

1 **NR 151.097 Variances.** (a) The department may grant a variance to the performance
2 standards, technical standards or other non-statutory requirements in this subchapter.

3 (b) The department may not grant a variance solely on the basis of economic hardship.

4 (c) The department may grant a variance only if all of the following conditions are met:

5 1. Compliance with the performance standard or technical standard is not feasible due to
6 site conditions. This condition does not apply to research activities conducted as part of a
7 planned agricultural research and farming curriculum.

8 2. The landowner or operator will implement best management practices or other
9 corrective measures that ensure a level of pollution control that will achieve a level of water
10 quality protection comparable to that afforded by the performance standards in this subchapter.

11 3. The conditions for which the variance is requested are not created by the landowner or
12 operator or their agents or assigns. This condition does not apply to research activities conducted
13 as part of a planned agricultural research and farming curriculum.

14 (d) The department shall use the following process when administering a variance
15 request:

16 1. The landowner or operator shall submit the variance request to the department or
17 governmental unit, including a county land conservation committee within 60 days of receiving
18 the notice.

19 2. The governmental unit shall forward any variances that it receives to the department.
20 The department may consider a recommendation from the governmental unit concerning
21 acceptance of the variance request.

22 3. The department shall make its determination based on the factors in par. (c).

23 4. The department shall notify the landowner or operator and the governmental unit of its
24 determination. If the variance is granted, the department or governmental unit shall send to the
25 landowner or operator an amended notice.

26 5. The period of time required to make a ruling on a variance request does not extend the
27 compliance periods allowed under ss. NR 151.09 and 151.095.

28 Note: The department may consider decisions made by a governmental unit, in
29 accordance with local ordinance provisions, when making its determination whether to accept or
30 deny the variance.

1 **Subchapter III - Non-Agricultural Performance Standards**

2
3 **NR 151.10 Purpose.** This subchapter establishes performance standards, as
4 authorized by s. 281.16(2)(a), Stats., for non-agricultural facilities and practices that cause or
5 may cause nonpoint runoff pollution. These performance standards are intended to limit
6 nonpoint runoff pollution in order to achieve water quality standards. Design guidance and the
7 process for developing technical standards to implement this section are set forth in subch. V.

8 **NR 151.11 Construction site performance standard for new development and**
9 **redevelopment.** (1) DETERMINATION OF AVERAGE ANNUAL BASIS. In this section,
10 average annual basis is calculated using the appropriate annual rainfall or runoff factor, also
11 referred to as the R factor, or an equivalent design storm using a type II distribution, with
12 consideration given to the geographic location of the site and the period of disturbance.

13 Note: The USLE and its successors RUSLE and RUSLE2, utilize an R factor which has
14 been developed to estimate annual soil erosion, averaged over extended time periods. The R
15 factor can be modified to estimate monthly and single-storm erosion. A design storm can be
16 statistically calculated to provide an equivalent R factor as an average annual calculation.

17 (2) APPLICABILITY. Except as provided under sub. (3), this section applies to all the
18 following:

19 (a) A construction site that has 5 or more acres of land disturbing construction activity,
20 unless any of the following are met:

21 1. The department has received a notice of intent for the construction project in
22 accordance with subch. III of ch. NR 216 before the effective date of this rule...[revisor insert
23 date].

24 Note: Prior to submitting a notice of intent pursuant to subch. III of ch. NR 216, a
25 construction site erosion control plan in conformance with s. NR 216.46 and a storm water
26 management plan in conformance with s. NR 216.47 must be developed.

27 2. The department of commerce has received a notice of intent for the construction
28 project in accordance with s. Comm 50.115 before the effective date of this rule...[revisor insert
29 date].

30 3. A bid is advertised or construction contract signed where no bid is advertised, before
31 the effective date of this rule...[revisor insert date].

1 (b) After March 10, 2003, any construction site that has at least one acre of land
2 disturbing construction activity, except where bids are advertised or construction contracts
3 signed where no bids are advertised.

4 Note: The 5- and 1-acre land disturbance thresholds are consistent with subch. III of ch.
5 NR 216 and EPA phase II storm water discharge rules regarding applicability of land disturbing
6 construction permits.

7 (3) EXEMPTIONS. This section does not apply to the following:

8 (a) Construction projects that are exempted by federal statutes or regulations from the
9 requirement to have a national pollutant discharge elimination system permit issued under 40
10 CFR 122, for land disturbing construction activity.

11 (b) Transportation facilities, except transportation facility construction projects that are
12 part of a larger common plan of development such as local roads within a residential or industrial
13 development.

14 Note: Transportation facility performance standards are given in subch. IV.

15 (c) Nonpoint discharges from agricultural facilities and practices.

16 (d) Nonpoint discharges from silviculture activities.

17 (e) Routine maintenance for project sites that have less than 5 acres of land disturbance if
18 performed to maintain the original line and grade, hydraulic capacity or original purpose of the
19 facility.

20 (4) RESPONSIBLE PARTY. The landowner or other person performing services to meet
21 the performance standards of this subchapter, through a contract or other agreement, shall
22 comply with this section.

23 Note: Other persons include anyone responsible for disturbing the land or implementing
24 or maintaining BMPs, such as a general contractor or landscape architect.

25 (5) PLAN. A written plan shall be developed and implemented for each construction site
26 and shall incorporate the requirements of this section.

27 Note: The written plan may be that specified within s. NR 216.46, the erosion control
28 portion of a construction plan or other plan.

29 (6) REQUIREMENTS. The plan required under sub. (5) shall include the following:

30 (a) Best management practices that, by design, achieves, to the maximum extent
31 practicable, a reduction of 80% of the sediment load carried in runoff, on an average annual

1 basis, as compared with no sediment or erosion controls, until the construction site has
2 undergone final stabilization. No person shall be required to exceed an 80% sediment reduction
3 to meet the requirements of this paragraph. Erosion and sediment control BMPs may be used
4 alone or in combination to meet the requirements of this paragraph. Credit toward meeting the
5 sediment reduction shall be given for limiting the duration or area, or both, of land disturbing
6 construction activity, or other appropriate mechanism.

7 Note: Soil loss prediction tools that estimate the sediment load leaving the construction
8 site under varying land and management conditions, or methodology identified in subch. V., may
9 be used to calculate sediment reduction.

10 (b) Notwithstanding par. (a), if BMPs cannot be designed and implemented to reduce the
11 sediment load by 80%, on an average annual basis, the plan shall include a written and site-
12 specific explanation why the 80% reduction goal is not attainable and the sediment load shall be
13 reduced to the maximum extent practicable.

14 (c) Where appropriate, the plan shall include sediment controls to do all of the following
15 to the maximum extent practicable:

16 1. Prevent tracking of sediment from the construction site onto roads and other paved
17 surfaces.

18 2. Prevent the discharge of sediment as part of site de-watering.

19 3. Protect separate storm drain inlet structures from receiving sediment.

20 (d) The use, storage and disposal of chemicals, cement and other compounds and
21 materials used on the construction site shall be managed during the construction period to
22 prevent their transport by runoff into waters of the state. However, projects that require the
23 placement of these materials in waters of the state, such as constructing bridge footings or BMP
24 installations, are not prohibited by this paragraph.

25 (7) LOCATION. The BMPs used to comply with this section shall be located prior to
26 runoff entering waters of the state.

27 Note: While regional treatment facilities are appropriate for control of post-construction
28 pollutants they should not be used for construction site sediment removal.

29 **NR 151.12 Post-construction performance standard for new development and**
30 **redevelopment. (1) GENERAL. In this section:**

1 (a) "Post-construction site" means a construction site subject to regulation under this
2 subchapter, after construction is completed and final stabilization has occurred.

3 (b) Average annual rainfall is determined by the following years and locations: Madison,
4 1981 (Mar. 12-Dec. 2); Green Bay, 1969 (Mar. 29-Nov. 25); Milwaukee, 1969 (Mar. 28-Dec. 6);
5 Minneapolis, 1959 (Mar. 13-Nov. 4); Duluth, 1975 (Mar. 24-Nov. 19). Of the 5 locations listed,
6 the location closest to a project site best represents the average annual rainfall for that site.

7 (2) APPLICABILITY. This section applies to a post-construction site that is or was
8 subject to the construction performance standards of s. NR 151.11, except any of the following:

9 (a) A post-construction site where the department has received a notice of intent for the
10 construction project, in accordance with subch. III of ch. NR 216, within 2 years after the
11 effective date of this rule...[revisor insert date].

12 (b) A post-construction site where the department of commerce has received a notice of
13 intent, in accordance with s. Comm 50.115, within 2 years after the effective date of this
14 rule...[revisor insert date].

15 (c) A redevelopment post-construction site with no increase in exposed parking lots or
16 roads.

17 (d) A post-construction site with less than 10% connected imperviousness based on
18 complete development of the post-construction site, provided the cumulative area of all parking
19 lots and rooftops is less than one acre.

