

**WAC 220-660-290 Aquatic plant removal and control.** (1) **Description:** This section covers the physical and mechanical methods for controlling and removing aquatic plants. It does not address using grass carp, herbicides, or water column dye. Aquatic plant removal and control methods include physical, mechanical, biological, and chemical control methods. Often the best approach to controlling and removing aquatic plants is developing a vegetation management plan. A vegetation management plan is a comprehensive approach to controlling aquatic plants where all strategies are considered and usually some combination of techniques is selected and implemented. These plans should be based on the biology and ecology of the aquatic plant to be controlled and the environmental characteristics of the site. Integrated vegetation management planning is encouraged to comprehensively address aquatic plant problems for a watercourse.

(2) **Fish life concerns:** Beneficial plants play a significant role in lakes and streams by providing food and habitat for fish life, stabilizing shorelines, and contributing to nutrient cycling. Sometimes beneficial plants can grow in overabundance, usually because of excessive inputs of nutrients such as nitrogen or phosphorus. In contrast, aquatic noxious weeds can threaten native vegetation, fish life, and the habitat that supports fish life.

(3) **Limit of authority:**

(a) An activity conducted solely to remove or control spartina does not require an HPA.

(b) An activity conducted solely to remove or control purple loosestrife and that is performed with hand-held tools or equipment, or equipment carried by a person when used, does not require an HPA.

(c) Any other activity conducted solely to remove or control aquatic noxious weeds or aquatic beneficial plants requires either a copy of the current *Aquatic Plants and Fish* pamphlet HPA available from the department or an individual HPA.

(4) **Removal of aquatic plants by hand:**

(a) A copy of the current *Aquatic Plants and Fish* pamphlet available from the department serves as an HPA, unless otherwise indicated, and must be on the job site at all times.

(b) Hand removal or control of aquatic plants can help eradicate an early infestation of aquatic noxious weeds and can be effective for small, confined areas.

(c) Hand removal or control of both aquatic noxious weeds and aquatic beneficial plants must comply with the following technical provisions except where otherwise indicated:

(i) Because of potential impacts to sockeye spawning areas, the department requires advance authorization for activities in Baker Lake and lakes Osoyoos, Ozette, Pleasant, Cle Elum, Sammamish, and Washington. If authorization is given, the department may require mitigation through a written agreement between the applicant and the department for impacts of raking in the spawning area.

(ii) Work is restricted to hand-pulling, using hand-held tools or equipment, or using equipment that is carried by a person when used.

(iii) Removing or controlling aquatic beneficial plants to maintain an access for boating or swimming is allowed along no more than ten linear feet of the applicant's shoreline. The department requires advance authorization for boating and swimming access projects that cover a larger area.

(iv) When hand-pulling aquatic noxious weeds, remove the entire plant when possible. Completely remove detached plants and plant parts from waters of the state when possible. Dispose of detached plants and

plant parts at an upland site so they will not reenter waters of the state.

(v) Do not remove or disturb existing fish habitat components such as logs, stumps, and large boulders.

(vi) Conduct work in a manner that minimizes the release of sediment and sediment-laden water from the job site.

(vii) Prevent contaminants from the project, such as petroleum products, hydraulic fluid, or any other toxic or harmful materials, from entering or leaching into waters of the state.

(viii) If at any time, as a result of project activities, a person observes a fish kill or fish life in distress, a person must immediately cease operations and notify the department and the Washington military department emergency management division of the problem. A person may not resume work until the department gives approval. The department will require additional measures to mitigate the prospecting impacts.

(ix) Do not use contaminated equipment, which can spread plant parts. Thoroughly remove and properly dispose of all viable plants and plant parts from the equipment before using the equipment in waters of the state.

**(5) Bottom barriers and screens:**

(a) A copy of the current *Aquatic Plants and Fish* pamphlet available from the department serves as an HPA, unless otherwise indicated, and must be on the job site at all times.

(b) Bottom barriers or screens can help eradicate an early infestation of aquatic noxious weeds and are best used in small, confined areas where control of all plants is needed.

(c) Bottom barrier or screen projects to control or remove either aquatic noxious weeds or aquatic beneficial plants must comply with the following technical provisions except where otherwise indicated:

(i) Because of potential impacts to sockeye spawning areas, the department requires advance authorization for activities in Baker Lake and lakes Osoyoos, Ozette, Pleasant, Cle Elum, Sammamish, and Washington. If authorization is given, the department may require mitigation through a written agreement between the applicant and the department for impacts of the activity to the spawning area.

