Minnesota Department of Natural Resources

500 Lafayette Road • St. Paul, MN • 55155-4037



September 15, 2008

Legislative Reference Library 645 State Office Building 100 Constitution Avenue St. Paul, Minnesota 55155

KE:

In the Matter of the Proposed Rules of the State Department of Natural Resources Relating To Aquatic Plant Management; Governor's Tracking #AR 246

Dear Librarian:

The Minnesota Department of Natural Resources intends to adopt rules relating to Aquatic Plant Management. We plan to publish a Notice of Hearing in the September 22, 2008 State Register.

The Department has prepared a Statement of Need and Reasonableness. As required by Minnesota Statutes, sections 14.131 and 14.23, the Department is sending the Library a copy of the Statement of Need and Reasonableness at the same time we are mailing our Notice of Intent to Adopt Rules.

If you have questions, please contact me at 651-259-5092.

Yours truly,

Steve Enger, Coordinator

Aquatic Plant Management Program

Enclosure: Statement of Need and Reasonableness

STATE OF MINNESOTA

DEPARTMENT OF NATURAL RESOURCES DIVISION OF ECOLOGICAL RESOURCES

IN THE MATTER OF PROPOSED ADOPTION OF AQUATIC PLANT MANAGEMENT RULES

STATEMENT OF NEED AND REASONABLENESS
5/15/08

GENERAL PROVISIONS

I. INTRODUCTION

Purpose

The Department of Natural Resources (DNR), Division of Ecological Resources administers a diverse group of rules governing natural resources. The primary purpose of the aquatic plant management (APM) rules is to provide riparian landowners access to open water, while protecting the aquatic habitat and water quality values provided by aquatic plants. In recent years, invasive aquatic plants have posed additional management challenges that the APM rules need to address. The proposed amendments to existing rules address a number of issues related to APM including: APM activities that may be done without a permit and that require a permit; prohibited methods of aquatic plant control; criteria and conditions for APM permits; aquatic plant control restrictions; APM permit application requirements; APM permit revocation; variances for APM permits; commercial harvest of aquatic plants; and lake vegetation management plans (LVMPs).

Notification to persons and Classes of Persons Affected by the Proposed Rules

A "request for comments" was published in the State Register on December 19, 2005. The 60-day comment period ended on February 17, 2006. This notice described the general areas of the proposed rule amendments, the persons affected by the proposed rules, and the statutory authority for the proposed rules. A copy of the request for comments and a cover letter was sent to persons and associations who have requested to be notified of DNR rulemaking as provided by Minn. Stat., sec. 14.14, subd. 1a. In addition, a copy of the request for comments and a cover letter were sent to individuals and organizations who could be affected by or would have interest in the proposed rules including! the approximately 3,900 individuals who received an aquatic plant management permit in 2005; individuals with commercial aquatic pest control licenses and commercial aquatic plant harvest permits; conservation districts; aquatic, and plant-related professional societies; watershed districts; and conservation and environmental organizations.

The DNR received comments from 94 groups and individuals in response to the request for comments. Ten people or groups commented that they were generally supportive of the rulemaking efforts and 15 commented that they generally oppose the revision of the aquatic plant management rules. Many of the groups and individuals also made comments on specific parts of the rule revisions being considered. The comments received are summarized below. Since many comments included multiple parts, the number of responses summarized is greater than the total numbers of responses.

In the request for comments the DNR indicated that it was considering changes in the amount of near-shore submersed vegetation that an individual property owner can control. The DNR received a number of comments regarding changes in this provision including:

- 14 in favor of reducing the amount of near-shore vegetation removal allowed and 26 opposing a change;
- two people indicated that lakeshore property owners should be allowed to restore their shoreline to its previous condition, before plants became a problem;

- two organizations, the Carnelian-Marine Watershed District (CMWD) and the Ramsey-Washington Metro Watershed District (RWMWD), supported more stringent restrictions on the amount of shoreline frontage allowed for control of aquatic plants;
- the White Bear Lake Conservation District (WBLCD) supported restrictions on the amount of chemical and mechanical control allowed;
- two organizations, the Minnesota Water Ski Association (MWSA) and Minnesotan's for Healthy Lakes (MHL), and one individual stated that reductions in control would reduce the economic value of land surrounding the lake;
- ten people stated that resorts, park districts and public swimming beaches should be allowed greater latitude for control of plants growing in the near-shore area (for many years the APM rules have allowed greater latitude for aquatic plant control in public areas, at resorts, and condominiums, and the proposed rules would continue this practice);
- three people felt that the minimum width of the control area should be 50 feet and the maximum width decreased to 75 feet to provide more equitable control;
- one person stated that better standards are needed to define when an impediment exists and that control should not be allowed for aesthetic reasons or personal inconvenience;
- five people commented that the amount of control should be based on the ratio of developed to undeveloped property and include criteria for bottom type, invasive species and water quality;
- five people stated that lakes in different areas of the state require different rules;
- one person commented that multiple property owners should be required to use a common access channel, not the current approach where one channel is allowed for each property;
- one person stated that small areas of mechanical control are not harmful;
- one person stated that permits should be more generous if the owner's shoreline was left natural:
- one person felt that a tax break for natural shoreline would encourage less plant removal;
- the Nature Conservancy supports more sustainable management to preserve and protect lakes and indicated that there should be careful regulation of "convenience destruction" of aquatic vegetation.

In the request for comments, the DNR indicated that it was considering changes in how "automated plant control devices" were defined and regulated. Comments regarding this change included:

- the Minnesota Center for Environmental Advocacy (MCEA) stated that these devices should be banned from use in Minnesota lakes;
- one person felt that the current regulations were too liberal in the permitting of these devices; and
- four people felt that these devices should be permitted to operate in larger areas than is currently allowed by rule.

Current rules provide that littoral area limits on aquatic plant control could be exceeded at the discretion of the DNR on certain lakes in the Twin Cities Metropolitan Area if that practice was

permitted prior to 1976. This provision is known as the "grandfather clause." The DNR had indicated before and during the request for comments period that it would like to eliminate this provision. The DNR received seven comments from people in support of eliminating the grandfather clause and 12 comments from residents of those lakes where the grandfather clause applies that were opposed to eliminating the provision. The WBLCD stated that they were neutral with respect to eliminating the grandfather provision and the RWMWD was in favor of eliminating this provision.

The DNR received six comments regarding the use of pesticides/herbicides in lakes. MCEA proposed that there should be strict and limiting criteria for removal of aquatic vegetation with pesticides and that the use of herbicides for the control of invasive species may be appropriate. MCEA also believes that National Pollution Discharge Elimination Permits are required for pesticide application to public waters. WBLCD stated that methods of blanket (non-selective) control of aquatic plants should not be allowed. An individual stated that DNR should continue to allow the control of swimmer's itch. One person stated that herbicide treatments should not be allowed until after a certain date to allow young-of-the-year fish to find shelter in plants and ensure better survival. The CMWD stated that silt curtains should be required to prevent pesticide drift outside of the permitted area.

In the request for comments, the DNR indicated that it was considering rule changes to specify criteria and conditions for the variance process to exceed aquatic plant control limits, to help address the threats caused by invasive aquatic plants. The DNR received 16 comments in favor of changes to the variance process to allow greater control of invasive species and five comments opposing a variance requirement for invasive species control.

The DNR also received 18 comments on the regulation of invasive species control activities. Sixteen people commented that the DNR should increase efforts or eliminate barriers for invasive species control. One individual stated that it should be illegal to move boats between waters infested with invasive species and those that are not infested. One person commented that exotics (invasive species) are not killing lakes and the DNR should "let nature take its course."

In addition to comments related to rule changes being considered, there were general statements that did not apply to any specific part in the rules. One person commented that the DNR needs to protect citizen rights not just riparian landowner's rights. Two others stated that the DNR needs to protect lakeshore and educate homeowners. The MWSA and three other people commented that the rule revisions do not address runoff and nutrient pollution. The MWSA, MHL, and an individual commented that there was no scientific evidence for the changes being proposed to the APM rules. Eight people stated that the current case-by-case evaluation of APM permit applications was working well and changes to the APM rules were unnecessary. The CMWD stated that there should be a process to notify watershed districts of permits issued for waters in their district.

A notice of intent to adopt rules with a public hearing will be sent to the same individuals and groups who received the request for comments and to additional individuals and groups who commented after the request for comments was published. The notice will be available for

public review and comment on the DNR's Internet web site and will link to the proposed rules published in the *State Register*. The notice, proposed Rules, and SONAR will be sent to legislators as required under Minnesota Statutes, section 14.116. A DNR news release will be published when the notice of intent to adopt rules is published.

Statutory Authority

Statutory authority for the proposed rules is Minnesota Statutes, section 103G.615, subd.

3.

II. REGULATORY ANALYSIS

Description of Classes of Persons Affected by the Proposed Rules

The proposed rules affect people who own shoreline properties that are affected by the growth of aquatic plants, individuals and companies that control aquatic plants for hire or harvest aquatic plants for sale in retail or wholesale markets, and recreational users of public waters including boaters, anglers, and hunters.

Probable Costs to the Agency or Other Agencies from the Proposed Rule

Proposed changes in part 6280.0350, subp. 4, item C, require the DNR to develop lake vegetation management plans for lakes affected by changes in that subpart. There will be a cost to develop these plans, but it will be accomplished by existing staff and will not increase the operating costs of the DNR.

Aside from developing the lake vegetation management plans, the proposed rules will not result in additional costs to the DNR or other agencies. Current costs to the DNR result primarily from administration of the APM permitting program and enforcement of APM regulations. Costs are largely dependent on the number of permits requested and issued, and the amount of enforcement effort. The proposed rules would affect the amount of aquatic plant control allowed under APM permits, but would not require an increase in permitting or enforcement activity.

Determination of Less Costly or Less Intrusive Methods for Achieving the Purpose of the Proposed Rules

The proposed rules would reduce the amount of submersed aquatic plants that could be controlled for some shoreline property owners. Minnesota's lakes are under increasing development pressure, which threatens fish and wildlife habitat and water quality (Kelly and Stinchfield 1998; Radomski 2006a). It is not feasible to provide adequate protection for aquatic plants without suitable permitting and enforcement programs. The proposed rules are necessary and reasonable to help ensure that lakeshore development does not degrade the economic, recreational, and ecological values of Minnesota's lakes. Although the proposed rules are more restrictive, they are not more intrusive in that there are no changes that would require permits for activities that are currently allowed without a permit.

The proposed rules also specify criteria for APM, commercial harvest, and commercial mechanical control permit revocation. People who control aquatic plants without a permit or violate the conditions of their permit may cause significant fish and wildlife habitat destruction

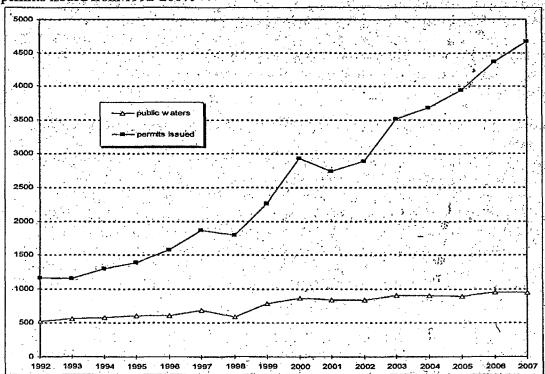
that can negatively impact hunters, anglers, and people whose businesses depend on water-based recreation. It is necessary and reasonable for the DNR to have the authority to revoke permits to prevent undue damage to the state's aquatic resources.

Description of Alternate Methods for Achieving the Purpose of the Proposed Rules

The primary purpose of the proposed rules is to allow riparian landowners to control aquatic plants when necessary to get access to open water for traditional recreational uses, while protecting the habitat and water quality values that aquatic plants provide. The proposed rules are also intended to help determine when aquatic plant control limits should be exceeded to help control invasive aquatic plants, protect or improve aquatic resources, provide riparian access, or enhance recreational use on public waters.

The DNR has programs to educate people about the value of having natural riparian and aquatic vegetation along shorelines and to provide technical assistance and grants for people who want to restore their shorelines. While these programs are growing in popularity and have had some successes, they have not been sufficient to stop the trend of declining habitat due to lakeshore development (Engel and Pederson 1998; Radomski 2006b). Instead, the demand for APM permits continues to increase (Figure 1). In 1992, the DNR issued about 1,100 APM permits; in 2007 over 4,600 permits were issued. It is necessary and reasonable for the DNR to regulate the destruction of aquatic plants to help prevent further deterioration of aquatic habitat and water quality.

Figure 1. Number of aquatic plant management permits issued and number of public waters with permits issued from 1992-2007.



Probable Costs of Complying with the Proposed Rules

The proposed rule change in part 6280.0350, subp. 2a would decrease the amount of shoreline allowed for submersed aquatic vegetation control for some property owners and would require most property owners to leave at least half of the shoreline untreated. This provision is necessary and reasonable to prevent contiguous removal of near-shore aquatic plants on long stretches of shoreline. This provision will not increase costs for property owners; however, it could reduce profits of businesses that control aquatic plants for hire, because it will reduce the amount of control allowed on some lakes and prevent uninterrupted control along multiple property owners' shorelines. The DNR does not have data to quantify how much aquatic plant control businesses' profits would be affected by the proposed rules.

Proposed Rules Effect on Farming Operations

The proposed rules would not affect farming operations.

Description of How the Agency Considered and Implemented the Policy to Adopt Rules that Emphasize Superior Achievement in Meeting the Agency's Regulatory Objective and Maximum Flexibility for the Regulated Party and the Agency in Meeting These Goals

Historically the APM rules have focused on allowing enough aquatic plant control to provide reasonable access to public waters without threatening the water quality and habitat value provided by aquatic plants. However, invasive aquatic plants are spreading in Minnesota's lakes and the DNR and its constituency are increasingly looking to the APM rules to be adaptable for lakes that have problems with invasive aquatic plants and to provide guidance for when control thresholds should be exceeded. The proposed rule changes will help to meet the agency's regulatory and management objectives by providing specific criteria for determining when a variance should be issued to control invasive species (part 6280.1000, subpart 1).

It is necessary and reasonable to provide criteria for a variance to allow standard limits to be exceeded for control of invasive aquatic plants, because physical and chemical characteristics of lakes vary considerably across the state and control methods may work on some lakes, but cause problems on others. For example, research studies have shown that whole-lake chemical treatment of Eurasian watermilfoil on moderately fertile or mesotrophic lakes may temporarily reduce this plant and allow native plants to remain at pre-treatment levels or increase (Madsen et al. 2002; Bremigan et al. 2005; Crowell et al. 2006; Wagner et al. 2007). On the other hand, whole-lake treatments on fertile or eutrophic lakes may lead to reduced water clarity and thus impede the reestablishment of native aquatic plants (Welling et al. 1997; Pothoven et al. 1999; Valley et al. 2004). To enhance native plants and protect biodiversity, management strategies also need to include efforts to reduce nutrients entering lakes and increase water clarity (Rybicki and Landwehr 2007). The proposed language for variances provides flexibility in helping the DNR and regulated parties determine if higher levels of control will help address problems with invasive aquatic plants.

The proposed rules provide criteria for making decisions regarding how much control to allow in an APM permit. These changes will help the DNR to meet its regulatory objectives by providing more consistency in how APM permit decisions are made across the state.

The proposed rules also provide more guidance for the development of lake vegetation management plans (LVMP) to facilitate partnerships between the DNR and lake groups in managing lakes. Current rules allow APM permits to be issued in accordance with LVMPs approved by the DNR and lake groups have used the LVMP process to obtain variances for APM permits. However, some groups have indicated that more clarity is needed as to what is required in an LVMP and the proposed rules will help to do that. It is necessary and reasonable to allow an LVMP to guide APM permit decisions, because it encourages lake groups to establish lake management goals, address underlying problems like water quality and land use in the watershed, and develop monitoring plans to help determine if proposed actions are successful.

Consultation with the Minnesota Department of Finance on Local Government Impacts

In general, the proposed rule changes will not have a substantial impact on local government. There could be times when a local government is asked to mitigate the adverse effects of a variance on aquatic habitat, as proposed in part 6280.1000, subpart 1, item E. Nevertheless, this is expected to be very rare, because the DNR would only grant such a variance if it was necessary and there was no practical alternative. It is necessary and reasonable to require mitigation in some circumstances to prevent degradation of the state's aquatic resources.

Determination if First Year Cost of Complying with Proposed Rules Would Exceed \$25,000 for Any Business with Less Than 50 Full-time Employees or Any Statutory or Home Rule Charter City with Less Than 10 Full-time Employees

The proposed rules would not directly increase costs by more than \$25,000 for small businesses, but could reduce profits for businesses that control aquatic plants for hire, because of the proposed change to reduce the amount of submersed aquatic vegetation that a shoreline property owner can control. Current rule language allows control of submersed aquatic vegetation on up to 100 feet of shoreline for a property owner (part 6280.0350, subp. 4, item A.). The proposed change is to allow control of submersed aquatic plants on up to 100 feet or half the person's shoreline, whichever is less (part 6280.0350, subp. 1a). Businesses that control aquatic plants for hire are more likely to be able to control longer, uninterrupted stretches of shoreline under the existing rules than under the proposed rules. The DNR does not have information that would allow it to estimate the amount of potential profit loss the proposed rules may cause for businesses that control aquatic plants. The proposed rules are necessary and reasonable to prevent long stretches of shoreline from becoming denuded of near-shore vegetation, which has critical importance as aquatic habitat (Poe et al. 1986; Bryan and Scarnecchia 1992). See the rule-by-rule analysis for part 6280.0350, subp. 1a for a more thorough discussion of the need and reasonableness of this proposed change.

Probable Cost or Consequence of Not Adopting the Proposed Rules

The major consequences of not adopting the proposed rules are:

- 1) Decision-making criteria used for APM permits would continue to be ambiguous to the public and DNR field staff, resulting in a lack of consistency in how APM rules are applied across the state;
- 2) Control of near-shore submersed aquatic vegetation will increase on developed lakes, to the detriment of aquatic habitat and water quality;

- 3) Submersed aquatic plant control in excess of the littoral area limits on the "grandfather lakes" could result in further declines in aquatic habitat and water quality and elimination of some fish species;
- 4) Rules would continue to provide inadequate guidance on revocation of permits for people who violate APM laws; and
- 5) Rules would continue to provide inadequate guidance on when to allow variances to address invasive aquatic plants and other issues.

Differences Between the Proposed Rules and Existing Federal Regulations

The proposed rules do not conflict with federal regulations.

III. RÜLE-BY-RÜLE ANALYSIS

Scope

Areas covered by the proposed rules include the following:

- Definitions:
- Actions not requiring an APM or commercial harvest permit;
- Actions requiring an APM permit;
- Criteria for issuing APM permits;
- Prohibited APM activities:
- APM permit conditions;
- Submersed aquatic plant control restrictions;
- Aquatic plant control in offshore areas;
- Restrictions on mechanical control of aquatic plants;
- Restrictions on pesticide control of aquatic plants;
- Group APM permit applications;
- Duration of APM permits;
- Commercial harvest of aquatic plants;
- APM permit revocation;
- APM permit variances:
- Lake vegetation management plans; and
- Penalties for violation of APM rules.

Introduction

Aquatic plants growing in public waters are owned by the state (Minn. Stat., sec. 84.091, subd. 1) and their control has been regulated by the DNR since the 1940s. The original purpose of the program was to allow shoreline property owners to remove aquatic plants where it was necessary to gain access to open water, while protecting the habitat and water quality values that aquatic plants provide. In the early years of the program, lakeshore development was more limited and rustic than it is today, making it relatively easy to balance the needs of shoreline owners with the need to protect aquatic plants. In addition, invasive aquatic plants had not yet become a major natural resource issue, even though curly-leaf pondweed and other nonnative species were already present and likely spreading throughout the state.

Development pressures have increased on Minnesota lakes, with more dwellings per lake each year (Kelly & Stinchfield 1998). As Minnesota's lakes have been more impacted by increased shoreline development, watershed alterations, and invasive species, APM issues have become increasingly complex and balancing the desires of shoreline property owners with the need to protect aquatic habitat has become more challenging. It is necessary and reasonable to change existing APM rules to keep pace with changes occurring on Minnesota's lakes.

It has long been known that aquatic plants provide habitat for fish and wildlife as well as water quality benefits and there is a growing body of scientific evidence to support this. Studies have consistently shown that fish abundance is greater in vegetated habitats than in unvegetated habitats (Dibble et al. 1996; Pratt and Smokorowski 2003; Wei et al. 2004). Aquatic plants provide fish and wildlife with food, spawning, and nesting habitat, and cover from predators (Dibble et al. 1996; Petr 2000; Valley et al. 2004)). In addition, aquatic plants anchor sediments and sequester nutrients like phosphorous and nitrogen, thus reducing turbidity caused by sediment and algae blooms (Petr 2000).

