

# Distinguishing between Performance Standards, Technical Standards, and Guidance Documents

*Post-Construction Stormwater Management  
Workshops*

*November - December 2004*



# Performance Standards

- Establishes a measurable expectation for conservation
- Performance standards written to allow compliance through a variety of methods and means
- Example: 80% TSS reduction for new development contained in NR 151

# Technical Standards

Documents that specify minimum criteria for a management practice or system of practices to provide a predicted benefit to water resources.

Provide sound basis for expenditure of funds and compliance with regulations

# Guidance Documents

- Often referred to as companion documents they contain recommendations and additional “how to” guidance for users of technical standards
- Example: The Wisconsin Stormwater Manual and some publications from Center for Watershed Protection.

# Hierarchy of Terminology

Performance Standards  
(Sets goals)



Technical Standards  
(Provides Methods)



Guidance Documents  
(Provides additional “how to”)

# Technical Standards Process

NR 151 Subchapter V - Technical Standards  
Development Process

NR 151 Subchapter V

DNR Shall maintain list of technical standards  
which are deemed adequate to meeting the  
performance standards.

# Updating Standards

**Interim Technical Standards**: Reserved for emerging technologies or where additional information is forthcoming but a standard is needed in the interim. Revisited in 18 months.

**All standards are evolving and will be periodically revisited to address changes as warranted as outlined in NR 151.31**

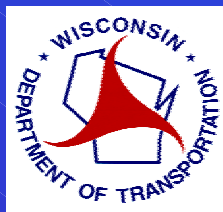
# New Technical Standards

New Standards being Developed through SOC

STANDARDS OVERSIGHT COUNCIL

<http://www.socwisconsin.org>

The Standards Oversight Council (SOC) is assigned the responsibility of overseeing the process used in Wisconsin for the development and maintenance of technical standards for urban and rural soil and water conservation practices.





# Creation of Technical Standards NR 151.31

- 1- Convene a work group
- 2 - Publish a class 1 public notice
- 3 - Publish standard within 18 months

Requests for new technical standards or recommended modifications to existing technical standards shall be made in writing for determination and evaluation by DNR.

# Standards Format

I. Definition

II. Purpose

III. Conditions where  
Practice Applies

IV. Federal, State, and Local  
Laws

**V. Criteria**

VI. Considerations

**VII. Plans and  
Specifications**

**VIII. Operation and  
Maintenance**

IX. References

X. Definitions

# Existing DNR Urban Standards

## Water Quality:

1001 Wet Detention Basin



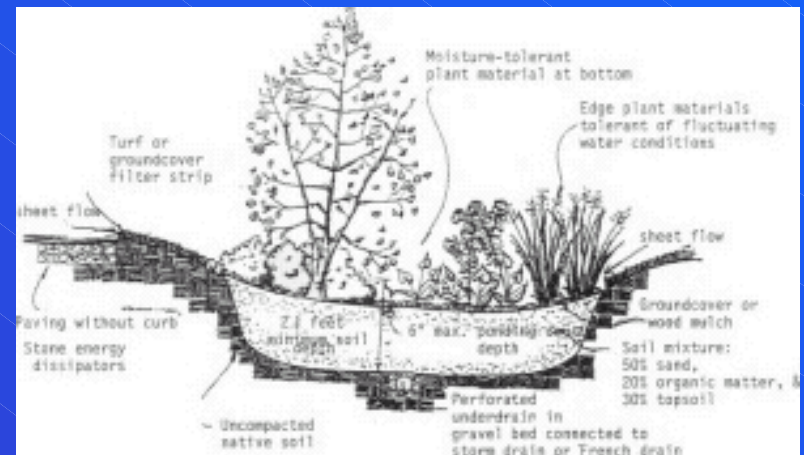
## Infiltration Standards:

Site Selection Standard

Infiltration Basin

Bioretention

Infiltration Swale



List will be expanding!!

# Existing DNR Guidance Documents

## Guidance: The Wisconsin Stormwater Manual

Infiltration Basins and Trenches

Wet Detention Basins

Artificial Wetland

Filter Strips

Grassed Swales



# Location of Standards and Guidance

WDNR - Runoff Management Storm Water Technical Standards - Microsoft Internet Explorer provided by Wisconsin DNR

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites History Mail Print Edit

Address <http://dnr.wi.gov/org/water/wm/hps/stormwater/techstds.htm> Go Links Quick Search.exe Toggle Images.exe Customize Links

**Wisconsin**  
Department of Natural Resources

Home | Search | Feedback | What's New?

