

SUBJECT: Request Adoption of Board Order WA-22-08, proposed NR 528 relating to the Management of Accumulated Sediment from Storm Water Management Structures

FOR: JUNE 2009 BOARD MEETING

TO BE PRESENTED BY: Ann Coakley

SUMMARY:

At the December 2008 meeting, the Board authorized the Department to hold public hearings to solicit input on the proposed ch. NR 528.

The rule is the result of two years of collaboration between the Department and a technical advisory committee of external stakeholders. It provides a process whereby the person responsible for managing the sediment removed from a storm water sedimentation structure can evaluate the potential impacts the sediment may have, determine whether sampling the sediment is needed and, if necessary, hire an environmental professional to sample, evaluate the results and choose an appropriate end use without involving Department staff. The rule requires that a certification form be completed to document the qualifications of the decision maker, how the end use was chosen and public health and the environment are being protected. This primarily self-implementing approach has rarely been used in the Waste and Materials program and if it is successful, the same strategy will be proposed for other materials in the future.

The Department convened public hearings on February 11 and 12, 2009. A total of four people spoke at the two hearings and 11 submitted written comments. A response to the public comments and comments from the Legislative Rules Clearing House has been developed and is provided as part of the Greensheet package. No one opposed the rule and the comments received were used to modify sections of the rule.

RECOMMENDATION: Adopt the proposed NR 528 as outlined in Board Order WA-22-08, proposed Chapter NR 528

LIST OF ATTACHED MATERIALS:

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|----|-------------------------------------|---|-----|-------------------------------------|----------|
| No | <input type="checkbox"/> | Fiscal Estimate Required | Yes | <input checked="" type="checkbox"/> | Attached |
| No | <input checked="" type="checkbox"/> | Environmental Assessment or Impact Statement Required | Yes | <input type="checkbox"/> | Attached |
| No | <input type="checkbox"/> | Background Memo | Yes | <input checked="" type="checkbox"/> | Attached |

APPROVED:

Kate Cooper, Willy Rinald Rosmson
Bureau Director

[Signature]
Administrator

[Signature]
Secretary, Matt Frank

5/12/09
Date

5/18/09
Date

6-9-09
Date

- | | |
|----------------------------------|--------------------------|
| cc: Laurie J. Ross - AD/8 | Dan Graff - LS/8 |
| Gene Mitchell - WA/5 | Mary Anne Lowndes - WT/3 |
| Jack Connelly - WA/5 (11 copies) | |

CORRESPONDENCE/MEMORANDUM

DATE: June 9, 2009

TO: Natural Resources Board

FROM: Matthew Frank *MF*

SUBJECT: Background Memo for Final Adoption of Proposed Ch. NR 528, Relating to Management of Accumulated Sediment from Storm Water Management Structures

I. WHY THE RULE IS BEING PROPOSED*A. Action or event that triggered the proposed rule?*

There is an increasing need to properly manage sediment derived from cleaning sediment control structures. Increased stormwater control requirements were put in place as a result of USEPA's revisions to the Clean Water Act (CWA). The department, in accord with its responsibilities as a delegated program, then promulgated revisions to ch. NR 216 Wis. Adm. Code, effective August 1, 2004. These requirements resulted in an increasing number of stormwater management structures for new development. In addition to the increase in stormwater management structures, there are numerous structures installed ten or more years ago that will soon require sediment removal in order to maintain storage and treatment capacity. All this results in an ever increasing volume of sediment requiring responsible management. Maintenance of such structures along with proper management of accumulated sediment is important to both the Watershed Management and Waste and Materials Management programs.

B. What issues are addressed by this rule?

The sediment derived from sediment control structures is a solid waste regulated under Chapter 289, Wis. Stats. and the NR 500 Administrative Code series, administered by the Waste and Materials Management program. Although the department has regulatory responsibility, existing review procedures are not well defined. In defining review procedures, the decision proposed in this rule is to invest the available staff time in training and compliance for certification rather than in review of individual exemption requests.

This proposed rule is an effort to be proactive in developing a streamlined approach featuring a risk-appropriate level of self regulation. The objective is to ensure that this proposed rule results in a consistent and efficient approach to sediment management, is cost effective for the regulated community and requires minimal oversight by the department. The proposed rule is an effort to obtain these outcomes while remaining protective of public health and the environment.

II. SUMMARY OF PROPOSED RULE

The proposed rule is intended to provide a streamlined regulatory structure for the management of accumulated sediment that is both environmentally protective and administratively efficient. The approach features self regulation backed up by certification that the sediment manager has

taken all necessary steps to properly evaluate and manage any risks associated with the sediment and the intended use. Finally, the sediment manager/environmental professional attests to the above, agrees to perform any necessary monitoring and ensures that all sediment management records are maintained.

A. Streamline: self-regulation through sediment evaluation, compliance with appropriate regulatory requirements and signature on certification form.

Certification is the cornerstone of this rule's framework and provides a guide through the relationship between risk and level of regulatory requirements. Accountability in protecting health and the environment is ensured through the sediment manager's/environmental professional's signature attesting on the certification form that they judge that the sediment management will be performed in a manner that is protective of human health, welfare and the environment.

By completing the certification form (Attachment 2) the sediment manager evaluates the risk associated with the desired end use option. This is done by considering the land uses that generate the runoff and sediment and in some instances, sampling the sediment and interpreting the data. Secondly, the sediment manager/environmental professional evaluates the risks inherent to the project based on final use and site factors such as the soil's ability to attenuate pollutants. The liability of the environmental professional and the sediment manager certification will provide appropriate accountability and the Department will enforce through complaint responses.

B. Provisions to protect health and the environment

The rule includes setbacks from resources such as waters of the state, schools and private residences, general performance standards, erosion control measures, and ceiling levels for contaminants that may be found in the accumulated sediment that would disqualify the sediment from use under this rule. If ceiling levels are exceeded, the sediment would be required to be sent to a licensed landfill.

C. Selection of appropriate end uses for accumulated sediment

The end uses may include disposal at a landfill, general fill, confined geotechnical fill, landspreading, use in landscaping and contouring, site restoration, use or treatment at a dedicated site, or use under the control of another permitting authority. The appropriate end use is chosen based upon the level of risk the sediment poses. Finally, an exemption is provided that will facilitate proper maintenance through the removal of small volumes of coarse sediment that settles out near inlets to sediment detention structures.

D. Recordkeeping and records retention

Those responsible for sediment management must retain the certification form and any other sampling data, site monitoring records and sediment use records. The rule does not require that the information be submitted to the department, but it must be made available upon department request. However, the rule allows the Department to develop an on-line system in the future to receive and store records. If an on-line system is not available or the sediment manager chooses not to use it, the sediment manager must retain the completed certification forms, all sediment sampling results or other site monitoring results and site management records for 20 years. If the sediment manager chooses or is required to use the on-line system, the retention requirements are waived.

III. HOW DOES THE RULE AFFECT EXISTING POLICY?

The sediment that accumulates in storm water management structures is a solid waste under the solid waste rules, Chapters NR 500 through 538 Wis. Adm. Code. Sediment management proposals are currently addressed by the department on a case-by-case basis. Existing review procedures for sediment management projects are not well defined and therefore, may be applied inconsistently. The proposed rule will improve the situation by providing a streamlined regulatory approach featuring self regulation. The rule lays out a clear and consistent regulatory structure for sediment management. The proposed rule provides clarity and known expectations to the regulated community and allows the department to better allocate resources in an oversight role rather than requiring an individual review of each new project. Several Department programs have taken or are developing approaches similar to the proposed rule and have incorporated the use of various degrees of certification and self-implementation. These programs include Wastewater's general permit and auto repair garage programs, Stormwater Management general permits, Remediation and Redevelopment site investigation and cleanup, Waste and Materials Management development at historic fill sites and licensed landfills, Wetland Delineation and Endangered Resources Natural Heritage Inventory screening.

IV. HEARING SYNOPSIS

At its December 2008 meeting, the Board authorized the Department to hold public hearings to solicit input on the proposed rule revisions. The Department held public hearings on February 11 in Wausau and February 12 in Madison. A total of four people offered verbal comments at the hearings. Additionally, 11 individuals submitted written comments. Detailed responses to the comments received are included in Attachment 1: Hearing Summary Report – Proposed NR 528.

V. CHANGES MADE TO THE PLAIN LANGUAGE ANALYSIS OR THE FISCAL ANALYSIS

The comments received did not affect the plain language analysis in any significant way nor did they affect the fiscal analysis.

VI. INFORMATION ON ENVIRONMENTAL ANALYSIS

Under the provisions of s. NR 150.03(6)(b)3.b., Wis. Adm. Code, Environmental Analysis and Review Procedures for Department Action, this is a Type III action, since the rule will result in no material adverse impacts to the human environment. Therefore, the Waste and Materials Management program concludes and the Department's Office of Energy and Environmental Analysis confirms that it is not necessary to prepare an Environmental Assessment.

VII. FINAL REGULATORY FLEXIBILITY ANALYSIS

The proposed rule will not have a significant economic impact on a substantial number of small businesses. Under existing rules, a sediment manager, when cleaning out a storm water management structure, must either pay the price of taking the sediment to a licensed landfill or pay for the Department to review an exemption request. Under the proposed rule, the sediment manager still has the option to take the sediment to a landfill or choose a different end use, often at a reduced cost. If the basin from which the sediment is derived meets certain criteria,

the sediment does not need to be sampled prior to determining the appropriate end use, allowing for significant savings. If the basin does not pass the criteria, the sediment must be sampled and analyzed prior to selecting an end use. The cost in this case, would be similar or less than that under the existing rule. The list of sampling parameters is usually less under the new rule and a fee to have an exemption reviewed is not charged.

Under the existing rule, if the sediment is not disposed of in a landfill, the sediment manager must provide a written exemption request which evaluates the sampling results and discusses the proposed end use for the sediment. No set format is established so each exemption request is written up differently and evaluated by the Department on a case-by-case basis. The new rule has the advantage of providing exactly what information must be collected, so it saves time and money when the sediment manager is preparing requests for proposals to send to prospective bidders. The record retention cost under the two rules would be similar. Under the proposed rule, the sediment manager must fill out a certification form and keep the sampling results on hand. However, the rule allows the Department to develop an on-line system in the future to receive and store records. If an on-line system is not available or the sediment manager chooses not to use it, the sediment manager must retain the completed certification forms and the sediment sampling results and site management records for 20 years (the expected amount of time between maintenance events.) If the sediment manager chooses or is required to use the on-line system, the retention requirements are waived.

**ATTACHMENT 1
Hearing Summary Report
Proposed NR 528**

The Department held two public hearings in February 2009. A brief summary of the appearances at these hearings is provided in the table below and is followed by the comment by comment summary. Four verbal comments were received at the hearings. These are included and are addressed, along with the written comments, in the appropriate section of the response summary.

Hearing Location	As interest may appear	In Support	Opposed
Wausau (Feb. 11)	4		
Madison (Feb. 12)	4	2	
Total	8	2	0

**Summary of Responses to Public Comments
Received on Proposed NR 528**

General support for NR 528 support and appreciation of Department efforts

1. COMMENT: The City of Wausau (CWAU¹) (oral comment) indicated that it supports the proposed rule and appreciates having alternatives for use of the sediment besides taking it to a landfill. The rule should save the city money. Similar support was expressed by (MEG/LWM) who stated that, in general, proposed NR 528 is a positive step forward in the management of accumulated sediment removed from stormwater structures. It is critical that the rule facilitate and encourage the maintenance of stormwater ponds in a cost effective manner and to provide disposal options other than landfilling.

1.1 COMMENT: Patrick Stevens (WBA) (oral comment) indicated that he and his stakeholders-WBA would like to go on record in support of most of the proposed changes to NR 528 “... we would like to thank the Department of Natural Resources for providing us with an opportunity to serve on the technical advisory committee that worked on this rule proposal. WBA appreciates the Department’s willingness to undertake extensive, open, constructive dialogue with the members of the TAC to develop this rule. We (WBA) commend the Department staff for their efforts on this matter.” Similar statements were expressed at the Madison hearing (oral comment) by Lori Grant on behalf of (RAW) Ms. Grant said that the rule development took into consideration the bulk of the concerns the Technical Advisory Committee had.