Loss of aquatic plants can affect the entire lake eco-system (Engel 1990; Wilcox and Meeker 1992). The cumulative loss of aquatic plants coupled with nutrient loading can lead to drastic ecological changes in lakes characterized by turbid water, little to no rooted aquatic plant growth, and disturbance-tolerant fish species such as bullhead and carp (Scheffer and Carpenter 2003; Egertson and Downing 2004). Lakes in this state are common in agricultural regions of southwest Minnesota and are becoming increasingly common in the Twin Cities metropolitan area. Near-shore aquatic plants, which are the most frequent targets of control efforts by shoreline property owners, are particularly important as habitat for young or small fish (Poe et al. 1986; Bryan and Scarnecchia 1992; Weaver et al. 1997). Ongoing DNR surveys show that shallow vegetated bays have greater species diversity of nongame fish and amphibians than other habitat types (personal communication, Pam Perry, DNR nongame wildlife biologist). Surveys have also documented functional extirpations (i.e., absence of species in targeted surveys) of blackchin shiners, blacknose shiners, and banded killifish in several metro-area lakes that have likely suffered aquatic plant habitat degradation (personal communication, Ray Valley, DNR fisheries research biologist).

Many species of birds and mammals are likewise dependent on aquatic plants for food and nesting sites. Waterfowl eat the seeds and tubers produced by various water plants (Bellrose 1976). Aquatic plants support numerous insects and other aquatic invertebrates, which are eaten by waterfowl (Krull 1970) and are important sources of food (protein) for laying females (Batt et al. 1992:7-9). The reproductive success of waterfowl is closely tied to available aquatic plants, which provide food and cover for laying hens (Bellrose 1976).

Emergent aquatic vegetation provides nesting cover for a variety of waterfowl, shorebirds, wading birds and songbirds (Bellrose 1976). The muskrat, an important furbearer, is almost entirely dependent on aquatic vegetation for food and shelter (Errington 1941).

There seems to be an overall positive effect of submersed aquatic plants on water clarity in lakes. Scheffer et al. (1993:275) showed that lakes with abundant submersed plants tend to have higher clarity than lakes with similar levels of nutrients in which vegetation is sparse or

absent. Carter et al. (1988) documented higher Secchi disk transparencies within a bed of submersed plants in comparison with a location in open water without plants. The importance of submersed plants in maintaining water clarity is reflected in observations of decreases in water clarity following lake-wide reductions in submersed plants resulting from treatment with herbicides (O'Dell et al. 1995;314; Welling et al. 1997; Valley et al. 2006).

Impacts to aquatic plants have clearly increased with the increase in lakeshore development. Radomski (2006a) documented historical decreases of emergent and floating-leaf aquatic plants on developed lakeshores in Minnesota. Alexander et al. (2008) correlated an increase in human development with a decrease in aquatic plant abundance in Vilas County Wisconsin lakes. The numbers of permits issued to control aquatic plants has risen continually since the early 1990s and is continuing to rise each year (Fig. 1). In 1992, the DNR issued about 1,100 APM permits. This number increased from about 3,600 in 2004 to over 4,600 in 2007.

While the science documenting the habitat and water quality value of aquatic plants is strong, the relationship between aquatic plants and the abundance of fish and other wildlife is complex and studies point to the difficulty in defining a precise threshold in aquatic plant abundance at which habitat quality declines. As a result, it is necessary and reasonable to take a "precautionary management approach" in setting limits for aquatic plant control (Rosenberg 2002; Valley et al. 2004). This approach acknowledges that aquatic plants are important habitat and that control limits need to be conservative to avoid negative impacts to the state's public waters. This rationale was supported in a previous administrative law judge's report when the DNR defended the current rule, which limits pesticide control of submersed aquatic plants to 15% of the littoral area, even though scientific research had not documented that 15% was the best limit for all lakes (Exhibit 1).

It is important to keep in mind that the primary purpose in allowing shoreline property owners to control aquatic plants is to provide access to open water. In virtually all cases, this can be done without exceeding the control thresholds in the existing rule and proposed rule changes. Therefore, it is unnecessary to push the safe limits of aquatic plant control and risk degradation of the state lakes when issuing APM permits.

Invasive aquatic plants, particularly Eurasian watermilfoil and curlyleaf pondweed, have presented additional challenges to the APM program. These species can out-compete native aquatic plants and form mats on the water surface that hinder recreational use (Smith and Barko 1990; Madsen et al. 1991). Curlyleaf pondweed dies or senesces in the early summer, after which increases in phosphorous and algae blooms may occur (Bolduan et al. 1994; James et al. 2002).

As a result, there are times when it is beneficial to exceed the standard limits of aquatic plant control to help manage invasive aquatic plants. At the same time, large-scale control of invasive aquatic plants is still a developing science (Skogerboe and Getsinger 2006) and the results of this approach vary considerably between lakes. Lake-wide chemical control does not eradicate invasive aquatic plants, but has temporarily reduced the abundance of Eurasian watermilfoil in some moderately fertile (mesotrophic) lakes and helped native plants to increase (Madsen et al. 2002; Bremigan et al. 2005; Crowell et al. 2006; Wagner et al. 2007). Nevertheless, this approach has led to algae blooms and decreased water clarity with no increase

in native aquatic plants in fertile (eutrophic) lakes that had sparse populations of native aquatic plants prior to the chemical treatment (Welling et al. 1997; Valley et al. 2006). Even in cases where lake-wide chemical control has been successful, repeated treatments have been necessary, usually within 1 to 3 years, to keep Eurasian watemilfoil at a low level (Crowell et al. 2006). As a result, the long-term efficacy of chemical control to manage invasive aquatic plants is still being studied.

The DNR considered more liberal control limits for invasive aquatic plants when developing the proposed rule changes, but ultimately determined that this approach was problematic due to the variety of lake types, complexity of relationships between native and invasive aquatic plants, and risks to water quality and habitat posed by liberal control measures. Where invasive aquatic plants are present, they often occur with native plants and the relative abundance of each varies considerably. In some lakes, Eurasian watermilfoil or curly leaf pondweed may be present but may not reach the problem levels commonly associated with these species. Excessive control in these situations could create the type of disturbance that allows invasive plants to increase at the expense of native plants (Moyle and Light 1996; Chase and Knight 2006). This and the potential for varying results depending on lake fertility make it necessary and reasonable to look at each lake individually when determining if high levels of aquatic plant control would be beneficial. As a result, the proposed rules use standard control thresholds that are conservative and appropriate for most Minnesota lakes, and provide for variances and an exception to limits for individual shoreline properties to address higher levels of control for invasive species where its warranted.

Chapter 6280 Aquatic Plants and Nuisances

6280.0100 DEFINITIONS

Subp. 2. Aquatic plant

The proposed changes are to use the term "plant" instead of "macrophyte" in the definition of aquatic plants, and to broaden the definition of aquatic plants. It is necessary and reasonable to use the term plant because it's more widely understood by the public and is consistent with the terminology used in Minnesota Statutes, section 103G.615.

The current definition of aquatic plants specifies that they are vascular, nonwoody, and growing in water. This definition excludes macro algae, such as Chara spp., and woody plants that may grow in the water such as willow, alder, and dogwood. In addition using the phrase "growing in water" in the definition causes ambiguity when dry conditions cause water levels to recede below where aquatic plants are growing. As a result, it is unclear if the existing rules apply to emergent aquatic plants that are temporarily growing out of the water.

The proposed changes include woody and nonvascular aquatic plants in the definition as well as plants that are growing in saturated soils or seasonally saturated soils. The proposed changes are necessary and reasonable so that the definition includes all types of aquatic plants and to clarify that a plant is still considered an aquatic plant, even if it is temporarily not in water due to dry conditions.

Subp. 2a. Aquatic plant management

The proposed changes are intended to improve grammar and are not substantive. It is necessary and reasonable to make grammatical improvements so that language is consistent and more easily understood.

Subp. 2b. Aquatic plant management permit or APM permit

The proposed change is intended to improve grammar and is not substantive. It is necessary and reasonable to make grammatical improvements so that language is consistent and more easily understood.

Subp. 2c. Aquatic plant management (APM) - related conviction

The proposed change is to add a definition for aquatic plant management (APM) — related conviction. It is necessary and reasonable to define this term, because it is used in proposed language in part 6280.0900 regarding authority to amend and revoke permits. It is necessary and reasonable to use this term in part 6280.0900 to make the language less wordy and more understandable.

Subp. 2d. Aquatic plant management (APM) - related permit revocation

The proposed change is to add a definition for aquatic plant management (APM) – related permit revocation. It is necessary and reasonable to define this term, because it is used in proposed language in part 6280.0900 regarding authority to amend and revoke permits. It is necessary and reasonable to use this term in part 6280.0900 to make the language less wordy and more understandable.

Subp. 3. Aquatic nuisance

The proposed change is intended to improve grammar and is not substantive. It is necessary and reasonable to make grammatical improvements so that language is consistent and more easily understood.

Subp. 3a. Automated aquatic plant control device

The proposed change is to clarify the definition of automated aquatic plant control devices, so that it includes all such devices that are self-propelled. The current definition uses the term "untended," which has created ambiguity as to whether it includes devices that are automated, but require occasional adjustments by a person. The proposed language eliminates the term untended and uses the term "self-propelled" instead. The proposed changes are necessary and reasonable to eliminate loopholes that could allow these devices to be used without the regulatory constraints in this chapter.

Subp. 4. Bog

The proposed change is intended to improve grammar and is not substantive. It is necessary and reasonable to make grammatical improvements so that language is consistent and more easily understood.

Subp. 4a Commercial harvest

The proposed change is to add a definition for commercial harvest of aquatic plants. The proposed change is necessary and reasonable to understand other proposed changes in the rule that deal with commercial harvest.

Subp. 4b. Commercial harvest permit

The proposed change is to add a definition for commercial harvest permit. The proposed definition is necessary and reasonable to understand other proposed changes in the rule that deal with permitting of this activity.

Subp. 4c. Commercial mechanical control

The proposed change is to add a definition for commercial mechanical control of aquatic plants. The proposed definition is necessary and reasonable to differentiate it from commercial harvest and to understand existing and proposed language regulating to commercial mechanical control.

Subp. 5. Dense growth of submerged vegetation

The proposed change is to repeal this subpart. The current definition provides a quantitative description for dense growth of submerged vegetation, which is not needed because proposed rules do not require that this condition be quantified and the methods described in the definition are out of date. It is necessary and reasonable to remove this definition because it does not help to clarify the proposed rules.

Subp. 5a. Emergent aquatic plants

The proposed change is to add a definition for emergent aquatic plants. Some of the existing and proposed rules provide for different regulations for emergent aquatic plants; therefore, it is necessary and reasonable to have a definition for them.

Subp. 6. Excessive algae bloom

The proposed changes are to make grammatical improvements and clarify two of the conditions that are used to define excessive algae bloom. One condition is that the secchi disk reading, a measure of water clarity, is two feet or less, but it does not specify that the low reading is due to algae. The other condition talks about floating mats or scums, but does not specify the types of algae. The proposed language clarifies that low readings are due to the algae bloom and that the type of algae is plankton or filamentous. The proposed changes are necessary and reasonable to provide more clarity to the existing definition.

Subp. 7a. Field inspection

The proposed changes are intended to improve grammar and make language more consistent with other parts of the rule, and are not substantive. It is necessary and reasonable to make improvements to the language so it is consistent and more easily understood.

Subp. 7a. Filamentous algae

The proposed change is to add a definition for filamentous algae. Some of the existing and proposed rules require that filamentous algae be differentiated from other types of algae; therefore it is necessary and reasonable to have a clear definition for it.

Subp. 7b. Floating-leaf aquatic plants

The proposed change is to add a definition for floating-leaf aquatic plants. Some of the existing and proposed rules provide for different regulations for floating-leaf aquatic plants; therefore it is necessary and reasonable to have a clear definition for them.

Subp. 7c. Group APM permit

The proposed change is to add a definition for group APM permit. The proposed definition is necessary and reasonable to understand other proposed changes in the rule that deal with group APM permits.

Subp. 9. Littoral area

The proposed changes are intended to improve grammar and are not substantive. It is necessary and reasonable to make grammatical improvements so that language is consistent and more easily understood.

Subp. 9a. Mechanical control

The proposed change in this subpart is to add a definition for mechanical control. The proposed rule language uses this term frequently; therefore, it is necessary and reasonable to have a clear definition for it. The definition specifies that incidental damage to aquatic plants caused by watercraft traveling to and from open water, commercial harvest of aquatic plants, transplanting aquatic plants, moving a bog, and harvest of aquatic plants for personal use are not included in the definition of mechanical control. It is necessary and reasonable to clarify the definition with these exceptions to make sure that incidental boating activities are not construed to constitute mechanical control of aquatic plants and to avoid having mechanical control restrictions in part 6280.0350, subp. 3 inappropriately applied to these other activities.

Subp. 10. Monitoring

The proposed change is to repeal this subpart. The existing and proposed language does not require that this term be defined. It is necessary and reasonable to remove definitions that do not help to clarify the rule.

Subp. 10a. Offshore control

The proposed change is to add a definition for offshore control. The proposed language distinguishes between offshore control and control along shorelines; therefore, it is necessary and reasonable to define this term.

Subp. 11a. Personal use

The proposed change is to add a definition for personal use of aquatic plants. It is necessary and reasonable to define the term for this activity, which does not require an APM permit, so that it can be distinguished from commercial harvest of aquatic plants, which does require an APM permit.

Subp. 12a. Pesticide control

The proposed change is to add a definition for pesticide control. The proposed rule language uses this term frequently; therefore, it is necessary and reasonable to have a definition for it.

Subp. 12b. Plankton algae

The proposed change is to add a definition for plankton algae. Some of the existing and proposed rules require that plankton algae be differentiated from other types of algae; therefore, it is necessary and reasonable to have a definition for it.

Subp. 14. Storm water retention ponds

The proposed change is to repeal this subpart. The proposed language does not utilize this term. It is necessary and reasonable to remove definitions that are not used in the proposed rule.

Subp. 16. Submersed aquatic plants

The proposed change is to add a definition for submersed aquatic plants. Some of the existing and proposed rules provide for different regulations for submersed aquatic plants; therefore, it is necessary and reasonable to have a clear definition for them.

6280.0250 STANDARDS FOR AQUATIC PLANT MANAGEMENT PERMIT ISSUANCE

Subpart 1. Actions not requiring an APM or commercial harvest permit

This subpart lists the commercial harvest and APM activities that may be done without a permit from the DNR. The proposed language clarifies that a person must own, lease, or be an easement holder of land adjacent to the water to conduct APM activities without a permit that involve gaining access to public water. It is necessary and reasonable to clarify this point, because it would be inappropriate for a person to destroy aquatic plants to gain water access across land that was not under the person's control.

The proposed changes in items A and B are non-substantive grammatical improvements and technical changes. Item B allows harvesting of aquatic plants for personal use without an APM permit, excluding wild rice, which is regulated under a separate license, and American lotus, which is a protected wildflower under Minnesota Statutes, section 18H.18. Under the proposed changes these exclusions are stricken and more broadly stated in new language in subpart 1a. The proposed changes are necessary and reasonable to make the language more consistent and easily understood.

Item C describes the limits on methods and area for controlling submersed aquatic plants without an APM permit. The proposed changes are technical. Specific language regarding how mechanical control must be done under this subpart has been eliminated and replaced with language that applies to all mechanical control of aquatic plants in part 6280.0350, subp. 3. This change is necessary and reasonable, because the existing language interrupts the grammatical flow of this subpart and creates awkward phrasing and punctuation.

The proposed changes in items D and E are technical word changes so that language is consistent with the defined terms in part 6280.0100. The proposed changes are necessary and reasonable to make the language more consistent and easily understood.

The proposed change in item F is to allow skimming of duckweed or filamentous algae off the surface of a water body without an APM permit. It is necessary and reasonable to allow this activity without a permit, because it is unobtrusive and does not pose any threat to aquatic habitat.

The proposed change in item G is to allow mechanical or pesticide control of aquatic plants without an APM permit if it is done as part of public road or utility crossing right-of-way maintenance by an authorized government unit or utility company. It is necessary and reasonable to allow this activity without an APM permit, because this work is authorized through other regulatory mechanisms and it would be redundant to require an APM permit in these situations.

The proposed changes in item H are technical. The existing language allows cutting or pulling of water lilies, water shield, and submerged vegetation to obtain a channel to open water without an APM permit, provided specified conditions are met. The proposed changes substitute floating-leaf aquatic plants for water lilies and water shield. Water shield and water lilies are only a couple of the species of floating-leaf plants in Minnesota, and it is necessary and reasonable to allow the same level of control without a permit for all floating-leaf plants. The proposed changes also delete submerged vegetation from this subpart, because mechanical removal of submerged vegetation is already covered by item C. It is necessary and reasonable to remove redundant language from the rule to make it more understandable.

Subp. 1a. Limits on APM activities without a permit

The proposed language in this part replaces and expands upon the current language in subp. 1, item B, which provides that wild rice and American lotus are exceptions to the provision that allows harvesting of aquatic plants for personal use without an APM permit. Wild rice and American lotus are regulated by other parts of law, therefore it is misleading to imply that an APM permit is needed to harvest these plants. The proposed language clarifies that the provisions of subpart 1 do not allow taking of aquatic plants, if that taking is inconsistent with other provisions of law. It is necessary and reasonable to clarify that the provisions in subp.1 do not supercede other areas of law. The proposed language also clarifies that a person may not conduct un-permitted mechanical control of submersed or floating-leaf aquatic plants allowed under subpart 1, items C or H, if the control would be done in addition to control allowed under an APM permit at the same location and during the same time period. This provision is necessary and reasonable to prevent a person from exceeding limits on aquatic plant control by combining permitted and un-permitted control. For example, this provision is necessary to prevent a person from mechanically clearing 2,500 square feet of submersed aquatic plants without an APM permit after they have obtained a permit to remove 2,500 square feet of aquatic plants with an automated aquatic plant control device.

Subp. 2. Actions requiring an APM permit

This subpart lists the APM activities that require a permit. The proposed changes primarily streamline existing language; they do not bring activities under APM permitting that currently do not require a permit.

Proposed language in item A provides that all pesticide and mechanical control of aquatic plants and nuisances requires a permit (unless excepted by subp. 1). This replaces the current language in item A as well as language in items B, C, and D. Proposed changes also eliminate language that lists the types of pesticide control that require a permit. This language is somewhat awkward, in that it attempts to include criteria for issuing permits in a paragraph that is primarily designed to specify that all pesticide control of aquatic plants requires a permit. Criteria for issuing permits has instead been expanded and included in a new subp. 3a. The proposed changes are necessary and reasonable to clarify and streamline language regarding the APM activities that require a permit.

The proposed changes in item B eliminate the language covering physical removal of aquatic plants, which is covered in item A under the proposed changes, and transplanting a bog, which is covered in item C under the proposed changes. The result of eliminating this language is that item B now covers only transplanting aquatic plants. The proposed changes are necessary and reasonable to clarify and streamline language regarding the APM activities that require a permit.

The current language in item C requires a permit for destroying emergent aquatic plants. Under the proposed changes, this requirement is included in item A and item C includes the permit requirement for moving a bog, which is currently in item B. The proposed changes are necessary and reasonable to clarify and streamline language regarding the APM activities that require a permit.

The current language in item D requires a permit for destroying water liles and water shield. Under the proposed changes, this requirement is included in item A and item D contains the permit requirement for operating an automated aquatic plant control device, which is currently contained in item E. Proposed changes also include moving permit duration language for automated aquatic plant control devices to part 6280.0450, subp. 3. This subpart deals specifically with permit duration and the current placement of permit duration language is awkward because it's in a part of the rule dealing with activities that require a permit. The proposed changes are necessary and reasonable to clarify and streamline language regarding the APM activities that require a permit.

The proposed changes also include elimination of language in item F, which requires a permit for creating a channel through emergent vegetation and provides for a continuous permit if certain conditions are met. The provisions for a continuous permit have been moved to part 6280, subp. 3, which deals specifically with permit duration, and the requirement for a permit to create a channel in emergent vegetation is included in item A. The proposed changes are necessary and reasonable to clarify and streamline language regarding the APM activities that require a permit.

Subp. 3. Justification required for issuance of permits

Current language requires that control of emergent aquatic plants cannot be done unless the DNR commissioner determines that suitable justification exists, but does not provide criteria upon which the commissioner makes this determination. The proposed change is to reference the permit decision-making criteria proposed in subp. 3a, to identify how these determinations

are made. It is necessary and reasonable to identify the criteria upon which these determinations are made to inform the public and help ensure that APM permit decisions are consistent and fair. The proposed changes also substitute the word "control" for destruction, to make it clear that permits are required for any type of activity that affects aquatic plant abundance. The proposed change is necessary and reasonable so that it is clear that cutting emergent vegetation requires a permit, even if the plants themselves are not destroyed. There are also some technical changes in this subpart, which are necessary and reasonable to improve grammar.