20 Note: Projects that consist of only the construction of bicycle paths or pedestrian trails
21 generally meet this exception as these facilities have minimal connected imperviousness.

22 (e) Agricultural facilities and practices.

23 (f) An action for which a final environmental impact statement was approved before the
24 effective date of this rule...[revisor insert date].

25 (g) An action for which a finding of no significant impact is made under ch. NR 150
26 before the effective date of this rule...[revisor insert date].

27 (h) Underground utility construction such as water, sewer and fiberoptic lines, but not
28 including the construction of any above ground structures associated with utility construction.

29 (3) RESPONSIBLE PARTY. The landowner of the post-construction site or other person
30 contracted or obligated by other agreement to implement and maintain post-construction storm
31 water BMPs shall comply with this section.

1 (4) STORM WATER MANAGEMENT PLAN. A written storm water management plan
2 shall be developed and implemented for each post-construction site and shall incorporate the
3 requirements of this subsection.

4 Note: Examples of storm water management plans that may be used to comply with this
5 section may be that specified within s. NR 216.47 or the municipal storm water management
6 program specified within s. NR 216.07(7).

7 (5) REQUIREMENTS. The plan required under sub. (4) shall include:

8 (a) *Total suspended solids*. Best management practices shall be designed, installed and
9 maintained to control total suspended solids carried in runoff from the post-construction site as
10 follows:

11 1. For new development, by design, reduce to the maximum extent practicable, the total
12 suspended solids load by 80%, based on an average annual rainfall, as compared to no runoff
13 management controls. No person shall be required to exceed an 80% total suspended solids
14 reduction to meet the requirements of this subdivision.

15 2. For redevelopment, by design, reduce to the maximum extent practicable, the total
16 suspended solids load by 40%, based on an average annual rainfall, as compared to no runoff
17 management controls. No person shall be required to exceed a 40% total suspended solids
18 reduction to meet the requirements of this subdivision.

19 3. For in-fill development under 5 acres that occurs within 10 years after the effective
20 date of this rule ...[revisor insert date], by design, reduce to the maximum extent practicable, the
21 total suspended solids load by 40%, based on an average annual rainfall, as compared to no
22 runoff management controls. No person shall be required to exceed a 40% total suspended solids
23 reduction to meet the requirements of this subdivision

24 4. For in-fill development that occurs 10 or more years after the effective date of this
25 rule...[revisor insert date], by design, reduce to the maximum extent practicable, the total
26 suspended solids load by 80%, based on an average annual rainfall, as compared to no runoff
27 management controls. No person shall be required to exceed an 80% total suspended solids
28 reduction to meet the requirements of this subdivision

29 5. Notwithstanding subds. 1 to 4., if the design cannot achieve the applicable total
30 suspended solids reduction specified, the storm water management plan shall include a written

1 and site-specific explanation why that level of reduction is not attained and the total suspended
2 solids load shall be reduced to the maximum extent practicable.

3 Note: Pollutant loading models such as SLAMM, P8 or equivalent methodology may be
4 used to evaluate the efficiency of the design in reducing total suspended solids. Information on
5 how to access SLAMM and P8 is available at:

6 <http://www.dnr.state.wi.us/org/water/wm/nps/slam.htm> or contact the storm water coordinator
7 in the runoff management section of the bureau of watershed management at (608) 267-7694.

8 (b) *Peak discharge*. 1. By design, BMPs shall be employed to maintain or reduce the
9 peak runoff discharge rates, to the maximum extent practicable, as compared to pre-development
10 conditions for the 2-year, 24-hour design storm applicable to the post-construction site. Pre-
11 development conditions shall assume “good hydrologic conditions” for appropriate land covers
12 as identified in TR-55 or an equivalent methodology. The meaning of “hydrologic soil group”
13 and “runoff curve number” are as determined in TR-55. However, when pre-development land
14 cover is cropland, rather than using TR-55 values for cropland, the runoff curve numbers in
15 Table 2 shall be used.

16

Hydrologic Soil Group	A	B	C	D
Runoff Curve Number	56	70	79	83

17
18 Note: The curve numbers in Table 2 represent mid-range values for soils under a good
19 hydrologic condition where conservation practices are used and are selected to be protective of
20 the resource waters.

21 2. This paragraph does not apply to:

22 a. A post-construction site where the change in hydrology due to development does not
23 increase the existing surface water elevation at any point within the downstream receiving water
24 by more than 0.01 of a foot for the 2-year, 24-hour storm event.

25 Note: Hydraulic models such as HEC-RAS or another methodology may be used to
26 determine the change in surface water elevations.

27 b. A redevelopment post-construction site.

28 c. An in-fill development area less than 5 acres.

1 Note: The intent of par. (b) is to minimize streambank erosion under bank full conditions.

2 (c) *Infiltration*. BMPs shall be designed, installed and maintained to infiltrate runoff to
3 the maximum extent practicable in accordance with the following, except as provided in subds.

4 5. to 8.:

5 1. For residential developments one of the following shall be met:

6 a. Infiltrate sufficient runoff volume so that the post-development infiltration volume
7 shall be at least 90% of the pre-development infiltration volume, based on an average annual
8 rainfall. However, when designing appropriate infiltration systems to meet this requirement, no
9 more than 1% of the project site is required as an effective infiltration area.

10 b. Infiltrate 25% of the post-development runoff volume from the 2-year, 24-hour design
11 storm with a type II distribution. Separate curve numbers for pervious and impervious surfaces
12 shall be used to calculate runoff volumes and not composite curve numbers as defined in TR-55.
13 However, when designing appropriate infiltration systems to meet this requirement, no more than
14 1% of the project site is required as an effective infiltration area.

15 2. For non-residential development, including commercial, industrial and institutional
16 development, one of the following shall be met:

17 a. For this subdivision only, the "project site" means the rooftop and parking lot areas.

18 b. Infiltrate sufficient runoff volume so that the post-development infiltration volume
19 shall be at least 60% of the pre-development infiltration volume, based on an average annual
20 rainfall. However, when designing appropriate infiltration systems to meet this requirement, no
21 more than 2% of the project site is required as an effective infiltration area.

22 c. Infiltrate 10% of the post-development runoff volume from the 2-year, 24-hour design
23 storm with a type II distribution. Separate curve numbers for pervious and impervious surfaces
24 shall be used to calculate runoff volumes and not composite curve numbers as defined in TR-55.
25 However, when designing appropriate infiltration systems to meet this requirement, no more than
26 2% of the project site is required as an effective infiltration area.

27 3. Pre-development condition shall be the same as specified in par. (b).

28 Note: A model that calculates runoff volume, such as SLAMM, P8 or an equivalent
29 methodology may be used. Information on how to access SLAMM and P8 is available at:
30 <http://www.dnr.state.wi.us/org/water/wm/nps/slamm.htm> or contact the storm water coordinator
31 in the runoff management section of the bureau of watershed management at (608) 267-7694.

1 4. Before infiltrating runoff, pretreatment shall be required for parking lot runoff and for
2 runoff from new road construction in commercial, industrial and institutional areas that will enter
3 an infiltration system. The pretreatment shall be designed to protect the infiltration system from
4 clogging prior to scheduled maintenance and to protect groundwater quality in accordance with
5 subd. 8. Pretreatment options may include, but are not limited to, oil/grease separation,
6 sedimentation, biofiltration, filtration, swales or filter strips.

7 Note: To achieve the infiltration requirement for the parking lots or roads, maximum
8 extent practicable should not be interpreted to require significant topography changes that create
9 an excessive financial burden. To minimize potential groundwater impacts it is desirable to
10 infiltrate the cleanest runoff. To achieve this, a design may propose greater infiltration of runoff
11 from low pollutant sources such as roofs, and less from higher pollutant source areas such as
12 parking lots.

13 5. Exclusions. The runoff from the following areas are prohibited from meeting the
14 requirements of this paragraph:

15 a. Areas associated with tier 1 industrial facilities identified in s. NR 216.21(2)(a),
16 including storage, loading, rooftop and parking.

17 b. Storage and loading areas of tier 2 industrial facilities identified in s. NR 216.21(2)(b).

18 Note: Runoff from tier 2 parking and rooftop areas may be infiltrated but may require
19 pretreatment.

20 c. Fueling and vehicle maintenance areas.

21 d. Areas within 1000 feet upgradient or within 100 feet downgradient of karst features.

22 e. Areas with less than 3 feet separation distance from the bottom of the infiltration
23 system to the elevation of seasonal high groundwater or the top of bedrock, except this subd. 5.e.
24 does not prohibit infiltration of roof runoff.

25 f. Areas with runoff from industrial, commercial and institutional parking lots and roads
26 and residential arterial roads with less than 5 feet separation distance from the bottom of the
27 infiltration system to the elevation of seasonal high groundwater or the top of bedrock.

