

CONSTRUCTION ORDINANCE

	State of Wisconsin (NR 151 / NR 216)	NEWSC Model Ordinance	NEWSC Erosion Control Committee Comments
Applicability	<ul style="list-style-type: none"> • Construction sites with 1-acre or more of land disturbance • Satisfy requirements before discharge into waters of state • Exemptions: <ul style="list-style-type: none"> ○ COMM 1&2 family < 1 acre ○ COMM multi-family dwellings ○ COMM public buildings and places of employment ○ Federal exemptions ○ Agricultural practices, except structures are not exempt ○ Silviculture activities 	<ul style="list-style-type: none"> • Construction sites with: <ul style="list-style-type: none"> ○ ≥4,000 SF of land disturbance ○ ≥100 CY of excavation / filling ○ ≥100 LF of disturbed highway, street, driveway, swale, ditch, waters of the state, wetland, protective area, etc. • Satisfy requirements before discharge into waters of state • Exemptions: <ul style="list-style-type: none"> ○ COMM 1&2 family < 1 acre ○ COMM multi-family dwellings ○ Federal exemptions ○ Agricultural activity areas ○ Silviculture activities 	<ul style="list-style-type: none"> • NEWSC recommends the criteria for these reasons: <ol style="list-style-type: none"> 1. Similar applicability criteria already exists within Fond du Lac County, Outagamie County, and Winnebago County. 2. ≥ 4,000 SF of land disturbance is recommended within State Statute 281.33(3)(b)1. 4,000 SF is approximately 63 feet by 63 feet or one-tenth of an acre. 3. ≥100 cubic yards of excavation or soil stockpiling is equal to approximately seven dump trucks. 4. ≥100 linear feet of sensitive area disturbance. These areas convey concentrated flow and are more prone to erosion. • Exemptions: <ul style="list-style-type: none"> ○ COMM 20.02(2)(a) and s.s. 101.65(1)(a) does not allow a local municipality to be more stringent than Department of Commerce for 1- and 2-family dwelling sites. However, NR 216.42(9) requires that this ordinance apply to 1- and 2-family dwelling sites with 1 acre or more of land disturbance until the Department of Commerce modifies its codes. ○ COMM 61.03(4)(b) and s.s. 101.02(7m) does not allow a local municipality to be more stringent than Department of Commerce for sites which involve multi-family dwellings. ○ COMM 61.03(4)(a) and s.s. 101.02(7)(a) allows a local municipality to be more stringent than Department of Commerce for sites which involve public buildings and places of employment. The NEWSC model ordinance applies to public buildings and places of employment for the following reasons: (1) Section 2.4.1.1.3 of the NR 216 Municipal Permit (WI-S050075-1) requires a city, village, county, or town to request authority from Department of Commerce to regulate erosion control at public buildings and places of employment; and (2) If authority is granted by Department of Commerce, the municipality's erosion control ordinance should not exempt public building and places of employment. Please note, the proposed COMM codes (not yet finalized) do not allow local municipalities to be more stringent than Department of Commerce for sites which involve public buildings and places of employment. ○ Per NR 216.42 (1) and (2), construction of agricultural structures is not exempt from obtaining a NR 216 permit. • Definitions for agricultural facilities and practices were modified to comply with NR 216.42(1) and (2). Construction of structures is not exempt from obtaining a NR 216 permit.
Total Suspended Solids	<ul style="list-style-type: none"> • (MEP) 80% reduction • Exemption: Agricultural structures 	<ul style="list-style-type: none"> • (MEP) 80% reduction • Exemption: Agricultural production areas (i.e. agricultural structures) 	<ul style="list-style-type: none"> • Same as NR 151. • Agricultural production areas are exempt from the numeric performance standards. • Per S.07(5), the local municipality may prescribe alternative requirements, such as no numeric performance standard, for construction sites with less than 1 acre of disturbance
Other	<ul style="list-style-type: none"> • Prevent tracking of sediment onto roads and paved surfaces • Prevent sediment discharges as part of site de-watering • Protect storm inlets from receiving sediment • The use, storage and disposal of waste material, chemicals, cement, and other compounds shall be properly managed 	<ul style="list-style-type: none"> • Prevent tracking of sediment onto roads and paved surfaces • Prevent sediment discharges as part of site de-watering • Protect storm inlets from receiving sediment • The use, storage and disposal of waste material, chemicals, cement, and other compounds shall be properly managed 	<ul style="list-style-type: none"> • Same as NR 151, excepted added more criteria from section 2.4.1.6 of the NR 216 Municipal Permit (WI-S050075-1). • Requirements for permitting within S.08(5) were modified to comply with NR 216.48 reporting, monitoring, and inspection requirements. • Requirements for the erosion and sediment control plan within S.09(1) were modified to comply with NR 216.46 regulations.