Subp. 3a. Criteria for issuing APM permits

The proposed language in this subpart provides criteria that are used to decide if APM permits are approved or denied and how much control to allow under a permit. Current and proposed rule language provides the DNR discretion in approving or denying permits and limiting control allowed under permits, but does not provide criteria that identifies how those decisions are made. The addition of decision-making criteria for APM permits is necessary and reasonable to inform the public as to how decisions are made and to help ensure that decisions are fair and consistent across the state. The proposed criteria strike a reasonable balance between providing guidance for decision-making and maintaining flexibility to address different circumstances, because the language requires that each criterion be considered, but does not dictate that any one be met in order for a permit to be issued.

The proposed criteria include: 1) the presence of aquatic plants or nuisances that are interfering with recreation; 2) the habitat, water quality, and erosion control value of the aquatic plants; 3) the extent of shoreline development and potential for aquatic plant control to result in cumulative impacts to habitat and water quality; 4) the presence of invasive aquatic plants; 5) a determination of whether the water subject to control is a shallow lake or bay that naturally supports aquatic plants; 6) the prevalence of soft bottom types that could result in turbidity or changes to the bottom of the lake if aquatic plant control is done; 7) a determination of whether the proposed permit is consistent with a lake vegetation management plan, shoreland conservation ordinance, lake management plan and program, wild and scenic river plan, and other pertinent ordinances and regulations; 8) a determination of whether the proposed permit is consistent with a variance issued to control invasive aquatic plants or protect or improve aquatic resources; 9) the presence of species listed as special concern, threatened, or endangered under Chapter 6134; 10) the presence of public land adjacent to the water subject to control and the compatibility of the proposed permit with the management of that land; and 11) the presence of an excessive algae bloom. The need and reasonableness of each of these criteria follows.

The presence of aquatic plants or nuisances that are interfering with recreation is an important criterion, because it is the underlying premise of allowing aquatic plant control. It is necessary and reasonable to first establish that aquatic plants are interfering with recreation before allowing their removal, to protect habitat and water quality and prevent removal for unauthorized reasons such as esthetics (see subp. 4).

It is necessary and reasonable to establish the habitat, water quality, and erosion control value of aquatic plants before making an APM permit decision, and particularly when determining how much control to allow. For example, emergent and floating-leaf aquatic plants have very high habitat value (Craig and Black 1986; Petr 2000; Pierce 2006). One particularly

valuable emergent plant, hard-stem bulrush, is susceptible to permanent elimination when removed from deep-water sites. For these reasons, it is often necessary to limit control of emergent plants to the minimum needed to gain access to open water.

It is necessary and reasonable to consider the amount of shoreline development on a lake when determining how much aquatic plant control to allow, because the potential for cumulative impacts of aquatic plant control is greater on heavily developed lakes than on lightly developed lakes. For example, allowing the maximum amount of control may have negligible habitat impact on a lake with only three dwellings, but could be detrimental on a lake that has most of its shoreline developed.

It is necessary and reasonable to consider whether the aquatic plants subject to control are invasive species. Invasive aquatic plants may displace native species and hinder recreation more than native species. Although effective, large-scale control of invasive aquatic plants will not be achieved by allowing more liberal control at the individual property scale, it is not necessary to afford invasive plants the same protection that native plants receive. At the same time, invasive and native plants often occur together; therefore, while it is necessary and reasonable to consider this criterion when determining how much control to allow, the presence of invasive aquatic plants should not be considered the sole criterion in determining whether or not to allow the maximum amount of control. In addition, in some heavily degraded lakes that have abundant invasive aquatic plants, few native plants, and low water clarity, excessive control may result in worse problems such as a net loss in aquatic plant cover, algae blooms, and increased turbidity (Welling et al. 1997; Valley et al. 2006).

It is necessary and reasonable to consider whether a water body subject to a proposed permit is a shallow lake or bay, or wetland that naturally supports abundant aquatic plants. Shallow bays and wetlands used to be considered marginal or unsuitable for shoreline development. Nevertheless, as development continues to increase and prime lakeshore becomes less available, shorelines adjacent to shallow bays and lakes are becoming increasingly attractive for development. These areas are extremely important for fish and wildlife habitat and wetland loss and habitat degradation is considered a major environmental issue affecting waterfowl and other wildlife abundance (Dahl 2006; Dahl 1990; Bellrose 1976). It is necessary and reasonable to view aquatic plant control differently in these areas than on deeper lakes, because aquatic plant control should not be permitted to change the ecological character of a wetland or shallow lake. It is not reasonable for the DNR to permit shoreline owners to alter the natural character of a shallow lake or wetland in order to engage in unimpeded surface water recreation.

It is necessary and reasonable to consider the prevalence of soft bottom types when determining whether to allow aquatic plant control or what method to allow. For example, allowing mechanical removal of aquatic plants in an area with deep silt can scour and re-suspend sediment, which in turn can lead to increases in turbidity, suspended solids, and phosphorous (James et al. 2004; James et al. 2006).

It is necessary and reasonable to consider whether a proposed permit is consistent with a lake vegetation management plan, or other local plan or regulation. For example, if a local government is limiting shoreline alterations on a lake as part of its zoning regulations, it may be

inconsistent to allow maximum amounts of aquatic plant control in those areas. It is necessary and reasonable to consider other local plans and regulations when making APM permit decisions, so that government actions are consistent at state and local levels. In addition, this provision is necessary and reasonable to be consistent with current language in part 6280.0450, subp. 7 and Minn. Stat., sec. 103G.615, subd. 3.

It is necessary and reasonable to consider whether a proposed permit is consistent with a variance issued to control invasive aquatic plants or protect or improve aquatic resources. In some cases, a variance may have goals comparable to a lake vegetation management plan. For example, the DNR may grant a variance on an APM permit to exceed control limits to decrease invasive aquatic plants and increase native aquatic plants. In such cases, it may be necessary and reasonable to deny or limit subsequent permits to control native aquatic plants, to prevent APM permits from defeating the intent of the variance.

It is necessary and reasonable to consider the presence of special concern, threatened, and endangered species when making an APM permit decision. Allowing aquatic plant control without considering the well being of listed species would be inconsistent with Chapter 6134 and Minn. Stat., sec. 84.0895.

It is necessary and reasonable to consider the compatibility of a proposed APM permit with management of that water and surrounding land on waters that have adjacent public land. For example, aquatic plant control may not be compatible with management of a wetland that lies partially within a wildlife management area or scientific and natural area (SNA).

The last criterion listed is the presence of an excessive algae bloom. Algae are typically controlled by application of the herbicide copper sulfate. It is necessary and reasonable for the DNR to verify that an excessive algae bloom exists before allowing chemical treatment. This provision is reasonable because there is a clear definition of excessive algae bloom in part 6280.0100, subp.6.

Subp. 4. Prohibitions.

The current language in this subpart lists aquatic plant control activities that are prohibited. Proposed changes include language clarifications and some additions to the different categories of prohibited activities. Commercial harvest permits are added to the types of permits that will not be issued for the prohibited activities. It is necessary and reasonable to clarify that commercial harvest is among the prohibited activities, in order for the rules to apply consistently to all permittees and to provide resource protection where aquatic plants should not be destroyed or removed.

The current language in item D prohibits aquatic plant control in SNAs or areas designated for the protection of lotus or other kinds of aquatic plants and animals. The proposed change is to add aquatic management areas to the list of areas where control is prohibited. Aquatic management areas are shoreline areas that DNR has acquired to protect aquatic habitat. It is necessary and reasonable to prohibit aquatic plant control in these areas, to be consistent with item B and because removing aquatic plants would be inconsistent with the public purpose for which these areas are acquired. This prohibition is reasonable, because the variance process

outlined in part 6280.1000 allows aquatic plant control to occur in exceptional circumstances, such as when invasive aquatic plants are threatening native species.

The current language in item E prohibits pesticide control of aquatic macrophytes in natural environment lakes pursuant to part 6120.3000. The proposed change is to also prohibit control in waters adjacent to special protection districts under part 6120,3200. Special protection districts are areas that have limited development because they have major physical constraints such as flooding or erosion, or that have special historical, natural, or biological characteristics. It is necessary and reasonable to prohibit aquatic plant control in these areas to be consistent with other rules and local zoning regulations. Since the proposed definition of aquatic plants (currently macrophytes) has been broadened to include algae (see part 6280.0100, subp. 2), the proposed language makes an exception to allow pesticide control of plankton and filamentous algae, which is currently allowed on natural environment lakes. The proposed language to exempt plankton and filamentous algae from this prohibition is necessary and reasonable to allow pesticide treatment of algae to continue on natural environment lakes.

The proposed changes eliminate existing language in item H. This is "catch-all" language that prohibits any destruction of aquatic plants or invertebrates not authorized in parts 6280.0100 to 6280.1100. It is necessary and reasonable to eliminate this provision, because it may have unintended consequences such as prohibiting a permit to control invasive aquatic invertebrates.

Subp. 6. APM permit conditions

The proposed language in this subpart specifies the conditions that may be applied to APM permits including: 1) limits on the amount of control allowed, including the percent of the littoral area, shoreline length, and distance outward from shore; 2) restrictions on the method and timing of control; 3) restrictions on the species of plants targeted by the control; 4) requirements for supervision of the control; and 5) requirements for public notice. These types of conditions are often placed on APM permits under existing practice and current rule language does specify some conditions that may be placed on permits, e.g., part 6280.0350, subp. 1, item A provides that supervision may be required for excessive algae blooms and part 6280.0350, subp. 3, item C provides that the littoral area proposed for control may be reduced for lake-wide or bay-wide mechanical control. Nevertheless, existing language does not specify all of the conditions that may be put on APM permits and it is necessary and reasonable to specify these conditions and the reasons they may be used to inform the public and improve statewide consistency in how permits are administered. The reasons that conditions are placed on APM permits are to avoid or minimize harm to aquatic resources and conflict among lake users. The need and reasonableness of the conditions are discussed below.

The existing or proposed thresholds for APM permits provide for a maximum amount of control that may be allowed. Since the habitat and water quality value of aquatic plants varies along with the extent of interference with access and recreation, it is necessary and reasonable to look at permit applications individually and reduce the amount of control allowed when warranted. For example, it may be necessary and reasonable to reduce the total littoral area allowed for control on shallow lakes and wetlands that have naturally abundant aquatic plant growth. Similarly, it may be necessary and reasonable to limit the length of shoreline allowed

for control to protect critical spawning habitat for fish. It is necessary and reasonable to specify the distance from the shoreline where control may occur, because the distance that plants grow outward from the shoreline varies considerably between lakes.

It is necessary and reasonable to be able to restrict the method of control, because some control methods may not be appropriate in some situations. For example, mechanical control that has potential to stir up the bottom and cause turbidity would be undesirable in areas with deep silt deposits on the lake bottom. It is necessary and reasonable to be able to specify the timing of aquatic plant control, to make sure that it does not interfere with ecological processes such as fish spawning or management activities such as aquatic surveys.

The proposed rules provide for increased control of invasive aquatic plants through the variance process, or when control is selective for invasive aquatic plants for an individual lakeshore owner. It is necessary and reasonable to be able to specify the species of plants targeted for control to be consistent with the goal of controlling invasive aquatic plants without harming native plants.

It is necessary and reasonable to provide for supervision of aquatic plant control by the DNR, to ensure that permit conditions are followed and the goal of the treatment is met.

In some cases it is necessary and reasonable to require public notice before approving an APM permit. The public is generally wary of applications of chemical pesticides to public waters. In particular, large-area or whole-lake pesticide treatments, which are being increasingly used to control invasive aquatic plants, may cause dramatic short-term effects in the abundance of aquatic plants and will attract attention, especially on heavily used lakes. It is necessary and reasonable to inform lake users of the reasons for pesticide control and answer questions and concerns.

Subp. 7 Inspections

The proposed language provides for field inspections of a proposed APM permit site for properties with no previous permit history (except for swimmer's itch control), properties where there has been a lapse in permit history, requests for changes in treatment area, plant type controlled, or method of control, requests for off-shore control or control of invasive aquatic plants to enhance growth of native aquatic plants, and for properties where these has been a restoration order that could be affected by aquatic plant control. This language currently exists in part 6280.0350, subp. 1, item B; however, it does not provide good guidance on the specific circumstances that require an inspection. The proposed changes provide more specific criteria on when an inspection is required and move it into this part, which is a better fit since it deals with APM permit issuance standards.

It is necessary and reasonable to require an inspection for the types of permit actions listed above, to characterize the existing plant community, verify that aquatic plants are hindering access to open water, verify that invasive aquatic plants need to be controlled, or determine the potential impacts to aquatic habitat. It is necessary and reasonable to exclude swimmer's itch from the inspection requirement, because the parasite that causes this nuisance is not detectable through a visual inspection.

6280.0350 AQUATIC PLANT CONTROL

Subp. 1. Inspection, supervision, and monitoring

The existing language provides for field inspection of APM permit activities and supervision of lake-wide treatments of excessive algae blooms. The proposed changes would repeal this subpart and replace it with broader language providing for supervision of APM activities in 6280.0250, subp. 6, item D, and more streamlined language providing for inspections in 6280,0250, subp. 7. The proposed changes are necessary and reasonable to provide for better organization and streamlining of rule language, and to provide for supervision of APM activities where necessary to ensure that permit conditions are followed and the goal of the control is met.

Subp. 1a, Submersed aquatic plant control restrictions for riparian property owners and lessees

Current language has two quantified limits for submersed aquatic plant control. First, there is a lake-wide limit on the total amount of control that can occur, which is 50% of the littoral area for mechanical control (subp. 3) and 15% of the littoral area for pesticide control (subp. 4). Second, there is a limit for individual properties of up to 100 feet of shoreline for pesticide control of submersed aquatic plants. These lake-wide and individual property limits are intended to work together to prevent excessive control of aquatic plants and negative impacts on habitat and water quality.

The DNR believes that the existing lake-wide littoral area limits are sufficient; therefore, no changes are proposed for them. The DNR believes that the existing limit for control adjacent to individual properties is not adequate to protect habitat and water quality, and in excess of what is needed to provide shoreline owners recreational access to the water. Existing language is also deficient in that a limit for mechanical control adjacent to individual properties is not specified. As a result, the DNR is proposing changes in aquatic plant control limits adjacent to individual properties. Additional explanation and the need and reasonableness of these changes follows.

Current language in subp. 4 allows submersed aquatic plants to be controlled on a maximum of 100 feet of shoreline per site belonging to an individual riparian property owner, with exceptions for resorts, apartments, condominiums, public swimming beaches, and marinas. The proposed change is to allow control of submersed aquatic plants on up to 100 feet or half of a person's shoreline, whichever is less, with similar exceptions to allow more control for larger owned entities. In addition, there are proposed exceptions to allow up to 35 feet of shoreline control for properties with less than 70 shoreline feet, and to allow control on up to the entire shoreline if it is selective for invasive aquatic plants. The proposed language applies these limits and exceptions to both pesticide and mechanical control.

The effect of the proposed change would be to reduce the maximum amount of submersed aquatic plant control allowed for people who own or control less than 200 feet of shoreline. Under current rules, a person who owns 150 feet of shoreline could control a maximum of 100 feet, but under the proposed changes that person would only be able to control up to 75 feet.

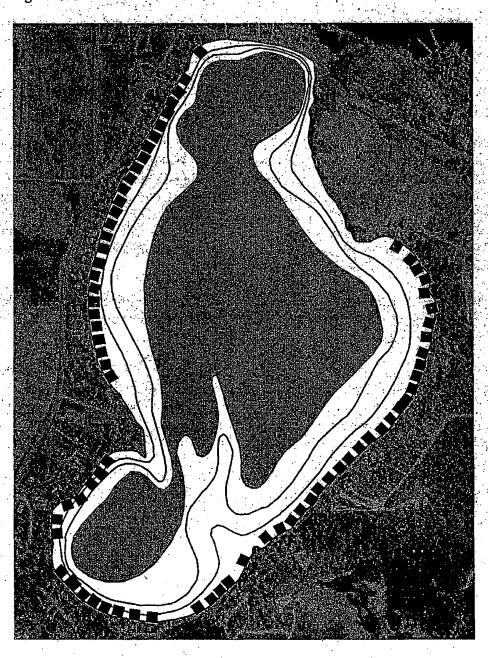
The proposed changes are necessary and reasonable to provide adequate protection for aquatic plants. Under current rules, aquatic plant removal can occur on long continuous stretches of shoreline, especially on heavily developed lakes where most lots are 100 feet wide or less. This can happen despite the lake-wide limit on pesticide control of 15% of the littoral area (Fig. 2). Near-shore aquatic plants, which are the primary target of control on individual shoreline properties, are particularly important as habitat for non-game and juvenile fish (Poe et al. 1986; Bryan and Scarnecchia 1992). While existing rules give DNR the discretion to reduce the amount of control below 100 feet of shoreline, DNR staff are under increasing pressure on developed lakes to allow the maximum of 100 feet of control. This has made it difficult to administer APM permits consistently across the state. Decisions to reduce the amount of control below the maximum amount allowed are increasingly being appealed to the Commissioner, as provided by part 6280.1100, subp. 1, resulting in administrative costs to the DNR. The DNR received 7 of these appeals in 2005, 11 in 2006 and 24 in 2007. In addition, it is generally unnecessary to allow the maximum control of 100 feet of shoreline to provide recreational access for swimming or boating.

The proposed changes in the amount of control allowed on a shoreline property are necessary and reasonable to prevent long stretches of shoreline from being denuded of aquatic plants, specify a limit for mechanical control of shoreline properties, provide for more consistent application of control limits across the state, and reduce the DNR's administrative burden in responding to appeals. The proposed changes are reasonable, because they would still allow shoreline owners recreational access to open water. The proposed changes are reasonable because they maintain the exception to allow more control for larger-owned entities like public swimming beaches and condominiums.

The proposed change to allow up to 35 feet of control for properties with less than 70 shoreline feet is necessary and reasonable to ensure that people with small shoreline lots can get reasonable access to open water.

The proposed change to allow control on up to the entire shoreline property if the control is selective for invasive aquatic plants is necessary and reasonable to prevent excessive nuisance growths of these plants along some properties. Allowing more liberal control of invasive aquatic plants at the individual property scale will not help stop their spread within a lake, nor will it reverse lake-wide ecological trends such as loss of native plant diversity and abundance. Nevertheless, in some cases it will help to prevent these plants from becoming a nuisance to an individual property owner. The proposed language is reasonable, because it specifies that the control would have to be selective for invasive aquatic plants and it is not necessary to afford invasive plants the same protection that native plants receive.

Figure 2. Hypothetical example on George Lake in Kandiyohi County, showing potential result of current rules, which allow shoreline property owners to control submersed aquatic plants with pesticides on up to 100 feet of shoreline, with a lake-wide limit of 15% of the littoral area (area that is 15 feet deep or less). The light-shaded area with contour lines represents the littoral area. The black squares represent aquatic plant control areas of 100 feet by 100 feet, which is a typical size treatment area. The total area of the black squares combined is 15% of the littoral area. The diagram illustrates that the current individual shoreline limit does not provide adequate protection for near-shore aquatic plants, because over half of the shoreline could be treated before reaching the 15% limit.



The proposed change would reduce habitat loss for non-game and juvenile fishes by requiring shoreline property owners to leave half of their shoreline untreated, thereby limiting removal of critical near-shore vegetative cover (Poe et al. 1986; Bryan and Scarnecchia 1992). In addition, for aquatic plant removal that extends to deeper water, the proposed changes may actually enhance fish habitat by creating edges for game fish to patrol for prey (Olson et al. 1998). The proposed changes are necessary and reasonable to help mitigate the impacts of aquatic plant removal on aquatic habitat.

is described and supplications of the supplications

Subp. 2. Lake vegetation management plan (LVMP)

The existing language provides that APM permits will be issued in accordance with a LVMP that has been approved by the DNR. The proposed change is to eliminate this subpart and replace it with language in part 6280.1000, subp.2, which provides for approved LVMPs to authorize a variance from the provisions of the aquatic plant management rules, gives the commissioner the discretion to require an LVMP prior to granting a variance, and retains the existing language indicating that APM permits be issued in accordance with an approved LVMP. The new language also specifies the information that is or may be required in an LVMP. The proposed changes are necessary and reasonable to inform the public of what is required in a LVMP and to ensure that a LVMP contains all of the necessary information.

Subp. 2a. Aquatic plant control in offshore areas

The proposed change authorizes the DNR to issue permits to control aquatic plants in offshore areas. The DNR currently issues permits for offshore control, but existing language does not specify this as a permitted activity. The need for offshore control has increased as invasive aquatic plants have increased, because of their tendency to form mats on the surface of the water that hinder recreation. The proposed change is necessary and reasonable to clarify that offshore control can be authorized in an APM permit.

Subp. 3. Mechanical control restrictions

The proposed changes in item A are technical improvements to grammar and wording. The proposed changes are necessary and reasonable so that rule language is consistent and more easily understood.

