

DATE: February 14, 2007

TO: Natural Resource Board

FROM: Scott Hassett, Secretary

SUBJECT: Background Memo on Proposed Creation of Chapter NR 820, Groundwater Quantity Protection - Adoption of Board Order DG-37-06

1. Why is this rule being proposed?

a. Action or event that triggered the proposal? 2003 Wisconsin Act 310 (attached) expanded the state's scope of authority over high capacity wells to include factors in addition to impacts on nearby municipal water supplies. Specifically, the law requires consideration of impacts to certain sensitive water resources and impacts from wells with high water loss prior to issuance of an approval to construct a high capacity well.

Act 310 also recognized that there are areas of the state that have experienced substantial lowering of groundwater levels since settlement and that these areas would benefit from a comprehensive regional groundwater management approach. Act 310 created the concept of groundwater management areas to facilitate comprehensive groundwater management and planning in these areas and directed the department to define the extent of groundwater management areas through administrative rules.

b. What issues are addressed by this rule? The proposed rule addresses two primary issues. First, it creates a mechanism by which the department will evaluate proposed high capacity wells to determine whether the well will have a significant adverse environmental impact on springs, trout streams, outstanding resource waters and exceptional resource waters in addition to impacts on municipal water supplies. Second, the rule defines the extent of groundwater management areas as directed in 2003 Wisconsin Act 310.

2. Rule Summary

The proposed rule designates the boundaries of two separate groundwater management areas (GMA). The Southeast Wisconsin GMA includes all of Kenosha, Milwaukee, Ozaukee, Racine and Waukesha Counties and portions of Walworth and Washington Counties. The Northeast Wisconsin GMA is comprised of all of Brown County and portions of Calumet and Outagamie Counties. Pursuant to Act 310, the extent of the two GMAs corresponds to the areas in which groundwater withdrawals have resulted in a lowering of the level of groundwater by at least 150 feet from the projected pre-settlement levels as determined through groundwater modeling of the two areas.

The department recognizes that the rule does not fully develop details related to planning and regulatory issues in GMAs. Act 310 created the Groundwater Advisory Committee to consider these issues and make recommendations to the Legislature concerning full implementation of the GMA concept. The Groundwater Advisory Committee submitted its first report to the legislature in December 2006 and the department is deferring development of the detailed GMA framework pending subsequent direction from the Legislature in response to the Groundwater Advisory Committee's recommendations.

The proposed rule establishes review processes for evaluation of applications for high capacity well approvals for wells that are located in groundwater protection areas (i.e., within 1,200' of a trout stream, outstanding resource water or exceptional resource water) are near a spring or involve high water loss. Under the proposed rule, all applications for wells near springs or within a groundwater protection area will be reviewed to assess impacts to the spring or surface waters. The rule includes screening criteria to help identify which of these proposed high capacity wells are unlikely to result in significant adverse environmental impacts and therefore can be approved without preparing a formal environmental assessment. Generally, these wells will be high capacity wells that are designed to pump a relatively small volume of water in comparison to the flow or volume of the nearby water body. In those cases where the department determines that significant adverse environmental impacts could result, the applicant may be required to submit supplemental information to facilitate the department's final review and preparation of an environmental assessment. Approvals for high capacity wells near a spring or within a groundwater protection area must include specific conditions pertaining to well construction and operation to ensure protection of the water resources. Proposed wells involving high water loss will require preparation of an environmental assessment prior to issuance of an approval and such approvals must also include conditions to ensure that significant environmental impacts do not result.

Finally, the rule requires that all owners of high capacity wells record pumpage data on a monthly basis and report this information to the department on an annual frequency. Individual reports will be required for wells with large pump capacities while properties with multiple lower capacity wells will be permitted to submit composite reports.

3. How does this proposal affect existing policy?

The rule establishes another layer of review for certain high capacity wells. Specifically, those wells located near trout streams, springs, outstanding resource waters and exceptional resource waters and wells with a high water loss will be reviewed to determine whether the well will cause significant adverse environmental impact. This environmental review will be in addition to the current evaluation of potential impacts of proposed high capacity wells on municipal water supply wells.

4. Hearing Synopsis

The department conducted five public hearings around the state concerning proposed Ch. NR 820 in December 2006. The hearings were held in Menomonie, Green Bay, Waukesha, Madison and Stevens Point and were attended by a total of approximately 50 people. In addition to input received at the hearings, the department received substantial comments by e-mail and U.S. Mail. The most common concerns expressed related to the limited extent of groundwater protection areas, the nature and application of screening criteria and the appropriate level of environmental review. The department did modify the proposed rule in response to many of the comments; however, in many cases the department could not modify the rule as suggested due to statutory limitations. The department also modified the rule, or explained why changes were not made, in response to comments from the Legislative Council Rules Clearinghouse. A document which summarizes the comments received and the department's responses is attached. The revised rule has also been considered by the Groundwater Advisory Committee and the rule was generally endorsed by the members of the Committee.

5. Environmental Analysis.

Under the provisions of s. NR 150.03 (6) (b)3.b., Wis. Admin. Code, Environmental Analysis and Review Procedures for Department Action, this is a Type III action. The Drinking Water & Groundwater Program has made a preliminary determination that it is not necessary to prepare an Environmental Assessment for the proposed rule and the department's Bureau of Integrated Science Services concurs.

