

## Chapter NR 341

## GRADING ON THE BANK OF NAVIGABLE WATERWAYS

NR 341.01	Purpose.
NR 341.02	Applicability.
NR 341.03	Definitions.
NR 341.035	Bank determination.
NR 341.04	Grading application.
NR 341.05	Erosion control plan requirements.

NR 341.06	Stormwater management plan requirements.
NR 341.07	Construction site inspections and maintenance.
NR 341.08	General permit for project sites.
NR 341.09	Individual permits.
NR 341.10	Enforcement.

**Note:** Chapter NR 341 was created as an emergency rule effective May 19, 2004.

**NR 341.01 Purpose.** The purpose of this chapter is to establish criteria defining those activities needing a grading permit for grading sites as required by s. 30.19 (1g) (c), Stats.; and to specify permit requirements necessary to protect public rights and interest and to protect riparian rights for grading sites regulated under this chapter.

**History:** CR 04-085: cr. Register April 2005 No. 592, eff. 5-1-05.

**NR 341.02 Applicability. (1) GRADING SITES.** This chapter applies to activities regulated under s. 30.19 (1g) (c), Stats. An application for a grading permit shall be filed with the department pursuant to ch. NR 310 by any person that intends to grade or remove soil from the bank of any navigable waterway where the area exposed by the grading or removal will exceed 10,000 square feet on the surface of the bank as determined in s. NR 341.035. This includes areas that are part of a larger common plan of development or sale where multiple separate and distinct grading activities may be taking place at different times on different schedules, but under one plan, such that the total area exposed by grading or removal will exceed 10,000 square feet on the bank.

**Note:** Nonmetallic mining projects shall be processed under ch. NR 340 and shall meet all the standards in ch. NR 340 not ch. NR 341.

**(2) NR 216 CONSTRUCTION PERMITS.** Sites in compliance with a construction site stormwater discharge permit administered under subch. III of ch. NR 216 and also meeting the conditions of s. NR 341.08 shall be deemed to be in compliance with the provisions of this chapter.

**(3) LOCAL ADMINISTRATION OF NR 216.** Sites in compliance with the terms of an authorized local program for the administration of construction site stormwater discharge permits under subch. III of ch. NR 216, and consistent with the conditions of s. NR 341.08 as well as procedural requirements agreed to in writing between the department and the municipality shall be deemed to be in compliance with the provisions of this chapter.

**(4) EXEMPTIONS.** This chapter does not apply to:

(a) The construction or repair of any public highway, where public highway has the meaning given for highway in s. 340.01 (22), Stats.

(b) Any agricultural use of land.

(c) An activity that affects a navigable inland lake that is located wholly or partly in any county having a population of 750,000 or more.

(d) Any activity that affects a portion of Lake Michigan, Lake Superior or a navigable stream that is located within a county having a population of 750,000 or more.

**Note:** The landowner of a site exempt under pars. (c) and (d) is still required to submit a notice of intent under subch. III of ch. NR 216 for land disturbing construction activity of one or more acres.

**History:** CR 04-085: cr. Register April 2005 No. 592, eff. 5-1-05.

**NR 341.03 Definitions.** For the purposes of this chapter the following definitions apply:

**(1) "Agricultural use of land"** means planting, growing, cultivating and harvesting of crops for human or livestock consumption, pasturing or yarding of livestock, sod farms and beekeeping. This definition does not include the construction of structures such as barns, manure storage facilities or barnyard runoff control systems.

**Note:** This definition is equivalent to the definition in s. 30.40 (1), Stats., and differs from the definition in ss. NR 151.002 (2) and 216.42 (2) only in that beekeeping is included and tree nurseries are not included.

**(2) "Department"** means the department of natural resources.

**(3) "Final stabilization"** means that all land disturbing construction activities at the grading site have been completed and that a uniform perennial vegetative cover has been established with a density of at least 70% of the cover for the unpaved areas and areas not covered by permanent structures or that employ equivalent permanent stabilization measures.

