

# Socio-Economic Impacts of Phragmites

Phragmites (*Phragmites australis subsp. australis*) is an invasive perennial aquatic/subaquatic grass which grows in wetlands and along roads in ditches.

Phragmites was introduced from European countries to North America in the 1800s by ballast water (Stanton, 2018). Since the early 1900s phragmites has spread to provinces except in the Yukon Territories, Labrador and Nunavut.



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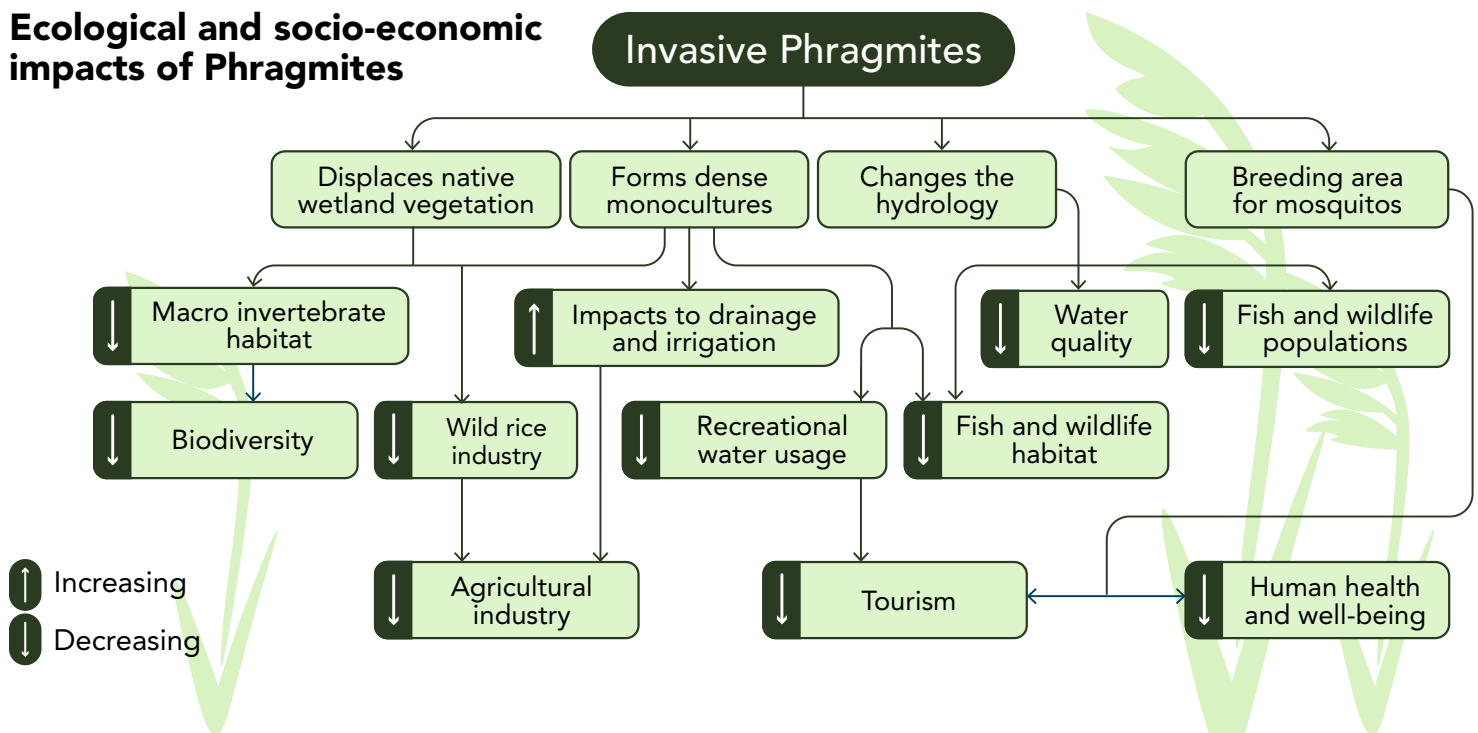
## There are several potential negative socio-economic impacts in the Canadian Prairies from phragmites:

**Irrigation** | Phragmites threatens the \$3.6 billion irrigation industry in the Prairies as it can clog drains which will cause farm fields to dry out or flood impacting the delay or planting of crops (Vyn, 2021). Its fast growth and ability to spread will be difficult to control once it has established in areas of irrigation infrastructure.

**Tourism** | The tourism industry in Prairie provinces is valued at over \$13 billion per year, most of which is resource-based tourism that is reliant on visitors using the natural environment. Phragmites can threaten this industry by the formation of dense monocultures impacting shoreline access preventing boating, fishing, and swimming. It can also impact sightlines on roadways impacting drivers creating a safety hazard.

**Fishing** | Sport and commercial fishing industries in the Prairies are valued at \$597 million per year, with additional personal value to over 670,000 anglers. Phragmites monocultures can outcompete the native species which is used as fish habitat, and change the hydrology. Areas that are infested have shown to have less of a fish diversity and population (Borowski & Huynh, 2022).

## Ecological and socio-economic impacts of Phragmites



### Ecological impacts

Phragmites has serious ecological impacts, and its rapid rate of spread can alter aquatic ecosystems.

- forms dense monocultures outcompeting native wetland vegetation
- disrupts the nutrient cycle
- alters the hydrology of a wetland
- lowers the native diversity of benthic invertebrates
- reduces habitat for native fish and wildlife species
- spreads easily once it has established through an extensive rhizome system

**Stanton, S. (2018).** *Phragmites invasion in the Great Lakes region*. Great Lakes Phragmites Collaborative. <https://www.greatlakesphragmites.net/blog/20181212-phragmites-invasion/>

**Vyn, R. (2021).** Preliminary Cost-Benefit Analysis for Prevention, Treatment and Control of *Phragmites* in Ontario. Green Shovels Collaborative. [https://www.greenshovels.ca/wp-content/uploads/2021/08/Ontario-Phragmites-Cost-Benefit-Analysis\\_DRAFT\\_Public-Review\\_WEB.pdf](https://www.greenshovels.ca/wp-content/uploads/2021/08/Ontario-Phragmites-Cost-Benefit-Analysis_DRAFT_Public-Review_WEB.pdf)

**Borowski, C. & Huynh, P. (2022)** *Invasive Reeds Reduces Biodiversity*. Trout Unlimited Canada. Available at: <https://tucanada.org/2022/03/08/invasive-reeds-reduces-biodiversity/>

### Prevent further spread of Phragmites:

**Clean, Drain, and Dry**  
your watercraft and equipment every time



**Don't Let it Loose**  
Never release aquarium pets, water garden plants, live food, or live bait into any water body or storm sewer



**Report any sightings**  
to provincial reporting platforms such as EDDMapS or provincial hot lines

**Know Before You Go**  
Know the laws in your jurisdiction and those you are travelling to:  
[invasivespeciescentre.ca/know-before-you-go](https://invasivespeciescentre.ca/know-before-you-go)



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