

## BMPs for Invasive Plant Species



### What are Invasive Plant Species?

Invasive plant species are non-native plants introduced outside of their natural habitats. In this new environment, free from their natural 'enemies', they have an advantage that allows them to out-compete native plants and agricultural crops for space, moisture and nutrients.\*

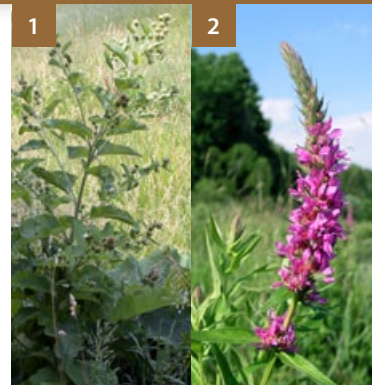
Examples of invasive plant species relevant to riparian areas include:

Common Burdock [1]  
Purple Loosestrife [2]

### What RISKS do invasive plant species pose to riparian areas<sup>1</sup>?

- Diminished water supply and water quality
- Decreased native plant vigour and wildlife habitat
- Compromised ability to trap sediment and stop erosion†
- Reduced herbicide control method options near water's edge
- Elevated livestock and wildlife health concerns (poisonous plants and awns)
- Uncontrolled spread by water, wildlife and domestic animals once in riparian area

<sup>1</sup>Riparian Area: moist green transition zone between uplands and water.



## Beneficial Management Practices (BMPs)

Invasive plant species pose a very real threat to production, economic value, and aesthetics of the land. BMPs are practices that can be implemented to fight against invasive plant species, including prevention of their introduction, control of their spread, or elimination of their presence. The following BMPs can assist in these efforts.

HIGH RISK

### Invasive plant species in riparian areas

- ✓ Develop an inspection and monitoring plan
  - inspect and monitor entire length of watercourse regularly
  - map and mark infestations using GPS
  - document with pictures
- ✓ Contain the infestation and minimize spread to non-affected areas
  - focus initial control methods on perimeters of affected area
  - restrict livestock access to affected area to prevent seed movement
- ✓ Implement integrated control options
  - take action prior to seed set
  - herbicide application / hand pulling / mowing / grazing / biological (insects) / burning
  - consult agrologist as herbicide use may be restricted along water
- ✓ Initiate or participate locally to help with awareness and management
  - report infestations to local watershed group, weed inspector, Rural Municipality or provincial weed specialist
  - ensure visitors, recreational users, and water users make efforts to reduce spread

Become familiar with  
plant identification  
and control strategies.



Inspect riparian areas,  
surrounding uplands,  
downstream areas,  
and wildlife corridors  
regularly.

# Beneficial Management Practices

MEDIUM RISK

## Invasive plant species in close proximity to riparian areas

- ✓ Contact landowner and Rural Municipality to explain concern, determine awareness, and encourage control
- ✓ Keep at-risk riparian areas in a healthy condition by reducing disturbances and minimizing bare ground to prevent colonization of invasive plants
- ✓ Exercise control methods in adjacent areas and develop buffer zones around at-risk riparian areas (obtain landowner permission)
  - hand pull / mow / spot spray • control upland infestations to prevent spread into riparian areas
- ✓ Work with local watershed groups to raise awareness and encourage management plans for riparian infestations

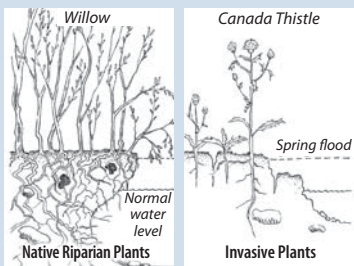
LOW RISK

## Invasive plant species are not present in riparian areas

- ✓ Ensure gravel and fill used in riparian areas and nearby uplands is from clean pits
- ✓ Do not feed or bed livestock in riparian areas
- ✓ Recognize that all riparian areas are at risk and implement preventative measures

Thank you to the many groups and individuals who contributed their expertise to the creation of these beneficial management practices.

