



DRAFT – Discharge Management Plan (DMP)¹ and SEPA Addendum for the Aquatic Plant and Algae Management General Permit

Permit Number: WAG 99

New DMP

Updated DMP

Use the F11 key to navigate to each form field.

I. CONTACT INFORMATION

The Permittee/applicant must develop its DMP jointly with the sponsor.²

- 1. Permittee contact information (name, business name, physical business address and mailing address if different, phone number, email address and website address, if applicable):**
- 2. Sponsor contact information (name of sponsor representative, if applicable, sponsor name, address, phone number, email address, website address, if applicable):**

II. WATER BODY INFORMATION³

- 1. Water body name:**
- 2. Location of the water body (latitude-longitude):**
- 3. County and WRIA where the water body is located:**
- 4. Acreage of the water body:**
- 5. Mean and maximum depth of the water body:**
Attach a bathymetric map of the water body. You may also use this map to

¹ If a water body plan exists that is equivalent to the Discharge Management Plan (DMP), the applicant/Permittee may submit this plan. However, the applicant/Permittee must certify to Ecology that the equivalent plan contains all the elements included in this template. If the equivalent plan lacks elements, the Permittee/applicant may attach the missing information to the plan and must certify that this plan meets the DMP requirements.

² Government applicants/Permittees do not need sponsors. Private applicators are required to have a sponsor.

³ There is a list of information sources and internet links at the end of this document.

include additional information asked below as long as the information does not obscure the bathymetry.

6. **Names and locations of any inlets and outlets:**
Include these tributary locations on the bathymetric map:
7. **If the water body is on the 303(d) list, what parameters is it listed for?**
8. **List the aquatic plant species (species or common names) in the water body (submersed, floating, and floating-leaved plants) and along the shorelines (emergent plants):**
9. **List the species and classification or designation of all state-listed aquatic noxious weeds in the water body or along the shoreline:**
10. **List any sensitive, threatened, or endangered aquatic plant species in the water body or along the shoreline:**
Attach a recent map of their locations.
11. **List any sensitive habitats or wetlands associated with the water body:**
Attach a recent map of these areas.
12. **List the fish species (species or common names) using the water body and associated tributaries:**
13. **List any sensitive, threatened, or endangered fish using the water body:**
If present, at what time of year are they in the water body?
14. **List other aquatic animals (amphibians, beavers, muskrats, etc.) using the water body:**
15. **List any sensitive, threatened, or endangered aquatic animals (excluding fish) using the water body:**
16. **List waterfowl and other types of birds associated with or using the water body:**
17. **Are there any sensitive waterfowl and bird species (common names) or important nesting areas or rookeries associated with the water body?**
If so, attach a map of these areas.
18. **Describe any characteristics of the waterbody that are unique to the waterbody**

that were not covered in the above questions:

19. Describe the major land uses around the water body: ⁴
20. List any residents that use the water body for drinking water:
Do they have a water right or a water claim?
Is the water body their sole source of drinking water?
21. List any residents that have a water right or a water claim for irrigation or stock watering:
22. List the beneficial uses of the water body: ⁵
Develop and attach a beneficial use map of the water body.

III. PROBLEM DESCRIPTION AND STATEMENT

1. Describe the plant species, plant types (emergent, submersed, etc.), locations, and density of the *problem plants* in the water body:
2. Identify whether the *problem plants* are noxious weeds, nuisance native plants, or both:
3. Describe any algae problems occurring in the water body:
Provide any history of cyanobacterial toxins in the water body:
4. Identify and discuss possible factors that are causing or contributing to excess plant growth or algae problems (e.g., nutrients, invasive species, etc.):
5. Identify the beneficial uses that the problem nuisance plants, noxious weeds, or algae are disrupting and describe how these uses have been impacted:

IV. MANAGEMENT GOALS

1. Is this an eradication project, a control project, a nutrient inactivation project, or a combination?
2. Describe the specific management goals for this project:

⁴ Major land uses include rural, residential, agricultural, etc.

⁵ See a list of beneficial uses in the reference section at the end of this document.

V. SURVEILLANCE

- 1. Attach a map that includes the approximate location and species of the aquatic plants in the water body and the proposed management areas:**
- 2. Describe any unique characteristics about the problem species that may help determine the most appropriate management methods and timing:**
- 3. Describe your surveillance plan for evaluating the treatment management areas to determine when treatment or re-treatment is appropriate (triggers the action threshold - see the Action Threshold Section VI.):**
- 4. Describe how you will evaluate (monitor) treatment effectiveness and explain your criteria for determining treatment efficacy for management of aquatic plants and algae:**
- 5. Describe how you will monitor for any adverse impacts of the management actions:**

VI. ACTION THRESHOLDS

Under integrated pest management programs, management actions occur when a pest exceeds a certain number or density. Action thresholds may vary depending on the plant or alga (cyanobacteria) species and the beneficial uses affected by these organisms.

