DEPARTMENT OF NATURAL RESOURCES

DNR Lake Vegetation Management Plan

The treatment protocols or management goals may change as new information becomes available and will be approved by the MnDNR. This variance does not preclude the requirements of applying for, and obtaining aquatic vegetation control permits (IAPM permits) as per Minnesota Rule chapter 6280. Refer to Lake Cooperator Data Summary for historic lake plant data, managament history and water quality data.

Normandale Lake, Hennepin County (DOWs# 27104501 & 27104502)	
Date Signed: 3/6/2020	**Expiration Date: 12/31/2024**
Management Targets(s):	Curly-leaf pondweed (CLP)
Variance Conditions:	*This Lake Vegetation Management Plan (LVMP) authorizes a **5-year variance** to perform herbicide treatments greater than 15% of the littoral area to control CLP. Herbicide use will not be allowed for APM (nearshore) permits.* *Waiver of dated signature requirement for invasive aquatic plant management permits because collecting signatures would create an undue burden (M.S. 103G.615, Subp. 3a(b))*
Problem Identification:	1. CLP has been observed up to 85% Frequency of Occurrence, hereafter FOO. 2. Native plant species abundance and diversity has been limited.
DNR Management Goals:	1. Reduce early summer CLP to <10% FOO (after 5 years) 2. Increase native submersed species richness to 12+ species (or Mean submersed native taxa/ point to 2.8) 3. Maintain turion density <50 turions/meter^2

Proposed Actions:	1. Conduct CLP control through herbicide means at >15% littoral limit during 2020-2024, as long as a spring delineation shows need. 2. Conduct CLP control through herbicide means in the small upstream ponds (i.e. Josten's Pond DOW# 270104200 and Norman Center Pond (DOW# 270104400) as needed.
Required Monitoring (see table below for survey timing)	1. Spring delineation survey to measure reductions in CLP 2. Turion sampling to show CLP reductions over time 3. Late season point-intercept survey to track plant community
Justification & History	Normandale Lake has no history of CLP management. CLP frequency has been observed up to 85% in recent years. The Nine Mile Creek Watershed District completed a drawdown in fall 2018 to target CLP turions followed by a spring alum treatment to improve water quality. The proposed management actions would complement these efforts and have the potential to control the remaining CLP (22% observed in 2019) since turion seed bank has been reduced. Such actions would also support the expansion of native plant populations that showed a positive response post drawdown (e.g. small pondweed, sago pondweed, horned pondweed). A variance will allow for management efforts of NMCWD to reduce CLP lake wide abundance, improve water clarity and increase the native plant community. The implementation of a LVMP will allow MnDNR and the watershed district to document CLP management as part of a larger effort to improve the lake system and overall watershed.
Cooperator(s):	1. Nine Mile Creek Watershed District (NMCWD) 2. City of Bloomington

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REQUIRED ANNUAL MONITORING & REPORTING

Failure to complete all required monitoring and reporting may result in no variance or permit the following year. Data will be provided to DNR Invasive Species Specialist using their data reporting template.

Required Monitoring	**Timing**	**Monitored/Submitted By**
Pre-treatment Delineation	Spring (April-May)	NMCWD or third party contractor
Point-Intercept Survey(s)	Mid-Summer	NMCWD or third party contractor
Water Quality Monitoring *(Secchi, TP, Chl-a)*	Twice Monthly (May-September)	NMCWD or third party contractor
Turion Density Sampling	Fall	NMCWD or third party contractor
DNR Data Report	Annually	NMCWD or third party contractor

DNR Evaluation:
The DNR, in conjunction with other interested parties, will review the plant survey(s) and water quality results annually. If results are not meeting goals or producing negative results, then the approach to control may be revised at the discretion of the DNR. Notes to be filled out by the DNR annually are documented below.

YEAR	**CLP %** *FOO*	**Turion #** /meter^2	**Native taxa #**	**Mean # taxa/point**	**Comments**
2020					
2021					
2022					
2023					
2024					

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SIGNATURES

This Lake Vegetation Management Plan is in effect for 5 years from date of Regional Fisheries approval. If the plan is not renewed, then permits will be issued according to the standards listed in MR6280.

DNR Approval:

Submitted By: Keegan Lund

Title: Invasive Species Specialist

Date: 2/26/2020

[signature] 3/6/20

Regional Fisheries Manager — Date

[signature] 3/11/2020

Regional Ecological & Water Resources Manager — Date

I affirm that I am a representative of ***Nine Mile Creek Watershed District*** and acknowledge participation in the development or implementation of this lake vegetation management plan.

[signature] ADMINISTRATOR 3/12/20

Cooperator's Signature and Title — Date

Cooperator's Signature and Title — Date

Either party may terminate participation in this plan at any time, with or without cause, upon 30 days' written notice to the other party. If participation is terminated, permits will be issued according to standards listed MR6280.

No language following this page supersedes the conditions in permits described above.