

Weed Control Management at Little Bitterroot Lake

Little Bitterroot Lake Association Newsletter No. 3 2021



Weed Education and Awareness Program (WEAP)

Reverently, some say that it is “God’s Country”, others call it “The Last Best Place”. Little Bitterroot Lake is one of the cleanest, most pristine lakes not only in Montana, but in the entire United States. We home and landowners at Little Bitterroot Lake for the most part share one thing in common: we care about the environmental and ecological integrity of the Little Bitterroot Lake Ecosystem. But can it last a long, long time? Can we improve, protect, and preserve the quality of this beautiful lake and its’ surrounding land not only for us and future generations, but also for the great diversity of plants and animals that depend on the health of the Little Bitterroot Lake Ecosystem for their survival?

There presently is a myriad of challenging and daunting problems facing people who are trying to protect and improve the quality of the Little Bitterroot Lake Ecosystem ranging from - trash and cigarette butts, to soap use, chemical pollution, unmaintained leaking septic systems, invasive aquatic plants, invasive animal species, and invasive noxious weeds. Just to name a few and too many for any one person to tackle, but everyone can help. In this brief synopsis, I will narrow the subject matter down to one topic: invasive noxious weeds.

Unbeknownst to most, invasive noxious weeds have a serious deleterious effect upon Little Bitterroot Lake and its surrounding land. They are not only unsightly, they force out and replace native plants, rob the soil of nutrients and water which native grasses, trees and plants need for their survival. Animals in turn depend upon these native plants for food and shelter for their survival in an interesting web of connection. Invasive noxious weeds do not hold rainwater and snow melt as well as native grasses and plants increasing soil erosion into the lake creating other environmental issues directly affecting Little Bitterroot Lake. Soil deposition is a direct cause of phosphorous pollution which in turn leads to a suitable habitat in the lake for invasive aquatic plants such as Eurasian watermilfoil and blue green algae.

Invasive noxious weeds have become such a problem that the State of Montana and Flathead County have mandated laws where it is unlawful to permit noxious weeds to propagate. In summary, Montana Code Annotated 2019, Section 7-22-2116 states “that it is unlawful to permit widespread noxious weeds to propagate or go to seed on landowners’ property”. Landowners are responsible to control noxious weeds on their property and develop a weed control management program to control the spread of noxious weeds”. If landowners do not have the means or knowledge to properly implement or manage their own weed control plan professional assistance may be needed. In addition, Montana State and Flathead County laws mandate that when property is offered for sale the person/people who own the property must notify the buyer of weed infestations or initiate a weed control management plan suitable to the buyer before closing. Unfortunately, many property owners at Little Bitterroot Lake have been negligent in their weed control responsibilities.

Noxious weeds are on every landowner’s property to some degree and are usually easily controlled by pulling in moist soil or spot spraying with a herbicide. Every property owner has their own unique area to selectively manage with a different approach to their control plan depending upon the severity of the weed infestation. Be sure to wear protective gloves when handling herbicides, fertilizers or weeds. Knap weed is a known carcinogen when handled; other weeds may release toxins. Herbicides can be dangerous to work with and are not to be ingested or directly handled. Read the protective labels and if you feel uncomfortable working with these products seek professional help to manage the weeds on your property.

Pulling weeds by hand is the best method of controlling weeds and is environmentally perfect. This method works best when the soil is moist. When pulling try to get the root which during summer draught can be difficult. Knap weed has a very extensive root system and can be difficult to eradicate at any time. Try to not

allow any weed to go to seed. If the weed is seeding pull it, remove it from the area with or without the root being sure not to leave the seed pods behind.

Using herbicides in a weed control management program creates a conundrum. Most herbicides contain chemicals that can be harmful to lakes. In an idealistic world it would be best if they were not used at all. But in severely weed infested areas simply pulling the weeds could become overwhelming. If you decide to use a herbicide consult a weed control professional for advice or seek help at a country/farm store where grasses and trees, herbicides, and fertilizers are sold. When choosing a herbicide pick one having the least environmental effect on Little Bitterroot Lake. The Flathead County Weed Control District recommends 2-4-D amine (C₈H₆Cl₂O₃) - Hi Dep or other 2-4-D products. 2-4-D amine is quickly absorbed by plants and soil which in turn breaks down into benign non-toxic substances not harmful to Little Bitterroot Lake if used properly. Only spot spray, use sparingly as directed with a minimum of 30 feet of distance from the lake shoreline high water mark. It is not recommended to use glyphosate herbicides by the lake because they contain phosphorous, a harmful pollutant to the lake.

For those of you who do not wish to use a herbicide for weed control consider spot spraying the weeds with acetic acid (C₂H₃COO₃), more commonly known as vinegar. Spot spray only the weeds you wish to kill because vinegar is harmful to all plants including weeds/ grasses/trees/shrubs. Spot spraying with vinegar may have to be done several times to kill sprayed weeds and could require more time and effort.