(ii) For removing and controlling aquatic noxious weeds, the bottom barrier or screen material can cover no more than fifty percent of the length of the applicant's shoreline. The department requires advance authorization for bottom barrier or screen projects covering a larger area. Bottom barrier or screen and anchor material consisting of biodegradable material may be left in place. Within two years of placement, unless otherwise approved by the department, completely remove bottom barrier or screen and anchor material that is not biodegradable to encourage recolonization of aquatic beneficial plants.

(iii) To remove or control aquatic beneficial plants to maintain an area for boating or swimming, a bottom barrier or screen and anchor material may be installed along no more than ten linear feet of the applicant's shoreline. The department requires advance authorization for bottom barrier or screen projects for boating and swimming access projects covering a larger area.

(iv) Securely anchor a bottom barrier or screen material with pea gravel-filled bags, rock, or similar material to prevent billowing and movement off site.

(v) Regularly maintain a bottom barrier or screen and anchors to ensure the barrier or screen and anchors are functioning properly.

Barriers or screens that have moved or are billowing must immediately be securely reinstalled or removed from waters of the state.

(vi) Existing fish habitat components such as logs, stumps, and large boulders may be relocated within the water body if needed to properly install the bottom barrier or screen. Do not remove these habitat components from the water body.

(vii) If at any time, as a result of project activities, a person observes a fish kill or fish life in distress, a person must immediately cease operations and notify the department and the Washington military department emergency management division of the problem. A person may not resume work until the department gives approval. The department will require additional measures to mitigate the prospecting impacts.

(viii) Do not use contaminated equipment, which can spread plant parts. Thoroughly remove and properly dispose of all viable plants and plant parts from the equipment before using the equipment in waters of the state.

(6) **Weed rolling:**

(a) A copy of the current *Aquatic Plants and Fish* pamphlet available from the department serves as an HPA, unless otherwise indicated, and must be on the job site at all times.

(b) Weed rollers are best used when a person needs to control all aquatic plants.

(c) Weed rolling projects to control or remove both aquatic noxious weeds and aquatic beneficial plants must comply with the following technical provisions except where otherwise indicated:

(i) Because of potential impacts to sockeye spawning areas, the department requires advance authorization for activities in Baker Lake and lakes Osoyoos, Ozette, Pleasant, Cle Elum, Sammamish, and Washington. If authorization is given, the department may require mitigation through a written agreement between the applicant and the department for impacts of the activity to the spawning area.

(ii) Weed rollers cannot be used to remove an early infestation of aquatic noxious weeds. Using weed rollers to remove or control all other infestation levels of aquatic noxious weeds can cover an area of no more than two thousand five hundred square feet. The department requires advance authorization for weed roller projects covering a larger area.

(iii) The department requires advance authorization to remove or control aquatic beneficial plants.

(iv) When using weed rollers to remove or control aquatic noxious weeds, completely remove detached plants and plant parts from the water body. Dispose of detached plants and plant parts at an upland site so they will not reenter waters of the state.

(v) Conduct work in a manner that minimizes the release of sediment and sediment-laden water from the job site.

(vi) Prevent contaminants from the project, such as petroleum products, hydraulic fluid, or any other toxic or harmful materials, from entering or leaching into waters of the state.

(vii) If at any time, as a result of project activities, a person observes a fish kill or fish life in distress, a person must immediately cease operations and notify the department and the Washington military department emergency management division of the problem. A person may not resume work until the department gives approval. The department will require additional measures to mitigate the prospecting impacts.

(viii) Existing fish habitat components such as logs, stumps, and large boulders may be relocated within the water body if needed to properly install the weed roller. Do not remove these habitat components from the water body.

(ix) Do not use contaminated equipment, which can spread plant parts. Thoroughly remove and properly dispose of all viable plants and plant parts from the equipment before using the equipment in waters of the state.

**(7) Mechanical harvesting and cutting:**

(a) A copy of the current *Aquatic Plants and Fish* pamphlet available from the department serves as an HPA, unless otherwise indicated, and must be on the job site at all times.