POST-CONSTRUCTION ORDINANCE

	State of Wisconsin (NR 151 / NR 216)	NEWSC Model Ordinance	NEWSC Erosion Control Committee Comments
Applicability	<ul style="list-style-type: none"> • Construction sites with 1-acre or more of land disturbance • Satisfy requirement before discharge to waters of state • Exempt from NR 216 Permit: <ul style="list-style-type: none"> ○ COMM 1&2 family < 1 acre ○ COMM multi-family dwellings ○ COMM public buildings and places of employment ○ Agricultural practices, except structures are not exempt ○ Silviculture activities ○ Routine maintenance < 5 acres to maintain original line, grade, capacity, & purpose of facility • Exempt from NR 151 Performance Standards – Non Transportation: <ul style="list-style-type: none"> ○ Redevelopment site with no parking lot / road increase ○ <10% connected impervious provided cumulative parking lot & roof <1 acre ○ Agricultural structures ○ Underground utilities • Exempt from NR 151 Performance Standards – Transportation: <ul style="list-style-type: none"> ○ Highway recondition / resurface ○ Highway minor reconstruction ○ Transportation redevelopment with no parking lot/road increase ○ Transportation <10% connected impervious provided cumulative parking lot & roof <1 acre ○ Transportation routine maintenance – no size limit 	<ul style="list-style-type: none"> • All post-construction sites. • Satisfy requirement before discharge to waters of state • Exempt from Permit: <ul style="list-style-type: none"> ○ COMM 1&2 family < 1 acre ○ COMM multi-family dwellings ○ Agricultural activity areas ○ Silviculture activities • Exempt from Performance Standards – Non Transportation: <ul style="list-style-type: none"> ○ Agricultural production areas ○ Underground utilities • Exempt from NR 151 Performance Standards – Transportation: <ul style="list-style-type: none"> ○ Highway recondition / resurface ○ Highway minor reconstruction ○ Transportation redevelopment with no parking lot/road increase ○ Transportation <10% connected impervious provided cumulative parking lot & roof <1 acre ○ Transportation routine maintenance – no size limit 	<ul style="list-style-type: none"> • The NEWSC model ordinance requires all development sites to obtain a permit, with a few exceptions. Sites with > 20,000 SF of impervious surface disturbance are required to obtain a permit, provide engineering calculations, and satisfy numeric performance standards. Sites with < 20,000 SF of impervious surface disturbance are required to obtain a permit but are <u>not</u> required to provide engineering calculations or satisfy numeric performance standards. The 20,000 SF threshold originated in Dane County. NEWSC recommends the 20,000 SF criteria for these reasons: <ol style="list-style-type: none"> 1. 1 acre residential sites typically have < 20,000 SF of impervious surface. 1 acre commercial, industrial, institutional, or multi-family sites typically have >20,000 SF of impervious surface. 20,000 SF = 0.46 acre 2. Impervious surfaces influence storm water quality and peak flow rates more than pervious surfaces. As such, the NEWSC criteria is based on the amount of impervious surface rather than amount of disturbed area. 3. The NEWSC criteria provides an incentive to reduce impervious surfaces. Reducing impervious surfaces is a fundamental principle of low impact development / conservation design. 4. NEWSC recognizes that a significant portion of a small project's total cost may be required for BMP construction and engineering. As such, sites with < 20,000 SF of impervious surface disturbance are not required to satisfy a numeric standard. The NEWSC Storm Water Reference Guide will contain a list of simple and inexpensive BMPs that may be used for small projects. These BMPs may include roof / impervious surface disconnections, grass swales, protective areas, petroleum cleanup, education (grass maintenance, litter control), etc. 5. TR-55 calculations are less accurate for small sites. Also, small detention outlets are needed for small sites. Small outlets may clog. • Exemptions: <ul style="list-style-type: none"> ○ COMM 20.02(2)(a) and s.s. 101.65(1)(a) does not allow a local municipality to be more stringent than Department of Commerce for 1- and 2-family dwelling sites. However, NR 216.42(9) requires that this ordinance apply to 1- and 2-family dwelling sites with 1 acre or more of land disturbance until the Department of Commerce modifies its codes. ○ COMM 61.03(4)(b) and s.s. 101.02(7m) does not allow a local municipality to be more stringent than Department of Commerce for sites which involve multi-family dwellings. ○ COMM 61.03(4)(a) and s.s. 101.02(7)(a) allows a local municipality to be more stringent than Department of Commerce for sites which involve public buildings and places of employment. The NEWSC model ordinance applies to public buildings and places of employment. Please note, the proposed COMM codes (not yet finalized) do not allow local municipalities to be more stringent than Department of Commerce for sites which involve public buildings and places of employment. ○ Per NR 216.42 (1) and (2), construction of agricultural structures is not exempt from obtaining a NR 216 permit. • Definitions for new development, redevelopment, infill, and routine maintenance areas were modified for the NEWSC model ordinance. Definitions for agricultural facilities were also modified to comply with NR 216.42(1) and (2). Definitions for public transportation facilities were also added to incorporate NR 151.24 requirements and exemptions.