- 1. Explain how you will determine the action thresholds for aquatic plant or algae management in this water body:**
- 2. Describe the action thresholds that you (and the sponsor) have selected for this water body (e.g., densities and types of plants; cell numbers for algae) and for different treatment areas, if appropriate:**

VII. MANAGEMENT ALTERNATIVES

Management strategies often involve several methods. Describe which of the following aquatic plant or algae management methods are applicable for the water body and provide specific reasons why or why not. Discuss impacts to water quality and non-target organisms and the feasibility and the cost-effectiveness of each method, if applicable to this water body.

- 1. No action**
Explain the short and long-term impacts associated with not managing problem

aquatic plants or algae:

2. Prevention

Describe any activities taken to prevent plant or algae problems from occurring:

3. Manual control methods (hand pulling, raking, cutting tools)

Are manual methods suitable aquatic plant management methods for this water body? If not, explain why not:

Do you or the sponsor plan to use manual methods to help manage problem aquatic plants or have manual methods been used in the past? Describe use:

Discuss impacts to water quality and non-target organisms and the feasibility and the cost-effectiveness of manual control methods:

4. Bottom barriers

Are bottom barriers suitable for aquatic plant management for this water body? If not, explain why not:

Do you or the sponsor plan to use bottom barriers to help manage problem aquatic plants or have bottom barriers been used in the past? Describe use:

Discuss impacts to water quality and non-target organisms and the feasibility and the cost-effectiveness of bottom barriers:

5. Diver dredging

Is diver dredging a suitable aquatic plant management method for this water body? If not, explain why not:

Do you or the sponsor plan to use diver dredging to help manage problem aquatic plants and algae or has diver dredging been used in the past? Describe use:

Discuss impacts to water quality and non-target organisms and the feasibility and the cost-effectiveness of diver dredging:

6. Water level drawdown

Is lowering the water level a suitable aquatic plant or algae management method for this water body? If not, explain why not:

Do you or the sponsor plan to use water level drawdown to help manage problem aquatic plants and algae or has drawdown been used in the past? Describe use:

Discuss impacts to water quality and non-target organisms and the feasibility and the cost-effectiveness of water level drawdown:

7. Nutrient reduction

Is reducing nutrients a suitable algae or aquatic plant management method for this water body? If not, explain why not:

Do you or the sponsor plan to reduce nutrients to help manage algae or aquatic plant problems or has nutrient reduction been used in the past? Describe use:

Discuss impacts to water quality and non-target organisms and the feasibility and the cost-effectiveness of nutrient reduction:

8. Mechanical methods (harvesting, mechanical cutting, rotovation)

Are mechanical methods suitable for managing aquatic plants or algae in this water body? If not, explain why not:

Do you or the sponsor plan to use mechanical methods to help manage problem aquatic plants or algae or have mechanical methods been used in the past?

Describe use:

Discuss impacts to water quality and non-target organisms and the feasibility and the cost-effectiveness of mechanical methods:

9. Sediment agitation (weed rollers, beach groomers)

Are sediment agitation devices suitable for managing aquatic plants in this water body? If not, explain why not:

Do you or the sponsor plan to use sediment management devices to help manage problem aquatic plants or have sediment management devices been used in the past? Describe use:

Discuss impacts to water quality and non-target organisms and the feasibility and the cost-effectiveness of sediment agitation methods:

10. Biological control (triploid grass carp, milfoil weevils)

Are there appropriate biological control methods available for managing aquatic plants in this water body? If not, explain why not:

Do you or the sponsor plan to use biological control to help manage problem aquatic plants or has biological control been used in the past? Describe use:

Discuss impacts to water quality and impacts to non-target organisms and the feasibility and the cost-effectiveness of biological control:

11. Chemical control

Are chemicals suitable for managing aquatic plants and algae in this water body?

If not, explain why not:

Do you or the sponsor plan to use chemicals to help manage problem aquatic plants and algae or have chemicals been used in the past? Describe use:

Discuss impacts to water quality and non-target organisms and the feasibility and the cost-effectiveness of chemical control methods:

VIII. ACTION PLAN

Choose the management method or combination of methods that best meets the needs of water body users in accordance with plan goals.

