



Ministry of Forests, Land and Natural Resource
Operations

Range Branch

INVASIVE PLANT PROGRAM

STRATEGIC PLAN

2014-2019

“HEALTHY, FUNCTIONING BC ECOSYSTEMS,
FREE OF THE IMPACTS OF INVASIVE PLANTS”

FINAL | January, 2014



INVASIVE PLANT PROGRAM STRATEGIC PLAN, 2014 – 2019

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January 31, 2014

Date

January 31, 2014

Date

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INTRODUCTION

The Ministry of Forests, Lands and Natural Resource Operations manages invasive plants under its Invasive Plant Program. The Program delivers invasive plant management through operational inventories, risk assessments, a range of management activities (e.g., surveys, treatments, and monitoring), and the development of new biological control agents. Collaboration with other land managers and stakeholders is integral to long-term success.

This strategic plan was produced to guide delivery of the Invasive Plant Program for the upcoming five-year period of 2014 to 2019. References to the Ministry of Forests, Lands and Natural Resource Operations are abbreviated as the “ministry” or “FLNR.”



Spotted Knapweed

VISION

The vision for the Invasive Plant Program is “Healthy, functioning BC ecosystems, free of the impacts of invasive plants.”

PURPOSE

The Invasive Plant Program’s purpose is to prevent potential, and control existing, invasive plant species to protect ecological, social, and economic values.

SCOPE

The scope of this strategic plan is all invasive plants under the ministry’s legislated jurisdiction, and additional non-legislated invasive plant species that pose a significant risk to British Columbia.

LEGISLATED MANDATE

The ministry is responsible for administering two Acts, both of which are fundamental to the Invasive Plant Program. First, the *Weed Control Act* applies to all Crown and private lands in British Columbia, excluding those under federal jurisdiction, and requires land owners or occupiers to control listed noxious weeds. Second, the *Forest and Range Practices Act*, which applies only to Crown land, requires that agreement holders carrying out forest or range practices specify measures to prevent the introduction or spread of invasive plants listed in the associated Invasive Plants Regulation.

PROGRAM ORGANIZATION & ALIGNMENT

The Invasive Plant Program has six goals that align with the three goals of the provincial invasive plant strategy (BC Inter-Ministry Invasive Plant Working Group 2009), as outlined in Table 1.

Invasive Plant Program Goals	Provincial Strategy Goals		
	Prevent the establishment of new invasive plant infestations	Reduce the socio-economic and environmental impacts of existing invasive plants	Provide the framework and capacity for ongoing management of invasive plants
1. Administer ministry invasive plant legislation			✓
2. Prevent the establishment of new invasive plants to BC	✓		
3. Contain the spread of high risk invasive plant species with a limited distribution in BC	✓	✓	
4. Reduce the impact of well-established invasive plants		✓	
5. Provide expert information, advice, and tools on invasive plant management	✓	✓	✓
6. Ensure efficient program delivery and effectiveness			✓

TABLE 1: ALIGNMENT OF GOALS BETWEEN THE PROVINCIAL INVASIVE PLANT STRATEGY AND THE INVASIVE PLANT PROGRAM. CHECK MARKS (✓) SHOW OVERLAP BETWEEN THE CORRESPONDING PROVINCIAL STRATEGY GOAL AND INVASIVE PLANT PROGRAM GOAL(S).

Ministry Invasive Plant Program staff support collaborative research with academia, research scientists, and other partners. They also work to increase public awareness about invasive plants and the Invasive Plant Program.

Invasive Plant Program staff manage the web-based provincial Invasive Alien Plant Program (IAPP) Application, which is the central database and mapping system for invasive plant data in British Columbia. The IAPP shares information produced by agencies, non-government organizations, and public contributors. Land managers and

regional committees¹ use its tabular and map outputs for invasive plant management activities.

Invasive Plant Program staff also respond to, verify, delegate or otherwise take care of all invasive plant sightings submitted by members of the general public via the online Report-a-Weed application and the smartphone Report-a-Weed apps, both of which are applications developed and maintained by the program.

The ministry is a key participant on the Inter-Ministry Invasive Species Working Group, which ensures cross-government collaboration, united strategic goals and objectives, and enhanced program efficiencies. The working group therefore provides important guidance to the Invasive Plant Program, and ensures important linkages of the Invasive Plant Program with other ministries.

PRINCIPLES

The principles under which this strategic plan was developed and will be implemented are:

1. Program planning and activities fulfill legislative requirements and follow relevant policy.
2. Best management practices promote stewardship and successful invasive plant prevention and control.
3. The Invasive Plant Program has a science-based management foundation, uses the best available current knowledge, and includes integrated pest management.
4. Adaptive management is key to the Invasive Plant Program, and different levels of monitoring are essential to maximize success (e.g., for treatment efficacy, invasive plant population trends, and ecosystem recovery).
5. The Program's strategic plan is consistent with relevant national and provincial strategies.
6. Program staff receive and provide knowledge about invasive plant management, and serve as a central information repository.

