DRAFT. December 2019
Flathead Lake Flowering Rush Controls
Herbicide Handling Plan

Where Does the Flathead Lake Flowering Rush Controls: Herbicide Handling Plan Apply?

Handling herbicides in connection with applications of aquatic herbicides to the bed of Flathead Lake require adherence to this plan.

Why:

Logistics of treating these sites requires safe delivery, mixing, transporting and applying these products to prevent spills, and to rapidly contain and remove any accidentally discharge of herbicides onto the roadways, shoreline or open water in support of the Flathead Lake Flowering Rush Controls Project. The Confederated Salish and Kootenai Tribes (CSKT) Noxious Weed Management Plan and Environmental Assessment of 1992, Amendended in 1993) , did not contemplate the use of herbicides in aquatic environments. Use of pesticides on the Flathead Indian Reservation is regulated by US Environmental Protection Agency through a Pesticide General Use Permit (PGP).

CSKT contract specific provisions are to be attached to the PGP and contracts for herbicide applications. This Herbicide Handling Plan provides standard practice designs to fit application logistics, equipment, and distributions and size of treatment sites for delivery, mixing, disposal of herbicides and materials. This Plan provides basic response processes and emergency management equipment, and best practices for the use of aquatic herbicides during lake drawdown.

CSKT Pesticide General Permit Special Provisions:

1. Operators must follow conditions found in the Integrated Noxious Weed Management Plan and Amendments (Plan, CSKT 1993 b). the 2000 Forest Management Plan, the Flathead Lake Flowering Rush Controls Environmental Assessment (FLFRCEA) and other recent NEPA documents for conducting herbicide applications (see FLFRCEA). The conditions listed below must be included in the contract specific provisions or by a standard design practice.

A. Pesticides would be used to the water's edge only when the product's label allows such use.

Standard Practice: The herbicides proposed for use are labeled aquatic herbicides intended for use in aquatic environments. Label requirements for applications, rates, and mitigations will be followed including: no applications to flowing, ponded, or standing water.

B. When runoff potential is high, applicator would stay at least 10 feet from the edge of a natural break (ridge top) that leads into a wetland or riparian areas.

C. **Applications within 50 feet of sensitive surface water would occur when wind speed is <10 mph.**

D. **Drift reducing additives would be used when working within 50 feet of open-water and wetland riparian areas.**

Standard Practice: Methylated seed oil surfactant is required for all applications that will reduce drift and runoff.

E. **Pesticide mixing and loading would take place at least 500 feet from sensitive surface and ground-water areas unless spill containment devises (absorbent mats) are used and an anti back-siphoning device is used when drafting water.**

Standard Practice: Aquatic herbicides may be loaded and mixed according to the special provisions below.

General Provisions:

- Limit delivering herbicides to the application site to the smallest amount possible, only bring enough for the day of work, leave stockpile in another safe location. Herbicides will be in original factory containers when transported to the application sites. Delivery trucks to application sites will have spill containment kits available for immediate use.
- Assure landowners permission exists for access to application site, and keep landowners informed.
- An approved spill kit must available immediately on site during transport, mixing, and application to mitigate minor and major spills (see Spill Management Plan for best practices and types of absorbents needed on site).

Special Provisions:

- Irrigation Water

F. The US Environmental Protection Agency (US EPA) and the State of Montana Department of Agriculture's Pesticide Registration Division have both determined that the approved and registered pesticides as outlined in (Appendix A) pose a negligible risk to human health, safety, and the environment when used according to label. Precautions concerning the use of pesticides around active irrigation sites will be followed at the time of pesticide application. To further mitigate any potential for offsite injury, all pesticide applications are to be timed such that the treatment sites will be exposed and treated according to the pesticide application plan prior to being re-inundated as the lake is filled to full-pool. Localized pesticide depuration is expected to be minimal. Further, the dilution ratio of lake water to the total potential amount of pesticide active ingredient applied on-site would preclude the accumulation of levels of concern (≤1.0 parts-per-billion; ppb) in the water column within the treatment areas, post-inundation.