Stormwater Management Plan	<ul style="list-style-type: none"> • A written stormwater management plan is required 	<ul style="list-style-type: none"> • A written stormwater management plan is required 	<ul style="list-style-type: none"> • Same as NR 151.
Total Suspended Solids	<ul style="list-style-type: none"> • New and re-development • 80% reduction for new development site (MEP) • 40% reduction for re-development • 40% reduction for infill site < 5 acres before October 1, 2012 • 80% reduction for infill site < 5 acres after October 1, 2012 • Exemptions: <ul style="list-style-type: none"> ○ None 	<ul style="list-style-type: none"> • New and re-development • Site with ≥ 20,000 SF of disturbed impervious surfaces shall achieve: <ul style="list-style-type: none"> ○ 80% for new development ○ 40% for re-development ○ None for routine maintenance • Site with < 20,000 SF of disturbed impervious surfaces shall achieve: <ul style="list-style-type: none"> ○ TSS reduction with practical and inexpensive BMPs which do not require an engineering design. No numeric standard. See NEWSC Reference Guide. • Site with a cumulative addition of ≥ 20,000 SF of impervious surface after adoption date of ordinance shall satisfy numeric standards for TSS (80% and 40%). Engineering design is required. • The level of TSS control provided by existing BMPs shall not be reduced due to the project 	<ul style="list-style-type: none"> • NEWSC TSS criteria are intended to be consistent and easy to administer. • The NEWSC model ordinance allows a municipality to modify water quality design requirements if appropriate. Some NR 216 permitted municipalities may desire more stringent water quality criteria for redevelopment sites to assist with 20% and 40% TSS reduction by 2008 and 2013, respectively. • The NEWSC model ordinance recommends that in-fill sites achieve 80% TSS removal. Technically, infill areas are new development areas located within an existing urban area. NEWSC recommends 80% TSS control for in-fill sites < 5 acres to assist NR 216 permitted municipalities with 20% and 40% TSS reduction by 2008 and 2013, respectively. DNR requires 40% TSS control for infill sites < 5 acres before October 1, 2012 and 80% TSS control thereafter. • The word 'cumulative' is used to prevent property owners from dividing a project into many 19,999 SF projects in order to avoid storm water regulations. Many 19,999 SF projects on the same property may have negative water quality and peak flow impacts. • TSS control provided by existing BMPs shall not be reduced. The purpose of this requirement is to prevent the amount of TSS control provided within a new development area from being reduced in the future when it is reclassified as redevelopment. All new development areas (80%) will eventually be reclassified as redevelopment (40%).