28 g. Areas within 400 feet of a community water system well as specified in s. NR
29 811.16(4) or within 100 feet of a private well as specified in s. NR 812.08(4) for runoff
30 infiltrated from commercial, industrial and institutional land uses or regional devices for
31 residential development.

1 h. Areas where contaminants of concern, as defined in s. NR 720.03(2), are present in the
2 soil through which infiltration will occur.

3 i. Any area where the soil does not exhibit one of the following characteristics between
4 the bottom of the infiltration system and the seasonal high groundwater and top of bedrock: at
5 least a 3-foot soil layer with 20 percent fines or greater; or at least a 5-foot soil layer with 10
6 percent fines or greater. This subdivision paragraph does not apply where the soil medium
7 within the infiltration system provides an equivalent level of protection. This subd. 5.i. does not
8 prohibit infiltration of roof runoff.

9 Note: The areas listed in subd. 5. are prohibited from infiltrating runoff due to the
10 potential for groundwater contamination.

11 6. Exemptions. The following are not required to meet the requirements of this
12 paragraph:

13 a. Areas where the infiltration rate of the soil is less than 0.6 inches/hour measured at the
14 bottom of the infiltration system.

15 b. Parking areas and access roads less than 5,000 square feet for commercial and
16 industrial development.

17 c. Redevelopment post-construction sites.

18 d. In-fill development areas less than 5 acres.

19 e. Infiltration areas during periods when the soil on the site is frozen.

20 f. Roads in commercial, industrial and institutional land uses, and arterial residential
21 roads.

22 7. Where alternate uses of runoff are employed, such as for toilet flushing, laundry or
23 irrigation, such alternate use shall be given equal credit toward the infiltration volume required
24 by this paragraph.

25 8. a. Infiltration systems designed in accordance with this paragraph shall, to the extent
26 technically and economically feasible, minimize the level of pollutants infiltrating to
27 groundwater and shall maintain compliance with the preventive action limit at a point of
28 standards application in accordance with ch. NR 140. However, if site specific information
29 indicates that compliance with a preventive action limit is not achievable, the infiltration BMP
30 may not be installed or shall be modified to prevent infiltration to the maximum extent
31 practicable.

1 b. Notwithstanding subd. 8.a., the discharge from BMPs shall remain below the
2 enforcement standard at the point of standards application.

3 (d) *Protective areas.* 1. In this paragraph, “protective area” means an area of land that
4 commences at the top of the channel of lakes, streams and rivers, or at the delineated boundary
5 of wetlands, and that is the greatest of the following widths, as measured horizontally from the
6 top of the channel or delineated wetland boundary to the closest impervious surface. However, in
7 this paragraph, “protective area” does not include any area of land adjacent to any stream
8 enclosed within a pipe or culvert, such that runoff cannot enter the enclosure at this location.

9 a. For outstanding resource waters and exceptional resource waters, and for wetlands in
10 areas of special natural resource interest as specified in s. NR 103.04, 75 feet.

11 b. For perennial and intermittent streams identified on a United States geological survey
12 7.5-minute series topographic map, or a county soil survey map, whichever is more current, 50
13 feet.

14 c. For lakes, 50 feet.

15 d. For highly susceptible wetlands, 50 feet. Highly susceptible wetlands include the
16 following types: fens, sedge meadows, bogs, low prairies, conifer swamps, shrub swamps, other
17 forested wetlands, fresh wet meadows, shallow marshes, deep marshes and seasonally flooded
18 basins. Wetland boundary delineation shall be made in accordance with s. NR 103.08(1m). This
19 paragraph does not apply to wetlands that have been completely filled in accordance with all
20 applicable state and federal regulations. The protective area for wetlands that have been partially
21 filled in accordance with all applicable state and federal regulations shall be measured from the
22 wetland boundary delineation after fill has been placed.

23 e. For less susceptible wetlands, 10 percent of the average wetland width, but no less than
24 10 feet nor more than 30 feet. Less susceptible wetlands include degraded wetlands dominated
25 by invasive species such as reed canary grass.

26 f. In subd. 1.a., d. and e., determinations of the extent of the protective area adjacent to
27 wetlands shall be made on the basis of the sensitivity and runoff susceptibility of the wetland in
28 accordance with the standards and criteria in s. NR 103.03.

29 g. For concentrated flow channels with drainage areas greater than 130 acres, 10 feet.

30 2. This paragraph applies to post-construction sites located within a protective area,
31 except those areas exempted pursuant to subd. 4.

1 3. The following requirements shall be met:

2 a. Impervious surfaces shall be kept out of the protective area to the maximum extent
3 practicable. The storm water management plan shall contain a written site-specific explanation
4 for any parts of the protective area that are disturbed during construction.

5 b. Where land disturbing construction activity occurs within a protective area, and where
6 no impervious surface is present, adequate sod or self-sustaining vegetative cover of 70% or
7 greater shall be established and maintained. The adequate sod or self-sustaining vegetative cover
8 shall be sufficient to provide for bank stability, maintenance of fish habitat and filtering of
9 pollutants from upslope overland flow areas under sheet flow conditions. Non-vegetative
10 materials, such as rock riprap, may be employed on the bank as necessary to prevent erosion
11 such as on steep slopes or where high velocity flows occur.

12 Note: It is recommended that seeding of non-aggressive vegetative cover be used in the
13 protective areas. Vegetation that is flood and drought tolerant and can provide long-term bank
14 stability because of an extensive root system is preferable. Vegetative cover may be measured
15 using the line transect method described in the university of Wisconsin extension publication
16 number A3533, titled "Estimating Residue Using the Line Transect Method".

17 c. Best management practices such as filter strips, swales or wet detention basins, that are
18 designed to control pollutants from non-point sources may be located in the protective area.

19 Note: Other regulations, such as ch. 30, Stats., and chs. NR 103, 115, 116 and 117 and
20 their associated review and approval process may apply in the protective area.

21 4. Exemptions. This paragraph does not apply to:

22 a. Redevelopment post-construction sites.

23 b. In-fill development areas less than 5 acres.

24 c. Structures that cross or access surface waters such as boat landings, bridges and
25 culverts.

26 d. Structures constructed in accordance with s. 59.692(1v), Stats.

27 e. Post-construction sites from which runoff does not enter the surface water, except to
28 the extent that vegetative ground cover is necessary to maintain bank stability.

29 Note: A vegetated protective area to filter runoff pollutants from post-construction sites
30 described in subd. 4.e. is not necessary since runoff is not entering the surface water at that
31 location. Other practices necessary to meet the requirements of this section, such as a swale or

1 basin, will need to be designed and implemented to reduce runoff pollutants prior to runoff
2 entering a surface water of the state.

3 (e) *Fueling and vehicle maintenance areas.* Fueling and vehicle maintenance areas shall,
4 to the maximum extent practicable, have BMPs designed, installed and maintained to reduce
5 petroleum within runoff, such that the runoff that enters waters of the state contains no visible
6 petroleum sheen.

7 Note: A combination of the following BMPs may be used: oil and grease separators,
8 canopies, petroleum spill cleanup materials, or any other structural or non-structural method of
9 preventing or treating petroleum in runoff.

10 (f) *Location.* To comply with the standards required under this subsection, BMPs may be
11 located on-site or off-site as part of a regional storm water device, practice or system, but shall
12 be installed in accordance with s. NR 151.003.

13 (g) *Timing.* The BMPs that are required under this subsection shall be installed before the
14 construction site has undergone final stabilization.

15 **NR 151.13 Developed urban area performance standard.** (1) INFORMATION
16 AND EDUCATION. (a) *Applicability.* This section applies to any incorporated municipality
17 with an average density of 1,000 people per square mile or greater, based on the latest decennial
18 census made by the United States census, as well as any commercial and industrial areas
19 contiguous to these areas.

20 Note: The municipality has primary responsibility for complying with this section.
21 However, the general population is expected to follow municipal ordinance requirements and
22 requests to carry out activities such as: proper curbside placement of leaves for collection,
23 relocating vehicles for street sweeping and utilizing proper disposal methods for oils and other
24 chemicals.

25 (b) *Requirements.* For areas identified under par. (a), all of the following shall be
26 implemented by March 10, 2008:

27 1. A public information and education program, utilizing materials identified by the
28 department, promoting beneficial on-site reuse of leaves and grass clippings and proper use of
29 lawn and garden fertilizers and pesticides, proper management of pet wastes and prevention of
30 dumping oil and other chemicals in storm sewers. Information and education materials shall
31 include instruction on how to apply fertilizers in accordance with a nutrient application schedule,

1 based on appropriate soil tests, and the application of pesticides in accordance with an integrated
2 pest management plan.

3 2. A municipal program, as appropriate, for the collection and management of leaf and
4 grass clippings, including public education about this program.

5 3. The application of lawn and garden fertilizers on municipally controlled properties,
6 with pervious surface over 5 acres each, shall be done in accordance with a site specific nutrient
7 application schedule based on appropriate soil tests. The nutrient application schedule shall be
8 designed to maintain the optimal health of the lawn or garden vegetation.

