Clearinghouse Rule 06-121

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCE BOARD
CREATING RULES

The Wisconsin Natural Resource Board proposes an order to create ch. NR 820 pertaining to annual reporting of groundwater pumping information from high capacity wells, designation of groundwater management areas, environmental review of high capacity well applications for impacts on groundwater protection areas and springs and evaluation of wells with greater than 95% water loss.

DG-37-06

Analysis Prepared by the Department of Natural Resources

Statutes Interpreted: Section 281.34, Stats.

Statutory Authority: Sections 281.12, 281.34 and 227.11 (2) (a), Stats.

Explanation of Agency Authority: The Department of Natural Resources has been designated as the state agency with general supervision and control over the waters of the state, including groundwater. 2003 Wisconsin Act 310, enacted in April 2004, expands the Department's authority over high capacity wells to include consideration of impacts to certain sensitive water resources, explicitly requires annual reporting of groundwater pumping and directs the department to designate two groundwater management areas. The proposed rule implements the provisions of 2003 Wisconsin Act 310.

Related Statute or Rule: Chapters NR 812, 102 and 150.

Plain Language Analysis: Under the proposed code, all owners of high capacity wells will be required to submit annual pumping reports to the department. The rule also establishes the areal extent of two groundwater management areas, one in the southeast part of the state and another in the northeast part of the state. The two areas include the entire area of each city, village and town in which the level of the underlying groundwater has dropped by at least 150 feet as a result of groundwater pumping.

Proposed Ch. NR 820 establishes processes and criteria to guide the review of proposed high capacity wells near springs, trout stream, outstanding resource waters (ORW) and exceptional resource waters (ERW). The rule includes screening criteria that will be used to determine the necessary level of environmental review for wells that are proposed to be located near springs or within a groundwater protection area (within 1200 feet of a trout stream, ORW or ERW). Applicants for wells near springs or in groundwater protection areas will be required to submit information to demonstrate that the proposed well will not result in significant adverse environmental impact to the surface water resource. When it is determined that a proposed well could result in a significant adverse environmental impact, the applicant may be required to submit an environmental impact report and the department will prepare an environmental assessment prior to approving or denying the proposed well. Any approval issued for a well near a spring or within a groundwater protection area must include conditions to ensure that significant adverse environmental impact does not result from construction and operation of the well. Similarly, the proposed rule requires that the department prepare an environmental assessment for any high capacity well that has a water loss of greater than 95%. In addition, the department must include conditions in its approvals to ensure that wells with high water loss do not result in significant adverse environmental impact to nearby water resources.

Federal Regulatory Analysis: There are no comparable federal regulations pertaining to groundwater withdrawals.

Adjoining States: Iowa, Michigan and Minnesota all require their larger quantity groundwater users to submit annual summaries of the volume of groundwater used. In addition to requiring pumping information, Minnesota and Michigan each also assess an annual reporting fee.

The states vary in terms of how they evaluate impacts to surface waters as result of groundwater withdrawals. Illinois does not have specific requirements in place to consider such impacts.

Iowa places conditions on groundwater withdrawals to minimize impacts to surface water. Specifically, for withdrawals from unconfined aquifers adjacent to a stream with a drainage basin less than 50 square miles, withdrawals within ¼ mile of a stream cannot exceed 200 gallons per minute. In addition, any withdrawals within 1/8 of a mile from any stream shall cease when the stream flow is below the designated "protected flow". Finally, for streams with a drainage basin greater than 50 square miles, withdrawals between 1/8 and ¼ mile from the stream shall cease when the stream flow is at or below the 7Q10 flow (the lowest 7-day average flow that occurs (on average) once every 10 years).