Weed control is also ongoing from season to season and year to year. Any sustained lapse in weed control will result in a proliferation of weeds with a vengeance. There are many kinds of invasive noxious weeds, but the most problematic and environmentally damaging near Little Bitterroot Lake are spotted knapweed, Canadian thistle, houndstongue, and though not considered noxious by the Flathead County Weed Control District, mullein. Mullein is a true eyesore!

The worst situation you could encounter in the propagation and spread of invasive noxious weeds is "disturbed land". Disturbed land is created at or near construction sites and new septic fields where the soil is so disturbed that it will not support a healthy grass and native plant environment. Soil erosion and deposition into lakes is a major cause of phosphorus lake pollution because soils absorb and hold phosphorus. The erosion process puts these pollutants in the lake. Invasive noxious weeds are right at home in disturbed soils and need special attention. Spraying with a herbicide will more than likely be necessary. After the invasive noxious weeds have been adequately eliminated from the affected areas the disturbed area should be evenly tilled and a thin veneer of topsoil should be evenly spread over this area, then seeded or sodded, hopefully preventing soil erosion. The type of seed or sod is a personal choice, but the landowner should consult country/farm/agriculture store professionals who are knowledgeable in the types of grasses and plants that will thrive in the Little Bitterroot Lake ecosystem. Reseeding is best in spring from mid-April to June 15 and fall from early October to early November.

Some people like to fertilize grasses and plants on their property. Although herbicides can present environmental problems to Little Bitterroot Lake when not properly used, fertilizers present a much greater danger to a healthy clean Little Bitterroot Lake. Leached fertilizers from the soil can cause many environmental problems for the lake, especially fertilizers with high amounts of phosphorus because some invasive aquatic plants thrive in it including blue green algae. Feeding phosphorus to blue green algae is like giving candy to small children. The result of this pollution produces algal blooms. In a process called eutrophication phosphorus eating plants also depletes the amount of dissolved oxygen in the lake causing negative shifts to the natural plants and animals within the lake, and in some cases causing them to disappear. If fertilizing is an absolute must, use the fertilizer in small amounts as directed or less. Use a fertilizer very low in phosphorus, preferably one that is 0 % phosphorus free and contains organic insoluble nitrogen that will not dissolve in the lake or rainwater. Do not fertilize during hot weather. Choose an approximate 10-0-5 fertilizer, 10= organic slow release insoluble nitrogen (N), 0= phosphorus (P), 4= potassium (K) or its equivalent is recommended. Seek help from a knowledgeable expert at a country/farm/agricultural store. A good rule of thumb for the best time to fertilize is close to Easter or Labor Day. LESS FERTILIZING IS BETTER! Not using any fertilizer close to the lake is another great option! Lake Geneva in Wisconsin was so polluted from

phosphorus that a law was passed in Lake Geneva that only zero % phosphorus fertilizer is allowed to be used along the shores of that beautiful lake. It helped clean up the lake.

Our actions at Little Bitterroot Lake can prevent what happened at Lake Geneva from happening here. Little Bitterroot Lake and all the lakes in Montana is a finite resource with fragile ecological and environmental balance. Through education and understanding, caring and positive protective action it can last a long, long time!

Summary of Key Points and Additional Information

1. It is the responsibility of landowners to control invasive noxious weeds on their property with the knowledge that this is an ongoing endeavor. Getting professional help is an acceptable method of weed control management.
2. Try to pull weeds before they come to seed. If they are seeding pull them and be sure to remove the weed and its seeds.
3. Mowing or weed whacking does not kill weeds. They will grow back. If weeds are cut, especially when seeding, they should be removed quickly from the area.
4. Always wear gloves when working with herbicides, noxious weeds, and fertilizers.
5. The most prolific damaging invasive noxious weeds surrounding Little Bitterroot Lake are spotted knapweed, Canadian thistle, houndstongue, and mullein.
6. 2-4-D amine is a preferred herbicide to help control the proliferation of weeds near Little Bitterroot Lake. Consult a weed control expert for proper use and mixing instructions. Hand pulling is better when possible. **DO NOT SPRAY BY THE LAKE**
7. Use zero % phosphorus free and organic insoluble nitrogen fertilizer; do not over fertilize.
8. Educate yourself in the proper use of herbicides and fertilizers and use them infrequently.
9. Important information sources and contacts:

Noel Jennings, Flathead County Weed Control District, 309 FFA Drive, Kalispell 59901 Phone: 406.758.5798 or 406.758.5800

Cenex Harvest State (CHS), 700 Rail Park Drive, Kalispell 59901 Phone 406.755.7400

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COMMENTS and IDEAS
