



## Legislative Fiscal Bureau

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Joint Committee on Finance

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### Phosphorus Effluent Limitations (DNR -- Water Quality)

[LFB 2011-13 Budget Summary: Page 325, #11]

#### CURRENT LAW

Under section 283.01 (6) of the statutes, "effluent limitation" is defined as any restriction established by DNR, including schedules of compliance, on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into waters of the state. Section 283.11 (3)(am) requires DNR to promulgate an administrative rule with effluent limitations representing the best available demonstrated control technology, processes, operating methods or other alternatives concerning the discharge of phosphorus if the U.S. Environmental Protection Agency (EPA) has not promulgated an effluent limitation, effluent standard or prohibition concerning this type of discharge. Technology-based effluent limits are intended to provide at least a minimum amount of treatment of the wastewater at the point source of the discharge, based on available treatment technology.

DNR promulgated administrative rules in Chapter NR 217, Subchapter II of the Wisconsin Administrative Code, effective December 1, 1992, which establish technology-based effluent standards and limitations for phosphorus. Over 200 municipal and industrial permits have been issued under the Wisconsin pollution discharge elimination system (WPDES) permit program with technology-based discharge limits.

Section 283.13 (2) requires point sources other than public treatment works to apply the best practicable control technology currently available to remove pollutants from the wastewater discharged into the waters of the state. Section 283.13 (4) requires public treatment works (except storm water discharges) to apply the best practicable waste treatment technology over the life of the treatment works. Section 283.13 (5) requires DNR to establish more stringent effluent limitations than required under subs. (2) and (4), and to require compliance with water quality based effluent limitations in any permit issued, reissued or modified if the limitations are necessary to meet applicable water quality standards, treatment standards, schedules of compliance or any other state or federal law, rule or regulation. Water quality based effluent limits are based on the quality of the stream or lake receiving the wastewater discharge. If a

stream has relatively high concentrations of phosphorus in relation to the water quality standard for that water body, the water quality based effluent limit will likely be more stringent than a technology-based limit. If two streams have the same water quality standard, but have different concentrations of phosphorus, discharges into the stream with the higher concentration will probably be subject to more stringent water quality based effluent limits.

DNR promulgated administrative rules in NR 217, Subchapter III, effective December 1, 2010, which establish water quality based effluent limits for phosphorus. Changes to NR 102.06 were also made to identify numeric water quality criteria for phosphorus in surface waters. DNR has not issued any permits under these sections.

## **GOVERNOR**

Provide an exception in s. 283.11(3)(am) to prohibit DNR from promulgating or enforcing an administrative rule that establishes effluent limitations for the discharge of phosphorus if the rule establishes effluent limitations that are more stringent than the effluent limitations established by any of the states of Illinois, Indiana, Michigan, Minnesota, or Ohio.

## **DISCUSSION POINTS**

1. Phosphorus is a naturally occurring element and nutrient commonly used in detergent, fertilizer, and animal feed. Phosphorus enters streams and lakes from point sources such as the pipes that discharge wastewater from municipal and industrial wastewater treatment facilities, and from nonpoint sources such as agricultural and urban runoff. Increases in the concentration of phosphorus in lakes, rivers, and streams can provide excess nutrients to the water body. This can fuel increases in aquatic plant and algae growth, which can have negative impacts on public health, recreational use, and property values. DNR has listed 172 lakes and streams as impaired due to phosphorus pollution.

2. Administration officials indicated the Governor's intent was to prevent the water quality based effluent limits for phosphorus discharges in NR 217, Subchapter III, that went into effect on December 1, 2010, from being in effect if they are stricter than the limits in five adjacent or nearby states. However, the water quality based effluent limits in NR 217, Subchapter III, were promulgated under s. 283.13 (5), which is not amended under the bill. Review of these two sections shows the bill's exception under s. 283.11 (3)(am) might not apply to the water quality based effluent limits promulgated under s. 283.13 (5). If the Committee wishes to approve the Governor's original recommendation, the bill would need to be amended to clarify that the exception would also apply to water quality based effluent limits promulgated under s. 283.13 (5) [Alternative 2].

3. The states of Illinois, Indiana, Michigan, Minnesota and Ohio have promulgated, are in the process of drafting, or are discussing potential water quality based effluent limits for phosphorus. Minnesota and Michigan have issued some wastewater discharge permits with water quality based effluent limits at least similar to Wisconsin standards. Ohio and Indiana have drafted phosphorus water quality standards. In January, 2011, Illinois received a letter from EPA directing that state to adopt phosphorus water quality based effluent limits.