9 4. Detection and elimination of illicit discharges to storm sewers.

10 (2) PERMITTED MUNICIPALITIES. (a) *Applicability*. This section applies to
11 municipalities that are subject to the municipal storm water permit requirements of subch. I of
12 ch. NR 216.

13 Note: A municipal separate storm sewer system could become subject to subch. I of ch.
14 NR 216 if it is designated by the department to be a significant contributor of pollutants to waters
15 of the state under s. NR 216.02(4).

16 (b) *Program*. A municipality shall develop and implement a storm water management
17 program, including the adoption and administration of any necessary ordinance, to meet the
18 following requirements:

19 Note: The program to meet the requirements of this section may be the same as the
20 municipal storm water management program required by s. NR 216.07(7) or some other plan.

21 1. *Stage 1 requirements*. The municipalities listed under par. (a), shall implement the
22 following by March 10, 2008:

23 a. All of the requirements contained in sub. (1)(b).

24 b. To the maximum extent practicable, a 20% reduction in total suspended solids in
25 runoff that enters waters of the state as compared to no controls.

26 Note: It is expected that the municipality will be able to achieve the 20% reduction by
27 municipal street sweeping, using either conventional or high efficiency sweepers, regular catch
28 basin cleaning, de-icer management, and education to change human behavior toward reducing
29 pollution.

1 2. *Stage 2 requirements.* To the maximum extent practicable, the municipalities listed
2 under par. (a) shall implement a 40% reduction in total suspended solids in runoff that enters
3 waters of the state as compared to no controls, by March 10, 2013.

4 Note: It is expected that the municipality will be able to achieve the 40% reduction
5 through the use of high efficiency street sweeping or structural BMP retrofit practices. The stage
6 2 requirements may include application of BMPs to privately owned lands, such as shopping
7 centers.

8 (c) *Location.* To comply with the standards required under this subsection, BMPs may be
9 located on-site or off-site as part of a regional storm water device, practice or system, but shall
10 be installed in accordance with s. NR 151.003.

11 (d) *Exclusion.* This section does not apply to areas subject to subch. II of ch. NR 216.

12 **NR 151.14 Non-municipal property fertilizer performance standard. (1)**
13 **APPLICABILITY.** This section applies when all of the following conditions are met:

14 (a) The property is not owned by a municipality.

15 (b) The property has over 5 acres of pervious surface where fertilizers are applied.

16 (c) The property discharges runoff to waters of the state.

17 (2) **RESPONSIBLE PARTY.** The landowner shall comply with this section.

18 (3) **REQUIREMENTS.** No later than March 10, 2008, the application of lawn and
19 garden fertilizers on these properties shall be done in accordance with site-specific nutrient
20 application schedules based on appropriate soil tests. The nutrient application schedule shall be
21 designed to maintain the optimal health of the lawn or garden vegetation.

22 Note: The landowner should consider using slow release fertilizers or “spoon feeding”
23 nutrients to reduce the concentration of nitrates reaching groundwater.

24 **NR 151.15 Implementation and enforcement. (1) IMPLEMENTATION.** This
25 subchapter shall be implemented as follows:

26 (a) *Construction sites and post-construction sites.* For sites defined in ss. NR 151.11 (2)
27 and 151.12 (1) and (2):

28 1. The provisions of ss. NR 151.11 and 151.12 shall be implemented through subch. III of
29 ch. NR 216.

30 2. The department shall make available model ordinances that reflect and implement the
31 performance standards in ss. NR 151.11 and 151.12.

1 Note: These model ordinances are in ch. NR 152. Municipalities are encouraged to adopt
2 the requirements of ss. NR 151.11 and 151.12, into local ordinances that reflect these models.
3 Incentives are included in the grant programs identified in chs. NR 153 and 155, for
4 municipalities that adopt the performance standards into their ordinances, provide an information
5 and education program and track and report their enforcement activity.

6 (b) *Developed urban areas.* 1. The provisions of ss. NR 151.13(1) and 151.14 shall be
7 enforced under sub. (2).

8 2. The provisions of s. NR 151.13 (2) shall be implemented through subch. I of ch. NR
9 216.

10 (2) ENFORCEMENT. The department shall enforce this subchapter under s. 281.98,
11 Stats.

12 Note: The department may also enforce performance standards implemented through ch.
13 NR 216 under ss. 283.89 and 283.91, Stats.

1 **Subchapter IV – Transportation Facility Performance Standards**
2

3 **NR 151.20 Purpose and applicability.** (1) (a) This subchapter establishes
4 performance standards, as authorized by s. 281.16(2)(a), Stats., for transportation facilities that
5 cause or may cause runoff pollution, except as provided in sub. (2). These performance
6 standards are intended to limit runoff pollution in order to achieve water quality standards.
7 Design guidance and the process for developing technical standards to implement this subchapter
8 are set forth in subch. V.

9 (b) Transportation facilities that are directed and supervised by the department of
10 transportation and that are regulated by an administrative rule administered by the department of
11 transportation, where the department determines in writing that the rule meets or exceeds the
12 performance standards of this subchapter and is implemented in accordance with the
13 administrative rule provisions, shall be deemed to meet the requirements of the portions of this
14 subchapter determined by the department.

15 (2) (a) This subchapter does not apply to any of the following:

16 1. Actions for which a final environmental impact statement is approved before the
17 effective date of this rule...[revisor insert date].

18 2. Actions for which a finding of no significant impact is made under ch. Trans 400
19 before the effective date of this rule...[revisor insert date].

20 3. Actions that are documented in an environmental report, as defined in s. Trans 400.04
21 (10), completed before the effective date of this rule...[revisor insert date] that fit the criteria or
22 conditions for approval as a categorical exclusion in 23 CFR 771.117, April 1, 2000, or has met
23 the review criteria of paragraph 23.a. of chapter 3 of federal aviation administration order
24 5050.4A issued on October 8, 1985.

25 (b) Notwithstanding par. (a), the construction site performance standards under s. NR
26 151.23 and the protective area requirements under s. NR 151.24 (6) apply to transportation
27 facilities subject to this subchapter.

28 (3) In s. NR 151.23, average annual basis is calculated using the appropriate annual
29 rainfall or runoff factor, also referred to as the R factor, or an equivalent design storm using a
30 type II distribution, with consideration given to the geographic location of the site and the period
31 of disturbance.

1 Note: The USLE and its successors RUSLE and RUSLE2, utilize an R factor which has
2 been developed to estimate annual soil erosion, averaged over extended time periods. The R
3 factor can be modified to estimate monthly and single-storm erosion. A design storm can be
4 statistically calculated to provide an equivalent R factor as an average annual calculation.

5 (4) In s. NR 151.24, average annual rainfall is determined by the following years and
6 locations: Madison, 1981 (Mar. 12-Dec. 2); Green Bay, 1969 (Mar. 29-Nov. 25); Milwaukee,
7 1969 (Mar. 28-Dec. 6); Minneapolis, 1959 (Mar. 13-Nov. 4); Duluth, 1975 (Mar. 24 –Nov. 19).
8 Of the 5 locations listed, the location closest to a project site best represents the average annual
9 rainfall for that site.

10 **NR 151.21 Definitions.** In this subchapter:

11 (1) "Airport" means any area of land or water which is used, or intended for use, for the
12 landing and take-off of aircraft, and any appurtenant areas which are used, or intended for use,
13 for airport buildings or other airport facilities or rights-of-way, together with all airport buildings
14 and facilities located thereon.

15 (2) "Borrow site" means an area outside of a project site from which stone, soil, sand or
16 gravel is excavated for use at the project site, except the term does not include commercial pits.

17 (3) "Highway" has the meaning given in s. 340.01(22), Stats.

18 (4) "Material disposal site" means an area outside of a project site, which is used, for the
19 lawful disposal of surplus materials or materials unsuitable for use within the project site that is
20 under the direct control of the contractor. A municipally owned landfill or private landfill that is
21 not managed by the contractor is excluded from this definition.

22 (5) "Minor reconstruction" means reconstruction that is limited to 1.5 miles in continuous
23 or aggregate total length of realignment, does not exceed 100 feet in width of roadbed widening
24 and that after reconstruction does not lie within a protective area, as defined in s. NR
25 151.24(6)(a).

26 (6) "Prime contractor" means a person authorized or awarded a contract to perform,
27 directly or using subcontractors, all the work of a project directed and supervised by the
28 transportation facility authority.

29 (7) "Private road or driveway" has the meaning given in s. 340.01(46), Stats.

30 (8) "Public-use airport" means either of the following as described in 49 USC 47102(17):

31 (a) A public airport.

1 (b) A privately-owned airport used or intended to be used for public purposes that is
2 either:

3 1. A reliever airport as designated by the secretary of the United States department of
4 transportation to relieve congestion at a commercial service airport and to provide more general
5 aviation access to the overall community.

