

b. Groundwater functions. Groundwater may discharge to a wetland, recharge from a wetland to another area, evaporate from and/or flow through a wetland.

c. Storm and flood water storage. Some wetlands may be important for storing water and retarding flow during periods of flood or storm discharge. Even wetlands without surface water connections to other water bodies may serve this function. Such wetlands can reduce or at least modify the potentially damaging effects of floods by intercepting and retaining water which might otherwise be channelled through open flow systems. The importance of a given wetland for storm and flood water storage may be modified by the cumulative effects of the proposed activities and previous activities within the watershed.

d. Shoreline protection. Wetlands also function to dissipate the energy of wave motion and runoff surges from storms and snowmelt, and thus lessen the effects of shoreline erosion. Wave action shielding by wetlands is not only important in preserving shorelines and channels, but also in protecting valuable residential, commercial and industrial acreage located adjacent to the aquatic ecosystems.

e. Other watershed functions. A wetland may perform a variety of other important functions within a watershed. Wetlands may degrade, inactivate or store materials such as heavy metals, sediments, nutrients, and organic compounds that would otherwise drain into waterways.

3. Recreational, cultural and economic value. Some wetlands are particularly valuable in meeting the demand for recreational areas (for uses such as hunting, canoeing, hiking, snowshoeing, and nature study), directly or indirectly, by helping to maintain water quality and providing wildlife habitat. To some people and cultures certain wetlands provide an important part of their economic base and/or contribute to their cultural heritage.

4. Scarcity of wetland type. Certain wetland types (e.g., fens, wild rice lakes) which are statewide or regionally scarce possess special resource significance. Scarcity or rareness depends on the frequency of occurrence of the type, the area of the type in existence prior to settlement, the historical conversion of the type and its resultant degree of destruction, and the amount of similar habitat in the present landscape of the region.

5. Aquatic study areas, sanctuaries and refuges. Through various local, state and federal actions, large areas of the nation's wetlands have been designated and preserved by public agencies for scientific study, and the protection of aquatic and terrestrial habitats. Many public and private groups have also established sanctuaries and refuges in wetlands.

6. The ecosystem concept in a regional context. The previous sections suggest that wetlands may not only have important functions within their boundaries, but may also interact with ecosystems of the surrounding region. The potential impact of wetland modification may influence distant wetlands if they are structurally and functionally related in the region. Similarly, the functions and values of any wetland may be affected by other existing and potential water resource activities in the region. Therefore, consideration should be given to those impacts which are shown to be of regional concern.

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(4) STATEMENT OF POLICY. (a) The board is concerned with the continuing reduction in the quantity and quality of wetlands in this state. A large percentage of Wisconsin's wetlands have been altered or destroyed in the years since settlement. It is the policy of the natural resources board that wetlands shall be preserved, protected and managed to maintain, enhance or restore their values in the human environment.

(b) It is in the public interest that department decisions which lead to alteration of or effects on wetlands under its jurisdiction or control are based on the intent to preserve, protect and manage them for the maintenance or enhancement of their values.

(c) Wetlands are those areas characterized by surface water or saturated soils during at least a part of the growing season such that moist soil vegetation or shallow water plants can thrive. The permanent channels of streams and rivers and the open water areas of lakes and reservoirs are not included in this definition.

(5) GENERAL STANDARDS TO BE APPLIED IN DECISIONS AFFECTING WETLANDS. (a) *Department regulatory actions.* The department shall consider proposals which require its approval with the presumption that wetlands are not to be adversely impacted or destroyed and that the least overall adverse environmental impact shall result. Therefore, the department shall give primary consideration to reasonable alternatives, including the alternative of denying the requested approval, that avoid adverse impacts on wetlands and that result in the least overall adverse environmental impact. When all reasonable alternatives necessarily result in adverse impacts on wetlands, the proposed activity shall be conducted in a manner which minimizes the loss of wetlands and the loss of functions which those wetlands may serve with respect to related wetlands and other waters of the state both in and outside the proposed area of use, and which results in the least overall adverse environmental impact. Where consistent with its existing authority, the department shall require that sponsors of actions affecting wetlands convincingly demonstrate that their proposals:

1. Need to be located in or adjacent to the wetland (s) in question,
2. Are technically, economically and environmentally feasible, and
3. Meet other applicable criteria as provided by law.

(b) *Department management actions.* The department shall select resource management techniques which enhance wetland values with no significant or irreversible adverse effects. Actions shall be limited to those specifically required to meet the objectives enumerated in NR 1.95 (2) (d).

(6) IMPLEMENTATION. (a) In making a regulatory decision where adverse wetland impacts may result, and where its existing authority allows, the department shall evaluate the proposed action and all reasonable alternatives, including the alternative of no action, through consideration of the wetland values enumerated in NR 1.95 (3) (b). In its evaluation, the department shall also consider:

1. The potential reversibility or irreversibility of wetland impacts which would result from implementation of proposed actions;

2. The potential impacts of proposed actions on other scarce natural resources in and outside the proposed area of use;

3. The effects of the use of non-wetland areas, which may alter adversely the biological, hydrological, physical or chemical characteristics of wetlands and other waters of the state in and outside the proposed area of use;

4. The presence or absence of physical alterations resulting from human activity;

5. Other existing or potential uses of wetlands in the region; and

6. The cumulative effects on wetlands of piecemeal alterations.

(b) The department shall conduct its resource management activities in a manner consistent with NR 1.95 (5) (b).

(c) The department's land acquisition program shall place special emphasis on obtaining wetlands that provide quality fish and wildlife habitat, particularly for threatened or endangered species; that significantly affect the maintenance or improvement of water quality; that have special value as scientific or natural areas; or that are imminently threatened with extensive alteration or destruction.

(d) The department's enforcement activities shall include steps to assure, to the fullest extent practicable, the restoration of wetlands which were unlawfully altered.

(e) In its liaison activities with federal, local and other state agencies and in the absence of regulatory authority, the department shall strongly recommend avoidance of wetland areas and concur with their use or alteration only when necessary to minimize the overall environmental impacts of a proposal. In such cases, the recommended amount of wetland use or alteration shall be held to the minimum.

(f) The department, in evaluating the wetland effects of proposed actions, shall not recognize the conveyance of land (or other consideration) to local units of government, the state of Wisconsin or the federal government as off-setting the adverse impacts of the proposal and shall only consider the net effects of the action by itself.

(g) The department shall ensure that its proposals for administrative rules and for legislation include appropriate provisions, consistent with this rule, except as otherwise provided by law.

(h) The department shall cooperate with appropriate governmental units, the public and private groups to further the protection and enhancement of wetlands and to provide opportunities for education on wetland values and ecology.

(i) For its activities subject to the requirements of this rule, the department shall establish procedures, within the existing decision-making framework, to cause evaluations to be made and decisions rendered in accordance with the standards described in NR 1.95 (5). The department shall also take steps to ensure that its decisions altering or affecting wetlands are documented and available for review. The department shall, in selecting a course of action, indicate how impacts on wetlands were considered in the decision-making process.

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(7) **MONITORING AND REPORTING.** The board intends that the department shall evaluate and monitor its own progress in achieving the objectives of this rule and shall establish procedures, subject to board approval, for reporting such progress to the board.

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