RESPONSE: The Department appreciates the support received from and the perspective provided by the Technical Advisory Committee (TAC) members and looks forward to consulting with the TAC and others while developing technical support materials to assist in implementing the rule.

Complexity of NR 528 and need to develop support materials to make as understandable as possible

2. COMMENT: Lori Grant’s (oral comment) main concern was to make sure that the proposed rule encourages storm water managers to maintain their ponds to ensure that surface water protection is as streamlined as possible and to encourage people to manage their ponds adequately so they function as

¹ Please see table at end of document for key to acronyms.

intended in protecting the waters of the state. She indicated that the proposed sediment management rule has achieved a balance between protecting the environment and assuring the ponds are managed properly. However, she remains concerned that the rule has become more complex and desires an accompanying guide document that puts things in layman's terms. (RAW)

RESPONSE: The Department understands this issue and continues to work to make the rule and associated certification form as easy to understand and use as possible. The Department will also attempt to make the rule requirements more clear through the use of an on-line technical guide document. The Department looks forward to working in partnership with the Technical Advisory Committee in developing the on-line technical support materials.

2.1 COMMENT: For ponds in relatively large communities, there should be someone on staff who is qualified to make the types of judgments and evaluations that are necessary. But for smaller communities where there is one maintenance person who may or may not have a High School education or may not understand environmental, chemical, water quality issues, it might be a problem. There seems to be a leap of faith that all sediment managers will possess the necessary background. (DECO)

RESPONSE: The Department, with the advice of the Technical Advisory Committee, has used the certification form to provide both credibility and accountability in sediment management. The certification form requires, except in the case of "clean" sediment, that the person signing must be qualified and must have a professional license or registration.

Related to applicability, clarifying notes

3. COMMENT: In several places NRT recommends the addition of a reference to s. 30.20, stats. relating to removal of material from beds of navigable waters, to make it clear the NR 528 rules do not apply to dredging of navigable waters and that the code has specific applicability to managing sediment derived only from storm water management structures. As such, we recommend enhancing the applicability section to clarify that it is not applicable to remediation projects for sediment derived from other surface waters of the state (e.g., rivers, lakes, streams). Concern is that there is too much potential for readers to miss these important stated facts. (NRT)

RESPONSE: The Department has added language in NR 528.02 (3)(b) (Applicability) to make it clear that the rule does not apply to material removed from beds of navigable waters.

3.1 COMMENT: This provision (NR 528.02 (2) (c), Applicability) indicates that chapter NR 528 would not apply to the disposal of hazardous waste. The language implies that some sediment may be considered hazardous waste. The Department should clarify that accumulated sediment is not a hazardous waste. (WBA)

RESPONSE: It is beyond the scope of the proposed rule and there are statutory obstacles that limit the authority of Department staff to make any assertions regarding whether or not accumulated sediment could, in some instances, be a hazardous waste. However, based on available sediment data and EPA sources the Department believes that the sediment will rarely, if ever, be hazardous. The Department has added a note to this effect under "Applicability" and will provide appropriate information in its forthcoming technical guide document.

3.2 COMMENT: The proposed rule does not provide for an appeals process to allow for exceptions to the rule. I would recommend allowing the Sediment Manager to be able to apply for an exception to the rule if certain parts of the rule cannot be met. It would allow for the sediment manager to apply to the Department for review if all criteria cannot be met. (CWAU)

RESPONSE: The intent of the rule is to allow the sediment manager to make evaluations and decisions with little DNR input and it is implicit that case-by case determinations would increase Department oversight and would be contrary to the streamlining philosophy of the rule.

Related to definitions

4. COMMENT: Under the definition of storm water management structure in NR 528.03(11) the language detains, retains and treats is unclear. A system that retains water would seem to preclude dry detention ponds but they are included in the following sentence. Perhaps it would be clearer to define these as ponds that detain or retain storm water for treatment. (MEG/LWM)

RESPONSE: Agreed. We have revised the definition to make it clear that these are treatment devices that may achieve sediment reduction while detaining or retaining storm water.

4.1 COMMENT: We support the concept of NR 528.06 that gives a limited form of exemption to sediment from those areas where we have a high degree of confidence that the material is clean. However, NR 528.06 (2)(a) is too restrictive in several respects. First, benign open space uses of land which have the potential to be categorized as institutional such as cemeteries and parks or similar spaces that could be categorized as commercial, such as golf courses, should be exempt from contributing to the percentage limit. This could be accomplished by adding a "residential and open space" definition to NR 528.06(2)(a) or by specifically exempting them in NR 528.06(2)(a). Second we also think that the concept of residential should include at least some family and residential uses. Again a definition would be able to address this issue. (MEG/LWM)

RESPONSE: While the certification form clarifies that open space and cemeteries would be treated as benign source areas, the rule language did not include that concept. The certification form also separates one and two family dwellings from multi-family residential and this may not be clear in the rule. As suggested, the solution is to add definitions. We have added definitions for multi-family, institutional, industrial and commercial and clarified the rule language to exclude green space such as parks, cemeteries and golf courses.

4.2 COMMENT: Would like the definition of single family and multi-family clarified. The rule is confusing and would benefit from being simplified. DNR should expand NR 528.06(2)(a) so that more drainage areas would fall within these criteria. DNR should increase the percentage of non-residential allowed to fall within this provision. Moreover, DNR should eliminate "multi-family residential" from the combined uses that must total less than 15%. In addition, "multi-family residential" needs to be defined. Typically, one and two family dwellings are not considered multi-family. (WBA)

RESPONSE: See response to comment 4.1 above about definitions. As to the request for an expansion of NR 528.06(2)(a), the land uses identified under the 15% are considered higher risk land uses because of the higher pollutant loads associated with them. These land uses also tend to have higher percentages of connected impervious surfaces so the pollutant load from those sources (for example parking lots and roads) will reach the pond. These areas could have been excluded completely, but the decision was to allow up to 15% of these land uses. The Department has also excluded green spaces so as not to be too restrictive. Multi-family land use typically has a high percentage of parking lots and they are usually connected to the storm sewer. The risk from this land use is higher than for one and two family dwellings. The Department believes it is appropriate to continue to include them in the 15% cutoff.

4.3 COMMENT: NR 528.03 (11): Clarify whether the definition is meant to be inclusive of structures within a conveyance system (e.g., manholes) that primarily serve to collect/discharge storm water (versus detention, retention or treatment); NR 528.02 (3)(a): How then are these devices and accumulated materials regulated, or are they not regulated under solid waste rules? (NRT)

RESPONSE: We have clarified the definition to include devices that treat, rather than convey, storm water. However there is a category of devices that are built into a conveyance system such as catch basin sumps and underground structures and these are not included in this code. The Applicability section and the definition of storm water management structures have been modified to clarify that point. As a result, sediment that accumulates in these structures will continue to be subject to the solid waste rules and cannot be handled using the procedure identified in NR 528.

Related to locational criteria/setbacks and end use

5. COMMENT: The Department should reconsider some of the separation distances contained in Table 1. For example, the 500 foot separation distance for wetlands seems unnecessarily restrictive. In reference to Table 1, it is difficult to stay 500 feet back from a residence if you're in the city. (CMAD) Suggestions included requiring a 100 foot setback from the lot line as an alternative. (Oral comment - CWAU). Similarly, we question whether there is a need for the distance restrictions for health care facilities. (WBA)

5.1 COMMENT: We have two sets of concerns on the locational criteria. First, the exemptions from the locational criteria in NR 528 are too narrow. Second we believe that the 500 foot separation distance from lake, wetland pond or any navigable waterway or sinkhole is too high. Setbacks for construction and fills are much less under shoreland zoning in NR 115 and stormwater management protective zones in NR 115.21. Again the performance standards under NR 528.04(2) still need to be met so the resource will be protected. However 500 feet around any stream or wetland will substantially limit the placement of otherwise acceptable fill in many locations. We would recommend that this be made consistent with NR 151 separation distances. (MEG/LWM)

RESPONSE to 5.0 and 5.1: The Department agrees that the 500 foot setback to a waterway or water body contained in Table 1 may safely be reduced and has revised the rule by reducing the setback in Table 1 from 500 feet to 200 feet. The Department also agrees that the separation to a residence may be safely reduced from 500 feet to 250 feet and has revised Table 1 accordingly. The risk and aesthetic considerations are similar to those addressed in ch. NR 502 which requires a 250 foot setback from "... land owned by a person other than the owner or operator of the facility ...". In addition, the footnote to Table 1 in NR 528.04 has been modified to allow a reduced setback from schools and health care facilities provided the pathogen levels are below a specific threshold. Further, the rule already provides an exemption from the locational criteria for: "clean" accumulated sediment – sediment that meets the criteria in NR 528.06 (2); sediment used in a confined fill; and sediment managed under the jurisdiction of another authority.

5.2 COMMENT: The note to the "General Fills" section indicates that these are the same kinds of projects such as roads and abandonment of mines that are in NR 528.07(3) and (7). In addition these areas are still protected because the disposal will need to meet the performance standards under NR 528. (MEG/LWM)

RESPONSE: The Department has revised the notes that appear under both "General Fill" and "Confined fill" to make them more clear and eliminate confusion. The Department has also changed the use of the term "confined fill" throughout the rule to "confined geotechnical fill" to be consistent with the definition used in NR 538 Beneficial Use of Industrial Byproducts. The definition of

“Confined geotechnical fill” has been changed to reference NR 538 and a note added to indicate what the definition says.

5.3 COMMENT: We believe that general fill should be exempt from the location criteria given that the material is below the ceiling levels contained in 528.04 (4). (WBA)

RESPONSE: The Department believes it is not appropriate to waive locational criteria for general fill because the site may be opened up for an entire growing season or for a maximum of six months and therefore may be subject to air and water erosion risks or become a nuisance to nearby landowners due to fugitive dust. The Department agrees that the setbacks contained in Table 1 are not necessary in all cases and makes distinctions based upon risk management. For instance, sediment deemed clean by virtue of passing the criteria in NR 528.06 (2) are not subject to the locational criteria. Likewise, sediment used in a confined fill as under NR 528.07(3) is exempt from the locational criteria.

Related to laboratory certification and registration

6. COMMENT: Can a lab be registered to perform the testing specified in NR 528.06(3)(b) ...or is certification specifically being required? (SLH) What about our concern that certified or registered labs could be performing the analyses in question? Under Stat. 299.11 (8), a registered lab is limited to doing analysis solely on its own behalf, on behalf of a subsidiary or other corporation under common ownership, or behalf of the municipality or municipalities under which it is controlled. Does the proposed code grant greater leeway than that allowed by Statute? (TA)

6.1 COMMENT: Do all the parameters listed in NR 528.06(3)(b)1-5 need to be performed by a certified (or registered) lab? Or will some of these analyses be exempt from the certification (registration) requirement? (SLH)

6.2 COMMENT: NR 528.06 (3) (b) 2. – The leaching process associated with landspreading would not result in as efficient of leaching of the nitrogen, phosphorus, or potassium as the required sample preparation procedures followed by environmental laboratories. This type of testing (the determination of nutrients for landspreading) is generally performed by soils testing laboratories who are not required to be certified under NR 149. That constituency may need to be brought into his discussion, or the techniques they follow may need to be introduced to the environmental lab community. (TA)

RESPONSE to comment numbers 6, 6.1 and 6.2: The Department believes it is appropriate to allow registered as well as certified labs to analyze sediment samples for parameters such as heavy metals, priority pollutants and other organic pollutants. However, the Department believes there are some parameters for which it is not necessary to require a registered or certified lab such as physical parameters, nutrients, pH, soluble salts and pathogens. The Department has modified the rule to make it clear which parameters are and are not required to be sampled by a registered or certified lab.

Related to sediment evaluation - sampling, and collection procedures, parameters, analysis and expression of results

7. Oral COMMENT: Questions the need to sample for nitrogen and phosphorous if the sediment is going to be used for fill and these parameters are not listed in Table 2. Department should consider not requiring these tests if the sediment is planned to be used as fill. (CWAU)

RESPONSE: Because in cases such as a general fill there may be concerns relative to groundwater or fugitive dust the Department believes the existing parameter list is appropriate.