6 2. Determined by the secretary of the United States department of transportation to have
7 at least 2,500 passenger boardings each year and to receive scheduled passenger aircraft service.

8 (9) "Public mass transit facility" means any area of land or water which is used, or
9 intended for use, by bus or light rail, and any appurtenant areas which are used, or intended for
10 use, by bus or light rail, including buildings or other facilities or rights-of-way, either publicly or
11 privately owned, that provide the public with general or special service on a regular and
12 continuing basis.

13 (10) "Public trail" means a "state ice age trail area" designated under s. 23.17 (2), Stats., a
14 state trail under s. 23.175(2)(a), Stats., an "all-terrain vehicle trail" under s. 23.33(1)(d), Stats., an
15 "off-the-road motorcycle trail" under s. 23.33(9)(b)4, Stats., a "recreational trail" under s.
16 30.40(12m), Stats., a "walkway" under s. 30.40(22), Stats., a state trail under s. 84.06(11), Stats.,
17 a "bikeway" under s. 84.60(1)(a), Stats., a "snowmobile trail" under s. 350.01(17), Stats., a
18 "public snowmobile corridor" under s. 350.12(3j)(a)1, Stats., or any other trail open to the public
19 as a matter of right.

20 (11) "Railroad" means any area of land or water which is used, or intended for use, in
21 operating a railroad as defined in s. 85.01(5), Stats., and any appurtenant areas which are used, or
22 intended for use, for railroad buildings or other railroad facilities or rights-of-way, together with
23 all railroad buildings and facilities located thereon.

24 (12) "Reconditioning" has the meaning given in s. 84.013(1)(b), Stats.

25 (13) "Reconstruction" has the meaning given in s. 84.013(1)(c), Stats.

26 (14) "Resurfacing" has the meaning given in s. 84.013(1)(d), Stats.

27 (15) "Transportation facility authority" means any person or entity that is authorized to
28 approve work on a transportation facility by contract, permit or with its own forces or by force
29 account. A permit or approval granted by the department pursuant to ch. 283, Stats., does not
30 qualify as authorization needed to meet this definition.

1 **NR 151.22 Responsible party. (1) TRANSPORTATION FACILITY AUTHORITY.**

2 (a) The transportation facility authority shall develop a design plan to meet the performance
3 standards of ss. NR 151.23 and 151.24 for land disturbing construction activity at the
4 transportation facility construction site.

5 Note: This design plan may be the erosion control plan specified in s. Trans 401.07.

6 (b) The transportation facility authority, in consultation with the department, shall
7 approve the implementation plan submitted under sub. (2)(a). The transportation facility
8 authority shall incorporate the implementation plan into the contract for project construction.

9 (c) The transportation facility authority shall administer and enforce the implementation
10 plan submitted by the prime contractor under sub. (2)(a) under the contract for project
11 construction. The transportation facility authority shall ensure that the prime contractor follows
12 and maintains the implementation plan under par. (b). If the prime contractor does not follow the
13 implementation plan incorporated into the contract for project construction, the transportation
14 facility authority shall control erosion and sediment at the construction site consistent with the
15 design plan prepared under par. (a) or implementation plan prepared under sub. (2)(a).

16 (d) Before accepting the completed project, the transportation facility authority shall
17 verify in writing that the prime contractor has satisfactorily completed the implementation plan
18 pursuant to sub. (2)(b). The transportation authority shall submit the written verification to the
19 prime contractor and to the authority in charge of maintenance of the transportation facility.
20 Upon written verification by the transportation facility authority under this paragraph, the prime
21 contractor is released from the responsibility under this subchapter, except for any responsibility
22 for defective work or materials, damages by its own operations, or as may be otherwise required
23 in the project construction contract.

24 (2) PRIME CONTRACTOR. (a) The prime contractor shall develop and submit to the
25 transportation facility authority an implementation plan that identifies applicable BMPs and
26 contains a schedule for implementing the BMPs in accordance with design plan to meet the
27 performance standards under sub. (1)(a). The implementation plan shall identify an array of
28 BMPs that may be employed to meet the performance standards. The implementation plan shall
29 also address the design and implementation of BMPs required in ss. NR 151.23 and 151.24 for
30 land disturbing construction activity within borrow sites and material disposal sites that are
31 related to the construction project.

1 Note: This implementation plan may be the erosion control implementation plan
2 specified in s. Trans 401.08.

3 (b) The prime contractor shall implement the implementation plan as required by the
4 contract for project construction prepared pursuant to sub. (1)(b).

5 (c) A transportation authority that carries out the construction activity with its own
6 employees and resources shall comply with the prime contractor requirements contained in this
7 subsection, including preparing and carrying out an implementation plan.

8 (3) SINGLE PLAN. For transportation projects that are not administered under ch. Trans
9 401, the requirements of this subchapter may be developed under one plan instead of 2 separate
10 plans as described under subs. (1)(a) and (2)(a). A plan created under this subsection shall
11 contain both the design components required under sub. (1)(a) and the implementation
12 components required under sub. (2)(a).

13 Note: This single plan may be the erosion control plan specified in s. NR 216.46.

14 (4) MAINTENANCE AUTHORITY. Upon execution of the written verification prepared
15 under sub. (1)(d) by the transportation facility authority, the authority in charge of maintenance
16 of the transportation facility shall maintain the BMPs to meet the performance standards of this
17 subchapter. However, BMPs no longer necessary for erosion and sediment control shall be
18 removed by the maintenance authority.

19 **NR 151.23 Construction site performance standard. (1) APPLICABILITY.** Except
20 as provided under sub. (2), this section applies to all of the following:

21 (a) A transportation facility construction site that has 5 or more acres of land disturbing
22 construction activity, unless any of the following are met:

23 1. The department has received a notice of intent for the transportation construction
24 project in accordance with subch. III of ch. NR 216 before the effective date of this rule...[revisor
25 insert date].

26 Note: Prior to submitting a notice of intent pursuant to subch. III of ch. NR 216, a
27 construction site erosion control plan in conformance with s. NR 216.46 and a storm water
28 management plan in conformance with s. NR 216.47 shall be developed.

29 2. A bid is advertised or construction contract signed where no bid is advertised, before
30 the effective date of this rule...[revisor insert date].

1 (b) After March 10, 2003, any transportation facility construction site that has at least one
2 acre of land disturbing construction activity, except where bids are advertised or construction
3 contracts signed where no bids are advertised.

4 (2) EXEMPTION. This section does not apply to the following:

5 (a) Transportation facility construction projects that are exempted by federal statutes or
6 regulations from the requirement to have a national pollutant discharge elimination system
7 permit issued under 40 CFR 122, for land disturbing construction activity.

8 (b) Transportation facility construction projects that are part of a larger common plan of
9 development, such as a residential or industrial development, and are in compliance with the
10 performance standards of subch. III.

11 (c) Routine maintenance for transportation facilities that have less than 5 acres of land
12 disturbance if performed to maintain the original line and grade, hydraulic capacity or original
13 purpose of the facility.

14 Note: Construction projects such as installations of utilities within a transportation right-
15 of-way that are not directed and supervised by the department of transportation are subject to the
16 performance standards of subch. III and are not subject to this subchapter.

17 (3) PLAN. (a) A written design plan shall be developed for each construction site and
18 shall incorporate the requirements of this section.

19 Note: The design plan may be the erosion control plan specified in s. NR 216.46 or the
20 design plan in s. NR 151.22 (1)(a).

21 (b) The plan required under s. NR 151.22 (2)(a) or (3) shall be properly installed to
22 implement the plan under s. NR 151.22 (1)(a).

23 (4) REQUIREMENTS. The design plan required under sub. (3) shall include the
24 following:

25 (a) BMPs that, by design, achieve, to the maximum extent practicable, a reduction of
26 80% of the sediment load carried in runoff, on an average annual basis, as compared with no
27 sediment or erosion controls, as specified in s. NR 151.22 (1)(a) or (3), until the construction site
28 has undergone final stabilization. No person shall be required to exceed an 80% sediment
29 reduction to meet the requirements of this paragraph. Erosion and sediment control BMPs may
30 be used alone or in combination and shall be installed according to any associated
31 implementation plan to meet the requirements of this paragraph. Credit toward meeting the

1 sediment reduction shall be given for limiting the duration or area, or both, of land disturbing
2 construction activity, or other appropriate mechanism.

3 Note: Soil loss prediction tools that estimate the sediment load leaving the construction
4 site under varying land and management conditions, or methodology identified in subch. V., may
5 be used to calculate sediment reduction.

6 (b) Notwithstanding par. (a), if BMPs cannot be designed and implemented to reduce the
7 sediment load by 80%, based on an average annual rainfall, the design plan shall include a
8 written and site-specific explanation why the 80% reduction goal is not attainable and the
9 sediment load shall be reduced to the maximum extent practicable.

10 (c) Where appropriate, the design plan shall include sediment controls to do all of the
11 following to the maximum extent practicable:

12 1. Prevent tracking of sediment from the construction site onto roads and other paved
13 surfaces.

