Non-native *Phragmites* Management Recommendations

Multiple years of treatment will be needed to achieve effective control of non-native *Phragmites*. Timely treatment with appropriate management techniques can be expensive, but will be more effective and save money in the long run compared to poorly timed and/or ineffective techniques. The following is an overview of a best practices management plan for non-native *Phragmites* control:

**Summer mow (optional) → Fall herbicide → Winter mow → Evaluate → Follow-up treatment**

**Summer mow (optional)**

- Use a summer mowing pre-treatment before chemical treatment to increase the efficacy of the herbicide treatment by removing dead standing stems and increasing herbicide contact with living tissue.
- Mowing should occur 6 - 8 weeks prior to the herbicide treatment to allow adequate regrowth.
- Mowing pre-treatment may not be needed if the stand does not have significant dead standing mass.
- Stem sections can develop roots and shoots, so all stem fragments should be contained in aquatic sites with standing or flowing water where they could drift away and start new populations.
- Offsite disposal of cut material may not be feasible. Explore disposal options prior to mowing: 1) don’t mow, 2) leave cut material in place, 3) compost in an on-site upland location, or 4) transport to an approved disposal site. For more information on disposal of noxious weeds: [http://www.mda.state.mn.us/plants/pestmanagement/weedcontrol/disposalnoxweed](http://www.mda.state.mn.us/plants/pestmanagement/weedcontrol/disposalnoxweed)

**Fall herbicide**

- Use glyphosate or imazapyr, alone or in combination.
- Use an approved aquatic surfactant, i.e. those that are practically non-toxic or only slightly toxic to aquatic organisms. Vendors from this list sell approved aquatic surfactants: [https://files.dnr.state.mn.us/fish_wildlife/fisheries/apm/companies_selling_approved_aquatic_herbicides.pdf](https://files.dnr.state.mn.us/fish_wildlife/fisheries/apm/companies_selling_approved_aquatic_herbicides.pdf)
- Apply herbicides from September 1 to September 30. Treatment after frost is not likely to be effective.
- Herbicide products formulated for use over water are required for treating *Phragmites* growing in standing water.
- Application of imazapyr (Habitat) over water can only be made by certified aquatic pesticide applicators.
- Treatment of large stands may require specialized herbicide application equipment in order to achieve adequate application.
- Follow all label requirements.
Winter mow

- If the patch has substantial dead standing stems prior to or after herbicide treatment, mow in late fall or winter to knock down dead standing stems to prepare the site for the next season’s herbicide treatment.
- Allow 1 month for the herbicide treatment to take effect before mowing.
- Burning or trampling may be used in lieu of mowing.
- A winter prep mow may be preferable to a summer mow in areas where access may be limited due to wet conditions and on aquatic sites with a risk of dispersal of stem fragments.
- See disposal information under Summer Mow

Follow-up treatment

- Repeat the fall herbicide and winter mow treatment regime for 3 years or until monitoring has demonstrated adequate control.
- Additional treatment beyond 3 years may be necessary to achieve control.

Revegetation

- Active revegetation may be necessary if, after the full cycle of treatments, native vegetation does not re-establish from the seed bank.
- Do not start revegetation efforts until monitoring has demonstrated that non-native Phragmites has been adequately controlled.
- Revegetation will be most effective after thatch from mowing is largely depleted.
- Revegetation should not occur until imazapyr residues have degraded from the soil.
- When additional herbicide treatments will be necessary, a cover crop could be considered for sensitive sites if soils are exposed.

Additional Important Notes

Confirm ID – Non-native Phragmites may be easily confused with native Phragmites. Be sure to confirm the ID of the stand to be controlled so that native populations are not negatively impacted.

Permits - Managing non-native Phragmites below the ordinary high water mark in state waters requires a permit regardless if the management technique is mechanical or chemical. Contact your local DNR specialist or go to https://www.dnr.state.mn.us/apm/index.html for more information.

Prevent further spread - Clean all equipment and personal attire prior to leaving a Phragmites site to prevent transporting seeds or plant fragments that might spread the invasive to new sites.

Other treatment options - For long-term control of non-native Phragmites, mowing alone, burning alone, grazing alone, or covering with black plastic are not effective.
For More Information


http://www.greatlakesphragmites.net/management/techniques/