- Imazapyr depuration POST-treatment

G. Water samples will be drawn from several sites (TBD) within the project area post-treatment and post-inundation as the lake is brought to full-pool volume and will be sent overnight to a commercially-accredited third party laboratory for standard analysis for imazapyr detection and concentrations. Concentrations are expected to be below levels of concern (≤1.0 ppb) immediately upon site inundation; However, to ensure local irrigation safety, water samples will be drawn from the treatment areas for 30 days post treatment starting on or around June 15 on a five to seven day cycle and analyzed for imazapyr concentrations as outlined herein.

Hand gun applications fed with tanks attached to ATVs on the shore.
Special provisions:

- ATVs may be loaded with water for mixing, prior to adding herbicide, with lake water taken from the lake with a pump system equipped with anti-siphon equipment to prevent siphoning into the lake.
- ATVs will be loaded with herbicides when parked on a plastic tarp on level ground.

Boom sprayer applications attached to track equipped ATVS
Special provisions:

- ATVs may be loaded with water for mixing, prior to adding herbicide, with lake water taken from the lake with a pump system equipped with anti-siphon equipment to prevent siphoning into the lake.
- ATVs will be loaded with herbicides when parked on a plastic tarp on level ground.

Hand gun applications fed with tanks attached to an air boat stationed on the shore
Special provisions:

- Herbicides may be transported within the hull of the air boat.
- The hull of the air boat serves as an initial containment basin.
- An approved spill kit must be immediately available for on the air boat.

Backpack sprayer
Special provisions:

- For small spot infestations, backpacks may be mixed on site with similar provisions as filling ATVs utilizing a non-permeable drop tarp with appropriate spill containment provisions.

Inspections
Special provisions:

- Contractor equipment, spill containment plan, storage, delivery, mixing, and applications may be inspected by the CSKT Office of Pesticides.
- Contractor will keep the Office of Pesticides informed of application schedules

H. **Work would conform to the CSKT Best Management practices (CSKT 2000), from The Forest Management plan).**

I. **Only pesticides labeled for aquatic use would be applied near water bodies.**

J. **Tordon would not be applied in riparian zones.**

K. **All spray equipment would be calibrated in advance to help avoid contamination of surface and ground water sources.**

2. **The Operator must submit to the Tribal NRD a copy of the completed contract 30 days prior to the application start date.**

3. **All required material shall be sent to:**

The Confederated Salish and Kootenai Tribes of the Flathead Nation
PO Box 278; Attn Evan Smith Water Quality Regulatory Specialist
Pablo, MT 59855

Reporting Pesticide Spill

If you have knowledge of sick or dead fish and aquatic life that you suspect may have been poisoned by pesticides, contact the CSKT Fisheries and Wildlife Departments, CSKT Conservation Wardens, or the United States Fish and Wildlife Service immediately. Notify an official as soon as possible after sickened or dead wildlife are discovered. Information about possible pesticide-related incidents includes the following:

1. Type of pesticide product
2. Use rates
3. Weather conditions
4. Aquatic species involved
5. Extent of the problem (number of fish killed)
6. Location
7. Size of pond or lake affected

1. **Emergency contact phone numbers and people to notify in event of a spill**

Notification guidance.

Report if there is any potential for harm to human health or the environment from the spill, or if the spill occurs in an area frequented by the public. The spill is not reportable when it does not result in pesticide lost to the environment, and there is no threat to air, soil, or water, such as when it occurs on a concrete floor, or in an enclosed area, and is removed by proper spill clean-up procedures.

From: **https://pesticidestewardship.org/spills/prevention/to respond appropriately to an accident**.