14 2. Prevent the discharge of sediment as part of site de-watering.

15 3. Protect the separate storm drain inlet structure from receiving sediment.

16 (d) The use, storage and disposal of chemicals, cement and other compounds and
17 materials used on the construction site shall be managed during the construction period to
18 prevent their transport by runoff into waters of the state. However, projects that require the
19 placement of these materials in waters of the state, such as constructing bridge footings or BMP
20 installations, are not prohibited by this paragraph.

21 (5) LOCATION. The BMPs used to comply with this section shall be located prior to
22 runoff entering waters of the state.

23 Note: While regional treatment facilities are appropriate for control of post-construction
24 pollutants they should not be used for construction site sediment removal.

25 **NR 151.24 Post-construction performance standard.** (1) APPLICABILITY. This
26 section applies to a transportation facility that is or was subject to the construction performance
27 standards of s. NR 151.23, except any of the following:

28 (a) A transportation construction site where the department has received a notice of intent
29 for the construction project in accordance with subch. III of ch. NR 216 within 2 years after the
30 effective date of this rule...[revisor insert date].

1 (b) A transportation facility construction site that has undergone final stabilization within
2 2 years after the effective date of this chapter...[revisor insert date].

3 (c) Reconditioning or resurfacing of a highway.

4 (d) Minor reconstruction of a highway.

5 (e) A redevelopment transportation facility with no increase in exposed parking lots or
6 roads.

7 (f) A transportation facility with less than 10% connected imperviousness based on
8 complete development of the transportation facility, provided the cumulative area of all parking
9 lots and rooftops is less than one acre.

10 Note: Projects that consist of only the construction of bicycle paths or pedestrian trails
11 generally meet this exception as these facilities have minimal connected imperviousness.

12 (g) Protective area requirements under sub. (6) do apply to actions described in s. NR
13 151.20 (2).

14 (h) A transportation facility, the construction of which involves activity described in s.
15 NR 151.23 (1)(a)2. but that has less than one acre of land disturbing construction activity.

16 (i) Transportation facility construction projects that are part of a larger common plan of
17 development, such as a residential or industrial development, that are in compliance with the
18 performance standards of subch. III.

19 (j) Routine maintenance for transportation facilities if performed to maintain the original
20 line and grade, hydraulic capacity or original purpose of the facility.

21 (2) PLAN. A written plan shall be developed and implemented for each transportation
22 facility and shall incorporate the requirements of subs. (3) to (10).

23 Note: Examples of plans that may be used to comply with this section may be that
24 specified within s. NR 216.47, the municipal storm water management program specified within
25 s. NR 216.07(7) or the erosion control plan specified in s. Trans 401.07.

26 (3) TOTAL SUSPENDED SOLIDS. Best management practices shall be designed,
27 installed and maintained to control total suspended solids carried in runoff from the
28 transportation facility as follows:

29 (a) For new transportation facilities, by design, reduce to the maximum extent
30 practicable, the suspended solids load by 80%, based on an average annual rainfall, as compared

1 to no runoff management controls. No person shall be required to exceed an 80% total suspended
2 solids reduction to meet the requirements of this paragraph.

3 (b) For highway reconstruction and non-highway redevelopment, by design, reduce to the
4 maximum extent practicable, the total suspended solids load by 40%, based on an average annual
5 rainfall, as compared to no runoff management controls. No person shall be required to exceed a
6 40% total suspended solids reduction to meet the requirements of this paragraph.

7 (c) Notwithstanding pars. (a) and (b), if the design cannot achieve the applicable total
8 suspended solids reduction specified, the design plan shall include a written and site-specific
9 explanation why that level of reduction is not attained and the total suspended solids load shall
10 be reduced to the maximum extent practicable.

11 Note: Pollutant loading models such as SLAMM, P8 or equivalent methodology may be
12 used to evaluate the efficiency of the design in reducing total suspended solids. Information on
13 how to access SLAMM and P8 is available at:

14 <http://www.dnr.state.wi.us/org/water/wm/nps/slam.htm> or contact the storm water coordinator
15 in the runoff management section of the bureau of watershed management at (608) 267-7694.

16 (4) PEAK DISCHARGE. (a) By design, BMPs shall be employed to maintain or reduce
17 the peak runoff discharge rates, to the maximum extent practicable, as compared to pre-
18 development site conditions for the 2-year, 24-hour design storm applicable to the transportation
19 facility. Pre-development conditions shall assume "good hydrologic conditions" for appropriate
20 land covers as identified in TR-55 or an equivalent methodology. The meaning of "hydrologic
21 soil group" and "runoff curve number" are as determined in TR-55. However, when pre-
22 development land cover is cropland, rather than using TR-55 values for cropland, the runoff
23 curve numbers in Table 2 of subch. III shall be used.

24 Note: The curve numbers in Table 2 represent mid-range values for soils under a good
25 hydrologic condition where conservation practices are used and are selected to be protective of
26 the resource waters.

27 (b) This subsection does not apply to:

28 1. A transportation facility where the change in hydrology due to development does not
29 increase the existing surface water elevation at any point within the downstream receiving
30 surface water by more than 0.01 of a foot for the 2-year, 24-hour storm event.

1 Note: Hydraulic models such as HEC-RAS or another methodology may be used to
2 determine the change in surface water elevations.

3 2. A highway reconstruction site.

4 3. A transportation facility that is part of a redevelopment project.

5 Note: The intent of sub. (4) is to minimize streambank erosion under bank full conditions.

6 (5) INFILTRATION. (a) Except as provided in pars. (d) to (g), BMPs shall be designed,
7 installed and maintained to infiltrate runoff to the maximum extent practicable in accordance
8 with one of the following:

9 1. Infiltrate sufficient runoff volume so that the post-development infiltration volume
10 shall be at least 60% of the pre-development infiltration volume, based on an average annual
11 rainfall. However, when designing appropriate infiltration systems to meet this requirement, no
12 more than 2% of the project site is required as an effective infiltration area.

13 2. Infiltrate 10% of the post-development runoff volume from the 2-year, 24-hour design
14 storm with a type II distribution. Separate curve numbers for pervious and impervious surfaces
15 shall be used to calculate runoff volumes and not composite curve numbers as defined in TR-55.
16 However, when designing appropriate infiltration systems to meet this requirement, no more than
17 2% of the project site is required as an effective infiltration area.

18 (b) Pre-development condition shall be the same as specified in sub. (4)(a).

19 Note: A model that calculates runoff volume, such as SLAMM, P8 or an equivalent
20 methodology may be used. Information on how to access SLAMM and P8 is available at:
21 <http://www.dnr.state.wi.us/org/water/wm/nps/slamm.htm> or contact the storm water coordinator
22 in the runoff management section of the bureau of watershed management at (608) 267-7694.

23 (c) Before infiltrating runoff, pretreatment shall be required for parking lot runoff and for
24 runoff from new road construction in commercial, industrial and institutional areas that will enter
25 an infiltration system. The pretreatment shall be designed to protect the infiltration system from
26 clogging prior to scheduled maintenance and to protect groundwater quality in accordance with
27 par. (g). Pretreatment may include, but is not limited to, oil/grease separation, sedimentation,
28 biofiltration, filtration, swales or filter strips.

29 Note: To minimize potential groundwater impacts it is desirable to infiltrate the cleanest
30 runoff. To achieve this, a design may propose greater infiltration of runoff from low pollutant
31 sources such as roofs, and less from higher pollutant source areas such as parking lots.

1 (d) The following are prohibited from meeting the requirements of this subsection:

2 1. Areas associated with tier 1 industrial facilities identified in s. NR 216.21(2)(a),
3 including storage, loading, rooftop and parking.

4 2. Storage and loading areas of tier 2 industrial facilities identified in s. NR 216.21(2)(b).

5 Note: Runoff from tier 2 parking and rooftop areas may be infiltrated but may require
6 pretreatment.

7 3. Fueling and vehicle maintenance areas.

8 4. Areas within 1000 feet upgradient or within 100 feet downgradient of karst features.

9 5. Areas with less than 3 feet separation distance from the bottom of the infiltration
10 system to the elevation of seasonal high groundwater or the top of bedrock.

11 6. Areas with runoff from industrial, commercial and institutional parking lots and roads
12 and residential arterial roads with less than 5 feet separation distance from the bottom of the
13 infiltration system to the elevation of seasonal high groundwater or the top of bedrock.

14 7. Areas within 400 feet of a community water system well as specified in s. NR
15 811.16(4) or within 100 feet of a private well as specified in s. NR 812.08(4) for runoff
16 infiltrated from commercial, industrial and institutional land uses or regional devices for
17 residential development.

18 8. Areas where contaminants of concern, as defined in s. NR 720.03(2), are present in the
19 soil through which infiltration will occur.

20 9. Any area where the soil does not exhibit one of the following characteristics between
21 the bottom of the infiltration system and seasonal high groundwater and top of bedrock:

22 a. At least a 3-foot soil layer with 20 percent fines or greater.