Peak Discharge	<ul style="list-style-type: none"> • New development only • Post-develop to pre-develop peak discharge reduction for 2-year design storm • Pre-development land use is "actual" with maximum agriculture curve numbers of 56(A), 70(B), 79(C), & 83(D) • Exemptions: 	<ul style="list-style-type: none"> • New and re-development • Site with ≥ 20,000 SF of disturbed impervious surfaces shall achieve: <ul style="list-style-type: none"> ○ Post-develop to pre-develop peak discharge reduction for 2, 10, & 100-year design storms ○ Pre-development land use is "meadow" with curve numbers of 30(A), 58(B), 71(C), & 78(D) 	<ul style="list-style-type: none"> • NEWSC recommends peak discharge control for the 2, 10, & 100-year design storms based on a "meadow" pre-development land use. Similar peak discharge criteria is already provided within many local ordinances, including but not limited to the City of Appleton, City of Green Bay, City of Neenah, Fond du Lac County, Outagamie County, & Winnebago Co. The purpose of 2-year peak discharge control is to reduce potential for stream erosion & habitat destruction; the purpose of 10-year peak discharge control is to reduce potential for storm sewer & minor flooding; and the purpose of 100-year peak discharge control to reduce potential for major

Peak Discharge (continued)	<ul style="list-style-type: none"> ○ Redevelopment sites ○ In-fill sites < 5 acres ○ < 0.01 foot change in 2-year water surface elevation for downstream receiving water body 	<ul style="list-style-type: none"> ○ No peak discharge reduction for routine maintenance areas ● Site with < 20,000 SF of disturbed impervious surfaces shall achieve: <ul style="list-style-type: none"> ○ Flow reduction with practical and inexpensive BMPs which do not require an engineering design. No numeric standard. See NEWSC Reference Guide. ● Sites with a cumulative addition of ≥ 20,000 SF of impervious surface after adoption date of ordinance shall satisfy the numeric standards. Engineering design is required. ● The level of peak discharge control provided by existing BMPs shall not be reduced due to the project ● Adequate outfall is required. ● Exemptions: <ul style="list-style-type: none"> ○ Transportation facility with < 0.01 foot change in 2-year water surface elevation for downstream receiving water body ○ Highway reconstruction site ○ Transportation facility that is part of a redevelopment project 	<p>flooding, business interruption, poor emergency vehicle access, & damage.</p> <ul style="list-style-type: none"> ● NEWSC recommends the “meadow” pre-development land use to compensate for soil compaction and natural storage losses that occur during development. The “meadow” land use is also recommended to reduce the potential for stream erosion. Stream erosion has been linked to inadequate 2-year peak discharge control and increased runoff volumes. ● The NEWSC model ordinance contains peak discharge requirements for individual sites. NEWSC recognizes the proposed design criteria does not guarantee adequate peak discharge control at the watershed level. As such, the NEWSC model ordinance allows a municipality to specify alternative peak discharge requirements. Significant natural storage volumes are prevalent within Northeast Wisconsin due to flat topography, elevated road embankments, and limited drainage infrastructure. In watersheds with significant natural storage volumes, the “meadow” design criteria may not adequately mimic pre-development hydrology. Stream erosion, habitat destruction, and flooding may occur if post-development hydrology does not adequately mimic pre-development hydrology. ● The NEWSC model ordinance allows the municipality to modify peak discharge requirements if appropriate. For example, the proposed peak discharge control criteria may not need to be as stringent for infill sites < 5 acres with adequate storm sewer capacity or redevelopment sites with no down stream erosion problems. Also, no peak discharge control may be needed for a new development site which discharges directly into a major water body, such as the Bay of Green Bay, Fox River, Lake Butte des Morts, Lake Winnebago, or Little Lake Butte des Morts. ● NEWSC peak discharge criteria are intended to be consistent and easy to administer. As such, the same peak discharge criteria is used for both new and redevelopment areas. However, the ordinance allows the municipality to lessen the peak discharge criteria on a case-by-case basis, if appropriate.