The current language in item B limits "organized lake-wide" cutting and removal programs to 50% of the littoral area. (Language in subp. 4, item A limits pesticide control of aquatic plants in public waters to 15% of the littoral area.) The proposed language in item B does not change the littoral area limits for mechanical (or pesticide) control, but does make technical improvements to grammar and wording, and also clarifies that the sum of permitted mechanical and pesticide control may not exceed 50% of the littoral area. The proposed technical changes are necessary and reasonable to make language more consistent and understandable. The proposed language specifying littoral area limits for pesticide and mechanical control in combination is necessary and reasonable to clarify what the control limits are on lakes where both types of control occur.

The current language in item C describes requirements for permit applications for lakewide or bay-wide mechanical control. The proposed changes eliminate this language and replace it with language in part 6280.0450, subp. 1a, which deals with group permit applications. The proposed change is necessary and reasonable, because this language does not fit well with the other language in this part.

The proposed language in item C provides that control methods cannot excavate or substantially alter the course, current, or cross-section of public waters. Current language has this provision in part 6280.0250, subp. 1, item C, paragraph 1, which applies only to mechanical control that falls below permitting thresholds. The proposed change effectively broadens the scope of this prohibition, by applying it to both permitted and un-permitted activities. Minn. Stat., sec. 103G.245, and Chapter 6115 regulate activities that change the course, current, or cross-section of public waters. The proposed changes are necessary and reasonable to prevent APM permits from being used to authorize work that is regulated by a different body of law.

The proposed language in item D requires that mechanical control be done in the same location each year, unless a person obtains a permit authorizing a change in location. This language is currently found in part 6280.0250, subp. 1, item C, paragraph 2, and, therefore, is not a change from existing rule. This provision is necessary and reasonable to prevent mechanical control that is done without a permit from exceeding the limits that require a permit.

The proposed language in item E requires that a sticker, which is provided by the DNR with the APM permit, be attached to an automated aquatic plant control device or a nearby dock or other location. The proposed change is necessary and reasonable so that conservation officers can quickly determine by visual inspection if a device is legally permitted.

The proposed language in item F prohibits automated aquatic plant control devices from being used if the bottom is predominantly soft sediment with an average depth of 3 inches or more. The DNR has been using the presence of soft sediment, such as silt or muck, as a criteria for determining if these devices should be permitted, but current rule language does not specify this criteria. These devices are not appropriate for use in soft sediment areas, because they can excavate the lake bottom and cause turbidity by suspending silt in the water column. Experience has shown that these problems are more likely to occur where the average depth of soft sediment is 3 inches or more. The proposed changes are necessary and reasonable to prevent these devices from excavating the bottom of public waters and causing turbidity.

The proposed language in item G prohibits the use of hydraulic jets and suction dredges for mechanical control of aquatic plants. Current language prohibits use of these devices for mechanical control that falls below the permitting thresholds (see part 6280.0250, subp. 1, item C, paragraph 1), but there is no provision regarding these devices for permitted mechanical control. The DNR has generally not permitted these devices for aquatic plant control, because they cause substantial excavation and disruption of the lake bottom. The proposed changes are necessary and reasonable to prevent these devices from excavating the bottom of public waters and causing turbidity.

Subp. 4. Pesticide control restrictions

Current language in item A contains provisions restricting the total amount of pesticide control in a lake to 15 percent of the littoral area and the total amount of control allowed on a shoreline property to a maximum of 100 feet of shoreline. The language also contains an

exception to the individual shoreline property limit for resorts, apartments, condominiums, public swimming beaches, and marinas [paragraph (1)], and an exception to the littoral area limit for lakes where this limit was authorized to be exceeded by permits issued prior to 1976 [paragraph (2)] and for storm water retention ponds [paragraph (3)].

The DNR is not proposing to change the 15% littoral area limit for pesticide control. The DNR is proposing a change to the control limits for individual properties. The proposed language for these changes is found in subp. Ia, and is discussed in that section of the SONAR.

The exception to the littoral area limit for lakes where this limit was authorized to be exceeded by permits issued prior to 1976 is commonly known as the "grandfather clause," and it affects several lakes in the Twin Cities Metropolitan Area including: Sunfish Lake in Dakota County; Cedar Island and Lost lakes and Carson's and St. Louis bays of Lake Minnetonka in Hennepin County; and Johanna, Owasso, Gervais, and McCarrons lakes in Ramsey County. These lakes are not listed in the current rule. Since 2002, the percent of the littoral area that has been treated on these lakes has ranged from 11.5% to 65.8% (Table 1).

Table 1. Listing of the "grandfather" lakes showing the percent of littoral area allowed for aquatic plant control and the actual percentage controlled from 2002-2007.

Lake Name	County	Control limit (%)	2002.	2003	2004	2005	2006	2007
Sunfish:	Dakota	68	65.8	65.8	65.8	65.8	65.8	36,2
Cedar	Hennepin	45	45	45	45	45	45	45
Island								
Lost	Hennepin	38	37	37	37	37	37	36.7
Carson's	Hennepin ·	20	19.4	21.5	20.4	20.2	18.9	16.6
Bay	ing in a							men. Namatan
St. Louis	Hennepin	25	23.4	25	25.1	24.2	22.2	24.3
Bay				r de la companya da subsentina da subsentina da subsentina da subsentina da subsentina da subsentina da subsent La companya da subsentina d				
Johanna	Ramsey	43	28.5	30.8	30.8	31.5	28.7	28.9
Owasso	Ramsey	28	23.6	23.5	23.4	23.7	22.1	21.8
Gervais	Ramsey	16	16	16.2	16.2	14.7	14	13.2
McCarron's	Ramsey	17	15.7		12.7	12.2	11.9	11.5

The proposed language in item C would terminate the grandfather clause in five years and provide opportunities for affected lake groups and others to work with the DNR to develop a lake vegetation management plan (LVMP) to guide future aquatic plant control. The proposed language in item B specifies the lakes that are affected by the grandfather clause, which is necessary and reasonable to provide documentation as to which lakes are impacted by the rule changes. Terminating the grandfather clause is necessary and reasonable to protect aquatic plants and their habitat value, and to provide more consistency in how aquatic plant removal is regulated in the state. The original reasons for the grandfather clause have been lost over time, nevertheless there is no biological justification to treat the affected waters differently than all other waters in the state. Given the habitat and water quality value of aquatic plants, the continuation of elevated levels of pesticide control in these lakes jeopardizes aquatic habitat and the fish and wildlife species that depend on it. DNR surveys have indicated that one fish species,

banded killifish, has been functionally extirpated from Johanna, a grandfather lake in Ramsey County. This species is sensitive to changes in aquatic habitat, including aquatic plants, and has disappeared from several other metropolitan lakes in Minnesota and Wisconsin (DNR unpublished survey data; Lyons 1989). While there is no documentation that the disappearance of banded killifish in Johanna was caused by elevated levels of aquatic plant control, it is likely that habitat degradation caused their disappearance and that high levels of pesticide control contributed to this degradation.

At the same time, it is necessary and reasonable to provide an opportunity for the DNR to develop a LVMP with affected lake groups to guide future aquatic plant control on the grandfather lakes. This will provide an opportunity for the DNR to provide outreach and education for grandfather lake residents and chart the best course for management of aquatic plants on these lakes.

It is necessary and reasonable to terminate the grandfather clause to protect aquatic habitat on the affected lakes. The proposed change is reasonable, because it provides affected lake residents an opportunity to work with the DNR to determine the best plan for aquatic plant control on the grandfather lakes. The proposed change is reasonable because there is a variance process in place that will allow elevated levels of aquatic plant control if it can be justified. Further, proposed rule changes provide more clarity and direction for determining if a variance is justified to control invasive aquatic plants, protect or improve aquatic resources, provide riparian access, or enhance recreational use on public waters (see part 6280.1000 and the corresponding section of the SONAR).

The proposed language would also modify the exception to littoral area treatment limits for storm water retention ponds. The current language states that aquatic plant control may occur on up to five acres or half the surface area of a storm water retention pond, whichever is less. This language has been confusing, because there is not a definition of storm water retention ponds and most are not public waters and, therefore, are not regulated by this Chapter. In practice, this provision has most often been applied to small ponds in urban environments. These waters often receive lots of nutrient-rich run-off, which exacerbates problems with nuisance growths of aquatic plants. The proposed change is to eliminate the use of the term storm water retention ponds, and replace it with a provision that allows pesticide control on up to five acres or half the surface area of waters that are 20 acres or less. The proposed change is necessary and reasonable to provide more clarity on where this provision applies and to help address nuisance aquatic plant growth that may occur on these waters.

The current language in item B has several requirements for permit applications from riparian property owners' associations for large area or bay-wide aquatic plant control and is similar to existing language in 6280.0350, subp. 3, item C. The proposed change eliminates the language from item B (and 6280.0350, subp. 3, item C) and replaces it with language in part 6280.0450, subp. 1a, which deals with group permit applications. The proposed change is necessary and reasonable, because this language is a better fit in part 6280.0450, which deals with APM permit requirements.

Subp. 5. Control of algae

The current language requires that permit applications for lake-wide control of algae be accompanied by dated signatures of approval by a majority of the riparian property owners and that signatures be obtained every three years or when there is a change in property ownership. The proposed change is to eliminate this subpart and replace it with language on group permit applications in 6280.0450, subp. 1a. The proposed change is necessary and reasonable, because this language is a better fit in part 6280.0450, which deals with APM permit requirements.

Subp. 6. Treatment notice

The current language requires that the holder of an APM permit give notice of the proposed date of control to persons specified on the permit prior to beginning work under the permit, and also provides for revocation of permits if this provision is not followed. The proposed change is to eliminate this subp. and move the language to part 6280.0450, subp. 3b. The proposed change is necessary and reasonable, because this language is a better fit in part 6280.0450, which deals with APM permit requirements.

6280.0450 APM PERMIT REQUIREMENTS

Subp. 1. Application process

The proposed changes make technical and grammatical improvements to existing language and also specify that a government agency can apply for an APM permit and that the DNR can deny a permit application from someone who leases shoreline property if the owner of that property is opposed to the permit. The proposed changes are necessary and reasonable, because government agencies own shoreline property and may need to control aquatic plants to manage swimming beaches and water access sites. The proposed changes are necessary and reasonable because a shoreline property owner should have the ability to overrule a lessee's desire to control aquatic plants adjacent to the property. The proposed changes are necessary and reasonable to improve language and make it more consistent.

Subp. 1a. Landowner approval

The proposed language replaces language currently found in 6280.0350, subp. 3, item C, subp. 4, item B, and subp. 5. The current language provides for APM permit application requirements for lake-wide, large area, or bay-wide mechanical (subp. 3, item C) and pesticide (subp. 4, item B) control of aquatic plants, and lake-wide control of algae (subp. 5). The existing permit application requirements for lake-wide, large area, or bay-wide pesticide and mechanical control of aquatic plants include a written plan and map of the proposed control areas, and the names, addresses, and signatures of property owners whose shorelines are to be treated. For lake-wide control of algae, requirements include signatures from a majority of the property owners stating that they are in favor of the treatment. In addition, there is a requirement that the signatures be obtained every three years or when there is a change of ownership for pesticide and algae control, but not for mechanical control.

The current language specifies that the shoreline owner signatures for algae control be "signatures of approval," but simply requires signatures for pesticide and mechanical control. Nevertheless, in practice the DNR has considered the signature requirement for mechanical and pesticide control to be a requirement for shoreline owner approval. The difference has been that,

with mechanical or pesticide control of aquatic plants, if a shoreline owner did not sign the application, control would still occur on the lake but not next to that shoreline owner's property. With lake-wide algae control, the entire lake must be treated since algae is free-floating; therefore, it is not feasible to skip a property. As a result, the current rules require approval of a majority of shoreline owners before lake-wide algae control can occur.

The proposed language requires dated signatures of approval from all landowners with shorelines adjacent to proposed treatment areas, with an exception for lake-wide control of algae, which requires signatures from a majority of landowners consistent with current rule, and exception that allows the landowner signature requirement to be waived if aquatic plant control is necessary to protect aquatic habitat. The proposed language also provides that the signatures may be provided in an electronic format.

In general, the DNR believes it is necessary and reasonable to get landowner approval before aquatic plant control occurs adjacent to the landowner's property. Most aquatic plant control is done to provide access to open water for shoreline owners; therefore, it would not make sense to control these areas if the landowner did not approve. It is necessary and reasonable to require signature each year, to avoid mistakes caused by changes in property ownership. The proposed changes are reasonable, because they allow electronic signatures to expedite the approval process:

Nevertheless, there are times when the state may want to permit the control of aquatic plants even if landowners do not approve. Public waters and the aquatic plants in them are owned by the state (Minn. Stat., sec. 84.091, subd. 1) and there may be situations where the control has public or natural resource benefits that extend beyond people with property on the lake. For example, the DNR may need to respond quickly to a new infestation of an invasive aquatic plant. The proposed changes are necessary and reasonable so that the DNR can require shoreline owner approval for aquatic plant control where it's appropriate, but can also authorize aquatic plant removal without shoreline owner approval in situations where broader public interests are at stake.

Subp. 2. Deadline for permit application

The proposed changes are technical improvements to language. The proposed changes are necessary and reasonable to make the language more consistent and understandable.

Subp. 3. Duration of permits

The current language provides for APM permit duration of one growing season, expiring on September 1 of the year it was issued unless otherwise noted. The exceptions to this provision are currently in different places in the rule. Part 6280.0250, subp. 2, item E allows a three-year permit for an automated aquatic plant control device if: 1) the control area is no more than 50 feet or half the length of the owner's shoreline, whichever is less; 2) the control area does not exceed 2,500 square feet; and 3) the control site does not contain emergent or floating-leaf aquatic plants. Part 6280.0250, subp. 2, item F allows a continuous APM permit for creating a channel through emergent aquatic plants by cutting or pulling if; 1) the channel is no more than 15 feet wide and takes the most direct route to open water; 2) the channel is maintained by

cutting or pulling; 3) the channel remains in the same location from year-to-year; and 4) the permit is not transferable.

The proposed changes move the exceptions to the one-year permit duration to this part with some changes, and add an exception to allow for a three-year permit to transplant aquatic plants. The proposed requirement for the three-year permit for automated aquatic plant control device includes the current provision that the site to be controlled does not exceed 2,500 square feet, but eliminates the current requirements that the control area not exceed 50 feet of shoreline or half the length of the owner's shoreline, whichever is less, and that the control area not contain emergent or floating-leaf plants. Retaining the requirement that the control area not exceed 2,500 feet is necessary and reasonable, because it provides an incentive for permit applicants to limit the amount of control. The proposed change to drop the requirements for shoreline length and emergent and floating-leaf plants is necessary and reasonable because it helps reduce the administrative burden of issuing permits, and the burden on the applicant of having to apply for a permit each year. The proposed changes are reasonable because they strike a balance between encouraging less control area and reducing administrative requirements for the DNR and public.

The proposed language providing for a continuous APM permit for creating a channel through emergent vegetation is similar to existing language in part 6280.0250, subp.2, item F. The main difference is that the proposed language would allow the initial control to be done with pesticides. Maintenance of the channel in subsequent years would have to be by mechanical control. The proposed change is necessary and reasonable because it provides more options for a person to create the initial channel. Since the channel needs to be located in the same place from year-to-year, using pesticides for the initial control will not increase damage to emergent aquatic vegetation in the long term. The proposed language is reasonable because it avoids, as does the current language, repeated pesticide use in the same area without DNR review.

The proposed language also provides for a three-year permit to transplant aquatic plants. Transplanting aquatic plants is a relatively uncommon activity that does not have the same level of resource impact as aquatic plant control. It is necessary and reasonable to allow a longer permit duration for this activity to reduce the administrative burden for the DNR and the public.

Subp. 3b. APM permits not transferable

The proposed language prohibits the transfer of an APM permit to another person. The proposed change is necessary and reasonable to ensure that permit applicants have received necessary information regarding aquatic plant control and to facilitate enforcement of APM rules.

Subp. 3. Control notice

The proposed language is substantively the same as existing language in part 6280.0350, subp. 6. The language requires the holder of an APM permit or the holder's agent to give notice of the proposed treatment date to all persons specified on the permit prior to staring any work under the permit, and provides for permit revocation if this provision is not followed. Moving the language is necessary and reasonable, because it is a better fit in this part, which deals with APM permit requirements.

Subp. 6. Annual report

The proposed changes are technical and grammatical improvements to existing language and are not substantive. It is necessary and reasonable to make technical and grammatical improvements so that language is consistent and more easily understood.

6280.0500 COMMERCIAL HARVEST OF AQUATIC PLANTS

The proposed changes in this part provide language to help regulate persons who commercially harvest aquatic plants for sale. Commercial harvest of aquatic plants is relatively uncommon compared to aquatic plant management activities, nevertheless the existing rule language was not written to specifically address commercial harvest. It is necessary and reasonable to develop specific regulations for commercial harvest to more effectively regulate this activity.

Subp. 1. Permit required

The proposed language requires that a person must have a permit to commercially harvest aquatic plants from public waters, except for wild rice, which is regulated by Chapter 6284 and Minnesota Statutes, Chapter 84. Current rule language does not specifically state that a permit is required for this activity, but does imply it by including it as a permit issued without a fee in part 6280.0450, subp. 4, item A, paragraph (4), and by stating that harvest of plants may be done without a permit for personal use only and not for resale (part 6280.0250, subp. 1, item B). DNR practice has been to issue permits for commercial harvest of aquatic plants, because this activity has potential to disrupt or damage aquatic plant communities and spread invasive species if it is not properly conducted. It is necessary and reasonable to regulate commercial harvest of aquatic plant communities in public waters. It is necessary and reasonable to clarify the ambiguities in the existing rule regarding the permit requirement for commercial harvest of aquatic plants. The proposed change is reasonable because it is consistent with Minn. Stat., section 103G.615, subd. 1, which states that the DNR commissioner may issue permits to gather or harvest aquatic plants or plant parts from public waters.

Subp. 2. Commercial harvest permit application

The proposed language allows a person to apply for a commercial harvest permit on forms provided by the DNR, requires an applicant to provide documentation of legal access to the water requested on the permit if there is no public access for that water, and requires the applicant to complete an aquatic plant workshop before issuing a permit. It is necessary and reasonable to require documentation of legal access to waters without public access to prevent trespass situations and other conflicts with shoreline owners. It is necessary and reasonable for the DNR to require a workshop to ensure that permit applicants are informed of aquatic plant and invasive species regulations, and the habitat and water quality value of aquatic plants.

Subp. 3. Commercial harvest permit conditions

The proposed language gives authority to the DNR to specify conditions for commercial harvest permits to avoid or minimize harm to aquatic resources. The conditions listed in the language include restrictions on the amount and species of plants harvested, location and timing

of harvest, and method of harvest. The proposed language also specifies that a permit is valid for one year and may not be transferred to another person.

It is necessary and reasonable to specify conditions on commercial harvest permits to ensure that operations are conducted in such a way that aquatic resources are not harmed. It is necessary and reasonable to include restrictions on these permits on the amount and species of plants harvested to prevent depletion of aquatic plants and spread of invasive species. Spread of invasive aquatic plants is a particular concern with this activity, because invasive species may be mixed in with native species and could end up being sold on retail markets and ultimately spread to other waters. It is necessary and reasonable to have the ability to specify location of harvest. so that areas with critical aquatic habitat or abundant invasive aquatic plants can be avoided. It is necessary and reasonable to be able to specify the timing of harvest to prevent conflicts with other recreational uses on public waters. It is necessary and reasonable to be able to restrict the method of harvest to prevent use of methods that may damage aquatic habitat. It is necessary and reasonable for permits to be valid for one year, because it gives the DNR the ability to review the permit application and determine if additional concerns need to be addressed, such as recent infestations of invasive species or user conflicts. It is necessary and reasonable to prohibit the transfer of a commercial harvest permit to another person to ensure that permittees have received necessary information regarding commercial harvest regulations and to facilitate enforcement of applicable rules and statutes.

Subp. 4. Criteria for issuing commercial harvest permits

The proposed language references the relevant criteria in part 6280.0250, subp. 3a for determining whether to approve or deny a commercial harvest permit. See the SONAR discussion under that part for the need and reasonableness of the listed criteria. The proposed language also states that commercial harvest permits shall be denied for waters that are infested with prohibited or regulated invasive species, unless it is feasible and practical to apply permit conditions that would prevent the spread of invasive species, and in waters where there is not enough information on the aquatic plant community to make an informed decision. It is necessary and reasonable to be able to deny permits for waters with invasive species to prevent their spread to other waters. It is necessary and reasonable to deny permits where insufficient information exists, to prevent inadvertent damage to aquatic plant communities or spread of invasive species.

Subp. 6. Annual report

The proposed language requires commercial harvest permittees to submit an annual report on their operations by December 31 of each year. The proposed language is necessary and reasonable for the DNR to have sufficient information on the species and amounts of aquatic plants being harvested. The proposed language also provides that failure to report is grounds for refusing to issue future permits, which is necessary and reasonable to ensure that reports are submitted.