**(4) "Grading"** means the physical disturbance of the land surface by the addition, removal or redistribution of soil.

**(5) "Land disturbing construction activity"** means any man-made alteration of the land surface resulting in a change in topography or existing vegetative or non-vegetative soil cover that may result in stormwater runoff and lead to increased soil erosion and movement of sediment into waters of the state. Land disturbing construction activity includes clearing and grubbing, demolition, excavating, pit trench dewatering, filling and grading activities.

**(6) "Navigable waterway"** means any body of water with a defined bed and bank, which is navigable under the laws of the state. In Wisconsin, a navigable body of water is capable of floating the lightest boat or skiff used for recreation or any other purpose on a regularly recurring basis.

**Note:** This incorporates the definition at s. 30.01 (4m), Stats., and current case law, which requires a watercourse to have a bed and banks, *Hoyt v. City of Hudson*, 27 Wis. 656 (1871), and requires a navigable waterway to float on a regularly recurring basis the lightest boat or skiff, *DeGayner & Co., Inc. v. DNR*, 70 Wis. 2d 936 (1975); *Village of Menomonee Falls v. DNR*, 140 Wis. 2d 579 (Ct. App. 1987).

**(7) "Ordinary high water mark"** means the point on the bank or shore up to which the presence and action of water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation or other easily recognizable characteristic.

**(8) "Priority navigable waterway"** has the meaning in s. 30.19 (1b) (c), Stats., and as identified by the department in s. NR 1.07.

**Note:** Section 30.19 (1b) (c), Stats., provides that "priority navigable waterway" means any of the following:

1. A navigable waterway, or a portion of a navigable waterway, that is identified as an outstanding or exceptional resource water under s. 281.15, Stats.
2. A navigable waterway, or a portion of a navigable waterway, identified as a trout stream.
3. A lake that is less than 50 acres in size.
4. Any other navigable waterway, or portion of a navigable waterway, that the department has determined, by rule, contains sensitive fish and aquatic habitat and that the department has specifically identified by rule.

Information and lists can be obtained by contacting the department, or found on the department's website at [www.dnr.wi.gov](http://www.dnr.wi.gov), under the topic "Waterway and Wetland Permits".

**(9) "Stabilize"** means the process of making a site steadfast or firm, minimizing soil movement by the use of practices such as mulching and seeding, sodding, landscaping, paving, graveling or other appropriate measures.

(10) "Total project area" means the area of land disturbing construction activity both within and outside of the defined bank, if it is part of the same project.

History: CR 04-085: cr. Register April 2005 No. 592, eff. 5-1-05.

**NR 341.035 Bank determination. (1) DETERMINATION OF THE BANK.** For purposes of establishing jurisdiction under s. 30.19, Stats., the bank of a navigable waterway shall be determined as follows:

(a) *Non-priority navigable waterways.* For navigable waterways that are not priority navigable waterways, the bank is 75 feet landward from the ordinary high water mark. However, if at 75 feet or less from the ordinary high water mark the slope is 12% or greater, the bank shall extend further landward to the point where the slope of the land becomes less than 12%, provided the slope is less than 12% for more than 50 feet. See Figure 1.

