense pattern of vibrant green leaves, likely from a tree or shrub, with prominent veins. Below the leaves, there are soft, circular ripples in a light blue-green hue, suggesting water. The entire scene is captured in a slightly soft, naturalistic style.

Post Construction



Post-Construction Performance Standards

- Summary of modified post-construction performance standards:
 - Redevelopment TSS requirement
 - Peak flow control
 - Infiltration volume
 - Protective area standard for wetlands
 - Regional practices in waterways

Redevelopment

- Eliminated exemption for no increase in imperviousness
 - Inserted NR 51.12(2)(bm) to direct NOIs on or after 1-1-11 to new section
 - New applicability in NR 151.121 does not include exemption for no increase in impervious area



Redevelopment

- Changed standard from 40% TSS reduction for entire redeveloped site to 40% TSS reduction on parking lots and roads
 - Parking lots and roads are dirtiest source areas



Peak Flow Control

- Added 1-yr, 24-hr peak flow control requirement to the 2-yr, 24-hr peak flow requirement
 - 2-yr event was not protective of bank full condition



Peak Flow

- Locked down Pre-Development Curve Numbers.
- Exemption of no increase over 0.01 ft. in receiving stream is gone
- New exemption for lakes over 5,000 acres or streams and rivers segments draining more than 500 square miles.
- http://dnr.wi.gov/runoff/stormwater/guidance/Modeling_PostConstruction.pdf.

Infiltration

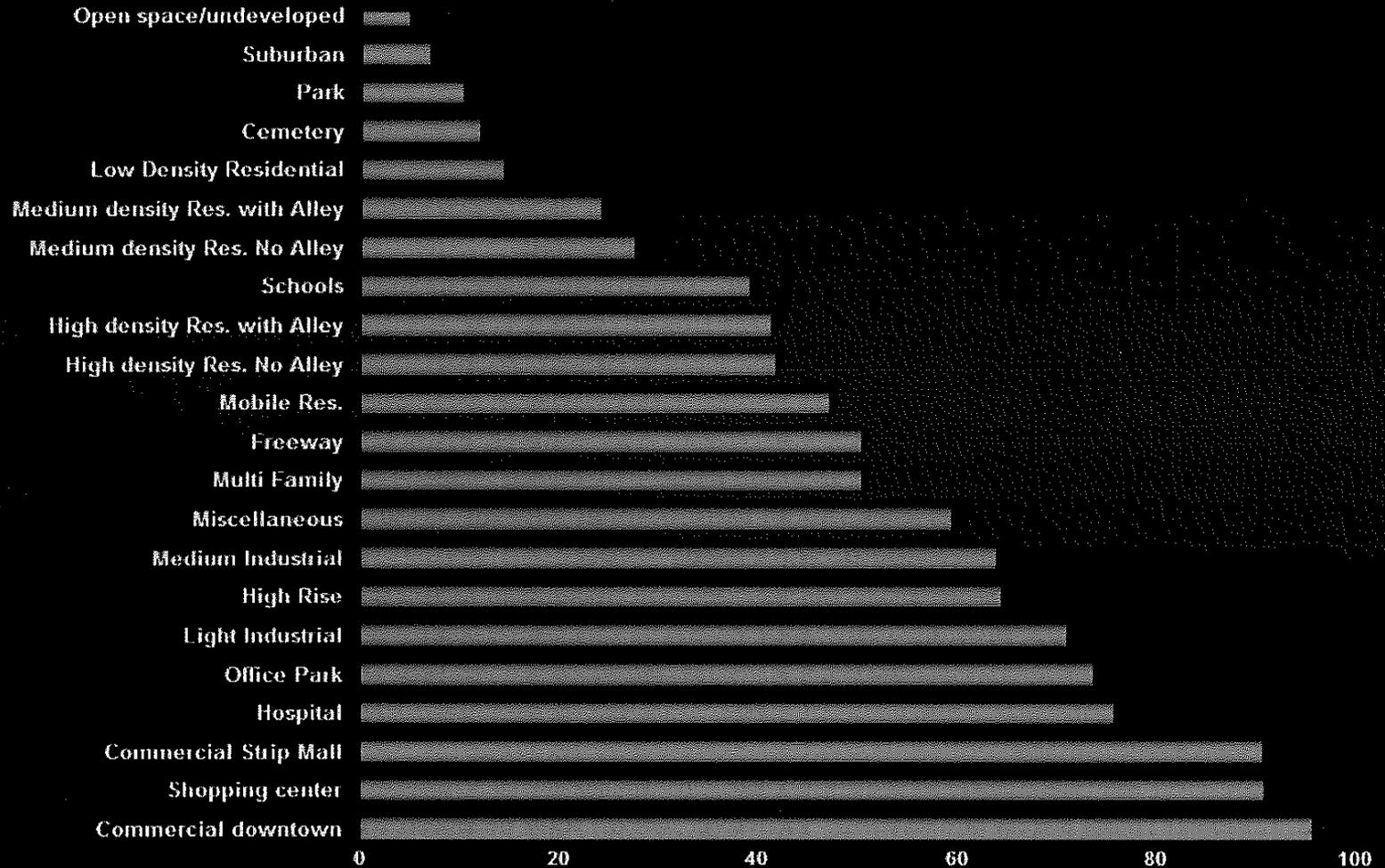
- Standard now based on ability of sites to infiltrate
- Most Roads Exempt
- New Definition of Filtering Layer