Michigan may not approve a large quantity groundwater withdrawal if the withdrawal would cause an "adverse resource impact" to a designated trout stream and beginning in the spring of 2008 may not approve a large quantity withdrawal if the withdrawal would cause an adverse resource impact to any stream. The recently enacted statute directs the Michigan regulatory agencies to develop a water withdrawal assessment screening tool by July 2007 which will be used to determine whether or not proposed wells can go forward without further review by the agency. The screening tool will consider the fishery value of the stream, the proposed pumping rate and schedule, the low flow characteristics of the stream and the nature of the groundwater flow system near the stream. In the absence of the assessment tool, it is presumed that a withdrawal will not cause adverse resource impacts if the well is located more than 1,320 feet from a stream or the well is at least 150 feet in depth.

Minnesota conducts an environmental review of proposed commercial and industrial groundwater appropriations that average 30 million gallons per month (~700 gallons per minute) and proposed appropriations that will be used to irrigate 540 or more acres. This review would include an assessment of the possible impacts to surface waters as a result of groundwater withdrawal and could lead to limitations being placed on the appropriation. Minnesota does not have definitive quantitative criteria to judge when an impact is significant, rather it is a subjective assessment based on the professional judgment of the review staff. Minnesota also has the ability to limit existing groundwater appropriations if it is determined that there is a direct relationship between the ground and surface water such that adverse impacts would result. The decision to suspend a groundwater appropriation would be made on a case-by-case basis taking into consideration site-specific information and concerns. To date few, if any, such suspensions have been issued.

Summary of the Factual Data and Analysis that Support the Proposed Rule: 2003 Wisconsin Act 310 recognizes the interrelation between groundwater and surface waters and contemplates a process through which the department can evaluate proposed high capacity wells to identify, evaluate and minimize the impacts of such wells on important surface water resources. The proposed rule includes screening criteria to assist the department in identifying those wells that can be approved without conducting a detailed review of the potential impacts to related water resources. Generally, the screening criteria consider the relative ratio of the proposed pumping capacity to the low flow or level conditions of the nearby water body or spring. The department believes that a comparison of the proposed pumping rate with the low flow conditions of the water body provides for a conservative assessment of the potential impacts from the well. When the proposed pumping capacity constitutes a relatively small percentage of the water balance of the water body, the proposed high capacity well can proceed through the approval process without a detailed assessment of potential impacts to surface waters. Otherwise, a more detailed review will be required and in some cases an environmental assessment will be prepared.

The areas making up the groundwater management areas are based on results of modeling by the U.S. Geological Survey and other researchers that evaluate the extent of drawdown and related impacts from groundwater pumping that have developed since the settlement of the eastern portion of the state. The

models depict portions of the state that have experienced lowering of regional groundwater levels of several hundred feet. The department used the model results to determine those areas in which groundwater levels have been reduced by at least 150 feet and, as required under Act 310, has designated those areas as two separate groundwater management areas.

Analysis and Supporting Documentation in Support of the Determination of the Rule's Effect on Small Business: 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. It is anticipated that only a small number of high capacity well applications will require an extensive environmental review and only a few of those will involve small businesses. Therefore, the proposed rule will not have a significant impact on a substantial number of small businesses.

Effect on Small Business: 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. In addition, the proposal may be subject to an extensive environmental review 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.

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SECTION 1. Chapter NR 820 is created to read:

Chapter NR 820
GROUNDWATER QUANTITY PROTECTION

NR 820.31 High Capacity Wells near Springs
NR 820.32 Projects with High Water Loss
NR 820.33 Public Utility Wells

Subchapter I - General Provisions

NR 820.10 Purpose. The purpose of this chapter is to designate areas of the state in which impacts from groundwater drawdown and pumpage are so extreme that regional planning and management is necessary to avoid, minimize and manage future impacts. This chapter also establishes review criteria applicable to high capacity well applications involving wells situated near springs, trout streams, outstanding resource waters, exceptional resources waters groundwater withdrawals with high water loss.