6. Who will be impacted by the proposed rule? How?

The proposed rule will have an impact on those parties that own and operate high capacity well systems, or that anticipate they may apply for high capacity well approvals in the future, including municipal water utilities, agricultural and industrial interests, real estate developers, recreational facility owners and local units of government. All owners of high capacity wells will be required to submit records of water pumpage from the wells and applications for new high capacity wells will be evaluated to determine impacts on springs and certain water resources. In some cases, approvals may be denied or may include conditions on well construction and operation to ensure protection of the water resources. The rule will also affect local units of government and owners of high capacity wells in the areas of proposed groundwater management areas through development and implementation of regional groundwater management plans.

7. Small Business Analysis.

High capacity wells are owned by a wide range of entities including individuals, municipalities, other units of government, large corporations and small businesses. The review and approval processes specified in the proposed rule for high capacity well applications submitted by small businesses are the same as those for applications submitted by any other applicant. While the proposed rule creates a screening process to identify those wells that will be subject to more comprehensive evaluation, the criteria are related to the characteristics of the proposed well rather than the nature of the owner. The potential impacts on small businesses will be the same as the impacts experienced by other applicants.

The department anticipates a very small percentage of high capacity well applications will require an extensive environmental review and there is a reasonable likelihood that only a few of those will be on behalf of a small business. The department believes that this proposed rule will not have a significant impact on a substantial number of small businesses.

A. Compliance/Reporting Requirements. Any entity, including small businesses, proposing to construct a high capacity well must receive approval from the Department prior to beginning construction. If the proposed well is located in a groundwater protection area, near a spring, or involves an activity with high water loss additional information must be submitted with the application. The proposal may also be subject to an extensive environmental review, including preparation of an environmental assessment to determine whether placement of the well would cause significant adverse environmental impact. The environmental review will result in a longer review period and may result in increased review and approval costs, potential alteration of well construction and operation plans, or in some cases, approval being denied for the construction of high capacity wells. However, these requirements are necessary to ensure protection of springs, trout streams and other valuable surface water resources.

All high capacity well owners are also required to annually report the amount of water that is pumped from their wells. Methods of recording the annual pumpage will vary dependent on the pumping capacity of the well rather than the nature of the owner. Larger wells may be required to be equipped with more sophisticated metering devices because these wells are responsible for the majority of the groundwater withdrawn on a statewide basis, while estimates of water use may suffice for smaller wells.

B. Compliance/Reporting Deadlines and Schedules. The only specified deadline or reporting requirement pertains to submittal of annual pumping information. Pumpage reports for a given calendar year are to be submitted to the department no later than the first day of March in the subsequent year. These requirements apply to all owners of high capacity wells.

C. Possible Simplification of Compliance and Reporting Requirements. No simplification of the requirements are recommended. The annual pumpage reporting requirement should not prove to be an undue burden to well owners. While the department will provide alternate means of estimating pumpage from wells with lower pumping capacity, no reasonable alternatives are available specifically for small business owners which would still provide the necessary information regarding water use. The potential extensive environmental review process is necessary to determine the extent of environmental impacts that could occur as a result of the construction and operation of proposed high capacity wells near springs or within groundwater protection areas. The informational requirements specified in the code represent the minimum information needed by the department to make a preliminary assessment of the possible impacts. Simplification or elimination of any of these requirements would interfere with the department's ability to effectively evaluate the potential environmental consequences of high capacity wells proposed to be constructed near sensitive water resources.

D. Use of Performance Standards in lieu of Design/Operational Standards. The proposed rule does not impose design or operational standards to regulate high capacity wells. Rather, all high capacity wells will be reviewed and regulated to minimize impacts to sensitive water resources. While the approval screening criteria are quantitative in nature they do not constitute design or operational standards. Further, as mentioned previously, the pumping capacity of the proposed well relative to the size of the potentially affected water resource is the important factor, not the nature of the applicant.

E. Potential Exemptions for Small Business. Small businesses should comply with all of the requirements of the proposed code. The annual pumpage reporting requirement is needed to facilitate more effective management of the State's groundwater resources and the consideration of potential surface water impacts as a result of high capacity well construction and operation is necessary whether the owner is a small business or not.

F. Initial Regulatory Flexibility Analysis. High capacity wells are owned by a wide variety of interests, many of which are small businesses. Similarly, wells owned by small businesses can serve a wide range of uses including agriculture, golf courses, non-metallic mining, condominium developments, various industrial/commercial uses, recreational facilities, ethanol production and food processing. The rule requires annual reporting of water use of all high capacity well owners and specifies informational requirements for high capacity well applications that involve wells located near springs and within groundwater protection areas. Owners of high capacity wells will need to keep records of the amount of water pumped from each well and may need to hire qualified persons to install water metering devices on the wells in order to compile the annual pumpage data. In addition, owners of proposed wells that are to be constructed near springs or in a groundwater protection area will need to contract with qualified consultants to provide the necessary hydrological analysis and other information required in such instances.