Infiltration	<ul style="list-style-type: none"> ● New development only ● Residential: Infiltrate 25% of post-developed 2-year volume (1% max) ● Non-Residential: Infiltrate 10% of post-developed 2-year volume (2% max) from parking lots & roofs ● Pre-treat parking lots and roads in industrial, commercial, institutional ● Equal credit for alternate runoff use ● Minimize pollutants infiltrating to groundwater – NR 140 ● Exclusions: <ul style="list-style-type: none"> ○ Tier 1 Industrial - portions ○ Tier 2 Industrial - portions ○ Fueling / auto maintenance ○ Karst features ○ Groundwater / bedrock ○ Public/private water supply ○ Contaminants of concern ○ Minimum percent fines ● Exemptions: <ul style="list-style-type: none"> ○ < 0.6 in/hr permeability ○ Parking / roads < 5,000 SF for commercial./ industrial ○ Redevelopment ○ In-fill < 5 acres ○ Periods of frozen soil ○ Roads in commercial, industrial, institutional, arterial residential 	<ul style="list-style-type: none"> ● New development only ● Site with ≥ 20,000 SF of new impervious surfaces shall satisfy the NR 151 numeric performance standards for residential and non-residential developments. ● Site with < 20,000 SF of new impervious surfaces shall achieve: <ul style="list-style-type: none"> ○ Infiltration with practical and inexpensive BMPs which do not require an engineering design. No numeric standard. See NEWSC Reference Guide. ● Sites with a cumulative addition of ≥ 20,000 SF of impervious surface after adoption date of ordinance shall satisfy the numeric standards. Engineering design is required. ● The amount of infiltration provided by existing BMPs shall not be reduced due to the project ● Pre-treat parking lots and roads in industrial, commercial, institutional ● Equal credit for alternate runoff use ● Minimize pollutants infiltrating to groundwater – NR 140 ● Exclusions: Same as NR 151 ● Exemptions: Same as NR 151 	<ul style="list-style-type: none"> ● Infiltration requirements are the same as NR 151, except as follows: <ol style="list-style-type: none"> 1. If ≥ 20,000 SF of new impervious surface, a numeric performance standard is provided and an engineering design is required. 2. If < 20,000 SF of new impervious surface, a numeric performance standard is <u>not</u> provided and an engineering design is <u>not</u> required. 3. If cumulative addition of ≥ 20,000 SF of new impervious surface, a numeric performance standard is provided and an engineering design is required. ● The word ‘cumulative’ is used to prevent property owners from dividing a project into many 19,999 SF projects in order to avoid storm water regulations. Many 19,999 SF projects on the same property may have negative water quality and peak flow impacts. ● Infiltration provided by existing BMPs shall not be reduced. The purpose of this requirement is to prevent infiltration devices within a new development area from being eliminated in the future when it is reclassified as redevelopment. All new development areas will eventually be reclassified as redevelopment. Redevelopment areas are exempt from infiltration requirements.
Protective Area (PA)	<ul style="list-style-type: none"> ● New development only ● Protective area (each side): <ul style="list-style-type: none"> ○ ORW / ERW – 75 ft ○ NR 103.04 wetland – 75 ft ○ Stream on USGS – 50 ft ○ Lake – 50 ft ○ High quality wetland – 50 ft ○ Low quality wetland - 10 to 30 ft ○ Channel (130 ac) – 10 ft ● 70% vegetative cover and minimize impervious areas ● BMPs are allowed within PA ● Exemptions <ul style="list-style-type: none"> ○ Redevelopment sites ○ Infill sites < 5 acres ○ Bridge, culvert, boat landing ○ Structures in s. 59.692(1v) ○ Runoff does not enter surface water at that location. Other BMP needed for pollutants. 	<ul style="list-style-type: none"> ● New development only ● Protective area (each side): <ul style="list-style-type: none"> ○ ORW / ERW – 75 ft ○ NR 103.04 wetland – 75 ft ○ Stream on USGS – 50 ft ○ Lake – 50 ft ○ High quality wetland – 50 ft ○ Low quality wetland - 10 to 30 ft ○ Channel (130 ac) – 10 ft ● 70% vegetative cover and minimize impervious areas ● BMPs are allowed within PA ● Exemptions <ul style="list-style-type: none"> ○ Redevelopment & routine maintenance areas ○ Bridge, culvert, boat landing ○ Structures in s. 59.692(1v) ○ Runoff does not enter surface water at that location. Other BMP needed for pollutants. ● Protective areas established or created after the adoption date of this ordinance shall not be eliminated or reduced, except if: <ul style="list-style-type: none"> ○ Bridge, culvert, boat landing ○ Structures in s. 59.692(1v) ○ Runoff does not enter surface water at that location. Other BMP needed for pollutants. 	<ul style="list-style-type: none"> ● Protective area requirements are the same as NR 151, except as follows: <ol style="list-style-type: none"> 1. Protective areas apply to all new development areas, including post-construction sites with < 20,000 SF of impervious surface disturbance and infill sites < 5 acres. Technically, infill areas are new development areas located within an existing urban area. 2. Previously established protective areas can not be eliminated or reduced, unless certain criteria is satisfied. The purpose of this requirement is to prevent protective areas within a new development area from being eliminated in the future when it is reclassified as redevelopment. All new development areas will eventually be reclassified as redevelopment. Redevelopment areas are exempt from protective area requirements.
Fuel/Vehicle Maintenance Areas	<ul style="list-style-type: none"> ● Reduce petroleum such that no visible sheen in runoff 	<ul style="list-style-type: none"> ● Reduce petroleum such that no visible sheen in runoff 	<ul style="list-style-type: none"> ● Same as NR 151.