NR 820.11 Applicability. This chapter applies to all counties, cities, towns, villages, utility district under s. 66.0827, Stats., that provide water, public inland lake protection and rehabilitation districts that have town sanitary district powers under s. 33.22(3), Stats., joint water authorities created under s. 66.0823, Stats., and municipal water districts under s. 198.22, Stats. This chapter also applies to persons that are owners of high capacity wells and high capacity well systems including persons that propose to construct a high capacity well.

NR 820.12 Definitions. The following definitions apply to terms used in this chapter:

(1) "Approval" means an approval issued by the department of natural resources under s. 281.17(1), 2001 Stats., or s. 281.34(2), Stats., prior to construction of a high capacity well.

(2) "Class 1 trout stream" means a stream, portion of a stream or a farm drainage ditch with a prior stream history that contains a self-sustaining population of trout and classified as such in Wisconsin Department of Natural Resources publication PUB-FH-806 2002, Wisconsin Trout Streams. Farm drainage ditches that support self-sustaining populations of trout but do not have a prior stream history are not trout streams for purposes of this chapter.

Note: Copies of this document may be obtained from the department of natural resources, bureau of fisheries management and habitat protection, 101 South Webster Street, Natural Resources Building, PO Box 7921, Madison, Wisconsin 53707-7921.

(3) "Class 2 trout stream" means a stream, portion of a stream or a farm drainage ditch with a prior stream history that contains a population of trout made up of one or more age groups, above the age one year, in sufficient numbers to indicate substantial survival from one year to the next but in which stocking is necessary to fully utilize the available trout habitat or to sustain the fishery and classified as such in Wisconsin Department of Natural Resources publication PUB-FH-806 2002, Wisconsin Trout Streams. Farm drainage ditches that meet these criteria but do not have a prior stream history are not trout streams for purposes of this chapter.

(4) "Class 3 trout stream" means a stream or portion of a stream that has marginal trout habitat with no natural reproduction of trout occurring, requiring annual stocking of trout to provide trout fishing, and generally without carryover of trout from one year to the next and classified as such in Wisconsin Department of Natural Resources publication PUB-FH-806 2002, Wisconsin Trout Streams. Farm drainage ditches that meet these criteria but do not have a prior stream history are not trout streams for the purpose of this chapter.

(5) "Consumptive use coefficient" has the meaning specified in s. NR 142.02(4).

Note: s. NR 142.02(4) defines "consumptive use coefficient" to mean "a constant numerical measure, as determined under s. NR 142.04(1) to (4) which is used to determine the consumptive use portion of a facility's withdrawal".

(6) “Department” means the department of natural resources.

(7) “80% exceedance flow” means the flow in a stream that, based on statistical probability, will be exceeded 80% of the time on an annual basis.

(8) “Groundwater management area” means a multi-jurisdictional area including towns, cities, villages and counties within which the level of the groundwater potentiometric surface in any of its underlying aquifers has been reduced by 150 feet or more from the level at which the potentiometric surface would be if no groundwater withdrawals had occurred.

(9) “Groundwater protection area” has the meaning specified in s. 281.34(1)(a), Stats.

Note: s. 281.34(1)(a) defines “groundwater protection area” to mean “an area within 1,200 feet of any of the following:
(a) An outstanding resource water identified under s. 281.15 that is not a trout stream.
(b) An exceptional resource water identified under s. 281.15 that is not a trout stream.
(c) A class 1, class 2, or class 3 trout stream, other than a class 1, class 2, or class 3 trout stream that is a farm drainage ditch with no prior stream history as identified under sub. (8)(a).

(10) “High capacity property” has the meaning specified in s. NR 812.07(52).

Note: s. NR 812(07)(52) defines “high capacity property” to mean “one property on which a high capacity well system exists or is to be constructed.”

(11) “High capacity well” has the meaning specified in s. 281.34(1)(b), Stats.

Note: s. 281.34(1)(b) defines “high capacity well” to mean “a well that, together with all other wells on the same property, has a capacity of more than 100,000 gallons per day.”