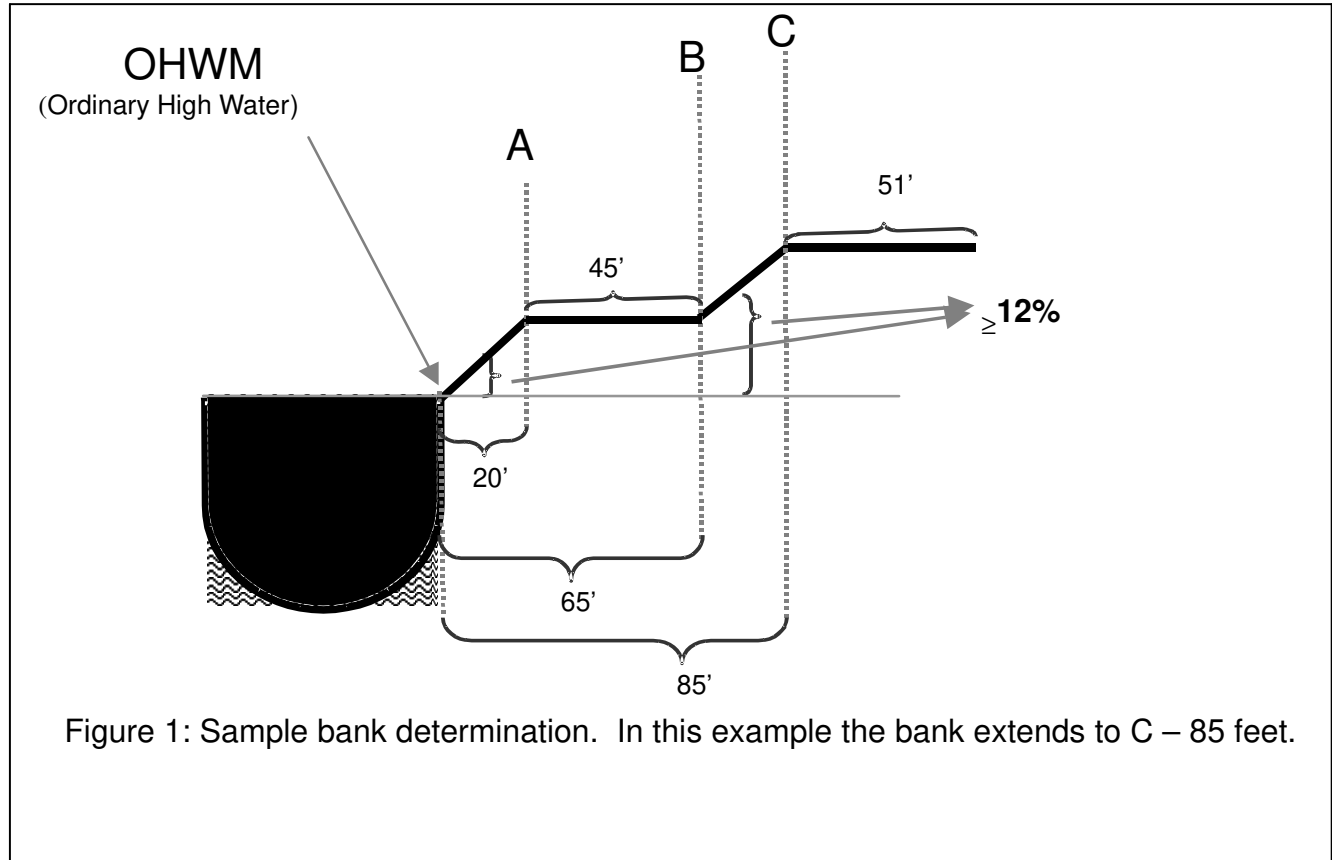


Figure 1: Sample bank determination. In this example the bank extends to C – 85 feet.

(b) *Priority navigable waterways.* For priority navigable waterways, the bank is 300 feet landward from the ordinary high water mark. However, if at 300 feet or less from the ordinary high water mark the slope is 10% or greater, the bank shall extend further landward to the point where the slope of the land becomes less than 10%, provided the slope is less than 10% for more than 50 feet.

(c) *Complete interruption.* Notwithstanding pars. (a) and (b), the bank may not include any areas where the slope or drainage of the land into the navigable waterway is completely interrupted. Completely interrupted means a topographic break that stops runoff from reaching navigable waters.

(2) **MEASUREMENTS.** For purposes of establishing jurisdiction under s. 30.19, Stats., the measurement of the bank of a navigable waterway shall be determined as follows:

- (a) The bank distance shall be measured on a horizontal plane.
- (b) Slope shall be measured along the surface flow path except as provided in par. (c).
- (c) Instead of determining the surface flow path and measuring the angle of slope along that path, a landowner may stipulate, subject to the agreement of the department, that the applicable 10% or 12% slope continues, without complete interruption of the slope or drainage, landward from the ordinary high water mark to the following distance:
  1. 300 feet for non-priority navigable waterways.
  2. 500 feet for priority navigable waterways.