Infiltration

Level of Connected Imperviousness	Performance Standard	Max. % Req. as Eff. Infil. area
<u>Low Imperviousness</u> <i>Up to 40%</i>	90% of the pre-dev. infiltration volume	1%
<u>Mod. Imperviousness</u> <i>> 40% and up to 80%</i>	75% of the pre-dev. infiltration volume	2%
<u>High Imperviousness</u> <i>> 80%</i>	60% of the pre-dev. infiltration volume	2%

% Connected Impervious Values



Infiltration

- 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

Protective Areas

- Increased buffer for highly sensitive wetlands from 50 to 75 ft.



Protective Areas

- 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>

Regional Practices

New Development –

- Off-site practices cannot be in navigable waters to receive credit for post-construction performance standards
- Off-site practices cannot be used for the construction phase

Regional Practices

- Existing, redevelopment, in-fill
 - If constructed, contracts signed or bids advertised by January 1, 2011
 - In intermittent streams if all applicable permits are received.
 - Not in perennial streams



Transportation



Road Reconstruction

- Minor Road Reconstruction
 - Exemption removed if conversion to urban X-section



Road Reconstruction

- Road Reconstruction TSS standard
 - 40% reduction for parking lots and roads
 - Applies to areas of vehicular traffic
- Delayed imp. in permitted MS4s
 - Applies to municipal/DOT road projects in permitted municipalities
 - Urbanized area for MS4 counties and towns

Transportation Projects

- Requirements / exemptions remain the same for:
 - Peak flow control
 - Infiltration
 - Protective area



Highway Projects

	Minor Highway Reconstruction	Highway Reconstruction¹	New Highway Construction
TSS Reduction	No	Yes (40%) ²	Yes (80%)
Peak Discharge	No	No	Yes
Infiltration	No	No	No ³
Protective Areas	Yes	Yes	Yes

¹	For rural to urban X-Section – meet 40%
²	Delayed in permitted municipalities until 2017
³	For stand alone roads that are not part of a common plan of development

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

Schedule

- Rule effective January 1, 2011
- All NOIs submitted on or after that date must meet the new performance standards.
- Outreach ongoing.

Impact on MS4s

- MS4 GP expired 12-31-10
- Reissuance in progress
- Will include timeline for ordinance updates to incorporate revisions to NR 151 – Construction Sites
- Probably 18 month minimum



Future Developments In Stormwater Runoff Regulation

- Effluent Limitation Guideline numeric standards
- EPA Post-Construction Regulations
- EPA Existing Urban Area Regulations
 - Retrofit and Redevelopment
- NR 216
- Trans 401

Questions & Discussion



QUESTIONS?