(12) “High capacity well system” has the meaning specified in s. NR 812.07(53).

Note: s. NR 812.07(53) defines “high capacity well system” to mean “one or more wells, drillholes, or mine shafts used or to be used to withdraw water for any purpose on one property, if the total pumping or flowing capacity of all wells, drillholes or mine shafts on one property is 70 or more gallons per minute based on the pump curve at the lowest system pressure setting, or based on the flow rate.”

(13) “Local governmental unit” has the meaning specified in s. 281.34(1)((c), Stats.

Note: s. 281.34(1)(c), Stats., defines “local governmental unit” to mean a “city, village, town, county, town sanitary district, utility district under s. 66.0827, Stats., that provides water, public inland lake protection and rehabilitation district that has town sanitary district powers under s. 33.22(3), Stats., joint local water authority created under s. 66.0823, Stats., or municipal water district under s. 198.22, Stats”.

(14) "One property" has the meaning specified in s. NR 812.07(68).

Note: s. NR 812.07(68) defines “one property” to mean “all contiguous land controlled by one owner, lessee, or any other person having a possessory interest. Lands under single ownership bisected by highways or railroad right-of-ways are considered contiguous.”

(15) “Owner” has the meaning specified in s. 281.34(1)(d), Stats.

Note: s. 281.34(1)(d) defines “owner” to mean “a person who owns property on which a well is located or proposed to be located or the designated representative of that person.”

(16) “Potentiometric surface” has the meaning specified in s. 281.34(1)(e), Stats.

Note: s. 281.34(1)(e), Stats., defines “potentiometric surface” to mean “a measure of pressure of groundwater in an aquifer based on the level to which groundwater will rise in a well placed in the aquifer.”

(17) "Prior stream history" means a determination made by the department that an artificial waterway or a portion of such waterway was originally a navigable stream before it was ditched or channelized.

(18) "Public rights stage or flow" means the minimum stage or flow that will protect the public interest and rights in a navigable waterway including those related to navigation, fish and wildlife, water-based recreation, aesthetic enjoyment, and water quality preservation.

(19) "Reconstruction" has the meaning specified in s. NR 812.07(85).

Note: s. NR 812.07(85) defines "reconstruction" to mean "modifying the original construction of a well. Reconstruction includes, but is not limited to deepening, lining, installing or replacing a screen, underreaming, hydrofracturing and blasting."

(20) "Significant adverse environmental impact" means alteration of groundwater levels, groundwater discharge, surface water levels, surface water discharge, groundwater temperature, surface water temperature, groundwater chemistry, surface water chemistry, or other factors to the extent such alterations cause significant degradation of environmental quality.

(21) "Spring" has the meaning specified in s. 281.34(1)(f), Stats.

Note: s. 281.34(1)(f), Stats., defines "spring" to mean "an area of concentrated groundwater discharge occurring at the surface of the land that results in a flow of at least one cubic foot per second at least 80 % of the time."

(22) "Water loss" has the meaning specified in s. 281.34(1)(g), Stats.

Note: s. 281.34(1)(g), Stats., defines "water loss" to mean "a loss of water from the basin from which it is withdrawn as a result of interbasin diversion, as defined in s. 281.35(1)(g), Stats., or consumptive use or both."

(23) "Well" has the meaning specified in s. 281.34(1)(h), Stats.

Note: s. 281.34(1)(h) defines "well" to mean "any drillhole or other excavation or opening deeper than it is wide that extends more than 10 feet below the ground surface and is constructed for the purpose of obtaining groundwater."

NR 820.13 High capacity wells annual pumping reports. (1) Owners of high capacity wells shall record pumpage data on a monthly basis and shall report such information to the department at no less than an annual frequency using methods and forms provided by the department. Reports of annual pumpage for a given calendar year shall be submitted to the department no later than the first day of March in the following calendar year.