(d) Area of bank disturbance shall be calculated on the surface of the land and shall include all the disturbed area within the bank as defined in sub. (1).

(3) **GRADED AREA.** For purposes of establishing jurisdiction under s. 30.19 (1g) (c), Stats., the area on the bank of a navigable waterway exposed by the grading or removal of soil shall exceed 10,000 square feet.

History: CR 04-085: cr. Register April 2005 No. 592, eff. 5-1-05.

**NR 341.04 Grading application.** All of the following information shall be submitted for a grading application:

- (1) **OWNERSHIP.** A copy of the deed, lease, land contract or other document showing ownership of the project site.
- (2) **PHOTOS.** Photographs that clearly show the existing project area with a size reference.
- (3) **PERMISSION.** Permission from landowners for department staff to enter the site.
- (4) **PLANS.** Plan drawing sheet.
- (5) **DESCRIPTION.** A narrative description of the grading proposal describing:
  - (a) The project purpose.
  - (b) Methods, materials and equipment to be used.
  - (c) A construction schedule and sequence of work.

(d) Erosion control and stormwater management plans in accordance with ss. NR 341.05 and 341.06.

(e) Site map in accordance with s. NR 341.05 (2).

**History:** CR 04-085: cr. Register April 2005 No. 592, eff. 5-1-05.

**NR 341.05 Erosion control plan requirements.**

**(1) SITE-SPECIFIC PLAN.** Any person required to submit an application for a grading permit under this chapter shall develop a site specific erosion control plan in accordance with s. NR 216.46.

**(2) SITE MAP REQUIREMENTS.** Each grading site map shall include all of the following:

(a) Existing topography and drainage patterns, roads, waterways, wetlands, property and floodplain boundaries.

(b) Two foot pre- and post-construction contours for project sites of one acre or more.

(c) Location, description and elevation of a reference benchmark.

(d) Horizontal and vertical scale and north arrow.

(e) Approximate identification of the ordinary high water mark.

(f) Area and distance between the grading project and the navigable waterway to be left undisturbed.

(g) Boundaries of the construction site, including the area of land disturbing construction activity.

(h) Drainage patterns and approximate slopes anticipated after grading activities, including the existing and proposed slope of the bank and the water level of the existing waterway.

(i) Area of soil disturbance in square feet.

(j) Volume of earth to be added or removed in cubic yards.

(k) Location of any disposal area for dredged or excavated materials.

(L) Location of major structural and non-structural controls identified in the erosion control plan.

(m) Location of areas where stabilization practices will be employed.

(n) Areas that will be vegetated following land disturbing construction activities.

(o) A vegetation plan that provides for a self-sustaining vegetative cover of at least 70% for all pervious areas, and is sufficient to provide for bank stability, maintenance of fish habitat and filtering of pollutants from upslope overland flow areas under sheet flow conditions.

(p) Areas used for infiltration of post-construction stormwater runoff.

(q) An alphanumeric or equivalent coordinate system for the entire grading site for sites of one acre or more.

(r) Cross sections of pre- and post-construction contours, sufficient to show slope variability across the site with a minimum of one for every 50 feet of shoreline frontage. If the site is uniform, only one cross section is necessary.

(s) Where wetlands are present, a wetland delineation report.

**Note:** Many of the requirements for a grading project site map are identical to the construction site map requirements of s. NR 216.46. A site map prepared to meet the requirements of s. NR 216.46 will need to add the information requested in pars. (b) to (f), (j), (k), (o), (r) and (s).

**(3) EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES.** (a) The erosion control plan shall include a description of appropriate erosion and sediment control best management practices that will be installed and maintained from the start of land disturbing construction activities until final stabilization of the grading site. The erosion control plan shall clearly describe the appropriate erosion and sediment control best management practices for each land disturbing construction activity and the timing during the period of land disturbing construction activity that the erosion and sediment control best management practices will be implemented. The erosion and sediment control best man-

agement practices shall be designed in accordance with s. NR 216.46 (6).