6280.0600 APPROVAL OF PESTICIDES AND METHODS USED FOR AQUATIC PLANT MANAGEMENT OR AQUATIC NUISANCE CONTROL

Subp. 1. Pesticides must be labeled for use in aquatic sites

The proposed language is a technical change replacing the word macrophytes with plants. The proposed change is necessary and reasonable so that language is consistent and more easily understood.

Subp. 2. Instructions and precautions of pesticides must be followed

Current language regarding signing requirements states that pesticide-treated areas must be posted with signs provided by the DNR. The proposed change is to require that the signs be provided or approved by the DNR commissioner. This allows the DNR to authorize signs in cases where the DNR cannot make signs available in time for the treatment. The proposed change is necessary and reasonable to prevent permitted activities from being delayed and to reduce DNR's administrative costs.

Current language requires pesticide-treated areas to be posted, but does not specify a length of time for the posting. Some pesticides have water-use restrictions on their labels for various activities and for varying amounts of time, while others have no such restrictions. The proposed language states that treated areas must be posted for at least 24 hours or the length of time of the longest water use restriction, whichever is greater. It is necessary and reasonable to require posting during the time that water use restrictions are in place, to ensure the safety of lake users. For pesticides with no water use restrictions, it is necessary and reasonable to require 24-hour posting of areas treated with pesticides that have no water use restrictions, to inform the public and help prevent undue concern from people who may be leery of chemical treatments.

Subp. 3. Pesticide control of aquatic plants in watercourses

The proposed language is a technical change replacing the word macrophytes with plants. The proposed change is necessary and reasonable so that language is consistent and more easily understood.

6280.0700 COMMERCIAL PESTICIDE AND MECHANICAL CONTROL

Subp. 2. Commercial mechanical control

The proposed changes include a clarification of the current provision stating that issuance of a commercial mechanical control permit is contingent upon a determination by the DNR commissioner that the applicant has adequate equipment and knowledge to properly harvest aquatic plants in public waters. In practice, this determination has been made by requiring permit applicants to attend a DNR-sponsored workshop. The proposed language states that a person must complete an aquatic plant management workshop provided by the DNR commissioner before conducting activities under a commercial mechanical control permit and also allows follow-up workshops to be required as needed. The proposed change is necessary and reasonable to clarify what the DNR requires for determining that a person is qualified for a commercial mechanical control permit.

Persons who mechanically control aquatic plants for hire have potential to affect aquatic habitat on a larger scale than an individual shoreline owner. Commercial operators often control plants on large areas of lakes and must be aware of lake-wide and individual shoreline owner limits, as well as habitat concerns such as disturbing or altering the lake bottom. In addition, since permittees operate on multiple lakes, they can be a major vector for the spread of aquatic

invasive species if they do not properly clean and inspect their mechanical control equipment. It is necessary and reasonable to require permit applicants to attend a workshop, so they can be informed of APM and invasive species regulations and best management practices for preventing the spread of invasive species and protecting aquatic habitat.

The proposed language also includes technical changes, which are necessary and reasonable to make language more consistent and easily understood.

6280.0800 ANNUAL REPORTS AND TREATMENT NOTICES

Subp. 1 Annual report

Subp. 2 Treatment notice

The proposed change is to repeal these subparts, because the language is duplicated in part 6280.0450, subp. 6 and part 6280.0350, subp. 6. The current language in part 6280.0350, subp. 6 is also proposed to be eliminated and replaced by language in part 6280.0450, subp. 3b. See the SONAR discussion under parts 6280.0350 subp. 6 and 6280.0450, subp. 3b for a description of the need and reasonableness of these changes.

6280.0900 AUTHORITY TO AMEND AND REVOKE PERMITS

Subp. 1. Amendment and revocation.

The current language allows the DNR to amend or revoke commercial mechanical control permits or APM permits without prior notice whenever it has been determined that it is necessary to protect the interests of the public, to protect human life, or to protect fish, wildlife, and native plants, or for violation of the terms and conditions of APM permits or laws. This language is deficient in that it provides for revocation of a commercial permit, without providing detailed guidance as to when such an action should occur and how long the revocation should be in effect. The proposed change is to modify this provision so that the DNR can amend or revoke an APM permit or suspend aquatic plant management or commercial harvest activities to protect public interests, human life, or fish, wildlife, and native plants, while eliminating the provisions to amend and revoke commercial permits, and eliminating violation of permits or laws as a reason to amend or revoke a permit. More specific and detailed criteria for revocation of permits and activities, including commercial permits and activities, due to violation of laws is then proposed for part 6280.0900, subp. 1a. The proposed changes are necessary and reasonable to provide more consistency and clarity in the permit revocation process.

Subp. 1a Permit revocation for violation of rules

The proposed language provides for revocation of APM, commercial mechanical control, and commercial harvest permits, and for prohibiting application of pesticides to public waters under an APM permit, if a person is convicted of a violation of this chapter or other applicable laws. It is necessary and reasonable for the DNR to have authority to revoke permits for violation of rules to provide an incentive to follow the law and prevent damage to aquatic resources. It is also necessary and reasonable for the DNR to be able to prohibit application of pesticides to public waters under an APM permit for the same reasons. The Minnesota Department of Agriculture (MDA) licenses commercial and non-commercial aquatic pesticide

applicators, but does not enforce APM rules and does not have a regulatory mechanism in place to revoke licenses or suspend activities under these licenses for violation of APM rules. The proposed changes are necessary and reasonable so that pesticide applicators can be held accountable for violations of the APM rules and other applicable laws. The proposed changes are reasonable, because the DNR would not revoke a pesticide applicator's license, which is administered by the MDA, but would revoke the person's ability to apply pesticides to public waters under an APM permit, which is administered by the DNR.

The proposed language in item A gives the DNR the ability to revoke APM, commercial mechanical control, and commercial harvest permits, and to prohibit application of aquatic pesticides under an APM permit, if the person is convicted of a violation of applicable laws. The terms "APM - related conviction" and "APM - related permit revocation, which are defined in part 6280.0100, subps. 2c and 2d, are used to describe the types of convictions that can result in permit revocation and the types of permits and activities that can be revoked. An APM - related conviction applies to this chapter and Minn. Stat., sec. 103G.615 (permits to harvest or destroy aquatic plants), as well as statutes and rules pertaining to public waters, wetlands, and other applicable law if the conviction is for work that resulted in the destruction of aquatic plants. An APM - related permit revocation applies to APM, commercial mechanical control, and commercial harvest permits, and ineligibility to apply aquatic pesticides to public waters under an APM permit. The proposed language is necessary and reasonable to provide an incentive to follow the law and prevent damage to aquatic resources. The proposed language is reasonable, because it also provides criteria for determining if this provision should be invoked including: 1) the extent and number of violations; 2) the extent and number of previous violations; 3) the extent to which the person received previous warnings regarding unlawful activities.

The proposed language in item B states that a person who receives two separate APM—related convictions in a three-year period shall be subject to an APM—related permit revocation for one year from the date of the second conviction. The proposed language is necessary and reasonable to prevent repeat violators from doing damage to the state's aquatic resources and to provide an incentive for permittees to follow the law.

The proposed language in item B also states that a person who receives an APM—related conviction after having been subject to an APM—related permit revocation shall be subject to an APM—related permit revocation for five years from the date of the conviction. The proposed changes are necessary and reasonable to protect the state's aquatic resources, because a person who is subject to this provision would be guilty of repeated violations.

The proposed language in item C describes how an APM – related conviction is considered to be separate from a prior conviction, to clarify when to apply the revocation provisions in item B. The proposed language is necessary and reasonable to determine when a permit should be revoked. The proposed language is reasonable, because it requires that convictions arise from a separate course of conduct to be considered separate and would prevent a mandatory revocation from one violation event.

The proposed language also requires a person who has had an APM —related permit revocation to take an aquatic plant management workshop before the person can receive a permit

or apply pesticides in public waters. The proposed language is necessary and reasonable to help violators understand the law and prevent future violations and permit revocations. The proposed language is reasonable, because it requires the DNR to make the workshop available so as not to delay issuance of an APM, commercial mechanical control, or commercial harvest permit.

The proposed language on APM - related permit revocation is reasonable, because it provides for reinstatement of revoked permits and eligibility to apply pesticides after review by the DNR commissioner pursuant to part 6280.1100, subp. 1.

Subp. 2. Amendments by request

The current language allows for commercial mechanical control and APM permits to be amended upon request from the permittee, if the amendment maintains adequate protection for interests of the public, human life; and fish, wildlife, and native plants. The proposed changes make technical improvements to the language, including addition of the commercial harvest permit. It is necessary and reasonable to make technical improvements to make language more consistent and easily understood.

6280.1000 VARIANCE AND LAKE VEGETATION MANAGEMENT PLANS

Subp. 1. Variance

I. Variance

The current language in this subpart states that provisions of this chapter may be waived under special circumstances when deemed necessary by the commissioner for the protection and preservation of the natural resources of the state. This language lacks specificity and detail regarding what the purposes of a variance are and what criteria should be used to determine if a variance is justified to meet those purposes.

The issue of whether or not to grant variances for APM permits has become more critical as invasive aquatic plants have spread across the state and government agencies and local groups look for ways to effectively manage and control them. Lake-wide or large-area pesticide treatments have shown some success in temporarily reducing Eurasian watermilfoil and allowing native aquatic plants to increase on moderately fertile or mesotrophic lakes (Madsen et al. 2002; Bremigan et al. 2005; Crowell et al. 2006; Wagner et al. 2007). Nevertheless, algae blooms and lack of resurgence of native plants is a typical outcome of treatments in fertile lakes with low initial cover of native plants (Welling et al. 1997; Valley et al. 2006). Attempts to control invasive aquatic plants have also affected some native species (Crowell et al. 2006; Wagner et. al. 2007). In addition, as lakeshore development has increased, the desire to remove aquatic plants to clear shorelines is increasingly confused with the desire to control invasive aquatic plants for ecological benefit. It is necessary and reasonable to provide better guidance in the rules to determine when a variance is justified to control invasive aquatic plants, protect or improve aquatic resources, provide riparian access, and enhance recreational use on public waters, and the criteria used to make these determinations.

The proposed language in item A states that the DNR may issue a variance from one or more of the provisions of parts 6280.0250, subp. 4 and 6280.0350, which contain the general prohibitions and limits for aquatic plant control, except that no variance may be issued for 6280,0250, subp. 4, items B and C, which prohibit aquatic plant control to improve the

appearance of undeveloped shoreline or for esthetic purposes alone on developed shoreline. The proposed language prohibiting a variance for these reasons is necessary and reasonable to prevent aquatic habitat destruction for purposes that are inconsistent with the purpose of the APM program. The DNR has spent a great deal of effort educating shoreline owners on the benefits of keeping shorelines in a natural condition through its shoreland habitat and lakescaping programs (Henderson et al. 1998). These programs provide funding and encouragement for people to keep shorelines in a natural condition to benefit fish and wildlife. It is necessary and reasonable to prohibit APM activities that are inconsistent with DNR's educational efforts to promote wise stewardship of our shoreline areas.

The proposed language in item A also lists the reasons a variance may be issued, which are to control invasive aquatic plants, protect or improve aquatic resources, provide riparian access, or enhance recreational use on public waters. It is necessary and reasonable to allow a variance to control invasive aquatic plants, because they are becoming an increasing threat to Minnesota's lakes and there are situations where it is beneficial to control them at levels above those specified in rule. Lake-wide or large-scale control of invasive aquatic plants can help to reduce their abundance and increase native aquatic plants (Madsen et al. 2002; Bremigan et al. 2005; Wagner et al. 2007). In rare instances, it may be necessary and reasonable to allow a variance to control native plants to protect or improve aquatic resources. This usually occurs as a result of an environmental disturbance that causes a native species to become overly abundant at the expense of other native species. For example, in one case, a variance was granted to control pickerelweed to enhance the wild rice population in Big Rice Lake in St. Louis County. It is necessary and reasonable to allow a variance in some situations to provide riparian access or enhance recreational use. This is most often the result of invasive aquatic plants forming mats on the surface that impede access or mid-lake travel. More rarely, there may be cases where excessive nutrient inputs or some other environmental disturbance cause native plants to become overly abundant and a hindrance to access and recreation.

The proposed language in item A also requires that the DNR commissioner must make a determination that there are exceptional circumstances or special or unique conditions before granting a variance to control native aquatic plants to provide riparian access or enhance recreational use. The proposed change is necessary and reasonable to make it clear that variances are the exception to the rule and to prevent the variance process from being overused or misused. The proposed language is necessary and reasonable to prevent variances from being justified on shallow lakes and bays and wetlands that have naturally abundant aquatic plants. The proposed language is reasonable because it limits this requirement to variances requested to control native plants for riparian access or enhanced recreational use, and does not apply to variances to control invasive aquatic plants or to protect or improve aquatic resources.

The proposed language in item B lists the criteria to be considered to determine if a variance is justified to control invasive aquatic plants. The proposed criteria are: 1) the variance has potential to increase or protect native aquatic plants, improve water quality, or provide other ecological benefits; 2) the variance has potential to prevent the spread of invasive aquatic plants; 3) the variance would further research or evaluation of invasive aquatic plant control; and 4) there is no other feasible alternative to accomplish the purpose of the variance. The proposed criteria are necessary and reasonable to guide decision-making in the variance process. The

proposed criteria strike a reasonable balance between providing guidance for decision-making and maintaining flexibility to address different circumstances, because the language requires that each criterion be considered, but does not dictate that any one be met in order for a variance to be issued.

The criterion that the variance has potential to increase or protect native aquatic plants, improve water quality, or provide other ecological benefits is necessary and reasonable to ensure that a proposed variance will have the desired impact. While there is potential to decrease invasive aquatic plants and increase native aquatic plants with lake-wide or large-scale control, studies have shown that this approach may cause more harm than good on eutrophic or fertile lakes (Welling et al. 1997; Valley et al. 2006). In addition, concern regarding invasive aquatic plants has caused some confusion with the public regarding practices that constitute effective large-scale control, versus practices that reduce nuisances with minimal benefits to native plants. The proposed criterion is necessary and reasonable to verify that the goal of the variance is achievable.

The criterion that the variance has potential to prevent the spread of invasive aquatic plants is necessary and reasonable to help prevent invasive aquatic plants from spreading to new lakes. In particular, control around access areas may be necessary in some cases to help prevent boat trailers from picking up and spreading aquatic plants to other lakes.

The criterion that the variance would further research or evaluation for invasive aquatic plant control is necessary and reasonable to help develop more effective control methods. It is reasonable to consider a variance if it will provide useful information for future management of invasive aquatic plants.

The criterion that there is no other feasible alternative to accomplish the purpose of the variance is necessary and reasonable to ensure that all viable options are considered in the variance process.

The proposed language in item C lists the criteria to be considered to determine if a variance is justified to provide riparian access or enhance recreational opportunities. The proposed criteria are: 1) the habitat, water quality, and erosion control value of the aquatic plants in the proposed permit area and the amount of habitat reduction that would occur under the proposed control; 2) the abundance of invasive aquatic plants in the proposed permit area; 3) the selectivity of the proposed control for invasive aquatic plants; 4) the amount of shoreline development on the water subject to the variance; 5) the presence of extensive mats of aquatic plants at the surface, but only if this is not a natural condition; 6) the compatibility of the proposed variance with the regulatory or management classification of the water and adjacent lands; 7) a requirement that the variance would not alter the essential character of the public water; and 8) there is no feasible alternative to accomplish the goal of the variance. The proposed criteria are necessary and reasonable to guide decision-making in the variance process. The proposed criteria strike a reasonable balance between providing guidance for decisionmaking and maintaining flexibility to address different circumstances, because the language requires that each criterion be considered, but does not dictate that any one be met in order for a variance to be issued.

It is necessary and reasonable to consider the habitat, water quality, and erosion control value of the aquatic plants when considering a variance, to prevent undue destruction of aquatic habitat. For example, emergent and floating-leaf aquatic plants have very high habitat value (Craig and Black 1986; Petr 2000; Pierce 2006); therefore, a variance to exceed control limits for these species would seldom if ever be justified.

The second and third criteria address the abundance of invasive aquatic plants in the proposed permit area and the selectivity of the proposed control for invasive aquatic plants. Although item B deals specifically with variances that are issued to control invasive aquatic plants, there will be situations where the proposed variance affects invasive aquatic plants, but has a primary goal of providing access or enhancing recreational use. It is necessary and reasonable to distinguish between variances issued to control invasive aquatic plants and those issued to provide access or enhance recreation to avoid confusion regarding the intent of the variance. It is necessary and reasonable to consider the abundance of invasive aquatic plants and the selectivity of the control method for invasive aquatic plants when determining whether or not to issue a variance for access or recreation, because invasive aquatic plants do not warrant the same level of protection as native aquatic plants.

It is necessary and reasonable to consider the amount of shoreline development on a lake when determining whether or not to grant a variance, because the potential for cumulative impacts of aquatic plant control is greater on heavily developed lakes than on lightly developed lakes. For example, a variance to exceed aquatic plant control limits on a heavily developed lake may combine with numerous APM permits from shoreline owners to have a significant overall impact on the lake's aquatic habitat. On the other hand, if development is limited such that there is little or no potential for additional APM permits beyond the variance, the overall impact on habitat would be less.

It is necessary and reasonable to consider the presence of mats of aquatic plants at the surface when determining the need for a variance, because this condition poses a substantial hindrance to recreation. In addition, this condition is sometimes the result of an environmental disturbance such as excessive nutrient inputs of invasive aquatic plants. It is necessary and reasonable to qualify this condition by stating that it only applies if the matting is not a natural condition of a shallow lake, shallow bay, or wetland. Shallow bays and wetlands used to be considered marginal or unsuitable for shoreline development. Nevertheless, as development continues to increase and prime lakeshore becomes less available, shorelines adjacent to shallow bays and lakes are becoming increasingly attractive for development. These areas are extremely important for fish and wildlife habitat and wetland loss and habitat degradation is considered a major environmental issue affecting waterfowl and other wildlife abundance (Dahl 2006; Dahl 1990; Bellrose 1976). A variance to control aquatic plants above established limits to provide access or enhance recreation would likely be unjustified in these types of waters. Further, granting a variance in a shallow bay or wetland would likely be in conflict with the criteria in clause (7), which state that a variance cannot alter the essential character of the public water. It is not reasonable for the DNR to issue variances to alter the character of a shallow lake or wetland in order to engage in unimpeded surface water recreation.

It is necessary and reasonable to consider the compatibility of a proposed variance with the regulatory and management classification of the water and adjacent lands. For example, if a local government is limiting shoreline alterations on a lake as part of its zoning regulations, it may be inconsistent to allow a variance to control aquatic plants in those areas. It is necessary and reasonable to consider other local plans and regulations when making APM variance decisions, so that government actions are consistent at state and local levels.

It is necessary and reasonable to consider if a variance will alter the essential character of a public water. Public waters and the aquatic plants in them belong to the state and it would be inappropriate to alter the character of these waters for the purpose of providing access or enhancing recreation.

The criterion that there is no other feasible alternative to accomplish the purpose of the variance is necessary and reasonable to ensure that all viable options are considered in the variance process.

The proposed language in item D allows the DNR commissioner to require monitoring of aquatic plants, water quality, or other parameters as a condition of an APM permit that includes a variance. This provision would be most often applied to variances that are issued to control invasive aquatic plants or improve or protect aquatic habitat. The science of controlling invasive aquatic plants on a lake-wide or large-area scale is still developing, and more needs to be learned regarding the effectiveness and potential impacts of control methods. It is necessary and reasonable to be able to require monitoring on a permit with a variance to help determine if the goal of the variance is being met. For example, when granting a variance for lake-wide control of invasive aquatic plants to increase native plants, it is important to document plant populations prior to starting control and determine if there are measurable declines in invasive plants and increases in native plants. It is also important to make sure that undesirable effects such as increased algae blooms and turbidity are not occurring.

The proposed language in item E allows the DNR commissioner to require practical and feasible measures to mitigate adverse effects on aquatic habitat as a condition of an APM permit that includes a variance. Mitigation measures may include a reduction in the number or size of docks and other water-oriented structures, removal of shoreline riprap and retaining walls, restoration of natural riparian vegetation, and restoration of emergent and floating-leaf aquatic plants. It is necessary and reasonable for the DNR to be able to require mitigation to offset aquatic habitat loss that may occur as a result of an APM permit variance. The proposed language is reasonable, because the DNR would have more flexibility to consider variances if it can require measures that offset aquatic habitat loss.

Subp. 2. Lake vegetation management plan (LVMP)

The proposed language in item A allows the DNR commissioner to authorize a variance for an APM permit through approval of an LVMP. The proposed language also indicates that APM permits be issued in accordance with an approved LVMP. This language is similar to existing language in part 6280.0350, subp. 2, and is, therefore, not a substantive change. It is necessary and reasonable to allow LVMPs to authorize an APM permit variance, because it

encourages a deliberative and systematic approach to lake management and aquatic plant control, provides educational opportunities for the DNR and its constituents, and enhances relationships between the DNR and local communities.