7.1 COMMENT: We support the Department's plan to create a self-implementing procedure for managing sediment from stormwater structures. Reduced Department oversight makes it all the more important, however, that the state continue to require adequate testing of sediments. (BA)

RESPONSE: The Department agrees but is of the opinion the existing testing paradigm is cost effective and flexible enough to support a risk-based self implementing program.

7.2 COMMENT: NR 528.06 provides that no sediment sampling is required prior to landspreading sediment from a drainage area that has less than 15% commercial, multi-family, institutional or industrial land uses. As a result, sediments that have the greatest probability of contamination will be eligible for landspreading without testing solely because they derive from structures that also serve residential or agricultural properties. Testing should be required for sediment from any structure serving an industrial land use and for some commercial land uses including gas stations, automotive repair facilities, oil change businesses, and transportation related facilities including roadways. (BA)

RESPONSE: The Department has chosen to employ a percentage of land use falling under the categories of open space and residential area as a 'clean sediment' threshold. The basis for this threshold is that sediment generated from a drainage area meeting the criteria will be low in contaminants provided there are no unusual circumstances, historical spills or other historical reason for unusual levels of contamination. However, should that threshold be exceeded, or if there are historical land use factors that increase the risk, then the rule requires both sediment sampling and professional evaluation and certification on a form provided by the Department. While it may be possible for sediment that is generated in areas that are below the land use threshold to have unexpectedly high levels of contamination, as indicated above, NR 528.05 and NR 528.06 require appropriate evaluations to ascertain the risk and this process is documented on the certification form required under NR 528.06(4).

7.3 COMMENT: NR 528.06(3)(a)2 requires only one sample for ponds of fewer than four acres. Particle size, however, will determine where sediment accumulates. To ensure a representative sample, four samples should be taken and a composite submitted for lab analysis. (BA)

RESPONSE: The Department agrees with the need to obtain a representative sample. The intent of NR 528.06(3)(a)2.c. is to require more than one sample to represent the variability in the sediment. To make this clearer in NR 528.06(3)(a)2.a. the Department has added language indicating it may require multiple samples composited together to obtain a representative sample. To help determine the appropriate number of samples, the Department has added a note and a link in NR 528.06(3)(a) referring to a comprehensive EPA guidance document on sampling sediment and similar materials. This will also be provided in the on-line technical guide the Department plans to develop to facilitate implementing the rule.

7.4 COMMENT: For purposes of clarity we would recommend that NR 528.06(3)(a)4. be incorporated in the preamble of that section rather than a note and a provision in the next section. The section could read: "If the drainage area does not meet the criteria in sub. (2), the sediment manager shall ensure that routine sampling is performed in accordance with par b and sampling and analysis is performed under the supervision of an environmental professional in accordance with par c unless conditions in the drainage area have not changed significantly since the previous sediment sampling event in which case previously collected data from the same storm water management structure may be used. (MEG/LWM)

RESPONSE: The Department substantially agrees with the comment and has modified the rule language accordingly and eliminated the note.

Related to parameters and analysis – Salts

8. COMMENT: When seeking the best parameter to evaluate the risk, if any, inherent to the salt content of the sediment, as proposed in NR 528.06(3)(b)1, is electrical conductivity the best measurement. Is there another better or more appropriate way to identify the testing required? Also, NR 528.06(3)(b)1, lists "electrical conductivity as a saturated paste" - is this the same as "Specific conductance" under ch. NR 219? (SLH) (TA)

8.1 COMMENT: In 528.04 (4) Table 2, isn't "dS/m" (deciSiemens/meter) the currently recognized unit of measure for reporting specific conductance? 1 mmho/cm = 1 dS/m. (SLH)

RESPONSE: to comment numbers 8 and 8.1. The Department has kept electrical conductivity (EC) as a saturated paste because a likely use for the sediment is in an agronomic environment. EC tests are likely to be run by experienced agricultural laboratories and EC is most familiar to agricultural laboratories ascertaining salt content to ensure it has no detrimental effect on crops or other vegetation. The Department agrees that EC results would more appropriately be expressed as deciSiemens/meter (dS/m) and has revised the code accordingly.

Related to parameters, analysis and reporting

9. COMMENT: NR 528.06(3)(b)1: Clarify that "percent organics" means total organic carbon, or does it mean percent organics by the loss-on-ignition test? (NRT) (TA)

9.1 COMMENT: In NR 528.06(3)(b)1, could you be more specific with what testing is required to determine "percent organics"? Are you referring to the determination of "organic matter", using a method such as the Walkley-Black procedure (oxidation of matter with potassium dichromate and then determine the amount of un-reduced dichromate by titration with ferrous ammonium sulfate followed by application of a conversion factor)? Or is percent volatile solids a satisfactory alternative? (SLH)

9.2 COMMENT: NR 528.06(3)(b)2. – Define the reporting units for total Kjeldahl nitrogen, total nitrate nitrogen, total phosphorous and total potassium. Do you report as % or mg/kg? Is this on a dry weight basis?

9.3 COMMENT: Are the ceiling levels identified in NR 528.04 (4) and results associated with testing performed under NR 528.06(3)(b) required to be reported on a dry weight basis? (SLH)

RESPONSE to comment numbers 9.0, 9.1, 9.2, and 9.3. The Department agrees and has revised NR 528.06(3)(b)1. and NR 528.06(3)(b)2. in the proposed rule to make it clear that the above parameters are to be reported as mg/kg on a dry weight basis. Similar Department programs and administrative codes that regulate wastewater sludge, (Chapters NR 204 and NR 214) refer to ch. NR 219. This code provides approved analytical procedures for the parameters required by proposed ch. NR 528 as well as for sample handling and preservation techniques. The above-cited administrative codes require that methods documented in chapter NR 219 be employed. In addition, the Department recommends consulting the procedures employed by the University of Wisconsin Soil and Plant Analysis Laboratory for tests that are agricultural in nature. These procedures are available at: <http://uwlab.soils.wisc.edu/madison/index.htm?../fees.htm&contents.asp?menu=1>. As stated elsewhere, the Department will provide links to these and other sampling and analytical references in forthcoming technical support materials.

Related to parameters and analysis – Fecals

10. COMMENT: NR 528.04 (1) and NR 528.06(3)(b)1, both refer to enumeration of fecal coliform, yet the EPA and many states are switching (or have switched) to the enumeration of E. coli as the indicator organism for pathogens. Should these citations reference back to NR 204.06 (2)(b)4. or NR 204.07(6) to facilitate updates in the event the agency moves towards something other than fecal coliform as a key indicator of pathogens? (SLH)

RESPONSE: The Department agrees it would be helpful to reference NR 204.06 (2)(b)4. and NR 204.07(6) to clarify the pathogen indicator test and allow for future decisions regarding the use of a better pathogen indicator that become codified to be “automatically” incorporated into NR 528. The rule has been revised to reflect this including a citation to NR 204.

10.1 COMMENT: In proposed NR 528.04 Table 1 and in proposed NR 528.07 (4) (f), fecal coliform levels are expressed as 1,000 MPN per dry gram weight - would it be more accurate to express this, as it is done in NR 204.07 Table 5, as "fecal coliform colony densities equal to or less than 1,000 MPN per gram total solids"? (SLH)

RESPONSE: The Department agrees and has changed the language to refer to the pathogen indicator organism testing in NR 204.07(6). Currently the testing requires “fecal coliform density equal to or less than 1,000 most probable number (MPN) per gram total solids on a dry weight basis,” but because the testing in NR 204.07(6) may change over time the Department refers to the section of the rule, not the specific test.

10.2 COMMENT: NR 528.08 (3) (b) 4. Fecal coliform analysis is not currently certified under NR 149, nor any other Code. (TA)

RESPONSE: The Department has modified the rule language so analyzing the sediment for the pathogen indicator organism is not required to be performed at a certified or registered laboratory.

Related to use and interpretation of parameters (indicator, elevated and ceiling levels) and technical support - assistance

11. COMMENT: NR 528.06(3)(b) omits sampling for PAH, mercury, oil & grease, TOC, PCB, and pesticides, all testing which has historically been required. Given the prevalence of petroleum-related contamination, these parameters should continue to be evaluated and used to determine whether a sediment can be safely placed into the environment through landspreading or other alternatives. (BA)

11.1 COMMENT: NR 528.06(3)(b) establishes various indicator parameters but has used them inefficiently. There should be a two-phased analysis approach with the first phase including analyzing only the indicator parameters electrical conductivity, pH and fecal coliform. It is our understanding that it is unlikely that a sample would contain metals without resulting in a measure of electrical conductivity. If so, further metals analysis could be done if there is an exceedance of the electrical conductivity parameter. In addition, as we have noted above, there should be an addition to Table 2 to give meaning to an “elevated level” under NR 528.06 (4)(b). (MEG/LWM).

11.2 COMMENT: The statement “elevated levels of contaminants” as used in NR 528.06(4)(b) and NR 528.06(5)(c): is subject to variable interpretation and needs to be clarified. Explain the meaning of “elevated levels of contaminants.” (NRT). Add information to give meaning to what “elevated level” means under NR 528.06(4)(b). (MEG/LWM)

RESPONSE to comments 11.0, 11.1 and 11.2: The Department believes the proposed approach, based on discussions with the Technical Advisory Committee (TAC), is preferable. The parameter list is very similar to that used in other Department codes that address similar needs both in terms of how it is organized and with respect to the list of required parameters. These other Department codes that address similar needs include chapters NR 518, NR 204 and NR 214. Further, the Department believes that the streamlined approach developed in consultation with the TAC is, in effect, a "two-phased program". The proposed rule attempts to minimize the cost of obtaining data through the use of an abbreviated list of indicator parameters. The rule employs a screening process to determine if additional data are needed. This process allows the flexibility to gather the necessary data, in the context of risk management, and yet to avoid gathering unnecessary data. NR 528.06(3)(b)5. addresses the need in some circumstances to test for additional parameters such as polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), mercury, pesticides, etc. In addition, the Department has added language to NR 528.06(3)(b)5.e. to better define, "elevated levels of contaminants" by indicating that "elevated" means concentrations significantly above background. This language clarifies that simply finding a "detect" would not constitute an "elevated level." The Department, in working with the TAC, has acknowledged the need to provide on-line technical support resources to supplement the code language. The Department has formalized this in proposed rule language under NR 528.09 Department Assistance. In addition, the note placed under NR 528.06 (4) specifically indicates the technical support resources are intended "to assist in evaluating the data when addressing elevated levels of contaminants." The Department intends to develop these technical support resources with input from the TAC and others.

11.3 COMMENT: NR 528.04(4): While using ceiling levels as a screening tool for sediments that must be landfilled allows a cost effective and streamlined materials management process, it has potential to require landfilling of materials that can be otherwise managed in an environmentally sound manner. The Department is currently reviewing potential revisions to NR 720 to eliminate a short list of constituents and move toward a more comprehensive risk-based determination of clean-up requirements. Rather than promulgating absolute ceiling levels, can there be a process established that is consistent with direction being considered for soil management decisions under the NR 700 process? (NRT)

RESPONSE: The Department believes the ceiling levels used in the proposed rule are appropriate for this rule application. Due to the limited scope of the rule (streamlining our existing process), as approved by the Natural Resources Board (NRB), it would not be appropriate to develop the comprehensive risk-based determination such as the approach being considered by the Remediation and Redevelopment (R&R) program. Further, the specific approach being considered by the R&R program is still in the development stage. In the future after an approach has been finalized and if the NRB approved expanding the scope of this proposed rule, the Department could consider incorporating an R&R type risk-based approach.

Related to record keeping and liability

12. COMMENT: Why are we not making on-line reporting a part of the rule? On-line reporting would relieve the reporter from keeping the record for 20 years. (NRB)

RESPONSE: The Waste and Materials Management program is not currently capable of accepting on-line reporting for this application but will include this as part of our current multi-year project to integrate our information technology applications into a "program-wide" system. To accommodate the future ability to accept the information on-line, the Department has added language to the rule allowing the establishment of an on-line system which would in-turn allow the sediment manager to submit the information on-line rather than retaining it for 20 years.