(b) Erosion control measures shall meet or exceed the technical standards for erosion control approved by the department under subch. V of ch. NR 151. Any area where topsoil is exposed during construction shall be immediately seeded and mulched or ripped to stabilize disturbed areas and prevent soils from being eroded and washed into the waterway.

**Note:** These standards can be found at the following website: <http://dnr.wi.gov/org/water/wm/nps/stormwater/techstds.htm>

(c) Unless part of a permanent stormwater management system, all temporary erosion and sediment control practices shall be removed upon final site stabilization. Areas disturbed during removal shall be restored.

**History:** CR 04-085: cr. Register April 2005 No. 592, eff. 5-1-05.

**NR 341.06 Stormwater management plan requirements.** Pollution caused by stormwater discharges from the grading site after construction is completed, including rooftops, parking lots, roadways and the maintenance of grassed areas, shall be addressed by a stormwater management plan. Any person required to submit an application for a grading permit under this chapter shall develop one of the following site specific stormwater management plans:

**(1) SITES GREATER THAN ONE ACRE OF LAND DISTURBANCE.** A stormwater management plan shall be developed in accordance with s. NR 216.47 prior to submitting an application for a grading permit to the department. The plan shall be implemented upon final stabilization of the grading site.

**(2) SITES LESS THAN ONE ACRE OF LAND DISTURBANCE.** A stormwater management plan shall, to the maximum extent practicable, direct runoff from impervious surfaces onto pervious surfaces. Examples may include directing downspouts onto lawns and away from pavement, driveways sloped onto lawns, and avoidance of piping or channelizing flow from impervious areas into waters of the state. The plan shall be implemented upon final stabilization of the grading site.

**History:** CR 04-085: cr. Register April 2005 No. 592, eff. 5-1-05.

**NR 341.07 Construction site inspections and maintenance.** Any person required to submit an application for a grading permit under this chapter shall follow the reporting and monitoring requirements in s. NR 216.48 (4).

**History:** CR 04-085: cr. Register April 2005 No. 592, eff. 5-1-05.

**NR 341.08 General permit for project sites. (1) PROCEDURES.** (a) General permits shall be processed according to the procedures in subch. III of ch. NR 310.

**Note:** Where there is overlapping jurisdiction between ch. NR 216 and this chapter for sites with land disturbance of more than one acre, the department will develop consolidated procedures so that only one submittal will be required.

(b) If the department determines that a grading application submitted under this section has the potential to impact an endangered or threatened species in accordance with s. 29.604, Stats., the application shall be deemed incomplete until the applicant submits documentation to demonstrate one of the following:

1. The grading project avoids impacts to the endangered or threatened species in accordance with s. 29.604, Stats.

2. The grading project has received an incidental take authorization under s. 29.604, Stats.

(c) If the applicant modifies their grading project plans to meet the requirements of par. (b), the modified plans shall be submitted before the department can consider the application complete or issue a general permit.

**(2) APPLICABLE ACTIVITIES.** A grading project that meets the requirements in sub. (3) shall be eligible for general permit coverage under ss. 30.19 (3r) (a) 2. and 30.206, Stats.

**(3) STANDARDS.** A grading project may be authorized under this general permit if it meets all of the following requirements:

(a) *Performance standards.* The grading project meets the stormwater performance standards of ss. NR 151.11 and 151.12 for stormwater discharges from land disturbing construction activities for non-transportation projects and ss. NR 151.23 and 151.24 for transportation projects.

**Note:** The department maintains a list of technical standards that it has determined adequate and effective for designing best management practices to control erosion and sediment runoff. Contact the department storm water program in the Bureau of Watershed Management at (608) 267-7694 to obtain a copy of this list or visit the department's stormwater website at [www.dnr.wi.gov/org/water/wm/nps/stormwater.htm](http://www.dnr.wi.gov/org/water/wm/nps/stormwater.htm).