(2) Individual reports shall be prepared for any wells with the capacity to withdraw water at a rate of 100,000 gallons per day or more.

(3) If one property does not contain any single wells with an individual capacity to withdraw water at a rate of 100,000 gallons per day or more, the annual pumpage may be reported as a composite volume for the entire property based on estimated water usage using a method prescribed by the department.

(4) If one property contains wells with individual capacity to withdraw water at a rate of at least 100,000 gallons per day and wells with maximum pumping capacity less than 100,000 gallons per day, a composite pumpage volume may be reported for those wells with individual maximum pumping capacity less than 100,000 gallons per day based on estimated water usage using a method prescribed by the department.

Subchapter II – Groundwater Management Areas

NR 820.20 Groundwater management areas. (1) The following areas are designated as groundwater management areas. Any local governmental unit contained within these areas shall be considered to be part of the groundwater management area unless it is explicitly excluded.

(a) Southeast Wisconsin Groundwater Management Area consisting of the following:

1. All of Kenosha county.
2. All of Milwaukee county.
3. All of Ozaukee county.
4. All of Racine county
5. All of Waukesha county.
6. The portions of Walworth county consisting of the U.S. Public Land Survey townships of East Troy, Spring Prairie, Lyons, Bloomfield, Linn and Geneva, with the exception of the village of Williams Bay and city of Elkhorn.
7. All of Washington county with the exception of the U.S. Public Land Survey townships of Wayne and Kewaskum.

(b) Northeast Wisconsin Groundwater Management Area consisting of the following:

1. All of Brown county.
2. The portions of Calumet county consisting of the U.S. Public Land Survey townships of Woodville and Harrison and the village of Sherwood.
3. The portions of Outagamie county consisting of the U.S. Public Land Survey townships of Grand Chute, Van den Broek, Buchanan, Freedom and Kaukauna, including the cities of Appleton, Kimberly, Combined Locks, Little Chute and Kaukauna.

Subchapter III – Environmental Review of High Capacity Well Applications

NR 820.30 High capacity wells in groundwater protection areas. (1) Except as provided in sub. (2), an application for approval of a high capacity well within a groundwater protection area shall be supplemented to include the following information:

(a) Name of the class 1, 2 or 3 trout stream, outstanding resource water or exceptional resource water that is located within 1,200 feet of the proposed well location.

(b) Distance from the proposed well to the trout stream, outstanding resource water or exceptional resource water.

(c) If the potentially affected water body is a stream, description of the stream channel at the point nearest to the proposed well location including stream width, depth of water, seasonal flow information and nature of the substrate.

(d) If the potentially affected water body is a lake or flowage, description of the lake or flowage including identification and approximate flows of major inlets and outlets, analysis of historic lake level fluctuations, and nature of the lake bed.

(e) Description of all other wells on the high capacity property owned by the applicant including location relative to the trout stream, or outstanding or exceptional resource water, maximum pumping capacity and estimated actual pumping rate and frequency of pumping for each well.

(f) A discussion and analysis of alternative well locations and feasibility of siting the well outside of the groundwater protection area.

(g) A determination by a registered professional engineer or registered professional hydrologist of the 80% exceedance flow or level for the stream and associated water level at the location closest to the proposed well location.

(h) If the affected water body is a lake, a determination by a registered professional engineer or registered professional hydrologist of the 80% exceedance flow and level for the primary surface water outlet and the invert elevation of the primary surface water outlet.

(i) The appropriate consumptive use coefficient.

(2) The department may approve a high capacity well within a groundwater protection area without evaluating potential impacts to a trout stream, outstanding resource water or exceptional resource water and the information specified under sub..(1)(g) to (i) is not required if any of the conditions in pars. (a) to (d) apply. The department may include in any approval issued under this subsection and s. 281.34, Stats., conditions to ensure that the well will not result in significant adverse environmental impacts to trout streams, outstanding resource waters and exceptional resource waters.