12.1 COMMENT: Would a sediment manager be liable for the mismanagement of sediment disposal for 20 years (or in perpetuity)? If records need only be retained for 20 years, shouldn't there be some sort of liability cap as well? (DECO)

RESPONSE: There is no connection between the period of record retention and liability. There would be no limitation on liability except as provided for in existing law. However, this proposed rule, in NR 528.08, does require a 20 year retention period for forms and records.

Related to sediment uses such as dedicated sites, landspreading and loading rates

13. COMMENT: While municipalities may not undertake landspreading often they might use dedicated sites. NR 528.07(5)(b)(4) sets the annual application rate or lifetime loading limit for a dedicated sediment management site at the same limit for Landspreading, NR 528.07(4)(b). Five dry tons an acre is a very thin application rate. If one dry ton equals one cubic yard then the loading rate per acre would be 1 inch. Even several times that rate would effectively eliminate this option. While the landspreading limit is adjustable according to NR 528.07(5)(b) 2. and that is carried over in NR 528.07(5)(b)4., for a dedicated sediment management site that still must comply with the locational criteria and performance standards of NR 528.04(1)-(2), this seems overly restrictive. (MEG/LWM)

RESPONSE: The landspreading rates are consistent with the normal practice in other Department programs that all regulate the landspreading of industrial and municipal sludge. The issue of appropriateness of applying locational criteria is addressed under comment number 6. The Department has added language to NR 528.07(5)(b)4. to clarify that the requirements for a dedicated site are not more restrictive than those for a landspreading site under NR 528.07(4)(b).

Related to compliance

14. COMMENT: What happens if someone doesn't comply with the rule? How will you know? What enforcement action will the Department take if there is non-compliance? These are not addressed in the rule. (DECO)

RESPONSE: The Department has a stepped enforcement process that applies to all programs so it is not addressed in each individual code. Enforcement and penalties are addressed under Subchapter VIII of Chapter 289. Enforcement authority is provided under s. 289.97, Stats., for any violation of any rule promulgated under authority of ch. 289. There are provisions for penalties in s. 289.96 that may be assessed. Compliance will be based on complaints and there is language under NR 528.10 which allows the Department access to sites and records.

Related to comments suggested by the Wisconsin Legislative Council Rules Clearinghouse

15. COMMENT: Comments were made regarding: 1) form, style and placement in administrative code; 2) adequacy of references to related statutes, rules and forms; 3) clarity, grammar, punctuation and use of plain language. (WLCRC)

RESPONSE: The Department accepted these comments and made changes to rule language in response to each of them. The only change not incorporated was the recommendation to delete the phrase, "under the supervision of an environmental professional" in NR 528.06(3)(intro.) and 528.06(4)(intro.) because it is confusing. The Department eliminated the confusion by adding a definition of "environmental professional" to the rule language.

Table Listing Those who Commented and Acronyms Used in Summary Response

BA - Broydrick & Assoc., written comments submitted by Lynn Morgan.
CMAD - City Madison, written comments at February 12, 2009 public hearing and written comments submitted by Greg Fries.
CWAU - City of Wausau, oral comments at February 11 public hearing and written comments submitted by Allen Wesolowski.
DECO - Davy Engineering Company, written comments submitted by Daniel Uhl.
MEG/LWM - Municipal Environmental Group/League of Wisconsin Municipalities, oral comments from Julie Baldwin at February 12, 2009 public hearing and written comments submitted by Paul Kent.
NRB - Natural Resources Board, written comments submitted by Dave Clausen.
NRT - Natural Resources Technology, written comments submitted by Richard Webb.
RAW - River Alliance of Wisconsin, oral comments at February 12, 2009 public hearing by Lori Grant.
SLH - State Laboratory of Hygiene, written comments submitted by George Bowman.
TA - TestAmerica, written comments submitted by Paul Junio.
WBA - Wisconsin Builders Association, oral comments at February 12, 2009 public hearing and written comments submitted by Patrick Stevens.
WLCRC - Wisconsin Legislative Council Rules Clearinghouse.

NOTICE: This form must be completed and retained by the sediment manager prior to the initiation of the end use of accumulated sediment from a stormwater management structure, in accordance with ch. NR 528, Wis. Adm. Code. Completion of the worksheets included in this form directs the user to the appropriate level of certification necessary to comply with the requirements of ch. NR 528, Wis. Adm. Code. Failure to accurately fill out this form or comply with the requirements of ch. NR 528 is subject to enforcement under secs. 289.96 and 299.97, Wis. Stats. The user may consult technical support materials provided by the department to assist in the management of accumulated sediment in a beneficial and safe manner. Personal information is not intended to be used for any other purpose, but may be made available to requesters under Wisconsin's Open Records laws (s. 19.35, Wis. Stats.).

Anyone completing this form must complete Sections 1, 2 and 3. Unless otherwise directed, the sediment manager shall complete Part A and if appropriate, ensure that Part B is completed.

Section 1 - Basic Information

Contact Name

Company

Contact Title

Telephone

Mailing Address

City

State

Zip

Email Address

Section 2 - Site Specific Information

Name of Storm Water Management Structure

Location (Township, section, range)

Construction Year

Date sediment was last removed (if applicable)

Section 3 - End Use Site Information

Location of Site where Accumulated Sediment is to be used (Township, section, range)

Briefly describe manner in which the accumulated sediment will be used in accordance with s. NR 528.07, Wis. Adm. Code.

Part A Sediment Manager Certification

To be completed by the sediment manager to evaluate the drainage area from which the accumulated sediment was removed and determine if the certification criteria listed below have been met.

Part A Worksheet

Information on Drainage Area to Storm Water Management Structure

Percent of Land Uses	
	Open Space (parks, cemeteries, woodlands, golf courses)
	1 and 2 Family Residential
	Multi-Family Residential (3 or more)
	Institutional (schools, hospitals, churches, offices)
	Light Industrial (no outdoor material storage)
	Commercial (malls, shopping centers)
	Heavy Industrial (some outdoor material storage)
Presence of Areas of Suspected Contamination or Other Concerns Based on Site History (Yes or No)	
	Outside storage and loading areas of industries
	Vehicle Fueling and Maintenance areas (gas stations)
	Arterial Roads (multi-lane, high traffic)
	Commercial with 40 or more stalls
	Leaking underground storage tanks currently or previously on property
	Spills of chemicals, oil or hazardous materials
	Dedicated snow storage areas
	Agriculture land use history suggests persistent pesticides may be in sediment
	Other?

Refer to Part A Worksheet prior to certifying the information below.

Based on Part A Worksheet, I determine the drainage area to the storm water management structure meets the following criteria (check any that apply):

- 1. Has less than 15% commercial, multi-family residential, institutional and industrial land uses combined.
- 2. Has no areas of suspected contamination.
- 3. Has no other existing conditions or known historical events that may affect the likelihood of safe sediment management.
- 4. Has no reported hazardous substance spills per ch. 292.11, Stats. since construction or since accumulated sediment was last removed (provide date of last sediment removal in Section 2).

Based on whether the above four criteria are met, the following steps have been taken (check any which apply):

- The drainage area to the storm water management structure meets all 4 criteria so sampling under s. NR 528.06(3), Wis. Adm. Code is not required and I am certifying under Part A and do not have to complete Part B.
- The drainage area to the storm water management structure does not meet all 4 criteria so sampling under s. NR 528.06(3), Wis. Adm. Code is required and an environmental professional must certify under Part B.

Records are being maintained as follows (check if true):

- Record retention is performed in accordance with s. NR 528.08, Wis. Adm. Code.

Certification Statement

I hereby certify that the accumulated sediment will be used in the manner specified in Section 3, the performance standards in s. NR 528.04(2), Wis. Adm. Code will be met and the erosion control measures in s. NR 528.04(3), Wis. Adm. Code will be implemented. I certify that the information provided in sections 1, 2 and 3 and Part A on this form is true, accurate and complete to the best of my knowledge and I agree to retain this form and other data records in accordance with s. NR 528.08, Wis. Adm. Code. I am aware that violation of these requirements is subject to enforcement under secs. 289.96 and 299.97 Wis. Stats.

Sediment Manager

Title

Date

Part B Professional Certification

Part B must be completed by a professional geologist, hydrologist, engineer or soil scientist.

Based on information obtained in Part A, the following action was taken (check those that apply):

- The drainage area meets criteria 2, 3 and 4 but does not meet criterion 1, so routine sampling under NR 528.06(3)(b)1. to 4. was performed under my direction, I reviewed the results and have determined the following actions will be taken (check any which apply):
 - NR 528.04(4) Table 2 ceiling levels were exceeded so the sediment will be taken to a licensed landfill.
 - NR 528.04(4) Table 2 ceiling levels were not exceeded but sampling results for indicator parameters listed under NR 528.06(3)(b)3. and 4. indicated elevated levels of contaminants, so follow-up sampling in accordance with NR 528.06(3)(b)5. has been performed and I have evaluated the results under Part B2.
 - NR 528.04(4) Table 2 ceiling levels were not exceeded and the sampling results for indicator parameters listed under NR 528.06(3)(b)3. and 4. did not indicate elevated levels of contaminants, so I am recommending the end use described under Section 3 and complete certification statement.
- The drainage area does not meet criteria 2, 3 or 4, so go to Part B1 to determine additional parameters to add to the routine sampling.

Part C Dedicated Sediment Management Site Certification

To be completed by the sediment manager wishing to use accumulated sediment at a dedicated sediment management site in accordance with NR 528.07(5). Sections 1, 2 and 3 at the beginning of the form must also be completed.

The following management requirements have been implemented at the dedicated sediment management site (check those that apply):

- Site is owned or leased by a municipality or other responsible unit of government.
- Sediment application at a depth of 18 inches or less below ground surface.
- Additional practices to control run-on and runoff or monitoring of soils, plant tissue or other environmental receptors or evaluation of sampling data to ensure safe long term site use pursuant to NR 528.07(4)(b).
- Record retention was performed in accordance with NR 528.07(5)(d).

- An affidavit indicating the site has been used as a dedicated sediment management site has been filed in the registrar of deeds office in the county where the site is located.

Certification Statement

I am a professional engineer registered to practice in Wisconsin or a geologist, hydrologist or soil scientist licensed to practice in Wisconsin and am qualified by training and experience to evaluate the potential for soil, surface water and groundwater contamination from the end use of accumulated sediment.

I hereby certify that the accumulated sediment is not a hazardous waste, as defined by s. NR 661.03, Wis. Adm. Code. I hereby certify that the information provided in Part B, B1, B2 and C on this form is true, accurate and complete to the best of my knowledge. Based on my evaluation of the accumulated sediment sampling results, intended end use, site specific factors at the use site and management practices I certify that if the end use chosen in Section 3 is properly implemented, the site will meet the performance standards in s. NR 528.04(2), Wis. Adm. Code and it is likely the site will not cause any significant risk to public health, safety or welfare or the environment.

My professional opinion is given to a reasonable degree of professional certainty, and is based upon my evaluation of reasonable and sufficient information and generally accepted engineering and scientific practices. I am aware that violation of these requirements is subject to enforcement under secs. 289.96 and 299.97 Wis. Stats.

Engineer/Geologist/Hydrologist/Soil Scientist	Title	Date

Registration Number	Seal

Part D Coarse Grained Sediment Certification

To be completed by the sediment manager wishing to dispose of 100 cubic yards or less of primarily coarse grained accumulated sediment such as that found in the forebay. Sections 1, 2 and 3 at the beginning of the form must also be completed.

The following criteria are met (check those that apply):

- The quantity of accumulated sediment to be managed is 100 cubic yards or less.
- No more than 15% of the accumulated sediment material, percent by weight, passes a No. 200 sieve.
- As sediment manager I agree to maintain responsibility for disposal of the accumulated sediment.