(b) *Buffers on lakes and streams.* An undisturbed, vegetated area is maintained or established adjacent to the waterway in accordance with the distances in s. NR 151.12 (5) (d) 1. a. to c. for protective areas around lakes or streams. In the absence of a specified distance in s. NR 151.12 (5) (d) 1. a. to c., the vegetated area may not be disturbed or must be established for 35 feet landward from the ordinary high water mark. Construction or land disturbance within this buffer may occur for an activity that is otherwise authorized under ch. 30 or 31, Stats., exempted under ch. 30, Stats., or is a stormwater best management practice designed to comply with ch. NR 151 or 216.

**Note:** The duff layer beneath a pine forest is easily washed away during increased flows due to construction and would therefore not be adequate buffer coverage.

**Note:** A grading project including placement of a road and culvert to cross a navigable waterway is not excluded from eligibility for this general permit if the culvert is authorized under ch. 30, Stats. This section does not prohibit a local ordinance from being more restrictive.

(c) *Buffers on wetlands.* The grading does not disturb an existing vegetated area in accordance with the distances in s. NR 151.12 (5) (d) 1. a. or d. to f. for protective areas around wetlands. Construction or land disturbance for a stormwater best management practice designed to comply with ch. NR 151 or 216 may occur within this buffer, but not within the wetland.

(d) *Elevation change.* The difference in elevation between pre- and post-construction contours does not exceed 5 feet within the bank area, except for areas immediately adjacent to exposed or walkout basements where the difference in elevation between pre- and post-construction contours may not exceed 10 feet within the bank area.

**Note:** This section does not prohibit a local ordinance from being more restrictive.

(e) *Slope.* The grading may not disturb or create a slope that exceeds 20% within the bank area.

(f) *Revegetation.* The vegetation plan required in s. NR 341.05 (2) (o) shall be implemented and monitored for one year after project completion. During the monitoring period, the grading site shall be inspected regularly, and any areas requiring additional stabilization or revegetation shall be addressed to ensure final stabilization. One year after project completion, a report and photographs shall be submitted to the department to demonstrate that the grading site is stabilized. If after one year, final stabilization has not been achieved or maintained, the department may require the landowner to submit a revised vegetation plan to the department, and implement the revised plan.

(g) *Designated waters.* The grading site is not located in or adjacent to any of the following:

1. A state natural area designated or dedicated under ss. 23.27 to 23.29, Stats.
2. A federal wild and scenic river designated under s. 30.27, Stats., or 16 USC 1274 (a)(8).
3. A state wild river designated under s. 30.26, Stats.

(h) For grading projects on an outstanding or exceptional resource water under s. 281.15, Stats., upon receipt of a general permit application, the department shall conduct a site inspection.

(i) To stop the spread of invasive species and viruses from one navigable waterway to another navigable waterway, all equipment or portions of equipment used for constructing, operating, or maintaining the project, including tracked vehicles, barges, boats, silt or turbidity curtains, hoses, sheet piles, and pumps, shall be

decontaminated for invasive species and viruses before and after use or prior to use within another navigable waterway. Decontamination activities shall be performed by taking actions specified in subd. 1. to 3. or 8. Decontamination shall include either subd. 4., 5., 6., 7., or 8. for any equipment, or portions of equipment, that is used in non-frozen navigable waters when the air temperature is above 19 degrees Fahrenheit at the time the decontamination procedures take place.

1. Inspect all equipment used for constructing, operating, or maintaining the project and remove all plants and animals, and other mud, debris, etc.

2. Drain all water from equipment used in navigable waters.

**Note:** This does not apply to water in closed engine cooling systems or water tanks, or containers of potable drinking water or other beverages meant for human consumption. If a tanker truck discharges water collected from navigable waters in upland areas, the tank does not require disinfection.

3. Dispose of plants and animals in the trash. An operator may not transfer plants or animals or water from one navigable waterway to another.