(a) The high capacity well application is for a well that does not have a capacity of 100,000 or more gallons per day and the well is to be used solely for domestic purposes for a single residence.

(b) The proposed high capacity well is intended to be used for purposes such as fire suppression, maintaining the level of a natural pond and similar non-commercial, non-industrial and non-agricultural irrigation purposes, and the well will only be used on a sporadic basis averaging less than 30 days each year and will generally operate for no more than two consecutive days.

(c) The high capacity well application is for reconstruction of an existing well and the application does not seek an increase in the approved pumping capacity of the well.

(d) The high capacity well application is for temporary dewatering of a single construction site in unconsolidated deposits and the duration of the project will not extend more than one construction season.

(3)(a) The department may approve the proposed well without completing an environmental assessment under ch. NR 150 if it determines that construction and operation of the proposed well will not result in significant adverse environmental impacts to the stream or lake and at least one of the following conditions is satisfied:

1. The potentially affected water body is a trout stream and the proposed pumping capacity of the high capacity well is less than 10% of the value for the 80% exceedance flow for the stream.

2. The potentially affected water body is an outstanding or exceptional resource water that is a stream and the proposed pumping capacity of the high capacity well is less than 10% of the value for the 80% exceedance flow for the stream.

3. The potentially affected water body is an outstanding or exceptional resource water that is a lake and the proposed pumping capacity of the high capacity well is less than 10% of the value for the 80% exceedance flow for the primary surface outlet from the lake.

4. The potentially affected water body is an outstanding or exceptional resource water that is a lake with a surface water outlet and a surface area of at least 400 acres.

5. The potentially affected water body is an outstanding or exceptional resource water that is a lake with a surface water outlet, a surface area of less than 400 acres and the volume of water that could be pumped from the well in 30 days of continuous pumping at maximum capacity is less than 10% of the volume of the lake.

(b) The department shall include in any approval issued under this subsection and s. 281.34, Stats., conditions to ensure that the well will not result in significant adverse environmental impacts to trout streams, outstanding resource waters and exceptional resource waters. The conditions may include but are not limited to conditions as to location, depth of lower drillhole, depth interval of well screen, pumping capacity, pumpage schedule, months of operation, rate of flow and conservation measures.

(4) The following provisions shall apply to proposed wells that are not included under sub. (3)(a)1.to 5. and proposed wells that satisfy the conditions under sub. (3)(a)1. to 5. but for which the department has determined that the proposed well may have a significant adverse environmental impact on the trout stream, outstanding resource water or exceptional resource water:

(a) The department shall notify the applicant that the proposed well may have a significant impact on the stream or lake and may require additional information concerning flow characteristics of the affected stream or lake, site-specific geologic and hydrogeologic information and pertinent regional information.

(b) Within 60 days of receipt of a complete application, the department shall identify additional informational requirements necessary to evaluate the proposed well and may determine that the applicant shall develop and submit an environmental impact report in accordance with s. NR 150.25.

(c) Following receipt of the requested information, the department shall prepare an environmental assessment in accordance with the procedures of s. NR 150.22 and shall develop and publish a news release in accordance with s. NR 150.21.

(d) If the department determines that operation of the proposed well will not result in significant environmental impact on critical resources within the stream or lake and other uses of the stream or lake, the department shall approve the well and include in any approval issued under s. 281.34, Stats., conditions to ensure that operation of the proposed well will not cause significant adverse environmental impact to critical aquatic resources or other existing uses of the stream or lake. The conditions may include but are not limited to conditions as to location, depth of casing, depth of lower drillhole, depth interval of well screen, pumping capacity, pumpage schedule, months of operation, rate of flow, ultimate use and conservation measures. The department may approve a proposed well that is predicted to result in a reduction of stream flow or lake level to a level below the public rights stage only if the reduction does not cause permanent and irreversible impacts to the stream or lake, is limited to portions of the year when such a reduction will not result in significant adverse environmental impact to critical resources and does not result in unreasonable detriment to other users of the stream or lake. In the case of Class 1, 2 and 3 trout streams and outstanding or exceptional resource waters that contain warm water sport fisheries, flow conditions in the stream shall be maintained such that the fish populations and critical habitat are not adversely affected.