**Learn More**

- Runoff Home
- What is Runoff?
- Contacts & Staff
- Administrative Rules
- Links
- Outreach
- Publications
- Rain Gardens
- Announcements

**Storm Water**

- About
- Industrial Info
- Industrial Permits & Forms
- Construction Info
- Construction Permits & Forms
- Technical Standards
- Models
- Municipal Info
- NR216 Revisions
- Publications & Forms

## Storm Water Management Technical Standards

Storm Water Construction and Post-Construction Technical Standards are documents that specify the minimum requirements needed to plan, design, install and maintain a wide array of conservation practices aimed at preserving the land and water resources of Wisconsin. They are based on current research, field experience, the best available technology, and are a primary component to many federal, state and local conservation programs.

The Department in accordance with s. NR 151.31, Wis. Adm. Code, has approved the technical standards listed below. The Department recommends that these technical standards be used for erosion/sediment control or storm water management as they have been determined to be adequate and effective to implement the performance standards of subch. III or IV of ch. NR 151, Wis. Adm. Code.

### Construction Site Erosion & Sediment Control

<http://dnr.wi.gov/runoff/stormwater/techstds.htm>

# Location of Standards and Guidance

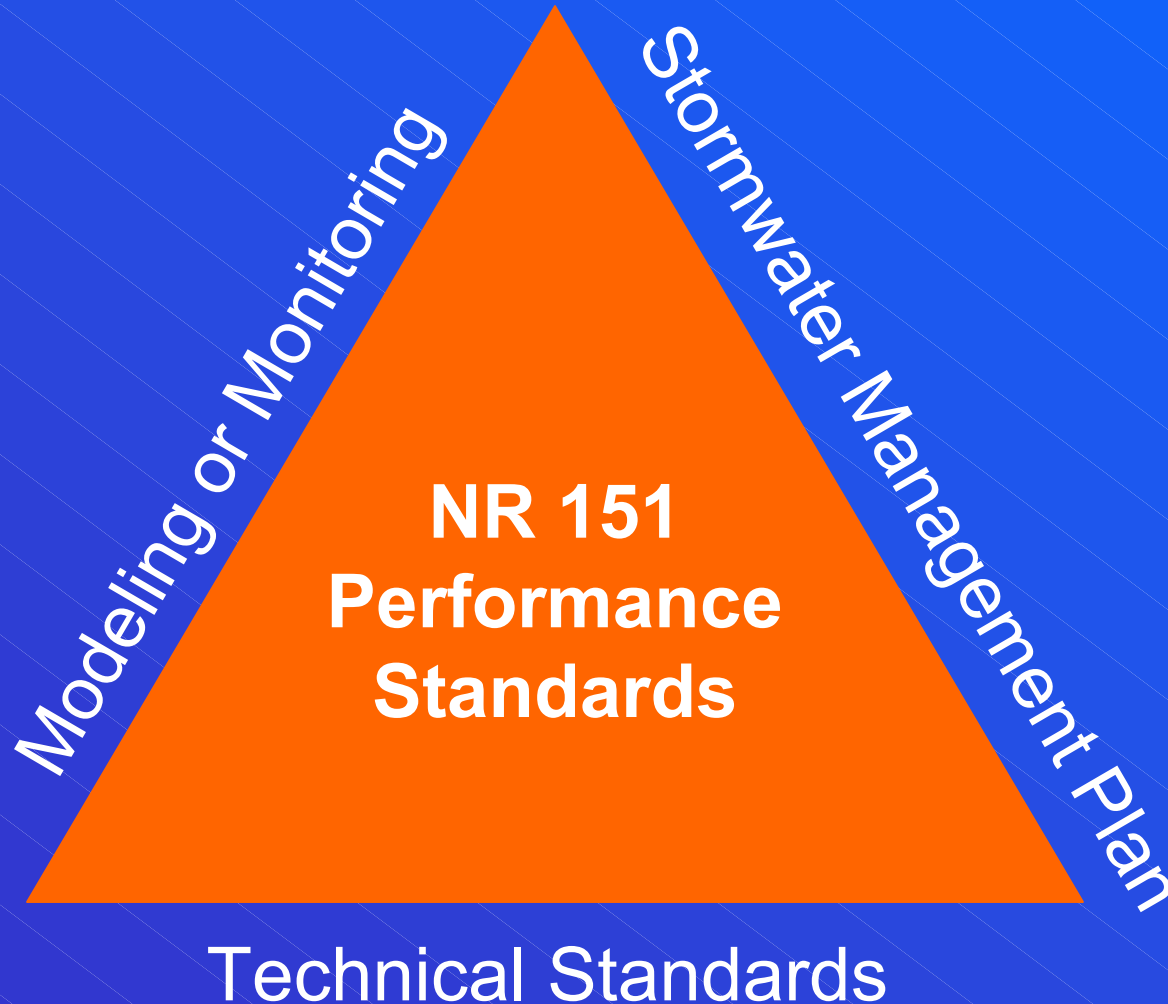
**Post-Construction Storm Water Management**