- All 3 criteria in Part D are met, so the material does not need to be sampled and the sediment shall be managed in accordance with NR 528.04(1) and (2).
- Record retention was performed in accordance with NR 528.08.
- One or more of the 3 criteria in Part D are not met, so the material may not be managed under NR 528.07(6) so it must be managed under NR 528.05.

Certification Statement

I hereby certify that the accumulated sediment will be used in the manner specified in Section 3 and in accordance with ch. NR 528, Wis. Adm. Code and, the performance standards in s. NR 528.04(2), Wis. Adm. Code will be met. The information provided in sections 1, 2 and 3 and Part D is true, accurate and complete to the best of my knowledge. This form and other data records will be retained in accordance with s. NR 528.08, Wis. Adm. Code. I am aware that violation of these requirements is subject to enforcement under secs. 289.96 and 299.97 Wis. Stats.

Sediment Manager

Title

Date

Fiscal Estimate — 2007 Session

<input checked="" type="checkbox"/> Original	<input type="checkbox"/> Updated	LRB Number	Amendment Number if Applicable
<input type="checkbox"/> Corrected	<input type="checkbox"/> Supplemental	Bill Number	Administrative Rule Number NR 528

Subject
 Management of Accumulated Sediment From Storm Water Management Structures

Fiscal Effect

State: No State Fiscal Effect
 Indeterminate

Check columns below only if bill makes a direct appropriation or affects a sum sufficient appropriation.

- | | |
|--|---|
| <input type="checkbox"/> Increase Existing Appropriation | <input type="checkbox"/> Increase Existing Revenues |
| <input type="checkbox"/> Decrease Existing Appropriation | <input type="checkbox"/> Decrease Existing Revenues |
| <input type="checkbox"/> Create New Appropriation | |

Increase Costs — May be possible to absorb within agency's budget
 Yes No

Decrease Costs

Local: No Local Government Costs
 Indeterminate

1. Increase Costs
 Permissive Mandatory
2. Decrease Costs
 Permissive Mandatory

3. Increase Revenues
 Permissive Mandatory
4. Decrease Revenues
 Permissive Mandatory

5. Types of Local Governmental Units Affected:
 Towns Villages Cities
 Counties Others
 School Districts WTCS Districts

Fund Sources Affected
 GPR FED PRO PRS SEG SEG-S

Affected Chapter 20 Appropriations

Assumptions Used in Arriving at Fiscal Estimate

BACKGROUND

The storm water permit program requires new development, and in some cases existing development, to treat the runoff from impervious surface with water quality practices that remove total suspended solids. This has resulted in an increase in the number of such practices in the last five years and this trend is expected to accelerate in the future. Maintenance of these practices requires removal of the accumulated sediment every 10-20 years, depending on the storage capacity of the storm water management structures (ponds). The person responsible for removing the sediment, the sediment manager, may be a local unit of government including towns, villages, cities and counties and even school districts as well as private entities such as business owners and homeowner associations.

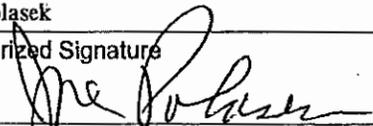
RULE SUMMARY

Under the current solid waste rules, this sediment can be taken to a licensed landfill, or the sediment manager can request an exemption from the department to place the material in a location other than a landfill. This exemption request requires the sediment manager to conduct sediment sampling and lab analysis at the discretion of the department reviewer. The relative newness of these ponds means that department staff has limited information on the environmental risk of this material and so the list of parameters to sample can be lengthy. There is also a fee associated with the request for exemption.

The proposed rule will identify minimum parameters to test for and some key threshold levels to assist the sediment manager in deciding the appropriate end use. The proposed rule also identifies when sampling for additional parameters may be necessary due to the nature of the material. Even when more analysis is warranted because indications of contamination are detected, it is likely that the simplified requirements in the proposed rule will reduce sediment evaluation costs. The sediment manager can use the rule and guidance to select an end use and then follow through with that decision without requesting approval from the department. The proposed rule is based on a self-certification process. This saves both time and money.

Long-Range Fiscal Implications

None

Prepared By: Joe Polasek	Telephone No. 266-2794	Agency Department of Natural Resources
Authorized Signature 	Telephone No. 266-2794	Date (mm/dd/ccyy) 09-19-08

Fiscal Estimate — 2007 Session

**Page 2 Assumptions Narrative
Continued**

LRB Number	Amendment Number if Applicable
Bill Number	Administrative Rule Number NR 528

Assumptions Used in Arriving at Fiscal Estimate - Continued

STATE FISCAL

Implementation of the proposed rule would not increase or decrease the revenue to the department. Currently staff process exemption requests and associated review fees when they are submitted by a sediment manager. However, there have been relatively few requests to date. Therefore, there is not a significant revenue stream from this source. As the number of sediment ponds needing to be cleaned out increases with time, the revenue coming into the department would increase and more staff would be needed for the case-by-case reviews. The department does not have sufficient staff to review these submittals so instead prefers to implement the proposed self-certification approach which requires little direct staff involvement. This approach means the future revenue stream will be less than if the existing program were still being used, but the demand on staff time would be significantly less.

LOCAL AND PRIVATE FISCAL

The cost to sample and analyze for specific parameters is expected in most cases to be less than what is currently required with an exemption request. While it is anticipated that the overall cost to the sediment manager will be neutral or even less than under the current system, this difference cannot be quantified. Therefore the fiscal effect of the proposed rule is indeterminate for both local units of government and the private sector.

Fiscal Estimate Worksheet — 2007 Session

Detailed Estimate of Annual Fiscal Effect

- Original Updated
 Corrected Supplemental

LRB Number	Amendment Number if Applicable
Bill Number	Administrative Rule Number NR 528

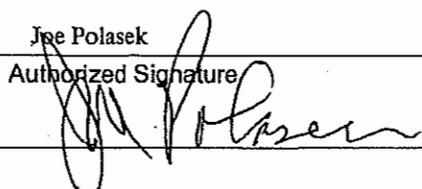
Subject
 Management of Accumulated Sediment From Storm Water Management Structures

One-time Costs or Revenue Impacts for State and/or Local Government (do not include in annualized fiscal effect):
 None

Annualized Costs:		Annualized Fiscal Impact on State Funds from:	
		Increased Costs	Decreased Costs
A. State Costs by Category			
State Operations — Salaries and Fringes		\$ -	\$ -
(FTE Position Changes)		(FTE)	(FTE)
State Operations — Other Costs		-	-
Local Assistance		-	-
Aids to Individuals or Organizations		-	-
Total State Costs by Category		\$ 0	\$ - 0
B. State Costs by Source of Funds			
GPR		\$ -	\$ -
FED		-	-
PRO/PRS		-	-
SEG/SEG-S		-	-
State Revenues	Complete this only when proposal will increase or decrease state revenues (e.g., tax increase, decrease in license fee, etc.)	Increased Revenue	Decreased Revenue
GPR Taxes		\$ -	\$ -
GPR Earned		-	-
FED		-	-
PRO/PRS		-	-
SEG/SEG-S		-	-
Total State Revenues		\$ 0	\$ - 0

Net Annualized Fiscal Impact

	State	Local
Net Change in Costs	\$ 0	\$ 0
Net Change in Revenues	\$ 0	\$ 0

Prepared By: Joe Polasek	Telephone No. 266-2794	Agency Department of Natural Resources
Authorized Signature 	Telephone No. 266-2794	Date (mm/dd/ccyy) 09-19-08

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCE BOARD
AMENDING AND CREATING RULES

The Wisconsin Natural Resource Board adopts an order to **amend** s. NR 149.02(1)(Note) and **create** ch. NR 528 relating to the management of accumulated sediment from storm water management structures

WA-22-08

Analysis prepared by the Department of Natural Resources

1. Statutes Interpreted

ss. 289.43, 289.91 and 299.11, Stats.

2. Statutory Authority

ss. 227.11, 289.05, 289.06, 289.07 and 299.11, Stats.

3. Explanation of Agency Authority to Promulgate the Proposed Rule Under the Statutory Authority

Section 227.11, Stats., confers general agency rule-making authority. In ss. 289.05, 289.06 and 289.07, Stats., the department has the duty and authority to promulgate rules implementing ch. 289, Stats. In s. 299.11(1)(d)9., Stats., the Department has the authority to promulgate rules implementing ch. 299, Stats.

4. Related Statute or Rule

None

5. Plain Language Analysis

In response to an increasing volume of sediment to be removed from storm water ponds, coupled with the department's reduced staffing, the department developed an innovative and proactive approach to managing the sediment. Working with a technical advisory committee, made up of those affected by the rule, the department created a framework for self-regulation that minimizes the department's involvement. Under current rules, the person responsible for removing sediment from a sedimentation pond must pay a fee, apply to the department and obtain a written exemption prior to using the sediment for any purpose other than disposing of it in a landfill. The proposed rule sets up self-implementing procedures which allow the person responsible for the sediment to complete a worksheet to determine whether sampling is required and if so, has an environmental professional direct the sampling and analysis, evaluate the results, determine an appropriate use based on the information and sign a certification form documenting the steps taken and end use chosen. In situations where the sediment is removed from a pond draining a low-risk land use, sampling is not required and the person responsible for the sediment completes a shorter version of the certification form and documents how they will use the sediment. In most cases the department's involvement would be minimal and a fee not required.

6. Summary of and Preliminary Comparison to Existing or Proposed Federal Regulations Intended to Address the Activity to be regulated by the Proposed Rule Revisions

There are no federal regulations pertaining explicitly to the management of sediment accumulated in storm water and sediment control structures. The sediment is generated as a consequence of compliance with the Clean Water Act.

7. Comparison of Similar Rules in Adjacent States (Minnesota, Iowa, Illinois and Michigan)

Adjacent states have not developed specific rules to address the material that accumulates in storm water management structures. However, they do have rules to address other dredge materials and they use those rules to answer questions about where to go with accumulated sediment in storm water ponds.

Iowa has a permit by rule approach to land application of any material. This is currently a catchall for all material disposal and they are considering going to designating beneficial uses. Under the permit by rule approach, if the material meets a set of criteria they do not need a permit for disposal. The criteria include testing for petroleum content and following setback parameters similar to the federal 503 regulations which establish standards for the use and disposal of sewage sludge. This approach is similar to Wisconsin's intent to have a rule that provides enough information for the user to self certify that they have used or disposed of the material properly. Iowa has found that the permit by rule approach results in very few contacts or questions from the public.

Minnesota also has a general management approach for dredged material that the accumulated sediment from storm water ponds would fall into. The state recognizes that it would be beneficial to customize the rules to address accumulated sediment from storm water. Similar to the proposed DNR code, dredged material can be handled differently depending on the amount of sand in the material, how much material is being handled, what testing suggests about the contaminant levels and the potential disposal sites. For example, in Minnesota, no permit is needed for disposal of less than 3,000 cubic yards with 93% or more sands. The DNR rule proposes a de minimus of 100 cubic yards for material with 85% or more sands. For all other sediment Minnesota requires an extensive sediment characterization of the pollutant levels in the material and this information determines the management options and whether the disposal qualifies for a general or individual permit. The general permit sets thresholds and criteria that if met, allows a streamlined permit process. The proposed DNR code would not require a permit at all and the sediment manager would only contact the department if they were concerned about the results of the sediment characterization and had questions about what end use option to select. Minnesota also encourages consideration of use or reuse options rather than disposal in a landfill.

Michigan considers the material in storm water ponds and catch basin sumps to be process water once it comes time to clean it out. When the liquid portion is separated from the solid material it is covered under a set of rules that governs liquid industrial waste. In some cases it can be discharged to the sanitary sewer system, if approved by the local sewer authority, but other options are available. The solids are handled as a solid waste under a separate set of rules. Testing of certain parameters is required

before disposing of the material although the most likely disposal is to a landfill. The transporter of the material has to meet applicable transporter requirements.

Illinois has limited guidance on what to do with sediment that accumulates in storm water ponds. If the contents are strictly storm water and there is no septic or sewage mixed in, then it can be disposed of anywhere in an upland location, but not in the floodway. No sampling or any other testing or evaluation is required. Storm water pond sediment is not considered a solid waste unless the agency is aware of, or notified that, a spill of some contaminant occurred in the drainage basin. Anyone removing sediment from a storm water pond will be cautioned that they must check with the Army Corps of Engineers if they are close to a waterway to see if a permit is required.