(5) As part of an approval under s. 281.34, Stats., the department may require the owner of the well to implement a monitoring plan to document stream flow or lake level conditions in the vicinity of any well located within a groundwater protection area and based on results of the monitoring program may revise the approval issued under s. 281.34, Stats.

(6) The department shall not issue an approval under s. 281.34, Stats., for a well within a groundwater protection area unless it is able to include and includes conditions that ensure that the well does not cause significant environmental impact.

(7) The department may order the owner of a high capacity well constructed prior to May 7, 2004 that is located in a groundwater protection area to mitigate the effects of the well. Mitigation may include abandonment of the well, replacement of the well, if necessary, and management strategies. If mitigation is ordered, the department shall provide funding for the full cost of the mitigation, except that full funding is not required if the department is authorized under ch. 280, Stats., to require the well to be abandoned because of issues regarding public health.

NR 820.31 High capacity wells near springs. (1) For any application for approval of a high capacity well under s. 281.34, Stats., the applicant shall identify and the department shall verify if there is a spring, as defined in this chapter, located in the vicinity of the proposed well.

(2) If the department determines that a proposed high capacity well is located near a spring the department shall assess the proposed well to determine whether construction and operation of the well will result in substantially reduced flow from the spring and significant environmental impact to the spring. The department shall consider the location of the well relative to the spring, well construction details, information regarding construction and operation of all other wells on the property, available information concerning the geology and hydrogeology of the area, historical flow data for the spring and other pertinent information.

(3) The department may approve a high capacity well near a spring without evaluating potential impacts to the spring if any of the conditions in pars. (a) to (d) apply. The department may include in any approval issued under this subsection and s. 281.34, Stats., conditions to ensure that the well will not result in significant adverse environmental impact to a spring.

(a) The high capacity well application is for a well that does not have a capacity of 100,000 or more gallons per day and the well is to be used solely for domestic purposes for a single residence.

(b) The proposed high capacity well is intended to be used for purposes such as fire suppression, maintaining the level of a natural pond and similar non-commercial, non-industrial and non-agricultural irrigation purposes, and the well will only be used on a sporadic basis averaging less than 30 days each year and will generally operate for no more than two consecutive days.

(c) The high capacity well application is for reconstruction of an existing well and the application does not seek an increase in the approved pumping capacity of the well.

(d) The high capacity well application is for temporary dewatering of a single construction site in unconsolidated deposits and the duration of the project will not extend more than one construction season.

(4) If the department determines that construction and operation of the proposed well will not result in a significant reduction in flow from the spring or cause other significant adverse environmental impact to the spring, the department may approve the proposed well and shall include in any approval issued under s. 281.34, Stats., conditions to ensure that the well will not result in significant adverse environmental impact to the spring. The conditions may include but are not limited to conditions as to location, depth of casing, depth of lower drillhole, depth interval of well screen, pumping capacity, pumpage schedule, months of operation, rate of flow, ultimate use and conservation measures.

(5) The following provisions shall apply to proposed wells that are determined to reduce flow in a spring such that significant adverse environmental impact to the spring or related aquatic and terrestrial resources may result:

(a) The department shall notify the applicant that the proposed well may have a significant adverse environmental impact on a spring and may require additional information concerning flow characteristics of the affected spring, site-specific geologic and hydrogeologic information, a discussion and analysis of alternative well locations, and pertinent regional information.

(b) Within 60 days of receipt of a complete application the department shall identify additional informational requirements necessary to evaluate the proposed well and may determine that the applicant shall develop and submit an environmental impact report in accordance with s. NR 150.25.