23 b. At least a 5-foot soil layer with 10 percent fines or greater.

24 c. Where the soil medium within the infiltration system does not provide an equivalent
25 level of protection.

26 Note: The areas listed in par. (d) are prohibited from infiltrating runoff due to the
27 potential for groundwater contamination.

28 (e) Transportation facilities located in the following areas and otherwise subject to the
29 requirements of this subchapter are not required to meet the requirements of this subsection:

30 1. Areas where the infiltration rate of the soil is less than 0.6 inches/hour measured at the
31 bottom of the infiltration system.

1 2. Parking areas and access roads less than 5,000 square feet for commercial and
2 industrial development.

3 3. Redevelopment post-construction sites.

4 4. In-fill development areas less than 5 acres.

5 5. Infiltration areas during periods when the soil on the site is frozen.

6 6. Roads in commercial, industrial and institutional land uses, and arterial residential
7 roads.

8 7. Highways.

9 (f) Where alternate uses of runoff are employed, such as for toilet flushing, laundry or
10 irrigation, such alternate use shall be given equal credit toward the infiltration volume required
11 by this subsection.

12 (g) 1. Infiltration systems designed in accordance with this subsection shall, to the extent
13 technically and economically feasible, minimize the level of pollutants infiltrating to
14 groundwater and shall maintain compliance with the preventive action limit at a point of
15 standards application in accordance with ch. NR 140. However, if site specific information
16 indicates that compliance with a preventive action limit is not achievable, then the infiltration
17 BMP may not be installed or shall be modified to prevent infiltration to the maximum extent
18 practicable.

19 2. Notwithstanding subd. 1., the discharge from BMPs shall remain below the
20 enforcement standard at the point of standards application.

21 (6) PROTECTIVE AREAS. (a) In this subsection, "protective area" means an area of
22 land that commences at the top of the channel of lakes, streams and rivers, or at the delineated
23 boundary of wetlands, and that is the greatest of the following widths, as measured horizontally
24 from the top of the channel or delineated wetland boundary to the closest impervious surface.
25 However, in this paragraph, "protective area" does not include any area of land adjacent to any
26 stream enclosed within a pipe or culvert, such that runoff cannot enter the enclosure at this
27 location.

28 1. For outstanding resource waters and exceptional resource waters, and for wetlands in
29 areas of special natural resource interest as specified in s. NR 103.04, 75 feet.

1 2. For perennial and intermittent streams identified on a United States geological survey
2 7.5-minute series topographic map, or a county soil survey map, whichever is more current, 50
3 feet.

4 3. For lakes, 50 feet.

5 4. For highly susceptible wetlands, 50 feet. Highly susceptible wetlands include the
6 following types: fens, sedge meadows, bogs, low prairies, conifer swamps, shrub swamps, other
7 forested wetlands, fresh wet meadows, shallow marshes, deep marshes and seasonally flooded
8 basins. Wetland boundary delineation shall be made in accordance with s. NR 103.08(1m). This
9 paragraph does not apply to wetlands that have been completely filled in accordance with all
10 applicable state and federal regulations. The protective area for wetlands that have been partially
11 filled in accordance with all applicable state and federal regulations shall be measured from the
12 wetland boundary delineation after fill has been placed.

13 5. For less susceptible wetlands, 10 percent of the average wetland width, but no less than
14 10 feet nor more than 30 feet. Less susceptible wetlands include degraded wetlands dominated
15 by invasive species such as reed canary grass.

16 6. In subd. 1, 4 and 5, determinations of the extent of the protective area adjacent to
17 wetlands shall be made on the basis of the sensitivity and runoff susceptibility of the wetland in
18 accordance with the standards and criteria in s. NR 103.03.

19 7. For concentrated flow channels with drainage areas greater than 130 acres, 10 feet.

20 (b) 1. Beginning with land acquired within a protective area for a transportation facility
21 on or after the effective date of this rule...[revisor insert date], no impervious surface of a
22 transportation facility may be constructed within a protective area, unless the transportation
23 facility authority determines, in consultation with the department, that there is no practical
24 alternative. If there is no practical alternative to locating a transportation facility within a
25 protective area, the transportation facility may be constructed in the protective area only to the
26 extent the transportation facility authority, in consultation with the department, determines is
27 reasonably necessary, and the transportation facility authority shall state in the design plan
28 prepared pursuant to s. NR 151.22(1)(a), why it is necessary to construct the transportation
29 facility within a protective area.

30 2. If a transportation facility is constructed within a protective area, adequate sod or self-
31 sustaining vegetative cover of 70% or greater shall be established and maintained in the area that

1 is the width of the protective area, or the greatest width practical, and throughout the length of
2 the protective area in which the transportation facility is located. The adequate sod or self-
3 sustaining vegetative cover required under this paragraph shall be sufficient to provide for bank
4 stability, maintenance of fish habitat and filtering of pollutants from upslope overland flow areas
5 under sheet flow conditions. Non-vegetative materials, such as rock riprap, may be employed on
6 the bank as necessary to prevent erosion such as on steep slopes or where high velocity flows
7 occur.

8 Note: It is recommended that seeding of non-aggressive vegetative cover be used in the
9 protective areas. Vegetation that is flood and drought tolerant and can provide long-term bank
10 stability because of an extensive root system is preferable. Vegetative cover may be measured
11 using the line transect method described in the university of Wisconsin-extension publication
12 number A3533, titled "Estimating Residue Using the Line Transect Method".

13 3. Best management practices such as filter strips, swales or wet detention basins, that are
14 designed to control pollutants from nonpoint sources may be located in the protective width area.

15 Note: Other regulations, such as ch. 30, Stats., and chs. NR 103, 115, 116 and 117 and
16 their associated review and approval process may apply in the protective area.

17 4. This subsection does not apply to:

18 a. Non-highway transportation redevelopment sites.

19 b. Transportation facilities that cross or access surface waters, such as boat landings,
20 bridges and culverts.

21 c. Structures constructed in accordance with s. 59.692(1v), Stats.

22 d. Transportation facilities from which runoff does not enter the surface water, except to
23 the extent that vegetative ground cover is necessary to maintain bank stability.

24 Note: A vegetated protective area to filter runoff pollutants from transportation facilities
25 described in subd. 4.d. is not necessary since runoff is not entering the surface water at that
26 location. Other practices necessary to meet requirement of this section, such as a swale or basin,
27 will need to be designed and implemented to reduce runoff pollutants prior to runoff entering a
28 surface water of the state.

29 (7) FUELING AND VEHICLE MAINTENANCE AREAS. Fueling and vehicle
30 maintenance areas shall, to the maximum extent practicable, have BMPs designed, installed and

1 maintained to reduce petroleum within runoff, such that the runoff that enters waters of the state
2 contains no visible petroleum sheen.

3 Note: A combination of the following BMPs may be used: oil and grease separators,
4 canopies, petroleum spill cleanup materials, or any other structural or non-structural method of
5 preventing or treating petroleum in runoff.

6 (8) LOCATION. To comply with the standards required under this section, BMPs may be
7 located on-site or off-site as part of a regional storm water device, practice or system, but shall
8 be installed in accordance with s. NR 151.003.

9 (9) TIMING. The BMPs required under this section shall be installed before the
10 construction site has undergone final stabilization.

11 (10) SWALE TREATMENT. (a) *Applicability*. Except as provided in par. (b),
12 transportation facilities that use swales for runoff conveyance and pollutant removal meet all of
13 the requirements of this section, if the swales are designed to the maximum extent practicable to
14 do all of the following:

15 1. Be vegetated. However, where appropriate, non-vegetative measures may be
16 employed to prevent erosion or provide for runoff treatment, such as rock riprap stabilization or
17 check dams.

18 Note: It is preferred that tall and dense vegetation be maintained within the swale due to
19 its greater effectiveness at enhancing runoff pollutant removal.

20 2. Carry runoff through a swale for 200 feet or more in length that is designed with a flow
21 velocity no greater than 1.5 feet per second based on a 2-year, 24-hour design storm. If a swale
22 of 200 feet in length cannot be designed with a flow velocity of 1.5 feet per second or less, the
23 flow velocity shall be reduced to the maximum extent practicable.

24 Note: Check dams may be included in the swale design to slow runoff flows and improve
25 pollutant removal. Transportation facilities with continuous features such as curb and gutter,
26 sidewalks or parking lanes do not comply with the design requirements of this subsection.
27 However, a limited amount of structural measures such as curb and gutter may be allowed as
28 necessary to account for other concerns such as human safety or resource protection.

29 (b) *Exemptions*. 1. Notwithstanding par. (a), the department may, consistent with water
30 quality standards, require other provisions of this section, in addition to swale treatment, be met

1 on a transportation facility with an average daily travel of vehicles greater than 2500 and where
2 the initial surface water of the state that the runoff directly enters is any of the following:

3 a. An outstanding resource water.