The proposed language also states that the DNR commissioner shall require an LVMP before granting a variance to an APM permit, if the proposed control proposes methods or actions that need to be evaluated to determine if the goals of the variance are met. The proposed language also states that APM permit applications that are inconsistent with an LVMP may be denied. LVMPs are most commonly associated with lakes where there is a desire to have lakewide or large-area control of invasive aquatic plants. It is necessary and reasonable for the DNR to have the ability to require an LVMP before issuing a variance in some cases, to ensure that goals are identified and problems correctly diagnosed, and that there is an adequate control and evaluation plan. As mentioned previously, the science of lake-wide or large-area control of invasive species with herbicides is still developing and it is necessary and reasonable to have good pre-control data on aquatic plant populations and basic water quality parameters, as well as follow-up monitoring, to determine if the control was a success and if there are any unanticipated or undesirable impacts. A LVMP provides an ideal forum for obtaining this type of information.

It is necessary and reasonable for the DNR to be able to deny APM permits that conflict with the goals of a LVMP. For example, if a LVMP and variance is approved to do lake-wide control of invasive aquatic plants so their numbers decrease and native plants increase, it may be necessary to deny APM permits to treat native aquatic plants, because it would hamper the goal of the LVMP.

The proposed language in item B requires the DNR commissioner to provide the format for an LVMP and specifies the information it must contain including: 1) a description of the lake and its water quality including location, size, and clarity; 2) a description of the aquatic plant community; 3) a description of the public participation process used in developing the plan; 4) a description of the problems addressed in the plan; 5) a statement of the goal for management of aquatic plants; 6) a description of the proposed actions to achieve the plan's goal and a map; and 7) conditions of APM permits that would be issued as part of the plan, including identification of variances requested under subp. 1. It is necessary and reasonable for the DNR to provide the format for LVMPs to ensure that plans are consistent and have all of the necessary information, and to make it easier for local groups to participate in the planning process. The proposed information requirements for LVMPs are necessary and reasonable to ensure that all plans have information necessary to make decisions regarding APM practices.

The proposed language in item C requires a monitoring plan for a LVMP, if it proposes methods and actions that need to be evaluated to determine if the plan's goals are met. It is necessary and reasonable to be able to require a monitoring plan for some LVMPs to determine if the goals have been met and to make sure that there are no undesirable or unanticipated impacts.

6280.1100 REVIEW AND APEAL OF PERMIT DECISION

Subp. 1. Commissioner's review

The current language provides for a commissioner's review of APM permits that are granted with conditions or denied. The review must be done within 15 days of the request for review. The proposed changes are primarily technical improvements to existing language. Commercial mechanical control and commercial harvest permits are included as permits that can be subject to commissioner's review and permit modification, suspension, and revocation are added as actions that can be subject to commissioner's review. The proposed changes are necessary and reasonable to ensure that commercial operators can have commissioner's review of decisions made regarding their permits and to ensure that all potential permit actions can be subject to review. The proposed language also changes the time frame for the review from 15 days to 15 working days. Reviews involve checking with field staff to get information about the permit decision and review of the relevant information by one or more managers in the DNR. It is necessary and reasonable to have 15 working days to complete the review to ensure that all relevant information is considered prior to making a determination.

6280.1200 PENALTY

The current language in this part provides for a misdemeanor penalty for a person who violates APM rules or the terms of a permit. This language is not consistent with Minn. Stat., sec. 14.045, subd. 2, which states that an agency cannot establish a criminal penalty by rule unless it has specific statutory authority to do so. The proposed change is to make penalties for APM rule violations a petty misdemeanor instead of a misdemeanor. Minn. Stat., sec. 609.02, subd. 4a states that a petty misdemeanor does not constitute a crime. Therefore, under the proposed language, violations of APM rules would not be a criminal penalty and would not violate the requirement for specific statutory authority in Minn. Stat., sec. 14.045, subd. 2. The proposed changes are necessary and reasonable to comply with statutory limitations on state agency rulemaking authority.

The proposed language also specifies the types of permits that are subject to this provision, which are APM, commercial mechanical control, and commercial harvest permits. The proposed change is necessary and reasonable to clarify rule language.

Effective Date

The proposed rules would be effective on January 1, 2009. It is necessary and reasonable to implement the proposed changes at the beginning of a year, to avoid confusion and difficulty that would occur by trying to implement changes during the middle of a permitting season.

IV. OTHER CONSIDERATIONS

Review of Documents

Sources cited in this document may be reviewed on workdays between 8:00 A.M. and 4:30 P.M. at the DNR central office, Division of Ecological Services, 500 Lafayette Road, St. Paul, Minnesota, 55155.

Alternate Format

Upon request, this Statement of Need and Reasonableness can be made available in an alternative format, such as large print, Braille, or cassette tape. To make a request contact Steve Hirsch, Division of Ecological Services, Department of Natural Resources, 500 Lafayette Road,

Saint Paul, Minnesota 55155-4025, telephone: 651-259-5106, facsimile number: 651-296-1811, e-mail: steve.hirsch@dnr.state.mn.us. TTY users may call the Department of Natural Resources at 651-296-5484 or 800-657-3929.

Witnesses

If these rules go to public hearing, the witnesses below may testify on behalf of the DNR in support of the need and reasonableness of the rules. The witnesses will be available to answer questions about the development and content of the rules. The witnesses for the Department of Natural Resources include:

Steve Hirsch

DNR Division of Ecological Services
500 Lafayette Road
St. Paul, MN 55155-4025

Steve Enger DNR Division of Ecological Services 500 Lafayette Road St. Paul, MN 55155-4025

Paul Radomski
DNR Division of Ecological Services
1601 Minnesota Drive
Brainerd, MN 56401-0030

Ray Valley
DNR Division of Fish and Wildlife
1200 Warner Road
St. Paul, Minnesota 55106

Based on the foregoing, the DNR's proposed rules are both necessary and reasonable.

Dated:

By:

Mark Holsten, Commissioner

Department of Natural Resources

Literature Cited

- Alexander, M.L., M.P. Woodford, S.C. Hotchkiss. 2008. Freshwater macrophyte communities in lakes of variable landscape position and development in northern Wisconsin, U.S.A. Aquatic Botany 88:77-86.
- Batt, B.D.J., A.D. Afton, M.G. Anderson, C. D. Ankeny, D.H. Johnson, J.A. Kadlec, and G.L. Krapu, editors. Ecology and management of breeding waterfowl. University of Minnesota Press, Minneapolis and London.
- Bellrose, F.C. 1976. Ducks, geese and swans of North America. Stackpole Books, Cameron and Keller Streets, Harrisburg, PA, 17105.
- Bolduan, B.R., G.C. Van Eeckhout, H.W. Quade, and J.E. Gannon. 1994. Potamogeton crispus—the other invader. Lake and reservoir management 10:113-125.
- Bremigan, M.T., S.M. Hanson, P.A., Soranno, K.S. Cheruvelil, and R.D. Valley. 2005. Aquatic vegetation, largemouth bass, and water quality responses to low-dose fluridone two years post treatment. Journal of Aquatic Plant Management 43:57-64.
- Byran, M.D., and D.L. Scarnecchia. 1992. Species richness, composition, and abundance of fish larvae and juveniles inhabiting natural and developed shorelines of a glacial Iowa lake. Environmental Biology of Fishes 35: 329-341.
- Carter, V., J.W. Barko, G.L. Godshalk, and N.B. Rybicki. 1988. Effects of submersed macrophytes on water quality in the tidal Potomac River, Maryland. Journal of Freshwater Ecology 4:493-501.
- Chase, J.M., and T.M. Knight. 2006. Effects of eutrophication and snails on Eurasian Watermilfoil (Myriophyllum spicatum) invasion. Biological Invasions, 8:1643-1649.
- Craig, R.E., and R.M. Black. 1986. Nursery habitat of muskellunge in Southern Georgian Bay. Lake Huron, Canada. American Fisheries Society Symposium 15:79-86.
- Crowell, W.J., N.A. Proulx, and C.H. Welling. 2006. Effects of repeated fluridone treatments over nine years to control Eurasian watermilfoil in a mesotrophic lake. Journal of Aquatic Plant Management 44:133-136.
- Dahl, T.E. 1990. Wetland losses in the United States 1780's to 1980's. U.S. Department of the Interior; Fish and Wildlife Service, Washington, D.C. 13pp.
- Dahl, T.E. 2006. Status and trends of wetlands in the conterminous United States 1998 to 2004. U.S. Department of the Interior; Fish and Wildlife Service, Washington, D.C. 112pp. (see page 17)
- Dibble, E.D., K.J. Killgore, and S.L. Harrel. 1996. Assessment of fish-plant interactions. American Fisheries Society Symposium 16:357-372.

- Drake, M.T., and R.D. Valley. 2005. Validation and application of a fish-based index of biotic integrity for small central Minnesota lakes. North American Journal of Fisheries Management 25:1095-1111.
- Egertson, C.J., and J.A. Downing. 2004. Relationship of fish catch and composition to water quality in a suite of agriculturally eutrophic lakes. Canadian Journal of Fisheries and Aquatic Sciences 61:1784-1796. (see abstract)
- Engel, S. 1990. Ecosystem responses to growth and control of submerged macrophytes: a literature review. Wisconsin Department of Natural Resources, Technical Bulletin 170, Madison.
- Engel, S., and J.L. Pederson. 1998. The construction, aesthetics, and effects of lakeshore development: A literature review. Research Report 177. PUBL-SS-577-99 Wisconsin Department of Natural Resources, Box 7921, Madison, WI 53707.
- Errington, P.L. 1941. Versatility in feeding and population maintenance of the muskrat. Journal of Wildlife Management 5:68-89.
- Henderson, C.L., C.J. Dindorf, and F.J. Rozumalski. 1998. Lakescaping for Wildlife and Water Quality. Minnesota Department of Natural Resources
- James, W.F., J.W. Barko, H.L. Eakin, and P.W. Sorge. 2002. Phosphorus budget and management strategies for an urban Wisconsin lake. Lake and Reservoir Management 18:149-163.
- James, W.F., D.I. Wright, H.L. Eakin, and J.W. Barko. 2004. Impacts of Mechanical Macrophyte Removal Devices on Sediment Scouring in Littoral Habitats: I. Historical survey of operations in Minnesota lakes. Technical Note APCRP-EA-13, U.S. Army Engineer Research and Development Center, Vicksburg, MS.
- James, W.F., D.I. Wright, J.W. Barko, and H.L. Eakin. 2006. Impacts of Mechanical Macrophyte Removal Devices on Sediment Scouring in Littoral Habitats: II. Experimental Operation in the Littoral Zone of Eau Galle Reservoir, Wisconsin. Technical Note APCRP-EA-13, U.S. Army Engineer Research and Development Center, Vicksburg, MS.
- Kelly, T., and J. Stinchfield. 1998. Lakeshore development patterns in northeast Minnesota: status and trends. Minnesota DNR, Office of Management and Budget Services, St. Paul.
- Krull, J.N. 1970. Aquatic plant-macroinvertebrate associations and waterfowl: Journal of Wildlife Management 34:707-718
- Lyons, J. 1989. Changes in the abundance of small littoral-zone fishes in Lake Mendota, Wisconsin. Canadian Journal of Zoology 67:2910-2916.

- Madsen, J.D., J.W. Sutherland, J. A. Bloomfield, L.W. Eichler, and C.W. Boylen. 1991. The decline of native vegetation under dense Eurasian watermilfoil canopies. Journal of Aquatic Plant Management 29:94-99.
- Madsen, J.D., K.D. Getsinger, R.M. Stewart, and C.S. Owens. 2002. Whole lake fluridone treatments for selective control of Eurasian watermilfoil: II. Impacts on submersed plant communities. Lake and Reservoir Management 18:191-200.
- Moyle, P.B., and T. Light, 1996. Biological invasions of freshwater: empirical rules and assembly theory. Biological Conservation 78:149-161.
- O'Dell, K.M., J. van Arman, B.H. Welch, and S.D. Hill. 1995. Changes in water chemistry in a macrophyte-dominated lake before and after herbicide treatment, Lake and Reservoir Management 11:311-316.
- Olson, M.H., S.R. Carpenter, P. Cunningham, S. Gafney, B.R. Herwig, N.P. Nibbelink, T. Pellet, C. Storlie, A.S. Trebitz, and K.A. Wilson. 1998. Managing macrophytes to improve fish growth: a multi-lake experiment. Fisheries 23: 6-12.
- Petr, T. 2000. Interactions between fish and macrophytes in inland waters: a review. Food and Agriculture Organization of the United Nations, Fisheries Technical Report 396. Rome.
- Pierce, R.B. 2006. Ecological and life history associations of northern pike with aquatic vegetation a literature review. Minnesota Dept. of Natural Resources, Division of Fish and Wildlife unpublished report.
- Poe, T.P., C.O. Hatcher, and C.L. Brown. 1986. Comparison of species composition and richness of fish assemblages in altered and unaltered littoral habitats. Journal of Freshwater Ecology. Vol. 3, No. 4: 525-536.
- Pothoven, S.A., B. Vondracek, and D.L. Pereira. 1999. Effects of vegetation removal on bluegill and largemouth bass in two Minnesota lakes. North American Journal of Fisheries Management 19:748-757.
- Pratt, T.C., and K.E. Smokorowski. 2003. Fish habitat management implications of the summer habitat use by littoral fishes in a north temperate, mesotrophic lake. Canadian Journal of Fisheries and Aquatic Science. 60: 286-3000.
- Radomski, P. 2006a. Historical changes in abundance of floating-leaf and emergent vegetation in Minnesota lakes. North American Journal of Fisheries Management, in press.
- Radomski, P. 2006b. An assessment and rationale for the alternative shoreland management standards. Minnesota DNR, Division of Waters, St. Paul.

- Radomski, P., and T.I. Goeman. 2001. Consequences of human lakeshore development on emergent and floating-leaf vegetation abundance. North American Journal of Fisheries Management 21: 46-61.
- Rosenberg, A.A. 2002. The precautionary approach in application from a manager's perspective. Bulletin of Marine Science 70:577-588.
- Rybicki, N.B., and J.M. Landwehr. 2007. Long-term changes in abundance and diversity of macrophyte and waterfowl populations in an estuary with exotic macrophytes and improving water quality. Limnology and Oceanography 52(3):1195-1207/
- Scheffer, M., S.H. Hosper, M-L. Meijer, B. Moss, and E. Jeppesen. 1993. Alternative equilibria in shallow lakes. Trends in ecology and evolution 8:275-279.
- Scheffer, M., and S.R. Carpenter. 2003. Catastrophic regime shifts in ecosystems: linking theory to observation. Trends in Ecology and Evolution 18:648-656.
- Skogerboe, J.G., and Getsinger, K.D. 2006. Selective control of Eurasian watermilfoil and curlyleaf pondweed using low doses of endothall combined with 2,4-D. Technical Note APCRP-CC-05, U.S. Army Engineer Research and Development Center, Vicksburg, MS.
- Smith, C.S. and J.W. Barko. 1990. Ecology of Eurasian watermilfoil. Journal of Aquatic Plant Management 28: 55-64.
- Valley, R.D., T.K. Cross, and P. Radomski. 2004. The role of submersed aquatic vegetation as habitat for fish in Minnesota lakes, including the implications of non-native plant invasions and their management. Minnesota Department of Natural Resources, Special Publication 160, St. Paul.
- Valley, R.D., W. Crowell, C.H. Welling, and N. Proulx. 2006. Effects of a low dose fluridone treatment on submersed aquatic vegetation in a eutrophic Minnesota lake dominated by Eurasian watermilfoil and Coontail. Journal of Aquatic Plant Management 44:19-25.
- Wagner, K.I., J. Hauxwell, P.W. Rasmussen, F. Koshere, P. Toshner, K. Aron, D.R. Helsel, S. Toshner, S. Provost, M. Gansberg, J. Masterson, and S. Warwick. 2007. Whole-lake herbicide treatments for Eurasian watermilfoil in four Wisconsin lakes: Effects on vegetation and water clarity. Lake and Reservoir Management 23:83-94.
- Weaver, M.J., J.J. Magnuson, and M.K. Clayton. 1997. Distribution of littoral fishes in structurally complex macrophytes. Canadian Journal of Fisheries and Aquatic Sciences 54:2277-2289.
- Wei, A., P. Chow-Fraser, and D. Albert. 2004. Influence of shoreline features on fish distribution in the Laurentian Great Lakes. Canadian Journal of Fisheries and Aquatic Sciences 61:1113-1123.

- Welling, C., W. Crowell, and D. Perleberg. 1997. Evaluation of fluridone herbicide for selective control of Eurasian watermilfoil: Final Report. Unpublished report dated 15 April by the Minnesota Department of Natural Resources, Ecological Services Section, 500 Lafayette Road, Box 25, St. Paul MN 55155-4025.
- Wilcox, D.A., and J.E. Meeker. 1992. Implications for faunal habitat related to altered macrophyte structure in regulated lakes in northern Minnesota. Wetlands 12:192-203.

		•
	ليات وكوريي كاند المعادات ال ال	
	**	
		24
		•
그는 그는 사람들이 있다면 모든 사람들이 하는 사람들이 하는 사람들이 되었다.		
	4	ر از ر
	. :	
	• • •	
	• :	
		! .
		:
		* } .
		(
		. !
	• • • • • • • • • • • • • • • • • • • •	
	•	. }
	· · · · ·	
		. j
	`	
		;
		. :
	100	:
	•	: : : ·
		•
	:	•
	:	
		:
	٠.	• •
	•	:

6-2000-10699-1

STATE OF MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS FOR THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES

In the Matter of Proposed Amendments to Permanent Rules Governing Aquatic Plant Management and Aquatic Nuisance Control. REPORT OF THE CHIEF ADMINISTRATIVE LAW JUDGE

The above-entitled matter came on for review by the Chief Administrative Law Judge pursuant to the provisions of Minn. Stat. § 14.15, subds. 3 and 4. Based upon a review of the record in this proceeding, the Chief Administrative Law Judge hereby approves the Report of the Administrative Law Judge in all respects.

In order to correct the defects enumerated by the Administrative Law Judge, the agency shall either take the action recommended by the Administrative Law Judge, follow the procedure for adopting substantially different rules or reconvene the rule hearing if appropriate. If the agency chooses to reconvene the rule hearing, it shall do so as if it is initiating a new rule hearing, complying with all substantive and procedural requirements imposed on the agency by law or rule. The procedure for adopting substantially different rules is set out in Minn. Rule 1400.2110.

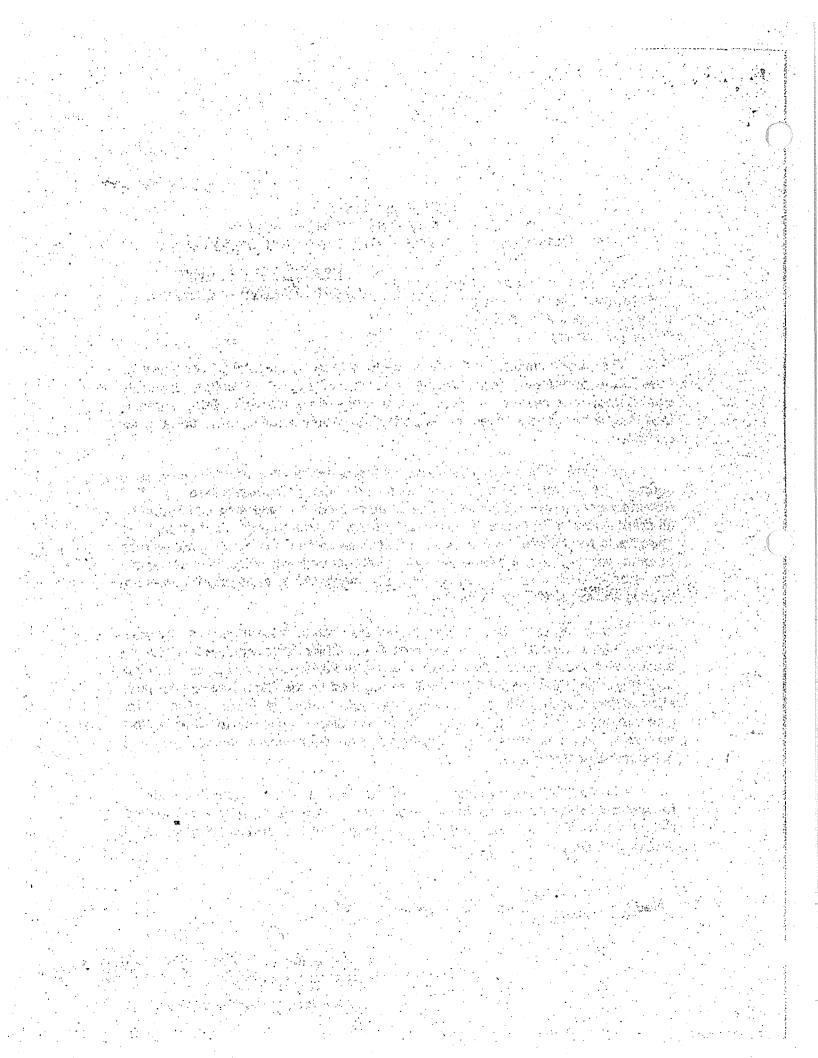
If the agency chooses to take the action recommended by the Administrative Law Judge, it shall submit to the Chief Administrative Law Judge a copy of the rules as initially published in the State Register, a copy of the rules as proposed for final adoption in the form required by the State Register for final publication, and a copy of the agency's Order Adopting Rules. The Chief Administrative Law Judge will then make a determination as to whether the defects have been corrected and whether the modifications in the rules are substantially different.