(b) Mechanical harvesting and cutting projects to control or remove both aquatic noxious weeds and aquatic beneficial plants must comply with the following technical provisions except where otherwise indicated:

(i) Do not use mechanical harvesters and cutters to remove an early infestation of aquatic noxious weeds.

(ii) The department requires advance authorization to remove aquatic beneficial plants.

(iii) When using mechanical harvesters or cutters to remove or control aquatic noxious weeds, completely remove detached plants and plant parts from the water body. Dispose of detached plants and plant parts at an upland site so they will not reenter waters of the state.

(iv) Prevent contaminants from the project, such as petroleum products, hydraulic fluid, or any other toxic or harmful materials, from entering or leaching into waters of the state. Keep equipment well-maintained and use food-grade oil in the hydraulic system.

(v) If at any time, as a result of project activities, a person observes a fish kill or fish life in distress, a person must immediately cease operations and notify the department and the Washington military department emergency management division of the problem. A person may not resume work until the department gives approval. The department will require additional measures to mitigate the project impacts.

(vi) Existing fish habitat components such as logs, stumps, and large boulders may be relocated within the water body if needed to operate the equipment. Do not remove these habitat components from the water body.

(vii) Conduct mechanical harvester and cutter operations only in waters deep enough to avoid contacting the bottom with the cutter blades.

(viii) Always operate mechanical harvesters and cutters so that they cause the least adverse impact to fish life.

(ix) Immediately and safely return to the water body all fish life that become entrained in the cut vegetation while operating a mechanical harvester.

(x) Do not use contaminated equipment which can spread plant parts. Thoroughly remove and properly dispose of all viable plants and plant parts from the equipment before using the equipment in waters of the state.

(xi) Limit alteration or disturbance of the bank and bank vegetation to that required to conduct the project. Protect all disturbed areas from erosion using vegetation or other means. Replant the banks within one year with native or other approved woody species.

**(8) Rotovation:** The department requires an individual HPA for rotovation projects. Rotovation projects to control or remove aquatic

noxious weeds and aquatic beneficial plants must comply with the following technical provisions except where otherwise indicated:

(a) Do not use rotovators to remove an early infestation of aquatic noxious weeds.

(b) When using rotovation to remove or control aquatic noxious weeds, completely remove detached plants and plant parts from the water body. Dispose of detached plants and plant parts at an upland site so they will not reenter waters of the state.

(c) Prevent contaminants from the project, such as petroleum products, hydraulic fluid, or any other toxic or harmful materials, from entering or leaching into waters of the state. Keep equipment well-maintained and use food-grade oil in the hydraulic system.

(d) If at any time, as a result of project activities, a person observes a fish kill or fish life in distress, a person must immediately cease operations and notify the department and the Washington military department emergency management division of the problem. A person may not resume work until the department gives approval. The department will require additional measures to mitigate the project impacts.

(e) Existing fish habitat components such as logs, stumps, and large boulders may be relocated within the water body if needed to operate the equipment. Do not remove these habitat components from the water body.

(f) Always operate rotovators such that they will cause the least adverse impact to fish life.

(g) Do not use contaminated equipment, which can spread plant parts. Thoroughly remove and properly dispose of all viable plants and plant parts from the equipment before using the equipment in waters of the state.

(h) Limit alteration or disturbance of the bank and bank vegetation to that needed to conduct the project. Protect all disturbed areas from erosion, using vegetation or other means. Replant the banks within one year with native or other approved woody species.

(i) Do not rotovate in fish spawning areas unless approved by the department.

(9) **Aquatic plant dredging:**

(a) A copy of the current *Aquatic Plants and Fish* pamphlet available from the department serves as an HPA for diver-operated dredging only, unless otherwise indicated, and must be on the job site at all times.

(b) Dredging projects to control or remove aquatic noxious weeds and aquatic beneficial plants must comply with the following technical provisions except where otherwise indicated:

(i) Because of potential impacts to sockeye spawning areas, the department requires advance authorization for activities in Baker Lake and lakes Osoyoos, Ozette, Pleasant, Cle Elum, Sammamish, and Washington. If authorization is given, the department may require mitigation through a written agreement between the applicant and the department for impacts of the activity to the spawning area.

(ii) Prevent contaminants from the project, such as petroleum products, hydraulic fluid, or any other toxic or harmful materials, from entering or leaching into waters of the state. Keep equipment well-maintained and use food-grade oil in the hydraulic system.