4. Under the bill, it appears Wisconsin's phosphorus effluent limits are more stringent

than the states that are still in the process of developing rules, because those states do not yet have rules in effect. Wisconsin would not be able to enforce the phosphorus rules that went into effect December 1, 2010, until: (a) all of the other five states finish promulgating phosphorus effluent limits; and (b) it is determined that the provisions promulgated by all of the other five states are at least as stringent as Wisconsin. Under the wording of the provision in the bill, if any one of the five states promulgates phosphorus effluent limits as strict as, or stricter than Wisconsin's rules, but then chooses to change its rules at a later date in a manner that would be less strict than Wisconsin's rules, Wisconsin may have to stop enforcing any stricter provisions on the effective date of the other state's less stringent rules.

5. The Secretary of the Department of Administration (DOA) submitted an errata letter to the Joint Committee on Finance on March 31, 2011, which included a request to remove the references to standards in other states and instead delay the effective date of the phosphorus numeric water quality standards. The DOA Secretary did not specify a time period of delay. The intent was to delay the effective date of the water quality based effluent limits for phosphorus under NR 217, Subchapter III, from December 1, 2010, to a later date. The Governor subsequently recommended a two-year delay.

6. The Secretary of DNR testified to the Committee on April 4, 2011, that DNR proposes a two-year delay in the effective date because municipalities cannot afford to take out substantial loans to upgrade wastewater treatment plants to comply with the rule. The DNR Secretary did not suggest a specific date for the rule to resume being in effect. The DNR Secretary testified that a two-year effective date delay would allow: (a) DNR to develop implementation guidance for local governments with permits for wastewater treatment plants to have more time to consider flexible implementation options; and (b) time for other states to complete adoption of similar requirements, leveling the business playing field. The administration and DNR did not submit a specific recommendation to the Committee for how a two-year delay would work.

7. In 2000, the U.S. Environmental Protection Agency (EPA) published guidance documents for states to use in setting water quality standards relating to nutrient criteria for phosphorus and nitrogen, under authority of the federal Clean Water Act. States are then required to adopt water quality standards criteria. EPA is authorized to determine that, if a state does not adopt criteria, EPA shall promulgate water quality standards criteria in the state.

8. In November, 2009, several groups notified the EPA of their intent to sue over the EPA's failure to promulgate phosphorus and nitrogen criteria for Wisconsin. In April, 2010, EPA sent a letter to the former DNR Secretary indicating that if DNR does not submit numeric phosphorus criteria to EPA for review and approval in 2010, EPA would move forward to issue a determination that would evaluate whether Wisconsin needs new or revised water quality standards containing numeric nutrient criteria to meet the requirements of the Clean Water Act. EPA also informed DNR that if it determines Wisconsin needs numeric nutrient criteria, that determination would trigger EPA's duty to propose and promulgate such criteria for the state. DNR held public hearings on proposed phosphorus rules in April, 2010. The Natural Resources Board recommended approval of the rules in June, 2010. DNR sent the proposed rules to the Legislature in July, 2010. The Assembly completed its review in August without holding a public hearing. The Senate held a public hearing and completed its review in September. The rules went into effect December 1, 2010. In December, 2010, DNR submitted the new rule to EPA for approval, and the Wisconsin

Attorney General submitted a required certification statement of the new standards. On December 30, 2010, EPA approved Wisconsin's revised water quality standards. As of May 10, 2011, EPA was in the process of reviewing whether the water quality based effluent limits for phosphorus in NR 217, Subchapter III, would be approved as a revision to Wisconsin's NPDES (National Pollutant Discharge Elimination System) wastewater permitting program under delegation from EPA.

9. The phosphorus rule promulgated December 1, 2010, repealed and recreated administrative code NR 102.06 related to phosphorus. Prior to December 1, NR 102.06 contained a paragraph description of phosphorus effluent limitations, and situations where the Department could evaluate sources for potential limitations on phosphorus discharges. As of December 1, 2010, NR 102.06 identifies water quality criteria for total phosphorus that must be met in surface waters. For example, NR 102.06 establishes a phosphorus criteria of 100 ug/L (100 micrograms per liter, or 100 parts per billion) for several listed sections of rivers throughout the state and 75 ug/L for other streams. The criteria are intended to provide a numeric measure of what maximum level of phosphorus concentration still achieves water quality standards for that water body.

10. The new rule in NR 217, Subchapter III includes procedures for determining whether a point source will cause, or has the potential to cause, an exceedance of the phosphorus water quality criteria, in the water that receives the discharge, or sometimes, in downstream waters, and whether water quality based effluent limits will be included in a WPDES discharge permit. Water quality based effluent limitations would be included in a WPDES permit as an allowable concentration of phosphorus.