Should the agency make changes in the rules other than those recommended by the Administrative Law Judge, it shall also submit the complete record to "the Chief Administrative Law Judge for a review on the issue of substantial difference.

Dated this 12 14 day of December 1996.

KEVIN E. JOHNSON

Chief Administrative Law Judge



STATE OF MINNESOTA OFFICE OF ADMINISTRATIVE HEARINGS FOR THE MINNESOTA DEPARTMENT OF NATURAL RESOURCES

In the Matter of Proposed Amendments to Permanent Rules Governing Aquatic Plant Management and Aquatic Nuisance Control

REPORT OF THE ADMINISTRATIVE LAW JUDGE

The above-entitled matter came on for hearing before Administrative Law Judge Allan W. Klein on October 1, 1996 in Camp Ripley, Minnesota; October 2, 1996 in Fergus Falls, and October 3, 1996 in St. Paul. Both afternoon and evening sessions were held in each location.

This Report is part of a rulemaking proceeding held pursuant to Minn. State §§ 14.131 to 14.20 (1994), to hear public comment, to determine whether the Minnesota Department of Natural Resources (DNR or Department) has fulfilled all relevant substantive and procedural requirements of law applicable to the adoption of the rule amendments, whether the proposed rule amendments are needed and reasonable, and whether or not modifications to the amendments proposed by the Department after initial publication are impermissible, substantial changes.

The Department's hearing panel consisted of David Iverson and Steve Masten, Assistant Attorneys General; Steve Enger, the Department's Aquatic Plant Management Program Coordinator; Howard Krosch, Technical Advisor in Ecological Services; and David Wright, Monitoring and Control Unit Supervisor in Ecological Services. A number of aquatic plant management specialists from regional offices also appeared at various locations. Thirty-four persons signed the hearing register at Camp Ripley, 26 signed in Fergus Falls, and 28 signed in St. Paul. However, in each location, there were additional people who attended but did not sign the register.

The record remained open for the submission of written comments for 12 calendar days following the hearing, to the close of business on October 15, 1996. Pursuant to Minn. Stat. § 14.15, subd. 1, five working days were allowed for the filing of responsive comments. At the close of business on October 22, the rulemaking record closed for all purposes. The Administrative Law Judge received numerous comments including some petitions, during the initial comment period. The Department also filed initial comments, including some proposed changes in response to issues raised at the hearings. During the five-day response period, the Administrative Law Judge received one public comment and one filing from the Department.

- (h) a copy of the letters showing that the Department sent a copy of the SONAR and addendum to the LCRAR and LCC, respectively.
- (i) a copy of the Notice of Intent to Adopt Rules without a Public Hearing, as published in the December 26, 1995 issue of the State Register; a copy of the Affidavit of Mailing the Notice of Intent to Adopt Rules without a Public Hearing to persons on the Department's rulemaking list, with a certification of that list; a copy of the Affidavit of Discretionary Mailing of the Notice of Intent to Adopt Rules without a Public Hearing; copies of the comments received pursuant to that Notice; and copies of the written requests for a public hearing that were received in response to that Notice.

All of the above documents were available for inspection at the Office of Administrative Hearings from the date of filing to the date of the hearing.

5. The period for submission of written comments and statements remained open until October 15, 1996, the period having been extended by Order of the Administrative Law Judge and announced at each hearing session. The record closed for all purposes on October 22, following the close of the responsive comment period:

Statutory Authority and Nature of the Proposed Rule Amendments

6. Minn. Stat. § 103G.615 (1996) provides, in subdivisions 1 and 2, for a permit system to regulate the gathering, harvesting, and destruction of aquatic plants. The statute goes on to provide as follows:

Subdivision 3. Permit standards. The commissioner shall, by rule, prescribe standards to issue and deny permits under this section. The standards must ensure that aquatic plant control is consistent with shoreline conservation ordinances, lake management plans and programs, and wild and scenic river plans.

Subdivision 1 of that statute provides, in relevant part, that the Commissioner may issue permits to:

(3) destroy harmful or undesirable aquatic vegetation or organisms in public waters under prescribed conditions to protect the waters, desirable species of fish, vegetation, other forms of aquatic life, and the public.

The Administrative Law Judge finds that the Department does have statutory authority to adopt the proposed rules, with the exception noted at Finding 37, below.

7. The Department has been regulating aquatic plant control since 1948, and orders and regulations have been revised approximately 14 times since them. The

rules were revised most recently in 1985. The amendments proposed in this proceeding are essentially "updates" to address new methods of aquatic plant control and to increase protection of floating leaf vegetation, such as water lilies. The two topics which drew the greatest comments were rules relating to "automated untended aquatic plant control devices", particularly the Crary WeedRoller, and, secondly, the area limitations on the use of aquatic herbicides and pesticides.

Small Business Considerations in Rulemaking

8. Minn. Stat. § 14.115, subd. 2, provides that state agencies proposing rules affecting small businesses must document in the SONAR how they have considered methods for reducing adverse impacts on those businesses. In this case, the Department concluded that the amendments would have minimal impact on small businesses engaged in the commercial harvesting of aquatic plants or the commercial application of aquatic pesticides for reasons set forth in the SONAR at pages 5-7. The Department has met the requirements of Minn. Stat. § 14.115, subd. 2.

Overview of Judge's Analysis

9. Minn. Stat. § 14.50 (1994) requires the Administrative Law Judge to take notice of the degree to which the agency has demonstrated the need for and reasonableness of its proposed rules with an affirmative presentation of facts. Minn. Stat. § 14.14, subd. 2 (1994) requires the agency to make an affirmative presentation of facts establishing the need for and reasonableness of its proposed rules. That statute also allows the agency to rely upon facts presented by others on the record during the rule proceeding to support the proposal. In this case, the Department prepared a Statement of Need and Reasonableness (ISONARI) to support the adoption of each of the proposed amendments. After 25 or more persons requested a public hearing; the Department made some changes in the proposed rules, and published an Addendum to the SONARI. At the hearing, the Department supplemented the SONAR, both in prepared statements (such as those by Jack Skrypek and John Barko) and also by an extensive dialogue with members of the public throughout the various hearing sessions. The Department also made written post-hearing comments.

The question of whether a rule is needed focuses upon whether a problem exists that calls for regulation. In an early case after this requirement of establishing need and reasonableness was first enacted, the Chief Administrative Law Judge adopted the rationale that in establishing the need for a rule "the agency must make a presentation of facts that demonstrates the existence of a problem requiring some administrative attention". See, Report of the Hearing Examiner, In the Matter of the Proposed Adoption of Rules Relating to the Control of Emissions of Hydrocarbons, OAH File No. PCA-79-008-MG, as cited in Beck, Bakken & Muck, Minnesota Administrative Procedure (Butterworth, St. Paul, 1987) at § 23.4.

The question of whether a rule is reasonable focuses on whether the Department has articulated a rational basis for its solution to the perceived problem. The Minnesota Court of Appeals has held a rule to be reasonable if it is rationally related to the end sought to be achieved by the statute. Broen Memorial Home v. Minnesota Department of Human Services, 364 N.W.2d 436, 448 (Minn. App. 1985); Blocher Outdoor Advertising Company v. Minnesota Department of Transportation, 347 N.W.2d 88, 91 (Minn. App. 1984). The Minnesota Supreme Court has further defined the burden by requiring that an agency "explain on what evidence it is relying and how the evidence connects rationally with the agency's choice of action to be taken." Manufactured Housing Institute v. Pettersen, 347 N.W.2d 238, 244 (Minn. 1984). An agency is entitled to make choices between possible standards so long as the choice that it makes is a rational one. If commentators suggest approaches other than a rational one selected by the agency, it is not the proper role of the Administrative Law Judge to determine which alternative presents the "best" approach. A rule cannot be said-to-be-unreasonable-simply-because a more-reasonable alternative exists for a tretter job of drafting might have been done. The Agency is free, however, to adopt a "better" proposal if it chooses to do so, subject to the limitations set forth in Conclusion 9, below.

In addition to need and reasonableness, the Administrative Law Judge must assess whether the Legislature has granted statutory authority to the Agency, whether rule adoption procedure was complied with, whether the rule grants undue discretion to Agency personnel, whether the rule is unconstitutional or illegal, whether the rule constitutes an undue delegation of authority to another, or whether the proposed language is impermissibly vague.

This Report is generally limited to the discussion of the portions of the proposed amendments that received significant critical comment or otherwise need to be examined. Accordingly, this Report will not discuss each amendment, nor will it respond to each comment which was submitted. Persons or groups who do not find their particular comments referenced in this Report should know that each and every submission has been read and considered. Moreover, because many of the proposed amendments were not opposed, and were adequately supported by the SONAR, a detailed discussion of each section of the proposed rule is unnecessary. The Administrative Law Judge specifically finds that the Department has demonstrated the need for and reasonableness of provisions of the rule that are not discussed in this Report, that such provisions are within the Department's statutory authority noted above, and that there are no other problems that prevent their adoption.

Where changes are made to the rule after publication in the State Register, the Administrative Law Judge must determine if the new language is substantially different from that which was proposed originally. Minn. Stat. § 14.05, subd. 2 (1994) and Minn. Rule pt. 1400.1100 (1994). Any language proposed by the Department which differs from the rule as published in the State Register and is not discussed in this Report is

found not to be substantially different from the language published in the State Register.

Section-by-Section Analysis

6280.0250: Standards for Aquatic Plant Management Permit Issuance.

Actions not requiring a permit.

- 10. Subpart 1 (C) is the basic "swimming beach" provision. No permit is required for the cutting or pulling of submerged vegetation in order to maintain a site for swimming or boat docking under a number of conditions. First, the cleared area is limited to not more than 50 feet of the owner's shoreline or one-half the length of the owner's total shoreline, whichever is less. In addition, the cleared area cannot exceed 2500 square feet. A boat channel extending to open water may be maintained so long as it does not exceed 15 feet in width. Cutting or pulling may only be done with equipment that does not significantly alter the course, current, or cross-section of the lake bottom, and drag lines, bulldozers, hydraulic jets, automatic untended equatic plant control devices, or other power-operated earth-moving equipment may not be used. The cutting or pulling must take place in the same location each year and the vegetation that has been cut or pulled must be removed from the water.
- 11. Several persons objected to the shoreline length limitation, arguing that it was fundamentally unfair to allow a person with a 100-foot shoreline to have a 50-foot beach, while somebody with a 50-foot shoreline, for example, would be limited to a 25-foot beach. At the hearing, the Department explained how it arrived at the 50-foot/50 percent limitation as well as the 2500-square foot limitation. Balancing the public's need to access and use the lake for recreational purposes against maintaining some semblance of natural conditions was the basis for the limitation. Tr. II, pp. 265-66. The dimensions have been in the Department's plant management regulatory scheme for a number of years, and they are not proposed for change in this proceeding. They are therefore not technically "fair game" for comment, but are addressed here because a number of persons raised them during the hearing process.
- 12. A change from the existing rule is proposed with regard to water lilies, water shield, and other floating leaf vegetation. In the past, owners have not needed a permit to remove either floating leaf vegetation or submerged vegetation within the area defined by the rule. The amendments proposed in this proceeding would limit the nopermit provision to removal of submerged vegetation, and only allow the removal of floating leaf vegetation in the 15-foot-wide boating channel to open water. It is found that the Department has justified this change because of the characteristics of water lilies' presence in lakes and their benefit to fish and other aquatic life.

Actions Requiring a Permit: The Crary WeedRoller.

- 13. The proposed amendments establish a new category of weed removal devices and regulate their use. This category is "automated untended aquatic plant control device". To date, there is only one commercially manufactured device which meets the definition the Crary WeedRoller. There are, however, some homemade devices which also meet the definition. For ease of reference, all will be referred to as Crary WeedRollers.
- 14. The Crary WeedRoller was invented in the early 1990s, It is manufactured by the Crary Company of West Fargo, North Dakota. The company manufactures agricultural equipment and outdoor power equipment, which together account for some 90% of the sales revenue. The WeedRoller is a relatively new product which accounts for about five percent of sales revenue. Tr. II, pp. 273-74. The WeedRoller is essentially an L-shaped tubular device, part of which extends above the water surface and is attached to a dock, tripod, or other fixed object. That is one side of the "L". It extends down to the lake bottom, where it joins the other side of the "L" in a 90-degree angle. That other side of the "L" is the roller. It consists of five or ten-foot sections of what appear to be large-diameter aluminum cylinders, in the range of 12 inches in diameter. These cylinders are joined together by semi-flexible couplers so that the total length of the roller itself can be 5 feet, 10 feet, 15 feet, 20 feet, 25 feet, 30 feet, etc. A small 75-watt electric motor, mounted above the water surface, turns the roller in a large arc around the dock or tripod. The angle of the arc can be easily. adjusted. The rollers that are on the bottom of the lake contain fins which operate like paddles of a paddle-wheel boat. As the electric motor drives the roller sections in an arc, the fins dig into the lake bottom (whether it be sand or muck) and as the roller continues, the fins bring up a small amount of muck, sand and weeds off the bottom. The sand and gravel falls back down to the lake bottom, while the silt and weeds float. The WeedRoller goes at a very slow rate. The theory behind it is to gradually break down the weeds and suspend the sediment so that over a relatively long period of time, say several days of continuous operation, the weeds and sediment would have been dispersed reaving behind the sand and gravel to create a clean and hard bottom. It does not attempt to work quickly in the sense that a rake, bed spring, or other device might allow a landowner to clear away all weeds in a few hours' time. Instead, it works gradually, and takes at least several days to achieve its goal. Users reported operating it for a week in the spring and then some lesser amount of time once on wice during the summer. It is not used on a continuous basis throughout the entire summer, but, on the other hand, it cannot just be used for a few hours once a year.

The WeedRoller does its job well. The record is replete with stories of frustration and, in some cases, failure to control weeds using rakes, scythes, electric cutters, mechanical weed cutters (some of which can get very large), bed springs, and various other kinds of drags. See, for example, Public Ex. 9. Frustration and failure resulted from the fact that none of these devices permanently remove the weed problem, even for a single season. Depending upon the type of device and the type of weed, the

landowner would have to repeatedly work on weed control. The Crary WeedRoller, on the other hand, requires far fewer applications. Once it has done the initial clearing, it may only have to be used once or twice again during the season. In addition, it is electrically powered and much easier to use than a rake or other drag thrown from shore or hauled behind a tractor.

- 15. The ability to uproot weeds and to suspend muck is a benefit to the landowner with the WeedRoller, but may be a detriment to a neighbor. The Department has received a few complaints regarding a neighbor's WeedRoller causing floating vegetation debris and turbidity. (See, for example, Letter dated September 3, 1996 and Complaint Report dated August 13 and 20, 1996. See also, aerial photograph labeled Photo Number 2 submitted October 15, showing sediment drifting along shoreline.) The Region 1 aquatic plant specialist received three complaints in 1996 and two in 1995 regarding turbidity and one regarding hum. Tr. 1, p. 189. However, given the fact that there are roughly 1,000 Grary-WeedRollers already being used in Minnesota, some of which are being used on a shared and rental basis so that they are in more than one detailed during a season; the number of complaints has been very small.
- 16. Initially, Crary WeedRollers were sold with 10-foot-long roller sections, and the typical length was a 30-foot-roller. When this roller was operated in at least a 180-degree arc parallel to the shoreline, that caused a length of 60-plus feet to be rolled. This exceeded the 50 feet allowed by the current rule (without a permit), resulting in a number of citations and fines. When it became evident to the Crary company that the 50-foot limitation was being enforced in Minnesota, the company began selling a five-foot section, along with ten-foot sections, so that it would be possible to stay within the 50-foot limit by using a 25-foot roller.
- 17. An inspection during the summer of 1994 of WeedRollers on nine lakes in the Brainerd region indicated 39 in operation. Of those 39, 33 were in non-compliance with the current rule. Fourteen were operating beyond the 50-foot limit, ten were operating in an area exceeding 2500 square feet (some having been moved to more than one location on a site), eight were operating within beds of emergent (as opposed to submerged) vegetation, and one was operating in an area of bog. See, Memo dated October 8, 1996 to David Wright, Ecological Services, from Terry Ebinger, Region 3.
- 18. Atteast one realtor has purchased a WeedRoller and taken it to multiple sites in order to make the sites more attractive prior to offering them for sale. A few more difficult by a permit program which requires an inspection of each location prior to the use of the device.
- 19. The Department is proposing to require a permit for the use of a WeedRoller. The permit would be site specific, and would require a site inspection. It would carry a \$20:00 fee, but would be good for three years if the WeedRoller were operated in an area of no more than 2500 square feet which did not include any

emergent or floating leaf vegetation. Under the existing rule (and the proposed one). no permit is required for cutting or pulling submerged plants either by hand or with power-operated cutters or rakes, so long as the 2500-square-foot area and 50-foot/50 percent limitation described above is met. By requiring a permit and a site inspection. the Department is treating the WeedRoller differently from a tractor-drawn bed spring or similar device. The Department justifies this difference based on its lack of experience with the WeedRoller (the Department claims to be quite conservative and cautious in such matters). It desires to be sure that the WeedRoller is being operated in an appropriate location where it is removing submerged vegetation, rather than emergent or floating leaf vegetation. More importantly when Department wants to be sure the device is being used to remove plants rather than muck and sediment. The Department is also concerned about the destruction of fish spawning nests by the WeedRoller, and intends to condition permits on a case-by-case basis with a "blackout" period" when they could not be used in order to avoid harming spawning areas and nests, The Department's caution comes from a belief that frequent and lengthy use of the WeedRoller will permanently alter the lake bottom and vegetation in a manner different from a hand-drawn rake or a tractor-drawn bed spring. The Department believes that the impacts of existing methods are more localized, and affected areas recover more quickly than areas which have been rolled with the WeedRoller. The Department claims that WeedRollers can remove plants for at least one growing season depending on how often they are used, and they are in the lake, available for operation all season long. They are much easier to use than existing methods, and thus more likely to be used often. In addition, the Department is concerned about educating users so that the negative impacts of the WeedRoller can be minimized. Without a site inspection, the Department does not believe it will be able to properly educate users, especially renters or persons sharing a unit. The Department sees site inspections as an educational tool. Initially, when the first WeedRollers appeared, the Department observed them being used in areas with firm lake bottoms and few aquatic plants, and thought their impacts were minimal. However, as more units were sold in the State, the Department observed use in different types of substrate which showed more significant impacts, such as the disruption and displacement of bottom sediments. The Department is concerned not only about complaints from neighbors with regard to turbid water, but also about the impact on spawning grounds and spawning nests which might be covered with muck stirred up by a WeedRoller. There is concern that if one neighbor moves sediment onto another's property, the other neighbor will feel compelled to get it off, and the end result will be constant shifting of sediment and increased turbidity throughout the lake. While all of the above impacts could also occur with a bed spring attached to a tractor or some of the other mechanical devices described in the record, the Department believes that the convenience of just flicking a switch and starting the WeedRoller up, and allowing it to run unattended, will result in greater use and greater impacts than with existing methods.

20. The requirement for a permit and the likelihood of an inspection (at least the first time) raised questions during the hearing with regard to what standards would

be used in determining whether or not to grant the permit. The Department responded that the standards are set forth at Part 6280.0250, subp. 3, which provides as follows:

Permits for the destruction of emergent and floating-leaf aquatic macrophytes including wild rice, bulrush, cattail, water lilies, and similar vegetation will not be issued unless the commissioner determines sufficient justification exists. The commissioner will balance the reasonable needs of inparian owners to gain access and use public water against the need to protect emergent and floating-leaf aquatic macrophytes so that the integrity and value of the aquatic macrophyte community is maintained.