+ Invasive plants lack the deep binding roots of native riparian plants. This results in unstable banks and increased erosion.



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### Photo Credits

Riparian Area (header) — K. Connick Todd  
 Common Burdock — M. Harte, Bugwood.org  
 Purple Loosestrife — L. Wilson, U of Idaho, Bugwood.org  
 Lake Waterfowl — S. Schellenberg, Perrin Ranching 1990 Ltd.  
 Cattails; River Monitoring — K. Connick Todd

## Additional Readings and Resources

- Saskatchewan Invasive Species Council [www.saskinvasives.ca](http://www.saskinvasives.ca)
- Saskatchewan Ministry of Agriculture [www.agriculture.gov.sk.ca](http://www.agriculture.gov.sk.ca) (Environment Stewardship / Invasive Alien Plant Program)
- Saskatchewan Watershed Authority [www.swa.ca](http://www.swa.ca) (Invasive Species Fact Sheets)
- Native Plant Society of Saskatchewan [www.npss.sk.ca](http://www.npss.sk.ca)
- Saskatchewan Forage Council [www.saskforage.ca](http://www.saskforage.ca)
- Alberta Invasive Plants Council [www.invasiveplants.ab.ca](http://www.invasiveplants.ab.ca) (\*invasive plant species definition adapted from this source)
- Alberta Riparian Habitat Management Society [www.cowsandfish.org](http://www.cowsandfish.org) (Riparian Plant Diagram provided by Cows and Fish)
- Invasive Species Council of Manitoba [www.invasivespeciesmanitoba.com](http://www.invasivespeciesmanitoba.com)
- Government of Canada [www.invasivespecies.gc.ca](http://www.invasivespecies.gc.ca)
- Canadian Food Inspection Agency [www.inspection.gc.ca](http://www.inspection.gc.ca) (Invasive Alien Plants in Canada)

*Inspect and clean motorized vehicles and watercraft prior to entering or leaving riparian areas.*

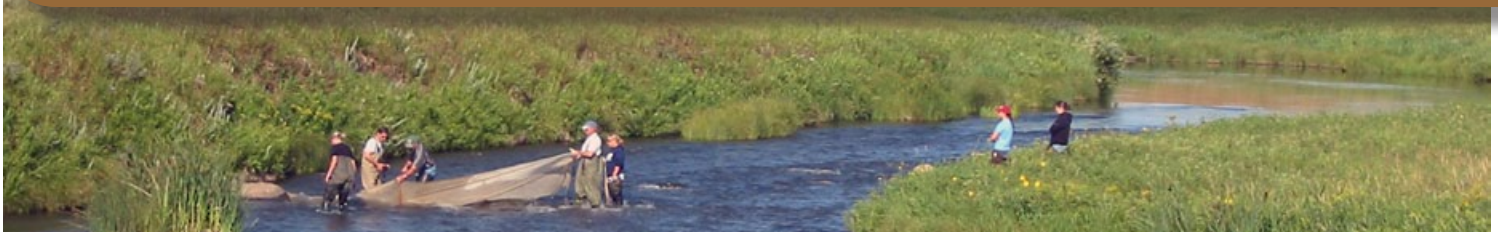
*Minimize livestock and human activities that may be a vector of spread in riparian areas (i.e. haying, overgrazing, trailing, boating, camping, forestry, cultivation, use of all-terrain vehicles).*



*Maintain healthy riparian areas by maximizing plant vigour and growth of preferred native species.*

## The Bottom Line

Invasive plant species threaten riparian ecosystem function and health, as well as water quality and water availability in our waterways. The risk exists and is very real. Prevention is the first, best, and most affordable option.



## Project Partners



Agriculture and Agri-Food Canada / Agriculture et Agroalimentaire Canada



Saskatchewan Forage Seed Development Commission



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