8. Summary of the Factual Data and Analysis Methodologies That the Agency Used in Support of the Proposed Rules and How Any Related Findings Support the Regulatory Approach Chosen for the Proposed Rules

There is an increasing number storm water and sediment control structures coming on-line as a result of more comprehensive storm water control requirements imposed by the USEPA's revisions to the Clean Water Act (CWA). The department, in accord with its responsibilities as a delegated program, then promulgated revisions to ch. NR 216, effective August 1, 2004. To address the increase in both the number of structures and the volume of accumulated sediment, the department has developed a streamlined approach to sediment management featuring self-regulation. The department has identified stakeholders who will be affected by the proposed rule and formed a Technical Advisory Committee (TAC) comprised of representatives of these organizations and interests. The department has met with this TAC five times in 2007 and 2008 to obtain their input and advice in writing rule language for this streamlined approach to sediment management.

9. Any analysis and Supporting Documentation that the Agency Used in Support of the Determination of the Proposed Rule's Effect on Small Business.

The proposed rule for sediment management, ch. NR 528, is expected to reduce costs to small businesses. Currently, compliance with the department's existing rules, ch. NR 216, Wis. Adm. Code, is resulting in an increase in the number of storm water practices for small business. Routine maintenance of these sediment control structures generates accumulated sediment. Under existing solid waste rules, the NR 500 series, a person responsible for cleaning out a sedimentation pond may either transport the sediment to a licensed landfill or apply to the solid waste program for an exemption. By eliminating the need to apply for an exemption and removing the need for the department to approve the end use chosen by small business, the costs to small business will be reduced.

The proposed rule is also expected to reduce costs to small business by simplifying and clarifying the process and thereby providing known expectations for small business. Further, because the department's role is greatly reduced, costs owing to any delays that result from the current departmental review process for sediment management proposals are eliminated. Because of the proposed self regulation process, project timing would be completely under the control of the small business.

Likewise, because submittal of reports to the department is eliminated, costs normally associated with submitting these reports are eliminated. Instead, the self-certification

process provides a logical flow through the sediment evaluation and management process and all data and records are maintained by the small business. Further, costs associated with sediment sampling and lab analysis are reduced under the proposed rule because the number of parameters is greatly reduced in most cases. Even when more analysis is warranted because indications of contamination are detected, it is likely that the simplified requirements in the proposed rule will still reduce sediment evaluation costs. Current department rules do not specify how the sediment must be characterized so staff can be inconsistent in what they require and in an effort to be prudent, often choose an extensive list of compounds for which to analyze. The proposed rule includes a specific list that is considerably shorter and thus reduces sampling costs. For additional detail and analysis please see the "Small Business Analysis".

10. Anticipated Cost Incurred by the Private Sector

The impact to the private sector should be neutral to positive. The private sector affected by this rule would include home owner's associations, industrial, commercial and institutional property owners that own a storm water management structure. The owner would become the sediment manager when maintenance is required on the structure and sediment removed. Currently they need to take that material to a landfill or apply for an exemption with the department. The exemption process requires sampling and evaluation of the potential risk of the material and is handled on a case-by-case basis by regional staff. This rule will clarify the sampling and evaluation that is appropriate to do and will not require submittal to the department, saving time and money. The sediment manager can self-certify that they have followed the rule and guidance and used the accumulated sediment in a safe and environmentally friendly manner. This will result in either no change or more likely a net savings in time and money for the private sector.

11. Effect on Small Business

The rule revisions will have a neutral to net positive effect on small businesses since they would otherwise have to comply with existing requirements. Under existing rules a sediment manager, when cleaning out a storm water management structure, must either take the sediment to a licensed landfill or apply with the department for an exemption. This proposed rule would eliminate the requirement to apply for an exemption when the sediment manager determines that the sediment is clean enough to take to an end use site. Further, the proposed rule provides other end use options that will usually be less expensive than transporting the sediment to a licensed landfill and paying the landfill tipping fees.

12. Agency Contact Person

Jack Connelly, Solid Waste Program Coordinator
608-267-7574
Johnston.connelly@wisconsin.gov

SECTION 1. NR 149.02(Note) is amended to read:

Note: Administrative codes and programs requiring analyses to be performed by a certified or registered laboratory are chs. NR 110 – Sewerage Systems, 113 – Servicing Septic Systems, 123 – Well Compensation Program, 131 – Metallic Mineral Prospecting, 132 – Metallic Mineral Mining, 140 – Groundwater Quality, 145 – Private Wells, 150 – Environmental Analysis and Review Procedures, 157 – Management of PCBs, 158 – Hazardous Substance Discharge Notification, 182 – Metallic Mining Waste, 206 – Land Disposal of Municipal and Domestic Wastewaters, 210 – Sewage Treatment Works, 211 – General Pretreatment Requirements, 212 – Wasteload Allocated Effluent Limits, 214 – Land Treatment of Industrial Liquid Wastes, 216 – Storm water Management, 219 – Analytical Test Methods and Procedures, 347 – Sediment Sampling and Analysis, 507 – Environmental Monitoring for Landfills, 528 – Management of Accumulated Sediment from Storm Water Management Structures, 661 – Hazardous Waste Identification and Listing, 662 – Hazardous Waste Generator Standards, 664 – Hazardous Waste Treatment, Storage and Disposal Facility Standards, 665 – Interim License Hazardous Waste Treatment, Storage and Disposal Facility Standards, 700 – General Requirements for Investigation and Remediation of Environmental Contamination, 712 – Environmental Response Actions, 716 – Site Investigations, 809 – Safe Drinking Water, 811 – Design of Community Water Supplies, 845 – County Administration of NR 812 (Private Wells), and HFS 46 – Group Day Care Centers for Children.

SECTION 2. NR 528 is created to read:

Chapter NR 528
MANAGEMENT OF ACCUMULATED SEDIMENT
FROM STORM WATER MANAGEMENT STRUCTURES

NR 528.01 Purpose. The purpose of this chapter is to provide a streamlined process for the management of accumulated sediment removed from storm water management structures in a manner that protects public health, safety and the environment and reduces the need to dispose of accumulated sediment in landfills. This chapter is adopted under authority of s. 227.11, Stats., and ch. 289, Stats.

NR 528.02 Applicability. (1) Except as otherwise provided, this chapter governs the management of accumulated sediment from storm water management structures.

(2) This chapter applies to a sediment manager who is required or authorized to undertake the removal and subsequent management of the accumulated sediment derived from the operation and maintenance of storm water management structures.

(3) This chapter does not apply to any of the following materials:

(a) Sediment removed from underground structures such as catch basin sumps or other proprietary flow-through storm water sedimentation devices.

(b) Sediment removed from waste water treatment devices regulated under COMM 82.34.

(c) Material collected through street sweepings.

(d) Sediment managed subject to the permit requirements of s. 30.20, Stats., for removal of material from beds of navigable waters or s. 30.30 or 30.31, Stats., for harbor improvements.

(e) Hazardous waste regulated under chs. NR 660 to 679.

Note: The sediment manager or environmental professional may use knowledge or testing in accordance with NR 662.011 to determine if the accumulated sediment is subject to chs. 660 to 679. In general, accumulated sediment is not subject to regulation under chs. 660 to 679.

- (f) Solid waste regulated under chs. NR 518 and 538.
- (g) Sediment removed from temporary sediment control practices during the construction phase of a project.
- (h) Contaminated soils regulated under chs. NR 700 to 722.

Note: Use of this code does not release the sediment manager from the requirement to obtain other permits as appropriate. Permits may include ch. NR 216, for land disturbance of one or more acres, ch. 30, Stats., for waterway and wetland activities such as dredging of ponds or culvert cleaning, and ch. 283, Stats., for general wastewater discharges such as Pit/Trench Dewatering and Carriage and Interstitial Water from Dredging Operations.

NR 528.03 Definitions. The following definitions as well as the definitions in ch. 289, Stats., and s. NR 500.03 are applicable to the terms used in this chapter.

(1) "Accumulated sediment" means settleable solid material contained in storm water runoff that is collected, retained and subsequently removed from storm water management structures.

(2) "Commercial" means those buildings for which the primary function involves the sale of goods or services.

(3) "Confined geotechnical fill" has the meaning specified in s. NR 538.03(2).

Note: Section NR 538.03(2) defines confined geotechnical fill to mean "a fill that is covered by an impervious surface such as concrete or asphalt."

(4) "Dedicated sediment management sites" means sites designed and operated for multiple applications of accumulated sediment from one or more storm water management structures where the accumulated sediment is landspread or treated.

(5) "Drainage area" means the land area from which the storm water management structure receives runoff.

(6) "End use" or "end use of accumulated sediment" means use in agriculture, landscaping, site stabilization, construction, transportation projects, fill, backfill, reclamation of disturbed sites including mine reclamation, the placement of accumulated sediment and similar uses.

(7) "Environmental professional" means a professional engineer registered pursuant to s. 443.04, Stats. or a professional soil scientist, geologist or hydrologist licensed under ch. 470, Stats.

(8) "Forebay" means a pond-like structure that receives storm water prior to its entrance into the main portion of the pond with the purpose of removing coarse-grained sediment.

(9) "General fill" means a location where accumulated sediment is used as fill in a natural topographic depression, an excavation such as an existing borrow area or an intentional excavation or to build up or shape the local landscape.

(10) "Industrial" means those buildings used for the manufacture, storage or distribution

of goods.

(11) "Institutional" means any public or private schools or colleges, churches, hospitals, or other government facilities not covered under commercial.

(12) "Landspreading of accumulated sediment" means the application of accumulated sediment in thin layers to the surface of the land or incorporation into subsurface soils.

(13) "Licensed landfill" means a solid waste disposal facility with a license obtained pursuant to ch. 289, Stats.

(14) "Multi-family residential" means housing for three or more attached dwelling units in a single building.

(15) "Sediment manager" means any person with responsibility for the management of the accumulated sediment and may include those holding fee title, an easement or other interest in a property, or their agent including contractors or subcontractors and others required or authorized to undertake removal and subsequent management of accumulated sediment, including data gathering, reporting and recordkeeping.

(16) "Storm water management structure" means a device that detains, retains and treats storm water runoff resulting in the accumulation of sediment, and pollutants carried in the runoff. Such structures are characterized by having an outlet that discharges to waters of the state but only in response to storm events and includes wet and dry detention ponds and infiltration basins but not landscape ponds on private property with no designed inlet or outlet.

(17) "Waters of the state" means those portions of Lake Michigan and Lake Superior within the boundaries of Wisconsin, all lakes, bays, rivers, streams, springs, ponds, wells, impounding reservoirs, marshes, water courses, drainage systems and other surface water or groundwater, natural or artificial, public or private within the state or under its jurisdiction, except those waters which are entirely confined and retained completely upon the property of a person.

NR 528.04 Locational criteria, performance standards, erosion control measures and ceiling levels. The sediment manager shall ensure that the management option selected for the accumulated sediment is implemented in accordance with all of the following applicable criteria:

(1) **LOCATIONAL CRITERIA.** (a) Except as provided in par. (b), a site where accumulated sediment is used or deposited shall meet the locational criteria in Table 1.

(b) The locational criteria in Table 1 do not apply to sediment from a drainage area that meets all the criteria in s. NR 528.06 (2) or to sediment used in an end use in accordance with s. NR 528.07 (3) or to sediment managed under s. NR 528.07 (7).

**Table 1
Locational Criteria for Management of Accumulated Sediment**

	Bedrock or Ground-water Table	Public Water Supply Well	Private Water Supply Well	Lake, Wetland, Pond, or Any Navigable Waterway or Sinkhole	Residence	School, Health – care Facility
Separation Distance in Feet	3	1,200	250	200	250	1,000 ¹ surface spread 500 incorporated

¹ The 1,000 foot separation applies when the pathogen or indicator organism level exceeds the criteria specified in s. NR 204.07(6) and application to the surface of the land is the desired management option; if incorporated into the soil, then 500 feet is appropriate. However, if the pathogen or indicator organism level is below the criteria, the setback distance for a residence may be used.