Following receipt of the requested information, the department shall prepare an environmental assessment in accordance with the procedures of s. NR 150.22 and shall develop and publish a news release in accordance with s. NR 150.21.

(c) If the department determines that operation of the proposed well will not result in significant adverse environmental impact to the spring and related resources, the department shall approve the well and include in any approval issued under s. 281.34, Stats., conditions to ensure that operation of the proposed well will not cause significant adverse environmental impacts to the spring or critical resources related to the spring. The conditions may include but are not limited to conditions as to location, depth of casing, depth of lower drillhole, depth interval of well screen, pumping capacity, pumpage schedule, months of operation, rate of flow, ultimate use and conservation measures. The department may approve a proposed well that is predicted to result in a reduction of flow in a spring only if the reduction does not cause permanent and irreversible impacts to the spring and related resources. The department may not approve a proposed high capacity well that is predicted to result in a reduction in flow from a spring such that the spring does not flow at one cubic foot per second or greater 80% of the time or that will reduce the average flow from a spring by greater than 20%.

(d) As part of an approval under s. 281.34, Stats., the department may require the owner of the well to implement a monitoring plan to document conditions of the spring and related resources and based on results of the monitoring program may revise the approval issued under s. 281.34, Stats.

NR 820.32 Projects with high water loss. (1) For any application for approval of a high capacity well under s. 281.34, Stats., the applicant shall identify and the department shall verify whether the proposed use of the well will result in an annual water loss of greater than 95%. The department may require submittal of a detailed water balance as part of the application in order to determine the approximate water loss.

(2) If the department determines that a proposed high capacity well will result in an annual water loss of greater than 95%, the department shall notify the applicant that the proposed well may result in a water loss of greater than 95%. Within 60 days of receipt of a complete application the department shall identify additional informational requirements necessary to evaluate the proposed well and may determine that the applicant shall develop and submit an environmental impact report in accordance with s. NR 150.25.

(3) Following receipt of all requested information the department shall prepare an environmental assessment in accordance with the procedures of s. NR 150.22, and shall develop and publish a news release in accordance with s. NR 150.21.

(4) If the department determines that construction and operation of the proposed well will not result in significant environmental impact to surface and groundwater resources, the department shall approve the well and include in any approval issued under s. 281.34, Stats., conditions to ensure that operation of the proposed well will not cause significant adverse environmental impact to surface water or groundwater resources. The conditions may include but are not limited to conditions as to location, depth of casing, depth of lower drillhole, depth interval of well screen, pumping capacity, pumpage schedule, months of operation, rate of flow, ultimate use and conservation measures.

(5) As part of an approval under s. 281.34, Stats., the department may require the owner of the well to develop and implement a water conservation and management plan that minimizes, to the extent technically and economically feasible, the degree of water loss related to operation of the high capacity well.

(6) As part of an approval under s. 281.34, Stats., the department may require the owner of the well to implement a monitoring plan to evaluate environmental impacts caused by operation of the well and based on results of the monitoring program may revise the approval issued under s. 281.34, Stats.

NR 820.33 Public utility wells. Sections NR 820.30 to 820.32 do not apply to proposed high capacity wells that are water supplies for public water systems operated by a public utility, as defined by s. 196.01, Stats., engaged in supplying water to or for the public, if the department determines that there is no other reasonable alternative location for the well and is able to include and includes in the approval conditions, which may include conditions as to location, depth, pumping capacity, rate of flow, and

ultimate use, that ensure that the environmental impact of the well is balanced by the public benefit of the well related to public health and safety.

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

SECTION 3. BOARD ADOPTION. This rule was approved and adopted by the State of Wisconsin Natural Resources Board on _____.

Dated in Madison, Wisconsin_____

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By _____
Scott Hassett, Secretary

(SEAL)