1. **Identify each proposed management method (this may include actions taken by individual residents) for the water body:**
2. **For chemical management, list the active ingredient and the target plant or algae species for each chemical:**
3. **Identify any ordinances/laws that may affect chemical treatment or require permits in addition to the Aquatic Plant and Algae Management Permit:**
4. **Identify the area in the water body where each management method will be used:**
5. **Identify the timing for each management method and assess how often you may need to repeat the action each treatment season:**
6. **Evaluate the compatibility of the Action Plan with human health, fisheries, wildlife, waterfowl, wetlands, rare plants, endangered species, water right holders, and the ecology of the water body and describe any mitigation measures:**
7. **Describe how you will evaluate the overall effectiveness of this Action Plan:**
8. **Describe your schedule for updating this DMP:⁶**

IX. PUBLIC INVOLVEMENT

DMP's submitted as part of the Notice of Intent will undergo public review. DMP's submitted by existing Permittees when the Permittee proposes to use a chemical that persists in the water for longer than days must satisfy the requirements of WAC 173-201A-410.⁷ The Permittee must follow the Administrative Procedures Act (chapter 34.05 RCW) for public involvement and complete a SEPA evaluation of the plan (chapter 43.21C RCW).

⁶ You must modify the DMP whenever necessary when there is a significant change in the active ingredient or quantity of chemicals discharged. Changes to the DMP must be made prior to the discharge or as soon as possible thereafter. The revised DMP must be signed and dated.

⁷ Short-term modifications of the Water Quality Standards.

1. Describe how the sponsor was involved with the development of this DMP:
2. Describe any education or outreach about aquatic plants and algae and their management occurring on this water body:

X. EQUIPMENT CALIBRATION AND MAINTANENCE

1. Explain the schedule and procedures for maintaining your chemical application equipment in proper operating condition:
2. Explain the schedule and procedures for calibrating your chemical application equipment:
3. Explain the schedule and procedures for preventing spills and leaks of chemicals or petroleum products (oil, gasoline, hydraulic fluid) associated with your chemical application:

XI. NEW STAFF TRAINING

Describe training procedures for new staff and on-going routine training:⁸

XII. RECORD KEEPING AND REPORTING

Refer to permit section S8.

⁸ Alternatively, the applicant/Permittee may reference its training manual, if available. If a training manual is referenced, include the date it was last updated.

XIII. SIGNATURE REQUIREMENTS ⁹

I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of those persons directly responsible for gathering information, the information in the DMP is, to the best of my knowledge and belief, true, accurate, and complete and will be updated as necessary. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

Signature of Permittee

Date

I certify under penalty of law, that I have reviewed this document and all attachments, and that the sponsor concurs with the information contained in the DMP. The information in the DMP is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment of knowing violations.

Signature of Sponsor's Representative

Date

You must print and sign this form.

⁹ Persons with signature authority (as specified in the Aquatic Plant and Algae Management Permit General Condition 15) must sign and certify the DMP has been developed and implemented as written.

Information Sources

Internet-based information to help applicants prepare the Discharge Management Plan.

- Lake maps and information for many of Washington's lakes
<http://www.ecy.wa.gov/programs/eap/lakes/wq/index.html>
- Ecology's aquatic plant database
<http://www.ecy.wa.gov/programs/eap/lakes/aquaticplants/index.html>
- Ecology's freshwater plant identification manual
<http://www.ecy.wa.gov/programs/wq/plants/plantid2/index.html>
- Washington's 303(d) listed water bodies
<http://www.ecy.wa.gov/programs/wq/303d/2008/index.html>
- Washington State Noxious Weed Control Board List of Noxious Weeds
<http://apps.leg.wa.gov/WAC/default.aspx?cite=16-750>
- Washington Department of Natural Resources (DNR) rare plant information
<http://www1.dnr.wa.gov/nhp/refdesk/plants.html>
- DNR's information about high quality/rare ecological communities
<http://www1.dnr.wa.gov/nhp/refdesk/communities.html>
- Ecology's Toxic Algae Database
<https://fortress.wa.gov/ecy/toxicalgae/InternetDefault.aspx>
- Ecology's species timing windows (information prepared by Washington Department of Fish and Wildlife - WDFW)
[website](#)
- DNR's rare animal information
<http://www1.dnr.wa.gov/nhp/refdesk/animals.html>
- WDFW priority habitats and species
<http://wdfw.wa.gov/conservation/phs/>
- Local land use/ordinances - links to counties and cities
<http://access.wa.gov/government/local.aspx>
- Ecology's Water rights inquiries
<http://www.ecy.wa.gov/programs/wr/rights/water-right-home.html>
- Ecology's Survey methods for aquatic plant mapping
<http://www.ecy.wa.gov/programs/wq/plants/management/survey.html>
- Integrated Pest Management Principles
<http://access.wa.gov/government/local.aspx>
- Management methods for aquatic plants and algae
<http://www.aquatics.org/pubs/madsen2.htm>
<http://www.ecy.wa.gov/programs/wq/plants/plantmgmt.html>
<http://www.aquatics.org/bmp.htm>

- Beneficial uses include:
 - Wildlife habitat
 - Fish spawning/rearing/migration
 - Fish harvesting
 - Commerce/navigation
 - Primary contact recreation
 - Secondary contact recreation
 - Boating
 - Aesthetic values
 - Domestic, industrial, agricultural water supply
 - Stock watering