4. Wash equipment at a temperature of not less than 212 degrees Fahrenheit water (steam clean).

5. Wash equipment with soap and water or high pressure water of not less than 2000 pounds per square inch.

6. Allow equipment to dry thoroughly for not less than 5 days.

**Note:** Additional drying techniques including drying through natural or mechanical means or changes in drying duration may be submitted to the department for review and approval.

7. Disinfect equipment with 200 parts per million (0.5 ounces per gallon) chlorine for not less than 10 minute contact time. Every effort should be made to keep the disinfection solution and rinse water out of surface waters.

**Note:** Chlorine refers to either household bleach solution (5.25% chlorine) or granular chlorine (70% calcium hypochlorite).

8. Follow the most recent department approved disinfection protocols or department approved best management practices for infested waters. The department shall maintain on its website and make available at its offices a list of the most recent disinfection protocols or department approved best management practices for invasive species and viruses.

**Note:** See the department's website at [dnr.wi.gov](http://dnr.wi.gov) under the topic "Waterway and Wetlands". Recommendations for additional disinfection or decontamination protocols or department approved best management practices may be submitted to the department for review and approval to be added to this list.

(4) **PLANS PART OF PERMIT.** The general permit shall require that the applicant comply with submitted project plans or modified project plans as a condition of the permit.

(5) **NON-COMPLIANCE WITH GENERAL PERMIT.** Activities which do not meet the requirements in sub. (3) or a general permit issued by the department shall require an individual permit.

(6) **INDIVIDUAL PERMIT.** The department has authority under s. 30.206 (3r), Stats., to require an individual permit in lieu of a general permit.

**History:** CR 04-085: cr. Register April 2005 No. 592, eff. 5-1-05; CR 07-094: cr. (3) (i) Register November 2008 No. 635, eff. 12-1-08.

#### **NR 341.09 Individual permits. (1) PROCEDURES.**

(a) Individual permits shall be processed according to the procedures in subch. IV of ch. NR 310.

(b) If the department determines that a pond or artificial water body application submitted under this section has the potential to impact an endangered or threatened species in accordance with s. 29.604, Stats., the application shall be deemed incomplete until the applicant submits documentation to demonstrate one of the following:

1. The pond or artificial water body project avoids impacts to the endangered or threatened species in accordance with s. 29.604, Stats.

2. The pond or artificial water body project has received an incidental take authorization under s. 29.604, Stats.

(c) If the applicant modifies their pond or artificial waterbody project plans to meet the requirements of par. (b), the modified plans shall be submitted before the department can consider the application complete or issue an individual permit.

**(2) APPLICABLE ACTIVITIES.** A grading project which is not authorized by a general permit under s. NR 341.08 requires authorization by an individual permit pursuant to s. 30.19 (4), Stats.

**(3) GRADING STANDARDS.** A grading project that meets the standards in s. 30.19 (4) (c), Stats., may be authorized under an individual permit.

**History:** CR 04-085: cr. Register April 2005 No. 592, eff. 5-1-05.

**NR 341.10 Enforcement.** **(1)** Noncompliance with the provisions of ss. 30.19 and 30.206, Stats., this chapter, or any conditions of a general permit or individual permit issued by the department, constitutes a violation and may result in a forfeiture.

The department may seek abatement under s. 30.294, Stats., for any activity in violation of ss. 30.19 and 30.206, Stats.

**(2)** If the activity may be authorized by a general permit under s. 30.206, Stats., failure of an applicant to follow the procedural requirements may not, by itself, result in abatement of the activity.

**(3)** When an after-the-fact permit application has been filed with the department, the department shall follow the procedures in ch. NR 301 for violations.

**(4)** Any violation of these rules shall be treated as a violation of the statutes they interpret or are promulgated under.

**(5)** No person may grade on the bank of a navigable waterway if the activity is not eligible for an exemption, authorized by a general permit or individual permit issued under this chapter, or otherwise authorized under this chapter.

**History:** CR 04-085: cr. Register April 2005 No. 592, eff. 5-1-05.