STANDARD	Number	File Size (KB)	Effective Date	Tech Notes
<a href="#">Bioretention for Infiltration</a> (includes drawings in Zip file)	1004	<a href="#">881</a>	10/04	<a href="#">available</a>
<a href="#">Compost</a>	S100	<a href="#">90</a>	10/04	
<a href="#">Infiltration Basin</a> (includes drawings in Zip file)	1003	<a href="#">901</a>	10/04	<a href="#">available</a>
Infiltration Trench				
Rain Gardens				
<a href="#">Site Evaluation for Stormwater Infiltration</a>	1002	<a href="#">183</a>	02/04	
Swales				
<a href="#">Wet Detention Pond</a>	1001	<a href="#">27</a>	09/99	

Technical Standards are created via the Standards Oversight

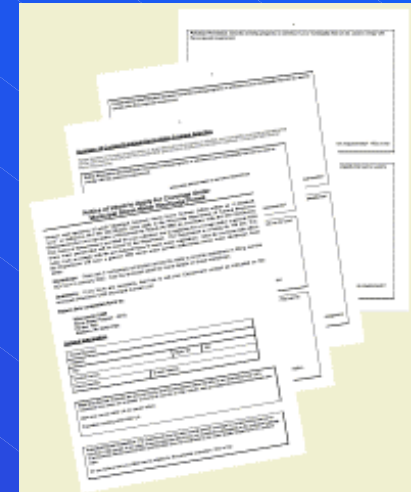
<http://dnr.wi.gov/runoff/stormwater/techstds.htm>

# Interaction of Tools



# Enforcement of Tech Stds

- Established through the submittal of the NOI
  - Select applicable technical standards from list or indicate other standards or planned deviations from existing technical standards.
- Provide narrative of practices proposed\
  - *Model as needed to verify pollutant reductions*
  - *Agree to use specific technical standards with known effectiveness*





# Enforcement of Tech Stds

- When proposing a new BMP/Technical Standard or deviating from an existing standard:
  - Provide narrative of practices proposed and provide data supporting deviation or new BMPs in the form of monitoring, modeling, or literature review.
  - DNR may stop the 14 working day automatic permit coverage as necessary until it verifies that the plans comply with NR 216.46 and 216.47.

# Enforcement of Tech Stds

- If deemed incomplete additional information will be requested in writing by the DNR. The applicant shall be refunded the application fee if a determination is not made within 45 business days of receipt of the requested information.
- If the applicant does not receive notification of potential deficiencies within 14 working days, the applicant is authorized to proceed under NR 216 however compliance with NR 151 requirements is required.

# Enforcement of Tech Stds

If a technical standard that the DNR determines is not adequate or effective to meet performance standards is used, the DNR may initiate stepped enforcement process for failure to meet the performance standard.

**Path of least resistance is to use DNR approved and existing standards. When proposing deviations best to check prior to submittal of NOI to prevent project delays.**

# Deviation from DNR Tech Stds

- DNR's primary concern pertains to deviations in design that impact the water quality functionality of the BMP.
- Deviations can result in no credit or reduced pollutant reduction credit for the BMP.



# Deviation from DNR Tech Stds

- Example:

- Wet detention pond with 2-foot permanent pool and a reduced surface area over what is calculated by Standard 1001.
- *Pollution reduction credit calculated using SLAMM or P-8. Instead of 80% reduction pond given 35% reduction based on model analysis.*

# Deviation from DNR Tech Stds

- Example:

- There is limited space on site and the detention basin is being designed without a safety-shelf.
- *There is no impact on the water quality functionality of the detention basin, however, careful consideration should still be given in deviating from the safety-shelf requirements due to potential liability.*

# Credit for BMPs with no Tech Std

- Provide documentation in the form of literature/research or monitoring data and modeling results demonstrating the effectiveness of the proposed BMP.
- The DNR will also use this information to expand the list of available BMPs / technical standards.

# Possible Sources of Documentation

## Reputable sources include:

- Center for Watershed Protection publications/design manuals
- MN Metropolitan Council BMP manual
- ASCE, 1992 Design Manual on Urban Stormwater Management Systems
- Prince George's County BMP manual and Low-Impact Development Guidelines
- EPA Publications



# Usage of Other Standards

Some material is applicable and some not. When using or referencing other state's manuals, standards, and published material keep in mind things such as:

- Material may differ to account for regional climatic factors or hydrologic conditions
- Material may differ to address different goals or regulatory requirements
- May use different values or assumptions for calculations
- May contain dated information

***Questions ?***