(2) PERFORMANCE STANDARDS. (a) No person may use or dispose of accumulated sediment at a site if there is a reasonable probability that the sediment end use will cause any of the following:

1. A significant adverse impact on wetlands as defined in ch. NR 103.
2. A take of an endangered or threatened species prohibited by s. 29.604, Stats.
3. A detrimental effect on any surface water.
4. A detrimental effect on groundwater quality that will cause or exacerbate an exceedance of any preventive action limit or enforcement standard at a point of standards application as defined in ch. NR 140. The point of standards application is defined by s. NR 140.22 (1).

(b) The accumulated sediment end use shall comply with all applicable department approvals, federal, state and local requirements and be conducted in accordance with this subsection.

Note: Compliance with this section does not release the sediment manager from the requirement to obtain other permits as appropriate. Permits may include ch. NR 216, for land disturbance of one or more acres, ch. 30, Stats., for waterway and wetland activities such as dredging of ponds or culvert cleaning, and ch. 283, Stats., for general wastewater discharges such as Pit/Trench Dewatering and Carriage and Interstitial Water from Dredging Operations.

(3) EROSION CONTROL MEASURES. The sediment manager shall ensure that measures are taken to control run-on and runoff, minimize the area disturbed by the project, minimize loss of fugitive dust and retain sediment on the site during and after the placement of the accumulated sediment. Runoff control measures shall be effectively inspected and maintained. Any area where topsoil is exposed shall be seeded and mulched or otherwise stabilized within 48 hours of placement. Where applicable, the requirements in ch. NR 216 shall be followed.

(4) CEILING LEVELS. If the sample results obtained in accordance with s. NR 528.06 (3) (b) exceed any of the ceiling levels listed in Table 2, the sediment manager shall ensure that the accumulated sediment is disposed of in a licensed landfill.

**Table 2
Ceiling Levels Governing Management of Accumulated Sediment**

Parameter	Ceiling Level ppm or mg/kg on a dry weight basis unless otherwise specified
Total Arsenic	8
Total Cadmium	10
Total Chromium	100
Total Lead	250
pH	Less than 5 or greater than 10 standard units
Electrical conductivity	8 deciSiemens/meter (dS/m) ¹ at 25°C

¹ deciSiemens/meter (dS/m) and mmhos per centimeter are equivalent; dS/m is the modern nomenclature.

NR 528.05 Management decisions. (1) The sediment manager shall determine from the options listed in s. NR 528.07 an appropriate end use for the accumulated sediment based on consideration of all of the following factors:

- (a) Evaluation of sediment sample data in s. NR 528.06 (4).
- (b) Completion and evaluation of the appropriate portions of the certification form supplied by the department.
- (c) Factors specific to the site where sediment is generated as identified in s. NR 528.06 (3) (b) 5.
- (d) Factors specific to the site proposed for end use of the accumulated sediment.
- (e) Any other factors relevant to the minimization of risk to public health, safety or the environment.

(2) No sediment may be used in a manner which is likely to cause any significant risk to public health, safety or the environment.

NR 528.06 Sediment evaluation, certification requirements and end use determination. Except in cases where the accumulated sediment will be disposed of in a licensed landfill, the sediment manager shall evaluate the characteristics of the drainage area from which the accumulated sediment is removed, sample the accumulated sediment, where applicable, evaluate the sample results, choose an end use and create and maintain a record by completing the required certification form as set out in this section.

(1) **CERTIFICATION FORM.** The sediment manager shall ensure that the applicable portions of the certification form supplied by the department are accurately and completely filled out and certified.

(2) **DRAINAGE AREA EVALUATION.** The sediment manager shall certify in accordance with sub. (1) whether or not the drainage area meets all of the following criteria:

- (a) Has less than 15 % commercial, multi-family residential, institutional and industrial land uses combined, excluding green space such as parks, cemeteries, golf courses and lawns.
- (b) Has no areas of suspected contamination that may adversely affect sediment management.
- (c) Has no other existing conditions or known historical events that may adversely affect sediment management.
- (d) Has no reported hazardous substance spills regulated under s. 292.11, Stats., since construction or since accumulated sediment was last removed.

(3) SAMPLING. If the drainage area does not meet the criteria in sub. (2), the sediment manager shall ensure that the sediment is properly sampled and analyzed, each time, prior to its removal from the storm water management structure. Routine sediment sampling and handling shall be performed in accordance with par. (a). Sediment sample analysis shall be performed in accordance with par. (b). All sediment sampling, handling and analysis shall be performed under the supervision of an environmental professional in accordance with par. (c). The sediment manager may elect to use previous sampling results in lieu of new sediment sampling and analysis if the drainage area has not changed significantly since the sediment was last tested.

(a) *Sample collection.* Representative accumulated sediment samples shall be obtained by meeting all of the following criteria:

1. Samples shall be obtained using proper handling, storage and delivery procedures required by the laboratory where the samples will be analyzed.
2. Samples shall be obtained that are representative of the entire volume of sediment to be removed and managed using all of the following:
 - a. One sample shall be obtained in each surface acre or portion of a surface acre in storm water management structures that are 4 acres or less. This sample may consist of multiple samples composited together to obtain a representative sample.
 - b. At least one sample per quadrant shall be obtained when the storm water management structure is greater than 4 acres.
 - c. A greater number of samples shall be obtained when necessary to represent the variability in the sediment due to factors such as sediment transport within the structure, changes in land use in the drainage area and the duration of time during which the sediment has been accumulating.
 - d. Samples shall be taken to the depth of the anticipated sediment removal.
3. Samples shall be obtained to provide a volume of sediment adequate to meet the analytical requirements based on the parameters to be analyzed for and the methods of analysis to be performed by the laboratory where the samples will be analyzed.

Note: Additional information on how to perform sediment sampling can be found in existing USEPA Guidance for its Biosolids Rule, CFR Part 503. Please see Methods and Manner of Sampling: http://www.epa.gov/owm/mtb/biosolids/503pe/503pe_6.pdf

(b) *Sample analysis.* Samples collected in par. (a) shall be analyzed for all of the constituents in this paragraph. Constituents listed in subd. 3. and 5. shall be analyzed at a laboratory certified or registered in accordance with ch. NR 149:

1. Percent solids, percent organic matter, electrical conductivity as a saturated paste and pH to provide information on physical characteristics.
2. Total Kjeldahl nitrogen, total nitrate nitrogen, total phosphorus and total potassium to provide information on nutrient content. Nutrient content shall be expressed as mg/kg on a dry weight basis.
3. Total arsenic, cadmium, copper, chromium, lead, nickel and zinc to ensure these are not present at elevated levels and as indicator parameters showing the potential presence of other heavy metals and possible need for additional sampling. Results shall be calculated on a dry weight basis.
4. Pathogen or indicator organism, as referenced in ss. NR 204.06(2)(b)4. or 204.07(6), showing the potential presence of other pathogens and possible need for additional pathogen sampling and analysis.

Note: Effective with the incorporation of this rule, the current pathogen indicator organism is fecal coliform. The maximum allowable density is 1,000 expressed as MPN/gTS (most probable number per gram of total solids on a dry weight basis).

5. Additional parameters beyond those required under subds. 1. to 4. if deemed necessary by the sediment manager based on all of the following factors:

- a. The present and past land uses in the drainage area served by the storm water management structure such as commercial, multi-family residential, institutional and industrial.
- b. Any other known or suspected sources of contamination.
- c. Existing conditions or known historical events that may affect the likelihood of safe sediment management.
- d. Reported hazardous substance spills under s. 292.11, Stats., in the drainage area since construction or since accumulated sediment was last removed.
- e. Sample data indicating significantly elevated levels of contaminants above background concentrations for indicator parameters in subds. 3. and 4. that may affect management in s. NR 528.05.
- f. Any other applicable administrative code requirements.

Note: Additional parameters may include priority pollutants or TCLP constituents.

(c) *Oversight.* Sample collection and evaluation pursuant to this subsection shall be performed by or under the supervision of an environmental professional.

(4) SEDIMENT SAMPLE DATA EVALUATION. The sediment manager shall ensure that the sediment sample data collected in accordance with sub. (3) (b) 1. to 4. are evaluated by an environmental professional in accordance with sub. (3) (c) and compared with the ceiling levels in s. NR 528.04 (4) Table 2 and, based on the results of the evaluation, that all of the following applicable steps are taken:

(a) If any of the ceiling levels in s. NR 528.04(4) Table 2 are exceeded, the accumulated sediment shall be disposed of in a licensed landfill.

(b) If the indicator parameter levels do not exceed the ceiling levels in s. NR 528.04(4) Table 2, but show elevated levels of contaminants, follow-up sampling shall be performed in accordance with sub. (3) (b) 5., results evaluated, an appropriate end use determined in accordance with sub. (5) and the certification form supplied by the department completed.

Note: Copies of the certification form may be obtained from the department of natural resources, bureau of waste and materials management, 101 South Webster Street, Natural Resources Building, P.O. Box 7921, Madison, Wisconsin 53707-7921, (608) 266-2111, DNRwastematerials@Wisconsin.gov.

(c) If the indicator parameter levels do not indicate elevated levels of contaminants, the sediment manager shall ensure that an appropriate end use is determined in accordance with sub. (5) and the certification form supplied by the department is completed.

Note: Technical support resources provided by the department may be referred to for assistance in evaluating the data when addressing elevated levels of contaminants.

(5) END USE DETERMINATION. The sediment manager shall ensure that the appropriate end use of accumulated sediment is determined using all of the following applicable steps:

(a) The sediment manager shall complete the appropriate sections of the certification form provided by the department and certify whether or not the drainage area from which the sediment is removed meets the criteria in sub. (2).

(b) If all the criteria in sub. (2) are met, the sediment is not required to be sampled and the locational criteria in s. NR 528.04 (1) are not required to be met.

(c) If the criterion in sub. (2) (a) is not met, but the criteria in sub. (2) (b) to (d) are met, the sediment shall be sampled pursuant to sub. (3) and the appropriate sections of the certification form provided by the department shall be completed. If the sample data indicates elevated levels of contaminants, additional parameters shall be sampled for in accordance with sub. (3) (b) 5. and the appropriate sections of the certification form provided by the department shall be completed.

(d) If the criteria in sub. (2) (b), (c) or (d) are not met, sources of contamination in the drainage area shall be further evaluated, additional sampling shall be considered in accordance with sub. (3) (b) 5. and the appropriate sections of the certification form provided by the department shall be completed.

NR 528.07 End uses of accumulated sediment. The sediment manager shall ensure that an end use is chosen for the accumulated sediment in accordance with this section.

(1) LICENSED LANDFILL DISPOSAL. (a) If the sediment manager determines that the accumulated sediment will be disposed of in a licensed landfill, the sediment does not need to be evaluated or sampled under s. NR 528.06.

Note: The landfill operator should be contacted to determine whether the landfill requires the sediment be sampled before it is accepted at the landfill. The sediment may be appropriate for use as dally or final cover in accordance with the landfill's approved plan of operation.

(b) If any of the ceiling levels in s. NR 528.04 (4) Table 2 are exceeded, the accumulated sediment shall be disposed of in a licensed landfill.

(2) GENERAL FILL. (a) The accumulated sediment may be used as general fill in a designed excavation or to improve a site by restoring original contours, filling depressions, improving or stabilizing borrow areas or other disturbed sites.

Note: Examples of uses may include reclamation of abandoned mines, fill in a topographic depression, or other uses that build up or shape the local landscape, mitigate safety or erosion hazards or otherwise improve disturbed sites.

(b) All of the following steps shall be taken to stabilize the site:

1. Complete placement and preparation of the sediment and any needed topsoil, substitute soil or cover material within 6 months or less of initiating placement in the project year.