11. NR 217, Subchapter III also establishes procedures for DNR determination of a schedule of compliance, of up to seven years, for a water quality based phosphorus limitation in a WPDES permit. In determining the length of time allowed for compliance, DNR would consider all of the following: (a) whether there is any need for modifications to the treatment facilities, operations or measures to meet the water quality based effluent limitation, and if so, how long it will take to implement the modifications; (b) the amount of time the discharger has already had to meet the water quality based effluent limitation under prior permits; (c) the extent to which the discharger has made good faith efforts to comply with the water quality based effluent limitation in prior permits, if applicable; and (d) the extent to which the phosphorus removal technologies have been developed and proven to be effective. NR 217 also includes a watershed adaptive management option intended to promote cooperation among point source (end-of-pipe) and nonpoint (runoff) sources to achieve compliance with the overall phosphorus criterion for the receiving waters through verifiable reductions of phosphorus from point and nonpoint sources in the watershed.

12. The fiscal estimate submitted by DNR with the phosphorus rule package indicated the rules would result in costs for many municipal and other publicly-owned wastewater treatment facilities totaling between \$300 million and \$1.13 billion to comply with the rules. DNR estimated the costs may be for capital expenditures, increased operation and maintenance costs, or both, and would vary considerably by municipality or sanitary district. The Department estimated some facilities may have no additional costs because they discharge to streams and rivers that already meet the phosphorus criteria. DNR estimated that up to approximately 163 facilities may need to add phosphorus filtration processes at a substantial cost. DNR's fiscal estimate notes that the cost estimate does not include costs of acquiring land if municipalities and sanitary districts need to locate additional wastewater treatment facilities. The fiscal estimate also indicated up to

approximately 43 paper industry or food processing wastewater facilities might have to meet more stringent effluent limitations, and industrial facilities discharging to municipal wastewater treatment plants may experience increases in service fees. DNR estimated the range of total costs for industrial wastewater dischargers would be between \$100 million and \$460 million.

13. As mentioned earlier, the phosphorus effluent limitation rule went into effect December 1, 2010. The administration has not specified a method for implementing a two-year legislative delay of the rule. Accomplishing a two-year delay could require attempting to specify through statute: (a) on the effective date of the bill, return to the NR 102.06 definition of phosphorus that existed before it was repealed and recreated December 1, 2010; (b) on the effective date of the bill, stop implementing NR 217, Subchapter III, related to water quality based effluent limitations for phosphorus, that was created effective December 1, 2010; (c) at a specific date two years from now, resume using the December 1, 2010, definition of phosphorus in NR 102.06; and (d) on that same future date, resume implementing NR 217, Subchapter III. The administration has not specified what a two-year delay would mean. Either December 1, 2012 (two years after the effective date of the administrative rule), or July 1, 2013 (two years after the end of the current biennium) could be considered.

14. Chapter 227 of the statutes establishes procedures for agencies to promulgate administrative rules that implement the laws passed by the Legislature, for legislative review and approval of proposed rules, and for legislative review of rules that are in effect. The Joint Committee for Review of Administrative Rules (JCRAR) is authorized to take action, under certain situations, to suspend a rule that is in effect if it determines the rule does not meet statutory requirements. The JCRAR would then introduce a bill that prohibits an agency from promulgating a rule that does what is in the suspended rule. In general, Chapter 227 does not permit the Legislature to amend, delay or repeal a rule. However, the Legislature has the authority to enact a bill that requires an agency to promulgate a rule that does a certain thing, or that prohibits an agency from promulgating or enforcing a rule that does a certain thing.

15. The bill could be amended to prohibit DNR from administering provisions in the current rule, but that would not restore the rule in effect before December 1, 2010. The bill could be amended to direct DNR to promulgate a rule that includes the provisions in effect before December 1, 2010. The Committee could choose to: (a) prohibit DNR from enforcing any administrative rule related to phosphorus effluent standards and limitations or water quality based effluent limitations for phosphorus that differs from the administrative rules in effect on November 30, 2010 (the day before the current rules went into effect); (b) repeal this provision on November 30, 2012, or June 30, 2013; (c) direct DNR to promulgate an emergency rule that would be the same as the phosphorus effluent standards and limitations in effect on November 30, 2010; (d) direct that the emergency rules would be in effect until November 30, 2012, or June 30, 2013, without requiring a finding of emergency and without DNR having to request renewal by the Legislature; and (e) effective December 1, 2012, or July 1, 2013, require DNR to give effect to the administrative rule related to phosphorus effluent standards and limitations or water quality based effluent limitations for phosphorus that was in effect on the day before the emergency rule went into effect. [Alternative 3a or 3b]

16. DNR has the option of using current administrative rule procedures if it wishes to propose changes in administrative rules. DNR officials indicate this would take at least six to 10

months to hold public hearings, obtain Natural Resources Board approval, and go through the normal legislative review process. In addition, they indicate it is unknown whether the Natural Resource Board would agree to phosphorus effluent limit rule changes. The Board unanimously approved forwarding the proposed rule to the Legislature in June, 2010.