Three national-level documents contribute to the Invasive Plant Program's framework:

1. *An Invasive Alien Species Strategy for Canada* (Government of Canada 2004);
2. *The Invasive Plants Policy of the Canadian Food Inspection Agency* (Draft) (CFIA10); and
3. *The Canadian Invasive Plant Framework* (Canadian Food Inspection Agency 2011).

Provincially, the Invasive Plant Program is aligned with the *Invasive Species Strategy for British Columbia* (Invasive Species Council of BC 2012), and the *Range Program Strategic Plan* (2012) and its relevant priorities.

¹ British Columbia currently has 14 regional committees, which are referred to as weed committees, invasive plant committees, and invasive species committees, depending on local usage and the committee's formal title.

7. Collaboration and partnerships within the ministry—and with other ministries, regional committees, federal committees, the Invasive Species Council of British Columbia, local governments, industry, First Nations, and international collaborators—are necessary for successful implementation of this strategic plan.
8. The five-year action plan stemming from this strategic plan is based on prioritizing a wide range of needs and the availability of resources.

GOALS AND OBJECTIVES

The Invasive Plant Program's six goals are presented below with the corresponding program functions. Program objectives are listed for each goal.

Goal #1: Administer ministry invasive plant legislation.

Legislation and policy are the foundation for delivering effective invasive plant control and management results. Under this goal, program staff undertake four key program functions:

- ◆ Conduct annual reviews of Regulations and periodic review of Acts and policy to determine any revisions required, and develop legislation and policy revision recommendations for consideration by the Inter-Ministry Invasive Species Working Group (IMISWG).
- ◆ Through the IMISWG, participate in cross-ministry review and development of the provincial government framework for invasive species (including plants).
- ◆ Support local governments to understand their responsibilities for efficient and effective governance and application of the *Weed Control Act*, and ministry natural resource officers to understand their role with respect to the *Weed Control Act* and *Forest and Range Practices Act*.
- ◆ Contribute to provincial, national, and international invasive plant legislation committees.

The objectives to support this goal are:

1. Strengthen the ability to enforce legislation.
2. Harmonize the existing provincial invasive plant regulatory framework and address gaps.
3. Develop policy to ensure accountability of funds and resources, and compliance with legislation.
4. Implement ministry invasive plant policy.



Aquatic invasive plant species
proposed for Prohibited Noxious
List: Flowering rush



EDRR Species: Yellow Starthistle

Goal #2: Prevent the establishment of new invasive plants to BC.

The program functions under this goal cover a range of means to prevent invasive plant introduction and establishment, including:

- ◆ Undertake Early Detection and Rapid Response (EDRR) of new invasive plant incidences on all provincial lands.
- ◆ Develop best management practices
- ◆ Provide and support preventative practices with stakeholders and clients.
- ◆ Support federal government actions through the Inter-Ministry Invasive Species Working Group.

The objectives to support this goal are:

1. Support completion of the BC EDRR Plan.
2. Implement the BC EDRR Plan when finalized, and provide provincial leadership on EDRR actions.
3. Provide feedback to the Inter-Ministry Invasive Species Working Group on the BC EDRR Plan.
4. Develop best management practices for forest and range agreement holders to prevent invasive plant establishment.

Goal #3: Contain the spread of high-risk invasive plant species with a limited distribution in BC.

- ◆ The program function under this goal is to prevent the continued spread of priority invasive plant species that currently have a very limited distribution on Crown land. To achieve this, program staff:
 - ◆ Conduct inventories to confirm the extent of infestations,
 - ◆ Set containment lines,
 - ◆ Undertake control activities, and
 - ◆ Provide support, when necessary and feasible, to other jurisdictions for key invasive species that are established in limited amounts but no longer fit the criteria of a provincial EDRR candidate (Goal #2).



*Limited distribution species:
Garlic Mustard*



*Limited distribution species:
Giant hogweed*

The objectives to support this goal are:

1. Determine priority invasive plant species.
2. Inventory priority invasive plant species to confirm distribution.
3. Lead the provincial establishment of containment lines for these species by working with land managers, government agencies, and stakeholders.
4. Maintain and monitor containment lines, and provide support to other jurisdictions.
5. Evaluate effectiveness of the containment lines.

6. Develop a process to determine when a species moves from limited distribution to well-established.

Goal #4: Reduce the impacts of well-established invasive plants.