2. Stabilize the cover, topsoil, substitute soil or sediment to prevent erosion due to wind and water, perform all revegetation, mulching or other equivalent stabilization activities prior to the end of the growing season and minimize the exposure of the sediment to the environment by employing one or more of the following measures:

- a. Place an impermeable cover.
- b. Place a topsoil layer of no less than 6 inches.

c. Use the accumulated sediment in lieu of or in combination with topsoil, provided it is capable of supporting a vegetative cover.

3. Revegetate, mulch or otherwise stabilize the sediment within 48 hours of completing the sediment disposal.

(c) Control erosion during and after the placement of sediment in accordance with s. NR 528.04(3).

(3) **CONFINED GEOTECHNICAL FILL.** The accumulated sediment may be used as confined geotechnical fill for a variety of uses such as subbase under paved lots and subbase or subgrade for building construction.

Note: Examples of confined geotechnical fill uses may include construction and maintenance of non-department of transportation projects, bridge abutment backfill or other similar uses in which the sediment is covered by an impervious surface such as concrete, asphalt, a building or similar material and thus not exposed to the environment.

(4) **LANDSPREADING.** The sediment manager shall ensure that the appropriate sections of the certification form provided by the department are completed and the other requirements in s. NR 528.06 are complied with. When landspreading the accumulated sediment, all of the following shall apply:

(a) *Site evaluation.* The site where the accumulated sediment is proposed to be landspread shall be evaluated to ensure that the site is suitable. The site evaluation shall include the soil factors in Table 3 and may include assessment of organic matter content, cation exchange capacity, soil permeability and any other characteristics or factors that would affect the mobility and attenuation of pollutants present in the sediment. The site shall meet the locational criteria in s. NR 528.04 (1) Table 1.

**Table 3
Soil Factors for Site Evaluation**

Soil Factor ¹	Acceptability for Landspreading Accumulated Sediment			
	Unacceptable	Poor	Adequate	Preferred
pH standard units	Less than 5.3 or greater than 8.0	5.3 to 5.6 or 7.7 to 7.9	5.7 to 5.9 7.3 to 7.6	6.0 to 7.2
Texture		Silty clay ² , clay ² , sand ³ , loamy sand ³	Sandy loam, silty clay loam, sandy clay	Loam, silt loam, silt, clay loam, sandy clay loam

¹ Obtain from soil survey, not in-field test

² Acceptable only when incorporated

³ Acceptable only with increased site management determined by the sediment manager

(b) *Application rate and depth.* The application rate of accumulated sediment may not exceed 5 dry tons per acre per year and may not exceed 15 dry tons per acre total loading during the life of the landspreading site. The depth of the application may not exceed 18 inches.

1. Neither the 5 dry tons per acre per year application rate limitation or the 15 dry tons per acre landspreading site life limit apply when accumulated sediment is used as a component

of a marketable soil amendment product pursuant to a contract or used to facilitate nonmetallic mine reclamation as part of an approved reclamation plan.

2. The 5 dry tons per acre annual limit and the total loading limit of 15 dry tons per acre landspreading life may be adjusted based on soil sampling results, plant tissue monitoring data, landspreading site records or other data. All data necessary to justify the exceedances and extended use shall be collected and evaluated and all data and records shall be maintained in accordance with s. NR 528.08.

(c) *Nutrient content.* The nitrogen and phosphorous content shall be provided to the receiver of the accumulated sediment if the receiver has a nutrient management plan for the acreage where the accumulated sediment will be landspread.

Note: Farmers required to follow a nutrient management plan need information on nutrient content in order to comply with NRCS Standard 590 available at: <http://efotg.nrcs.usda.gov/references/public/WI/590.pdf>.

(d) *Uniform application.* The application of accumulated sediment to the land surface shall be uniform when surface applied, as well as during injection or incorporation.

(e) *Application limitations.* Accumulated sediment may not be applied under any of the following situations:

1. On frozen or saturated ground.
2. When precipitation capable of producing runoff is forecast within 24 hours of the time of planned application, during or immediately after a precipitation event.
3. On slopes greater than 6 %.

(f) *Pathogens.* In all cases where a pathogen risk exists due to the presence of pathogens, as indicated by evidence of the pathogen or indicator organism and level per s. NR 528.06(3)(b)4., the following management practices shall be implemented:

1. At a minimum, accumulated sediment shall be incorporated into the surface soil to a depth of at least 6 inches by disking or an equivalent process and may include other measures such as signage, restriction on site access or other appropriate measures.
2. The following waiting periods and access restrictions shall apply beginning on the date when the landspreading activity is completed:
 - a. When lands are used for the production of forage crops, landspreading shall occur only after harvest has occurred and before any new growth reaches 6 inches.
 - b. When lands are used for food crops intended for human consumption, a period of at least 14 months shall elapse prior to emergence of the food crop.
 - c. When lands are used for grazing, at least 30 days shall elapse prior to allowing access to non-dairy animals and at least 60 days shall elapse before allowing access to dairy animals.
 - d. When lands are subject to public access or used for the harvest of crops grown for fiber or any other forage or crop production, not covered in this subd. 2. a. to c., a period of at least 30 days shall elapse before the site may be accessed or used.

(5) **DEDICATED SEDIMENT MANAGEMENT SITE.** The end use of landspreading or sediment treatment at a dedicated management site may be chosen if the sites are owned or leased by a municipality or other responsible unit of government. The sediment manager shall assume any additional site management, site monitoring and recordkeeping responsibilities that are necessary to minimize risk to public health, safety and the environment.

(a) When sediment is used at a dedicated site, the sediment manager shall ensure that the appropriate portions of the certification form provided by the department are completed. Based on the information obtained in accordance with s. NR 528.06, the sediment manager may choose to use the accumulated sediment for productive purposes including the growth of herbaceous or woody plants for harvest or for treatment to reduce contaminants in the accumulated sediment in accordance with this subsection.

(b) All of the following restrictions shall apply to dedicated sediment management sites:

1. The locational criteria in s. NR 528.04 (1) shall be met.

2. The sediment shall be applied to a depth of 18 inches or less below ground surface.

3. When the dedicated site is used for sediment treatment so as to attenuate or reduce contaminants in the accumulated sediment, only non-food chain crops or woody plants for harvest or phyto-remediation purposes may be grown.

4. In cases where the annual application rate or lifetime loading limit in sub. (4) (b) are not exceeded, the provisions of sub. (4) (b) 2. do not apply. In cases where the 5 dry tons per acre annual application rate limitation or the 15 dry tons per acre site life limit are exceeded, the sediment manager shall ensure that sub. (4) (b) 2. is followed as well as take any additional measures or practices that may be necessary to ensure safe long-term site use. These may include practices such as the collection and evaluation of contaminants in soils, plant tissue, other environmental receptors or monitoring devices. The sediment manager shall track the sediment application rates and cumulative site loading totals for contaminants in soil or other receptors as appropriate. The sediment manager shall ensure that any additional measures are implemented that may be necessary such as enhanced site management practices to control run-on and runoff and erosion control practices. At a minimum, the erosion control requirements of s. NR 528.04 (3) shall be met.

5. Accumulated sediment may be applied on frozen ground and on slopes greater than 6 % or more provided the sediment management is performed in compliance with s. NR 528.04 (3) and adequate and permanent run-on and run-off controls are in place and maintained.

6. Sediment may not be applied when precipitation capable of producing runoff is forecast within 24 hours of the time of planned application, or during or immediately after a precipitation event.

7. In all cases where a pathogen risk exists due to the presence of pathogens, as indicated by evidence of the pathogen or indicator organism and level per s. NR 528.06(3)(b)4., then the waiting periods in sub. (4) (f) apply.

8. In all cases where a pathogen risk exists due to the presence of pathogens, no grazing is allowed and no human food chain crops may be grown where the sediment has been applied.

9. In all cases where a pathogen risk exists, permanent public access controls shall be put in place and access restricted during any year when the sediment application occurs.

(c) The sediment manager shall ensure that an affidavit is filed indicating that the site was used for a dedicated sediment management site in the registrar of deeds office in the county where the site is located.

(d) The sediment manager shall ensure that all appropriate completed certification forms, all sediment sampling results and all monitoring data and site use and sediment loading records are retained in accordance with s. NR 528.08.

(6) SMALL QUANTITY, COARSE GRAINED SEDIMENT MANAGEMENT. The sediment manager may choose to manage certain kinds of coarse grained sediment as provided under this subsection.

(a) If the annual volume of accumulated sediment to be managed is 100 cubic yards or less and comprised primarily of coarse-grained material such as that found in the forebay, the sediment manager shall complete the appropriate sections of the certification form provided by the department and indicate the following criteria are met:

1. The volume of accumulated sediment to be managed is 100 cubic yards or less.
2. No more than 15 % of the material, as a percentage by weight, passes a No. 200 sieve.

(b) If the criteria in par. (a) are met, no chemical testing is required and the sediment shall be managed in accordance with s. NR 528.04 (1) and (2). If either par. (a) 1. or 2. are not met, the accumulated sediment may not be used in accordance with this subsection and shall be managed in accordance with this section and ss. NR 528.04 to 528.06 and 528.08.

(c) The sediment manager shall maintain responsibility for managing the accumulated sediment.

(d) The sediment manager shall retain records in accordance with s. NR 528.08.

(7) END USE UNDER OTHER CONTROL. Accumulated sediment may be used under the control of another program in accordance with this subsection. End use of accumulated sediment pursuant to this subsection is not subject to the other provisions of this chapter provided equivalent protectiveness is afforded, including the provisions of ss. NR 528.04 (2) to (4).

(a) Accumulated sediment may be used in accordance with a department of transportation facility construction and maintenance project contract of specific duration that requires compliance with department of transportation standard specifications for site restoration and stabilization. Sampling in accordance with s. NR 528.06 (3) is not required when there is another requirement such as a contract or permit that requires sampling encompassing the s. NR 528.06 (3) requirements. Sampling pursuant to s. NR 528.06 (3) shall be performed if the contract or permit does not require sampling encompassing these requirements.

Note: The requirements of the WDOT concerning the restoration of disturbed sites are found in sections of the standard specifications including those addressing erosion control, seeding, final clean-up and may be found in: WDOT Standard Specifications, see <http://roadwaystandards.dot.wi.gov/standards/stdspec/index.htm>

(b) Accumulated sediment may be used in accordance with a ch. NR 135 nonmetallic mine reclamation permit issued pursuant to an applicable nonmetallic mining reclamation ordinance. Sampling in accordance with s. NR 528.06 (3) is not required when there is another document such as a contract or permit that requires sampling encompassing the s. NR 528.06 (3) requirements. Sampling pursuant to s. NR 528.06 (3) shall be performed if the contract or permit does not require sampling encompassing these requirements.

NR 528.08 Record retention. All completed certification forms, all sediment sampling results, other site monitoring results and site management records shall be retained by the sediment manager in accordance with this section.

(1) ON-LINE SYSTEM. The department may develop an on-line system to receive and store the records.

(a) If an on-line voluntary system is established, a sediment manager who chooses to use the on-line system no longer needs to retain the records.

(b) If the department requires the use of the on-line system, the records no longer need to be retained by the sediment manager.

(2) RETENTION TIME. If an on-line system is not established, or if a voluntary on-line system is established and the sediment manager chooses not to use it, the records shall be retained for 20 years. These records shall be provided to the department upon request.

NR 528.09 Department assistance. To assist sediment managers in making the determinations required in this chapter, the department may provide outreach, training, certification forms, written and on-line technical assistance documents or other resources deemed appropriate.

NR 528.10 Sediment management program evaluation and compliance. The department may consult and work with those who implement accumulated sediment uses and are interested in substantiating the effectiveness, safety and environmental protectiveness of the chosen sediment management practice. Sediment managers shall provide data documenting their operation to assist with the evaluation upon request by the department. The department may also request information necessary to determine compliance with this chapter. Sediment managers shall provide site access to department staff upon request.

SECTION 3. EFFECTIVE DATE. The rule shall take effect the first day of the month following publication in the Wisconsin administrative register as provided in s. 227.22(2)(intro.), Stats.

SECTION 4. BOARD ADOPTION. The rule was approved and adopted by the State of Wisconsin Natural Resources Board on _____.

Dated at Madison, Wisconsin _____

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Matthew J. Frank, Secretary

(SEAL)