4 b. An exceptional resource water.

5 c. Waters listed in s. 303(d) of the federal clean water act that are identified as impaired
6 in whole or in part, due to nonpoint source impacts.

7 d. Waters where targeted performance standards are developed pursuant to s. NR
8 151.004.

9 2. The transportation facility authority shall contact the department's regional storm
10 water staff or the department's liaison to the department of transportation to determine if
11 additional BMPs beyond a water quality swale are needed under this paragraph.

12 **NR 151.25 Developed urban area performance standard. (1) APPLICABILITY.**

13 This section applies to highways under the sole and exclusive jurisdiction of the department of
14 transportation that are located within municipalities regulated under subch. I of ch. NR 216.

15 Note: Transportation facilities that are not under the sole and exclusive jurisdiction of the
16 department of transportation are subject to the performance standards in s. NR 151.13.

17 (2) REQUIREMENTS. (a) The department of transportation shall develop and implement
18 a storm water management plan to control pollutants from transportation facilities described in
19 sub. (1). The plan shall do the following to the maximum extent practicable:

20 1. Beginning not later than March 10, 2008, by design, implement a storm water
21 management plan that attains a 20% reduction in total suspended solids in runoff that enters
22 waters of the state as compared to no storm water management controls.

23 2. Beginning not later than March 10, 2013, by design, implement a storm water
24 management plan that attains a 40% reduction in total suspended solids in runoff that enters
25 waters of the state as compared to no storm water management controls.

26 (b) The department of transportation shall inform and educate appropriate department of
27 transportation staff and any transportation facility maintenance authority contracted by the
28 department of transportation to maintain transportation facilities owned by the department of
29 transportation regarding nutrient, pesticide, salt and other deicing material and vehicle
30 maintenance management activities in order to prevent runoff pollution of waters of the state.

31 **NR 151.26 Enforcement.** This subchapter shall be enforced as follows:

1 (1) If a transportation facility that is exempted from prohibitions, permit or approval
2 requirements by s. 30.12(4), Stats., does not comply with the performance standards of this
3 subchapter, the department shall initiate the conflict resolution process specified in the
4 cooperative agreement between the department of transportation and the department established
5 under the interdepartmental liaison procedures under s. 30.12(4)(b), Stats.

6 (2) The department shall enforce this subchapter where applicable for transportation
7 facilities not specified in sub. (1) under s. 281.98, Stats.

1 **Subchapter V – Technical Standards Development Process for Non-Agricultural**
2 **Performance Standards**

3 **NR 151.30 Purpose.** This subchapter specifies the process for developing and
4 disseminating technical standards to implement the performance standards in subchs. III and IV,
5 as authorized by s. 281.16 (2)(b), Stats., and establishes the procedures that the department shall
6 use to determine if technical standards adequately and effectively implement, as appropriate, the
7 performance standards in subchs. III and IV. This subchapter applies to technical standards
8 developed or implemented by any agency of the state of Wisconsin.

9 **NR 151.31 Technical standards development process.** (1) The department shall
10 develop and revise technical standards to implement the performance standards in ss. NR 151.11,
11 151.12, 151.13, 151.23, 151.24 and 151.25 through a process outlined as follows:

12 (a) The department may decide that a new or revised technical standard is necessary to
13 implement a performance standard.

14 (b) Any person may request the department to develop or revise a technical standard
15 designed to meet a performance standard. The request shall be made in writing to the director of
16 the department's bureau of watershed management and shall include the performance standard
17 for which technical standard development or revision may be needed, and an explanation why a
18 new or revised technical standard is requested.

19 (c) The department shall evaluate a request submitted pursuant to par. (b), to determine if
20 it is necessary to develop or revise a technical standard to implement a performance standard. If
21 the department determines that a new or revised technical standard is not necessary to implement
22 a performance standard, it shall reply to the requester in writing as to the reasons that a technical
23 standard does not need to be developed or revised.

24 (d) If the department determines that a new or revised technical standard is necessary to
25 implement a performance standard, it shall:

26 1. Determine the state agency responsible for the technical standard.

27 2. If the responsible state agency is not the department, request the responsible state
28 agency to develop or revise a technical standard.

29 3. If the responsible agency denies the request to develop or revise a technical standard,
30 the department may initiate conflict resolution procedures outlined under any existing
31 memorandum of understanding or agreement between the department and the responsible

1 agency. If no conflict resolution procedures exist, the department may attempt to resolve the
2 disagreement through stepped negotiations between increasing higher levels of management.

3 (e) The department shall use the following procedures when it acts to develop or revise
4 technical standards to implement the performance standards in subchs. III and IV.

5 1. Convene a work group to develop or revise the technical standard that includes
6 agencies and persons with technical expertise and direct policy interest. The work group shall
7 include at least one representative from the agency or person that made an initial request to
8 develop or revise the technical standard.

9 2. The work group shall publish a class 1 public notice and consider public comments
10 received on the technical standard prior to providing recommendations to the department under
11 subd. 3.

12 3. The work group shall provide a recommended technical standard to the department
13 within 18 months of its formation unless the director of the bureau of watershed management
14 grants an extension to this deadline.

15 (f) 1. Notwithstanding other provisions of this section, and acting jointly with the
16 department of transportation and in consultation with other appropriate stakeholders, the
17 department shall:

18 a. Develop a technical standard that, by design, meets the performance standard
19 established in s. NR 151.23 (3). This technical standard shall address slope erosion and channel
20 erosion and identify BMPs that may be used given a variety of site conditions.

21 b. Annually review this technical standard.

22 Note: This technical standard is sometimes referred to as the standardized erosion control
23 reference matrix for transportation.

24 2. For transportation facility construction sites, the technical standard developed under this
25 paragraph shall also indicate any conditions under which it may not be used to implement the
26 performance standard established in s. NR 151.23 (3).

27 3. This technical standard and future revisions become effective upon signatures from both
28 secretaries of the department and the department of transportation, or their designees.

29 (2) (a) Upon receipt of a proposed technical standard or technical standard revision, either
30 developed by the department or a responsible state agency, the department shall determine if the
31 technical standard will effectively achieve or contribute to achievement of the performance

1 standards in subchs. III and IV. The department shall provide its determination in writing to the
2 responsible state agency that prepared the proposed technical standard.

3 (b) If the department determines that a proposed technical standard will not adequately or
4 effectively implement a performance standard in subchs. III and IV, the proposed technical
5 standard may not be used to implement a performance standard in whole or in part.

6 (c) If the department determines that a proposed technical standard will adequately and
7 effectively implement a performance standard in subchs. III and IV in whole or in part, the new
8 or revised technical standard shall be used in lieu of any existing standards to implement the
9 performance standard beginning with plans developed after the date of this determination.

10 (d) The department may determine a portion of a technical standard is adequate and
11 effective to implement the performance standards under subch. III or IV.

12 (3) The department shall accept technical standards and best management practices
13 developed by the department, the department of commerce, the department of transportation or
14 other appropriate state agencies, existing on the effective date of this rule...[revisor insert date]
15 unless the department identifies a technical standard as not adequate or effective to implement a
16 performance standard in subchs. III and IV in whole or in part, and informs the responsible state
17 agency of this determination and the basis for it.

18 (4) Until the processes under subs. (1) and (2) are completed, an existing technical
19 standard identified by the department under sub. (3), or previously accepted by the department as
20 adequate and effective to implement a performance standard under subch. III or IV shall be
21 recognized as appropriate for use under this chapter.

22 (5) The department may identify technical standards that exist or are developed by
23 qualified groups or organizations as adequate and effective to implement the performance
24 standards under subch. III or IV.

25 (6) Except as provided in s. NR 151.26, if a technical standard that the department
26 determines is not adequate or effective to implement a performance standard in whole or in part
27 is used to implement a performance standard under subch. III or IV, the department may initiate
28 enforcement proceedings for failure to meet the performance standard under s. 281.98, Stats.

29 **NR 151.32 Dissemination of technical standards.** (1) Technical standards developed or
30 revised under this section may be made available through the responsible state agency's
31 appropriate rules, manuals or guidance in keeping with normal publication schedules. If the

1 responsible state agency does not publish appropriate manuals or guidance, the department shall
2 request the agency provide the department with a copy of the technical standard. Where
3 provided, the department shall publish or reproduce the technical standard for public use.

4 (2) The department shall maintain a list of technical standards that it has determined
5 adequate and effective to implement the performance standards under subch. III or IV and make
6 the list available upon request.

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11 The foregoing rules were approved and adopted by the State of Wisconsin Natural
12 Resources Board on January 22, 2002.

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14 The rules shall take effect on the first day of the month following publication in the
15 Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

16
17 Dated at Madison, Wisconsin _____
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19
20 STATE OF WISCONSIN
21 DEPARTMENT OF NATURAL RESOURCES
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23
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25 By _____
26 Darrell Bazzell, Secretary
27

28 (SEAL)