17. If the budget bill amends the statutes in a way that prohibits DNR from administering the current phosphorus rule or requires DNR to promulgate a rule that differs from the current rule, DNR will have to send a letter to EPA to request approval of the change. The Wisconsin Attorney General would also have to send a letter to EPA certifying that the change was created consistent with state laws.

18. It is unknown whether EPA would approve changes that would have the effect of delaying implementation of the phosphorus rule currently in effect. DNR officials have discussed the issue with EPA, but EPA has not issued any specific written indication of what it would or would not allow to be changed from the current phosphorus rules. If the budget bill makes a change related to DNR implementation of phosphorus effluent limitations that EPA decides not to approve, EPA would have the option of setting phosphorus water quality standards and effluent limitations that would apply in the state. If EPA takes that action, it is uncertain whether EPA effluent limitation requirements would include any of the watershed adaptive management options for coordination of point and nonpoint sources that are available in the Wisconsin rule to achieve compliance with the phosphorus criteria. Any changes made in the budget bill could impact EPA's approval of Wisconsin's administration of wastewater permitting program requirements that are delegated by EPA to the state. The extent of that impact is uncertain.

19. When the current phosphorus effluent limitation rule was approved by the Natural Resources Board, the former DNR Secretary indicated the rules were "part of a comprehensive strategy to address one of the greatest remaining sources of water pollution in Wisconsin - excess nutrients, specifically phosphorus." At the time, proponents argued the rules would help the state take a big step in improving water quality by reducing the volume of phosphorus that is discharged into waterways. DNR indicated compliance would be phased in over many years to provide municipalities and industries more time to pay for wastewater treatment improvements.

20. Proponents of a two-year delay in the effective date of the phosphorus rule changes raise several points, including: (a) the delay would give municipalities and industries more time to comply with the requirements; (b) Wisconsin is ahead of many other states in setting standards, and the delay will allow other states more time to develop standards; (c) a two-year delay is not significant in the long-term process of improving water quality; and (d) DNR would have additional time to work with municipalities and industries to develop options for meeting water quality based effluent limits in cost-effective ways.

21. Some opponents of a delay in implementing the rule raise several points, including: (a) the delay would represent a step backward in improving water quality in the state; (b) the state should be a leader of other states rather than wait for other states to catch up to Wisconsin; (c) delaying implementation of a standard that was approved by EPA might result in EPA stepping in to set phosphorus standards in the state; and (d) a two-year delay could be considered a significant delay in improving water quality in the state.

22. If the Committee chooses to delete the provision [Alternative 4], DNR would be

required to administer the phosphorus rule that is currently in effect. DNR could choose to propose changes to the current administrative rule, whether in the effective date, compliance schedule, requirements that must be met by permittees, or other provisions. The Legislature would also have the option of reviewing the issue in separate legislation.

## **ALTERNATIVES**

1. Adopt the provision in the bill to provide an exception in s. 283.11(3)(am) to prohibit DNR from promulgating or enforcing an administrative rule that establishes effluent limitations for the discharge of phosphorus if the rule establishes effluent limitations that are more stringent than the effluent limitations established by any of the states of Illinois, Indiana, Michigan, Minnesota, or Ohio.

2. Adopt the provision in the bill. In addition, provide an exception in s. 283.13 (5) to prohibit DNR from promulgating or enforcing an administrative rule that establishes water quality based effluent limitations for the discharge of phosphorus if the rule establishes effluent limitations that are more stringent than the effluent limitations established by any of the states of Illinois, Indiana, Michigan, Minnesota, or Ohio.

3. Prohibit DNR from enforcing any administrative rule related to phosphorus effluent standards and limitations or water quality based effluent limitations for phosphorus that differs from the administrative rules in effect on November 30, 2010. Repeal this provision on the date specified below. Direct DNR to promulgate an emergency rule that would be the same as the phosphorus effluent standards and limitations in effect on November 30, 2010. Direct that the emergency rules would be in effect until the date specified below, without DNR having to request renewal by the Legislature. Effective on the day after the date specified below, require DNR to give effect to the administrative rule related to phosphorus effluent standards and limitations or water quality based effluent limitations for phosphorus that was in effect on the day before the emergency rule went into effect.

- a. November 30, 2012, or
- b. June 30, 2013.

4. Delete provision. (DNR phosphorus rules would remain in effect until or unless modified through the administrative rule process.)

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