1. CSKT Water Quality Regulatory Specialist, Evan Smith, 406-883-2888
2. CSKT Disaster Emergency Coordinator, Dale 406-883-2888
3. Fire department, Sheriff's Office 911
4. Emergency medical help 911
5. Non-emergency spills, National Pesticide Information Center (800) 858-7378
6. Poison control center 800-222-1222
7. Region 8 EPA 800-424-8802
8. CHEMTREC 800-424-9300

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8. Type of pesticide product
9. Use rates
10. Weather conditions
11. Aquatic species involved
12. Extent of the problem (number of fish killed)
13. Location
14. Size of pond or lake affected

Spill Management Procedures

When a spill occurs focus on individuals' safety, spill containment and cleanup, and who to call for assistance. Train everyone working with pesticides (transport, storage, mixing/loading, application) in the emergency procedures to be followed. Know whether you plan to apply the spilled material or handle it as a hazardous waste for disposal. The pesticide, and what you use

to absorb a liquid spill, determines whether it can be applied legally to an application site on the label, or if it requires disposal at a hazardous waste facility.

Safety and First Aid.

1. The first concern is for the health and well-being of persons in and around the spill area.
    1. All persons should be trained in basic first aid and evacuation procedures.
    2. First aid kits and personal protective equipment (PPE) must be available and maintained.
    3. Telephone numbers of medical assistance and poison control center must be posted.
    4. Minimize exposure of personnel.
    5. Put on PPE before entering the spill area.
    6. Assess personnel exposures.
    7. Turn off possible sources of ignition (gas engines, electric motors, pilot lights) to prevent fire or explosions.
    8. Move injured or exposed personnel to a safe location.
    9. Contaminated clothing should be removed from the victim. Then wash skin that has been exposed to the spill with soap and water. Give additional first aid as required, such as flushing eyes that were contacted by the spill with clean water for 15 minutes.
    10. Get medical help for the injured persons. Always have someone stay with anyone who is injured until help arrives.
2. **Secure the site.**

    1. Prevent unauthorized people from entering the spill area.
    2. Post signs, and use barrier tape or rope around the area.
    3. Get help from police or others to set a safe perimeter around the spill site.
    4. Eliminate all sources of ignition in order to prevent fire or explosion from vapors.

3. **Protect yourself and others.** Wear appropriate personal protective equipment (PPE).
    1. Proper worker protection equipment for working with herbicides PPE.
    2. Notify others about the spill, and have backup close by.
4. **Control the spill.**
    1. Stop further leakage (shut valves, reposition leaking container etc.)
    2. If the leak is being directed into another container, ensure that it does not overflow.
5. **Contain the spill.** The spillage must be contained at the original site. Prevent the pesticide from entering ditches, storm drains, wells and waterways. A spill pooled on a paved road, or other impermeable surface can be easily removed. But if it reaches surface water, recovery will be very difficult or impossible. Block any entrance to storm drains or waterways.
    1. Block the spill from spreading by encircling it using a:

1. Dike of sand or soil
2. Absorbent materials including dry granular, pads, and booms for small to large spills, spills on open water, and shoreline conditions
3. Trench
4. Rags

6. **Cover the spilled** pesticide to stop it from spreading.
    1. a) Liquid spills should be covered with an absorbent.
7. **Carefully handle leaking containers**.
    1. Segregate clean undamaged containers from the leaking ones for cleanup at a later time.
    2. Repackage leaking containers.
        1. Over-pack leaking containers that are going to disposal.
        2. Transfer pesticide to a new container, same type as original.
        3. Properly label new container
    3. Triple rinse the damaged or dirty empty container, and collect rinseate for later disposal or use as a diluent.
8. **Clean contaminated** area after finishing repacking.
9. **Disposal of spill materials.** All of the contaminated materials, including absorbent, clothes, soil, wood, etc. must be removed and packaged for disposal. Containers must be properly labeled and transported according to Department of Transportation (DOT) regulations by EPA permitted hazardous waste haulers to a permitted hazardous waste disposal facility. If spilled material cannot be used according to label instructions, it most likely is classified as a hazardous waste.

Compiled by *Ron Gardner, Cornell University Cooperative Extension*

https://pesticidestewardship.org/spills/introduction-to-spill-management/