The first sentence of this rule was previously found in existing Rule Part 6280.0400, subp. 2 (1995). The second sentence is new. It is an attempt to further explain what the Commissioner will deem to be "sufficient justification" for granting a permit. It focuses on emergent and floating-leaf vegetation, rather than submerged vegetation. The implication is, therefore, that so long as only submerged vegetation is at issue, a permit will be granted. This is consistent with other changes noted above, which focus upon the preservation of emergent and floating-leaf vegetation, not submerged vegetation. While the "balancing" called for is not terribly specific the Administrative law ludge understands the Department's expressed concern for allowing site by site determinations which avoid the "one size fits all" complaints which have been voiced about other portions of the rule. The question is whether or not the standard is so vague that it provides no guidance for APM specialists, landowners or reviewing courts.

21. The Administrative Law Judge concludes that the language is not impermissibly vague because the goal is to allow for site-by-site determinations, and what is important in one site may well be irrelevant in another. To attempt to catalogue all the factors that should be considered would be a daunting task. While most of the factors were no doubt discussed at some point during the three days of hearing, or somewhere in the numerous documents in the record, the Administrative Law Judge is not aware of either the Department or the opponents putting together a comprehensive list of the factors which ought to be considered. In a somewhat analogous situation, the Minnesota Supreme Court upheld a Pollution Control Agency rule which allowed for approval or denial "based upon a finding that the total positive impacts.... outweigh the total negative impacts in comparison to the existing [situation] and/or all feasible alternatives " While in that case the rule indicated ten criteria which should be considered in assessing a permit, there was no indication of what weight should be given to each, and the court acknowledged that the relative weights could change for different types of situations. Nonetheless, the court allowed the rule to stand, acknowledging the need for flexibility in the review process, the likelihood of future changes in knowledge and evaluation tools, and the need to allow for different situations presenting different kinds of problems. Can Manufacturers Institute, Inc. v. State, 289 N.W.2d 416, 423 (1979). Another consideration noted by the court was the fact that there was an appeal procedure. Such a procedure also exists in the case of the DNR rule here. Moreover since the time of the court's decision in the Manufacturers the Legislature has added a procedure whereby an individual or small business can recover their expenses and attorney's fees for contesting an agency action if the agency was not "substantially justified" in its position. If an agency were to deny a permit without substantial justification, the applicant could appeal the denial and recover expenses and attorney's fees. See, Minn. Stat. § 15.471 to 15.475 (1995). While that is no substitute for evenhanded application of clearly defined rules, it gives some meaning to the opportunity to appeal a decision.

- 22. There was mention during the hearing of an "operational order" which was still in draft form, but which would be issued to assist DNR personnel in evaluating permit applications for WeedRollers. Tr. I, pp. 91-94. The Administrative Law Judge cautions the Department that it can only enforce the detail in the rule, and that it cannot enforce any greater level of detail that might appear in this "operational order". There were complaints in the hearing process that the rule's standard was too vague. At least one person suggested that the rule ought to be withdrawn, and not proposed until the Department had enough experience with the WeedRoller to be able to propose a rule with more detailed standards. The Administrative aw Judge has accepted the Department's argument that a rule is needed now and it is impossible to write a more detailed rule at this time. It would be an act of bad faith for the Department to issue, and attempt to enforce, detailed standards in the form of an operational order. When the Department feels it has enough experience to adopt more detailed standards than the currently proposed rule, it must put those standards into the rule.
- 23. Another problem that must be addressed in connection with the WeedRoller is the overlap between these aquatic plant management rules, which are administered by one division of the Department, and the "anti-excavation" rules of a different division of the Department, the Division of Waters. Those rules govern the "displacement or removal of the sediment or other materials from the beds of protected waters by means of hydraulic suction or mechanical operation". In response to questions raised during the hearing process, the Division of Waters provided guidance with regard to its interpretation of "excavation" as it might apply to the Crary WeedRoller. See, Memo dated October 15, 1996 to Lee Pfannmuller from John Linc Stein, supplied as part of the Department's post-hearing comment of that date. In that memo, the Department of Waters reviewed its rule (Minn. Rule Part 6115.0200) relating to excavation of protected waters, and it went on to state the following:

It is clear that a Crary WeedRoller, if its primary purpose is to remove sediment or other materials from the bed of protected waters, is within the realm of "excavation" — it is a mechanical device used to displace/remove sediment material from the bed of protected waters. There is a distinction between use of the device for one of two primary purposes — the first to control aquatic plants, the second to perform excavation.

To distinguish incidental movement of sediment associated with the primary purpose of mechanical control of aquatic plants from excavation subject to a DOW permit, the division considers whether the device excavates beyond that necessary to control aquatic plants. A protected waters permit would be required when that limit is surpassed. Determining this limit will require field data concerning the depth of sediment, type of sediment, vegetation types relationship to neighboring properties, prevailing wind and wave conditions, etc.

The memo goes on to alert persons that if a device appears to be involved in "excavation" rather than control of aquatic plants, a separate permit from the Division of Waters will be required, and given the Division's existing rules regarding excavation, it is unlikely that a permit would be issued.

Persons selling these devices, renting them, sharing them, or owning them should understand that they should not be advertised, sold, rented, or used for excavation. Their primary use must be for control of aquatic plants, and their use should be limited to the area necessary to control the plants.

Many persons complained about the "hassle" of applying for a permit, going through an on-site inspection, paying a fee, and then having to file a report at the end of the season, then going through the same process again the next year. The Department responded with a number of the arguments noted above concerning the need for an on-site inspection and a permit prior to allowing the use of a device such as the WeedRoller. In their post-hearing comments, however, the Department did propose a change to lessen some of the "hassle". That change was to allow a permit with a three-year duration for these devices "operated in an area up to 2500 square feet, excluding emergent and floating leaf vegetation". That language comes from the first page of the Department's October 15 submission to the Administrative Law Judge, where it was underlined to show it is a change from the one-year permit initially proposed at the hearing. However, back on page 9 of that submission, the Department explained that the proposed change would reduce the permit burden on lakeshore homeowners who operate automated untended devices in a manner that would not have required a permit under the existing rules "(in an area of 2500 square feet or less, in submerged-vegetation, extending no more than 50 feet along shore or one-half their frontage, whichever is less)". There is a conflict between what the Department has proposed on page 1 of its submission, and its explanation on page 9. There is no shoreline limitation stated on page 1, but there is one implied on page 9. This conflict was not raised by any person until the Administrative Law Judge was preparing this Report. He contacted the Department to ascertain which it had intended, and was informed that the Department had intended that the 50-foot/50 percent limitation be in the proposed rule, along with the 2500-square-feet limitation. The omission of the limitation from page 1 was human oversight and error. Had this been merely a matter of communications between the Department and the Administrative Law Judge, the

error could be described as "harmless" and the Department's error could be overlooked. However, the Department's October 15 submission was provided to a number of persons, including the Crary company. Only one of those persons elected to file a comment in response (which was Crary), but it is unknown whether others might have commented had they seen the correct text on page 1 of the Department's submission. Given the fact that the WeedRoller creates an arc-shaped area of control, and thus is not easily configured to create a neat 50-foot-by-50-foot square, persons may have believed the Department intended to remove the 50-foot/50 percent limitation and only maintain the 2500-square-foot limitation for these devices. The Administrative Law Judge has no way of knowing whether this occurred or not. However, in light of the manner in which the device does operate, and in light of the other limitations contained in the three-year permit provision, the Administrative Law Judge suggests that the Department not reinsert-the 50-foot/50 percent limitation in the three-year permit option. Janguage: While the Administrative Law Judge will not insist on its omission, because there is insufficient evidence to determine that anyone was; in fact, misled by the omission, he believes it to be areasonable trade-off for the requirement of a permit and assite inspections allowever, withe Department disagrees, it may reinsent the 50-foot/50 percentranguage without it being a "substantial change",

25. In summary, based upon all of the foregoing considerations, the Administrative Law Judge concludes that the Department has demonstrated the existence of a problem which requires its attention, and further that its proposed solution to the problem has a rational basis. The Department may regulate the use of Crary WeedRollers and other automated untended devices.

Chemical Treatment of Aquatic Vegetation

Area Limitation

- 26. Existing rule part 6280.0400, subp. 5, contained two different size limitations for pesticide control, depending upon whether the lake was in a rural area, or in a city or town. If the lake was in a rural area, the lesser of ten percent of the littoral area (where the water is 15 feet deep or less) or 100 feet of shoreline per site could be treated. But if the lake were entirely within a city or town, the lesser of 15 percent of the littoral area or 100 feet of shoreline per site could be treated. In the proposed amendments, the Department is proposing to unify the two under the 15 percent limitation, so that on all public waters and watercourses, the lesser of 15 percent of the littoral area or a maximum of 100 feet of shoreline per site could be treated for controlled submerged vegetation. There are exceptions made for resorts, apartments, public swimming beaches, and storm water retention ponds.
- 27. In addition, the 15 percent/100 foot limitation does not apply when "larger percentages of the littoral area shall be treated at the discretion of the Commissioner when authorized by permits issued prior to 1976." Proposed Part 6280.0250, subp. 4 (A) (2). This exception replaces an exception in the existing rule which allows for

"larger percentages of the littoral area [to] be treated at the discretion of the Commissioner when authorized by previous aquatic nuisance control permits". The only difference between the existing rule and the proposed one is the addition of the 1976 definition of "previous permits". The Department explained that prior to 1976 there were no basin-wide limits on the amount of aquatic vegetation that could be controlled, but that in 1976 the 15 percent limit was added for lakes within the city limits. Because there were several lakes in the metropolitan area which had extensive areas of shallow water and abundant vegetation, and also a long history of aquatic plant control permits issued for more than 15 percent of their area, the 1976 rules "grandfathered" them in so they could continue to control the vegetation without regard to the 15 percent limit. However, in order to focus attention on other means of exceeding the 15 percent limit, the Department now proposes to include the 1976 date as a part of the grandfathered provision. Persons who raised questions about this appeared to be satisfied once it was explained to them, and the Administrative Law Judge finds the Department has justified adding the specific date as needed and reasonable.

- 28. In addition to adding the 1976 limitation to the grandfather provision, a more important amendment of the rule is the elimination of the 10 percent limit for rural lakes, and increasing permitted control area to 15 percent so that it is consistent with the city lakes. The Department justified this change as needed to eliminate confusion which had occurred in the past because of the two separate limits. No person objected to the increase from 10 to 15 percent. However, some people objected to the whole concept of a 15 percent limit at all, favoring either a larger percentage or no limit for treating certain kinds of plants.
- Some persons pointed out that the Department's proposed rules (as well as the existing rules) allow mechanical harvesting of an area not to exceed 50 percent of the total littoral area, while even with the increase from 10 to 15 percent, chemical treatments are limited to 15 percent of the total littoral area. The Department responded that mechanical harvesting equipment essentially "mows" vegetation in an area, and only the upper portion of the plant is typically cut. The vegetation in the harvested areas usually recovers guickly. Also, most of the vegetation cut by harvesting equipment is collected and removed from the lake. The Department contrasted this with pesticide control, where the decomposition of dead vegetation causes dissolved oxygen reductions and nutrient releases which, in turn, can cause localized algae blooms. In the Department's experience, the 15 percent limit has allowed Jakeshore homeowners to obtain access and adequate use on a majority of the lakes where pesticides are applied. The Department based it upon a 1975 review showing that in previous years, much less than 15 percent of the littoral zone was treated in most lakes. The Department fears that raising the limit to 50 percent would cause unintended harm to lake ecosystems. It cites possibilities of lowering populations of vegetation-dependent species of fish, and vegetation-dependent life-stages of fish, plus reductions in habitat for invertebrates and reductions in clarity of water. The Department admits that there is no body of scientific research which indicates that 15 percent, 20 percent, or 50 percent, is necessarily the "best" limitation for all lakes.

Indeed, the Department admits that some of the research on plant abundance is contradictory, which justifies its conservative approach. The Department states that where additional areas may be required, a variance can be allowed pursuant to proposed part 6280.1000.

- 30. The Minnesota Herbicide Coalition expressed concern over the growing number of permits being issued because information on how long the pesticides remain in the lake, and the lasting effects on the lake, are unknown. The Department's response is that permits will not be issued unless the Commissioner determines that sufficient justification exists, and it is aware of the Coalition's concerns.
- 31. The Administrative Law Judge finds that the Department has balanced the competing concerns in a rational fashion, and has justified its proposals as needed and reasonable.

Eurasian Watermilfoil -- Should it be Exempt from Size Limitations?

- 32. Three commercial herbicide applicators requested that applications of herbicide for control of Eurasian watermilfoil and curly-leaf pond weed be exempted from the limitations on littoral area. They, and a number of their customers, submitted comments regarding the problems caused by these exotic weeds and their frustration with the Department's restrictions on attempts to eradicate it. The Department's response was that in those lakes where Eurasian watermilfoil was already established, the Departments attempts to eradicate it have, for the most part, been unsuccessful. The Department has had greater success when attempting to eradicate populations of very limited extent and abundance, which can usually be treated without treating more than 15 percent of the littoral zone. The Department reiterated its concerns about large scale chemical applications, including reductions in the abundance of native plants, reductions in fish populations, particularly vegetation-dependent fish or fish in vegetation-dependent life-stages, reductions in habitat for invertebrates (which provide feed for both fish and birds), and a reduction in water clarity.
- 33. While there have been some notable successes in recent years with fluridone based herbicides (Lake Zumbra and Lake George), it is still too early to tell whether or not the success is temporary, or permanent. The Department has sponsored research and has an ongoing program to attempt to discover new ways or better methods of dealing with exotics. The coordinator of the exotic species program has taken the position that these proposed rules allow "adequate amounts of control of exotic plants". See letter dated September 19, 1996 to Don Pennings from J. Rendall. At least 31 variances from the 15 percent littoral zone limit have been issued to allow greater areas to be treated in an attempt to control Eurasian water millfoil, but the Department has generally given up trying to eliminate the plant where it has already become widespread. Rendall concludes by stating that the current regulations are "flexible and allow adequate control of submersed exotic aquatic plants." The Administrative Law Judge accepts the Department's position on this point.

Administrative Law Judge finds that the Department's justification for its limitations on chemical treatment have a rational basis in fact, and represent a reasonable response to the quandary posed by exotics.

Lake Vegetation Management Plan

Proposed part 6280,0350, subp. 2 introduces a new concept into these rules. It is the concept of a "lake vegetation management plan", which would supersede all of the rules and allow permits to be issued so long as they followed the guidelines of the plan. The idea is to allow lakeowners' associations to develop a management plan that takes into account the individual characteristics of the lake, identifying the problems, and "tailoring" solutions that are appropriate for that lake. The idea is voluntary—there is no requirement that anybody file one of these, and it is intentionally open-ended with regard to content and detail. It is admittedly an experiment. The Department made it clear that both the association and the Department had to agree with the plan, and the staff did not anticipate "just rubber stamping" anything that was submitted. The Administrative Law Judge finds the Department has justified this experiment as both needed and reasonable. However, it is hoped that the next time these rules are amended, greater detail will be included with regard to the content of these plans. Experience will no doubt provide ideas for what works and what does not work.

Permit Application Review Time and Appeals

- 35. The existing rule provides that the terms, conditions or denial of a permit application may be appealed to the Commissioner by filing a written request for review within 30 days of receipt of written notice. The existing rule goes on to provide that if written notice is not submitted within 30 days, the permit decision becomes final.
- 36. The proposed rule continues this provision, but adds a new paragraph which provides for a contested case hearing if the applicant disagrees with the commissioner's decision. The new provision requires that the request for a hearing must be filed within 30 days of the commissioner's decision, and if the request is not filed with in 30 days, the permit decision becomes final.
- There is no statute which authorizes the Department to place a 30-day limit on appeals from denials of a permit or permit conditions. While 30 days may well be a reasonable and practical time limit, such a limit must be imposed by the Legislature, and cannot be imposed by the Department. See, Leisure Hills of Grand Rapids v. Levine, 366 N.W.2d 302 (Minn. App. 1985); Keefe v. Cargill. Inc., 393 N.W.2d 425 (Minn. App. 1986) and Res Investment Company v. County of Dakota, 494 N.W.2d 64 (Minn. App. 1992). This is a question of statutory authority, and the Administrative Law Judge concludes that the Department does not have statutory authority to limit its jurisdiction for appeals. If the Department desires to retain the step of Commissioner review before a contested case, it may do so, but it cannot require that a 30-day period

17

be applied to either the Commissioner's review or the contested case. In order to cure the defect, the 30-day limitations must be removed from both procedures in the rule.

A number of commentators expressed concern about time delays required 38. for inspections, permit review, and permit issuance. Their concern was that if an inspection had to await the emergence of weeds, and there were a substantial number of inspections required as a result of aggressive marketing of WeedRoller-type devices. the practicalities of waiting for an inspection, permit review, and permit issuance might effectively prohibit them from enjoying the benefits of their property for a substantial amount of the summer. The Department indicated that it tried to get routine permit applications processed in five working days, and even initial applications processed in ten days. Department personnel admitted, however, that a rush of applications in the early summer could jeopardize achieving those dates. Some of the commentators urged that the rule be amended to require permit issuance within a certain number of days. The Administrative Law Judge does not believe that the rule is unreasonable without such a provision. Testimony from various regional specialists and managers indicated that although there are some "long days" in the early summer because of numerous permit requests, they believed that they could handle the additional work required by the inspections and permits required by this rule. The Administrative Law Judge does not believe the rules are unreasonable without a requirement for Departmental action within any given number of days. The Department has a variety of incentives to maintain positive public relations, and those are the incentives that have resulted in the five to ten-day turnaround time achieved to date. While there will be a substantial increase in the number of site inspections required by the WeedRollers, at least in the first year, the Department will just have to find some way to deal with them. The rule is not unreasonable without a time limit for Departmental action.

Other Rule Changes Proposed After the Hearing

39. After the hearing, and after the comment period, the Department did propose four changes to the rule. Three of the four were inconsequential. The only one of any consequence was a change to the permitting requirement for WeedRollers, allowing for three-year permits (rather than just one-year permits) if their operation was limited to an area of 2500 square feet and did not affect emergent or floating leaf vegetation. None of the four changes proposed by the Department constitute "substantial changes" within the meaning of the statutes and rules which prohibit such changes.

Based upon the foregoing Findings of Fact, the Administrative Law Judge makes the following:

CONCLUSIONS

1. That the Department gave proper notice of the hearing in this matter.

- 2. That the Department has fulfilled the procedural requirements of Minn. Stat. §§ 14.14, subd. 1, 1a and 14.14, subd. 2 (1994) and all other procedural requirements of law or rule.
- 3. That the Department has demonstrated its statutory authority to adopt the proposed rules and has fulfilled all other substantive requirements of law or rule within the meaning of Minn. Stat. §§ 14.05, subd. 1, 14.15, subd. 3 and 14.50(i)(ii) (1994), except as noted at Finding 37.
- 4. That the Department has documented the need for and reasonableness of its proposed rules with an affirmative presentation of facts in the record within the meaning of Minn. Stat. §§ 14.14, subd. 2 and 14.50(iii) (1994).
- 5. That the amendments and additions to the proposed rules which were suggested by the Department after publication in the State Register do not result in rules which are substantially different from the proposed rules as published in the State Register within the meaning of Minn. Stat. § 14.15, subd. 3 (1994) and Minn. Rule 1400.1000, subp. 1 and 1400.1100 (1995).
- 6. That the Administrative Law Judge has suggested action to correct the defect cited in Conclusion 3 as noted at Finding 37.
- 7. That due to Conclusion 3, this Report has been submitted to the Chief Administrative Law Judge for his approval pursuant to Minn. Stat. § 14.15, subd. 3 (1994).
- 8. That any Findings which might be properly be termed Conclusions and any Conclusions which might properly be termed Findings are hereby adopted as such.
- 9. That a Finding or Conclusion of need and reasonableness in regard to any particular rule subsection does not preclude and should not discourage the Department from further modification of the proposed rules based upon an examination of the public comments, provided that no substantial change is made from the proposed rules as originally published, and provided that the rule finally adopted is based upon facts appearing in this rule hearing record.

Based upon the foregoing Conclusions, the Administrative Law Judge makes the following:

RECOMMENDATION

IT IS HEREBY RECOMMENDED: That the proposed rules be adopted except where specifically otherwise noted above.

Dated this 9^{+4} of December, 1996.

ALLAN W. KLEIN Administrative Law Judge

Reported: Tape Recorded, Transcript Prepared

MEMORANDUM

This rules were initially proposed to be adopted without a public hearing. The Notice of Intent to Adopt without a Public Hearing was published in 1995. After receiving more than 25 requests for a hearing, the Department published a Notice of Hearing in 1996. Substantial changes to the rulemaking procedures were adopted by the 1995 Legislature and took effect on January 1, 1996. These DNR rules, along with a few other sets of rules, raise the question of which statute should govern. In order to avoid confusion, the Office adopted a policy that if a rulemaking proceeding was initiated in 1995, then the whole proceeding would be governed by the "old" statute and rules that were in effect in 1995. This policy was communicated to the Department and other agencies in a similar situation. In order to avoid any confusion on this matter, it is noted again here to assist persons who might otherwise wonder why the more recent statute and rules are not being applied.

AWK