*Well-established species:
St. John's Wort*

- ◆ This goal covers the range of activities to reduce invasive plant impacts for species that are well-established. The program functions include:
- ◆ Developing new biocontrol agents,
- ◆ Reducing the density of well-established infestations on Crown land, and
- ◆ Restoring Crown land ecosystems whose functions and services have been significantly impacted by invasive plants.

The objectives to support this goal are:

1. Develop a decision-making process to evaluate required future management activities for individual well-established invasive plant species.
2. Maintain an inventory of well-established invasive plant species.
3. Support the establishment of containment lines where appropriate.
4. Provide support to maintain and monitor regional containment lines.
5. Develop new biocontrol agents.
6. Distribute biocontrol agents.
7. Provide support to restore selected ecosystems impacted by invasive plants.
8. Participate with other land managers on regional invasive plant or species committees to establish invasive plant species priorities (profiles) and work plans to achieve common goals.
9. Monitor management activities and specific treatment results.
10. Report on field activities and other Invasive Plant Program results.
11. Evaluate invasive plant, and plant community, responses to control and restoration activities.
12. Build partnerships within the ministry and with other ministries, regional committees, federal agencies, the Invasive Species Council of British Columbia, local governments, industry, First Nations, and international collaborators.



*Well-established species:
Oxeye daisy*

Goal #5: Provide expert information, advice, and tools on invasive plant management.

Program staff receive numerous requests, and find opportunities, to serve as invasive plant specialists throughout their work. They are subsequently regarded as key sources of information, advice, and tools throughout the province. As well, two of the program's key functions under this goal are to:

- ◆ Maintain and enhance the web-based IAPP Application, and
- ◆ Continue development of Report-a-Weed applications, for the purposes of data management and mapping.



The objectives to support this goal are:

1. Ensure the Invasive Plant Program information repository is maintained and disseminated to partners.
2. Use relevant technology to improve program efficiency.
3. Develop and make available effective extension materials and services.
4. Maintain and improve the IAPP database.
5. Develop, maintain, and improve the biocontrol development database.
6. Create a new invasive species electronic application to address land manager and stakeholder needs for invasive species data management.
7. Develop and release a smart phone App for invasive species reporting.
8. Develop, maintain, and improve in-house reference libraries.
9. Conduct training in relevant aspects of invasive plant management.
10. Conduct herbicide rate and timing trials.



Goal #6: Ensure efficient program delivery and effectiveness.

The Invasive Plant Program requires efficient and effective program delivery to ensure achievement of the program purpose and vision, and to protect adjacent non-impacted lands and jurisdictions within British Columbia and beyond. Program functions include the necessary tasks to ensure that program efficiency and effectiveness are maintained and, where possible, improved. The objectives to support this goal are:

1. Maintain and improve the necessary training and professional development for all Program staff.
2. Ensure that all “information management” is current and retrievable, in accordance with provincial policy.
3. Develop annual budgets, and receive and allocate funds for the Invasive Plant Program.
4. Evaluate program effectiveness through performance indicators and monitoring protocols, and review and adjust as required.
5. Develop new tools for invasive plant management.

ACTION PLAN

Stemming from this strategic plan is a separate five-year action plan for the Invasive Plant Program. For each of the objectives under the six Invasive Plant Program goals, the action plan itemizes the necessary tasks, timelines, and responsibilities. The action plan will be regularly reviewed and updated as required.

GLOSSARY

Biological control: A method of controlling invasive plants using other living organisms, such as target-specific insects and plant pathogens, to reduce invasive plant populations to ecologically and economically acceptable levels, and to prevent invasive plant encroachment into new, uninfested areas.

Containment lines / containment polygons: An invasive plant species can become so well established over a large area that it is no longer practical to treat it in that area, and treatment efforts become focused on preventing the plant from expanding into surrounding areas. This involves the establishment of a 'containment line'; outside the containment area the species will be treated aggressively, whereas treatments within the line will be performed as resources allow. The establishment and location of containment lines is determined through stakeholder consensus and are set within geographic areas such as Regional Invasive Plant Committee boundaries or cross-regional areas of the Province. Containment lines are housed in the Invasive Alien Plant Program (IAPP) Application, so that their locations are communicated and clear to all stakeholders and their invasive plant management crews.

EDRR (Early Detection and Rapid Response): Processes to find new infestations in the early stages of invasive plant establishment, while they remain relatively easy to eradicate or control; and implementing those processes to ensure the timely and efficient management of a specific invasive plant incursion (Moncrieff 2006).

Invasive Plant: non-native (alien) plants whose introduction into British Columbia cause, or are likely to cause, economic or environmental damage, or harm to human health (IMISWG 2011).

Monitoring: To measure and/or review, at regular intervals, the efficacy of various management activities on the status of invasive plant populations.

Policy: A definite course or method of action to guide present and future decisions or to specify in detail the ways and means to achieve goals and objectives (Ministry of Forests 2008).

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