

# INVASIVE AQUATIC PLANT MANAGEMENT

## BEST MANAGEMENT PRACTICES

### Eurasian Watermilfoil (*Myriophyllum spicatum*)

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*The purpose of this guidance sheet is to provide information on the complexities related to Eurasian watermilfoil management. Prior to managing this or any other invasive plant, outlining problems and goals associated with the proposed management is the first step. All herbicide and most mechanical control of Eurasian watermilfoil will require a permit from the MN DNR so please contact the area Invasive Species Specialist for more information.*

## EURASIAN WATERMILFOIL

Eurasian watermilfoil (EWM) is a submersed aquatic plant that can produce surface matted vegetation and interfere with recreation in some instances. In some lakes EWM can persist alongside native aquatic plants without creating a recreational nuisance. In other lakes EWM can form surface mats that interfere with use and also reduce native aquatic plants. EWM can also hybridize with native northern watermilfoil and these hybrids may display similar invasive characteristics.



Both EWM and its hybrids are classified as a Prohibited Invasive Species in Minnesota. The MN DNR supports management of EWM and hybrid milfoils through methods that limit damage to native aquatic plants. Control methods include mechanical control, bio-control, herbicide control, or any of these in combination.

## CONTROL METHODS IN MN

### Mechanical Control

Mechanical harvesting or cutting may be a useful option where EWM is widely established in a lake and non-chemical control methods are desired. Harvesting provides immediate nuisance relief by reducing surface matting and can be completed multiple times in a season. However,

harvesting can produce plant fragments that may spread to other areas of a lake. Hand pulling of EWM by snorkel or SCUBA may be useful for controlling new infestations in small areas (less than one acre in size), areas near waterlilies, or in combination with other treatment methods.

### **Bio-Control**

No effective bio-control agents currently exist for invasive milfoils. Native milfoil weevils feed on watermilfoils and can reduce plant density but have not been proven as a dependable control method. Variability in milfoil weevil's effectiveness may be due to predation by the fish community present in a lake. The addition of milfoil weevils has not been found to provide adequate milfoil control.

### **Herbicide Control**

In Minnesota, the most commonly used herbicides to control EWM are formulations of 2,4-D and triclopyr. These selective, systemic herbicides are "auxin mimics" that mimic natural plant growth hormones and damage the target plant. Proposals for treatment with other herbicides or combinations (e.g. endothall, diquat, fluridone) may be considered as well.

Typically, herbicides are applied when EWM plants are actively growing (May-August, can vary statewide). The DNR may permit treatments in the fall (September-October) in some cases. Early spring and fall treatments are recommended when using contact herbicides to increase selectivity and reduce the impact to non-target species, however systemic herbicides are more commonly used to improve selectivity and achieve longer control. Small treatment areas (areas less than five acres) may produce poor control due to rapid dissipation of the herbicide in the water. Please consult with the DNR, professional lake managers, and certified commercial applicators to discuss management goals, permitting, herbicide recommendations, and effective treatment design.