(iii) If at any time, as a result of project activities, a person observes a fish kill or fish life in distress, a person must immediately cease operations and notify the department and the Washington military department emergency management division of the problem. A

person may not resume work until the department gives approval. The department will require additional measures to mitigate the project impacts.

(iv) Existing fish habitat components such as logs, stumps, and large boulders may be relocated within the water body if needed to operate the equipment. Do not remove these habitat components from the water body.

(v) Always conduct dredging with dredge types and methods that cause the least adverse impact to fish life.

(vi) Do not use contaminated equipment, which can spread plant parts. Thoroughly remove and properly dispose of all viable plants and plant parts from the equipment before using the equipment in waters of the state.

(vii) To avoid stranding fish, the bed must not contain pits, potholes, or large depressions when dredging is finished.

(viii) Limit alteration or disturbance of the bank and bank vegetation to that needed to conduct the project. Protect all disturbed areas from erosion, using vegetation or other means. Replant the banks within one year with native or other approved woody species.

(c) Diver-operated dredging only:

(i) Diver-operated dredging can help eradicate an early infestation of aquatic noxious weeds and can help conduct long-term maintenance after control or removal using other methods.

(ii) When using diver-operated dredging to remove or control aquatic noxious weeds, a person must completely remove plants and plant parts from the water body. Remove plants and plant parts from the dredge slurry before returning it to the water body. Dispose of dredged bed materials, including detached plants and plant parts, at an upland disposal site so they will not reenter waters of the state.

(iii) Operate a hydraulic dredge with the intake at or below the surface of the material that is being removed. Raise the intake up to three feet above the bed only for brief periods of purging or flushing the intake system.

(iv) The department requires advance authorization to eradicate or control aquatic beneficial plants.

(d) For dredging other than diver-operated dredging, the department requires an individual HPA for all dredging projects to control or remove aquatic plants. All dredging other than diver-operated dredging must comply with the following technical provisions:

(i) Do not use draglines and clamshell dredges to remove an early infestation of aquatic noxious weeds.

(ii) When using dredging to remove or control aquatic noxious weeds, a person must completely remove plants and plant parts from the water body. Dispose of dredged bed materials, including detached plants and plant parts, at an upland site so they will not reenter waters of the state.

(iii) Do not conduct dredging in fish spawning areas unless approved by the department.

(iv) Operate a hydraulic dredge with the intake high enough above the root system of the vegetation being removed so the bed is not excessively disturbed. Raise the intake up to three feet above the bed only for brief periods of purging or flushing the intake system.

(v) If a dragline or clamshell is used, operate in a manner that minimizes turbidity. During excavation, complete each pass with the clamshell or dragline bucket. Do not stockpile dredged material waterward of the ordinary high water line.

(10) **Water level manipulation:**

(a) The department requires an individual HPA to manipulate water levels.

(b) Manipulating water levels (drawdowns) to remove or control aquatic noxious weeds or aquatic beneficial plants by exposing plants and root systems to extreme temperature and moisture conditions may be appropriate under specific circumstances. Accurate plant identification is important to ensure success.

(c) Water level manipulation projects to control or remove both aquatic noxious weeds and aquatic beneficial plants must comply with the following technical provisions except where otherwise indicated:

(i) If at any time, as a result of project activities, a person observes a fish kill or fish life in distress, a person must immediately cease operations and notify the department and the Washington military department emergency management division of the problem. A person may not resume work until the department gives approval. The department will require additional measures to mitigate the project impacts.

(ii) Manipulate water levels in a manner that causes the least adverse impact to fish life.

(iii) Manipulate water levels gradually and in a controlled manner to prevent a sudden release of impounded water or sediments that may result in downstream bed and bank degradation, sedimentation, or flooding. Water levels must be drawn down and brought back up at rates predetermined in consultation with and approved by the department. In-stream flow requirements must be maintained as water levels are brought back up.

(iv) Protect all disturbed areas from erosion, using vegetation or other means. Replant the banks within one year with native or other approved woody species.

[Statutory Authority: RCW 77.04.012, 77.04.020, and 77.12.047. WSR 15-02-029 (Order 14-353), § 220-660-290, filed 12/30/14, effective 7/1/15.]