

IAP Reference Guide - Part I

Module 1.4: Planning of Invasive Alien Plant Programs

In this module, you will learn:

- How to plan for invasive plants; and,
- How to analyze sites and set priorities.

Planning for Invasive plants

The IAP Provincial Program is organized by agency which allows each agency to create a plan for its site(s).

What is an Agency?

The IAP Program – Data Entry & Map Display is designed to co-ordinate and manage invasive plant data in B.C. This has been accomplished by assigning records (data) to individual agencies. Each agency must assign an individual responsible for:

- Registering its agency for access to the IAP Program – Data Entry & Map Display.
- Maintaining a current list of users from its agency whom have access to the application (i.e. individual's name and user role).
- Each agency must manage and keep current the IDIR's & BCeID's of the individuals working for them.
- Ensuring the integrity of the data its agency enters into the application

Sample Agencies:

- Ministry of Forests and Range
- Cariboo Regional District
- Thompson Nicola Regional District
- Ministry of Transportation and Highways
- North East Invasive Plant Council



Why is an invasive alien plant plan needed?

A plan is needed to clearly define the goals and objectives of the organization (or project) to manage invasive plants. Some aspects requiring definition are:

- Identification of invasive plants of concern.
- Assessment of the potential impact of invasive plants on the habitat.
- Devising strategies for each invasive plant species.
- Performing activities according to Integrated Pest Management principles.

What are the levels of invasive alien plant planning?

The following table describes the objectives of **Strategic Plans** vs. **Tactical Plans**.

Strategic Plans	Tactical Plans
 <ul style="list-style-type: none"> • Profile the invasive plants and state general mid and long-term goals. • Outline the purpose and principles for managing invasive plants. • Form a basis for the development or updating of tactical plans. • Are multi-year plans. 	 <ul style="list-style-type: none"> • Ensure that the work and resources required are understood and allocated appropriately to accomplish the goals. • Outline specific actions. • Specify both short and long-term goals. • Are consistent with strategic plans. • Are revised annually.

What are the steps for developing a plan?

There are six steps to follow when developing an invasive plant control plan. These are as follows:

- 1 Outline goals and purpose.
- 2 Compile existing information.
- 3 Assess information and define objectives.
- 4 Establish priorities based on the MoFR Regional Invasive Plant Categories and Priority Matrix.
- 5 Set activities (e.g. inventory, treatment, monitoring and extension) based on available resources.
- 6 Review and report results.

Assessing Sites & Setting Priorities

Assessing a site and ranking its priority for treatment is an important aspect of invasive plant control. This is a necessary step if funding or manpower is not sufficient to treat all invasive plants on all sites in a single season. MoFR uses the **Regional Invasive Plant Categories** and **Priority Matrix** to assess both invasive plants and sites and rank them across the 761,800 square kilometers of Crown Land (Lands and Sub-Surface Branch, MSRM 1997) for which the Ministry of Forests and Range is responsible. The matrix takes into account the invasive alien plant species' biology, its potential to spread, the geographic location, proximity to other similar infestations, and the susceptibility rating of the site. Each species is evaluated individually within the matrix. The method for ranking sites must follow three steps as described below.

Step 1 – Determine the Invasive Plant Category

Invasive plants have been placed into four separate categories reflecting invasiveness. Use the following links to identify which category the invasive alien plant fits in.

Forest and Range Practices Act:

http://www.qp.gov.bc.ca/statreg/reg/F/ForRangPrac/18_2004.htm

Weed Control Act:

http://www.qp.gov.bc.ca/statreg/stat/W/96487_01.htm

Step 2 – Determine the priority of the site

Invasive alien plant infested sites are also ranked according to priority. Use the following definitions to select the priority of the site:

Priority	Purpose or Intent
1 – Extremely High Risk	To stop the spread of invasive plants threatening currently un-infested, highly susceptible areas. These sites are less than or equal to 0.25 ha and there is a good expectation of control. These sites are isolated geographically from the main body of the infestation.
2 – High Risk	To stop the enlargement of sites in highly susceptible areas. These sites are less than or equal to 0.5 ha. Must have a reasonably good expectation of control.
3 – Moderate Risk	To stop the enlargement of sites that are greater than or equal to 0.5 ha in highly susceptible areas, or less than or equal to 0.5 ha in moderately susceptible areas.
4 – Low Risk	To stop the enlargement/contain sites greater than 0.5 ha in moderately susceptible areas.

Step 3 – Is action needed?

Now that you have determined the category of the invasive alien plant and the priority of the site, use the following matrix to set the level of activities you can accomplish. Work from the top of the table downward for mechanical and herbicide treatments and from the bottom upward for biological control treatment to the limit of available resources.

Category	Site Priority	
1	1	<p style="text-align: center;">Mechanical and Chemical Treatments</p>
1	2	
2	1	
1	3	
2	2	
2	3	
3	1	
3	2	
3	3	
4	All sites	

Treatment Objectives

It is important that the objective of the treatment is clearly understood prior to the actual implementation of the treatment. Although treatment objectives exist on a continuum based on plant invasiveness, geographic distribution and resources, for the sake of management programs, levels of treatment are divided into three levels. These levels are:

- Extirpation;
- Containment; or,
- Rehabilitation.

Extirpation

Extirpation of an invasive plant species equates to one hundred percent of all known sites of the target species, within the defined area, ideally being treated prior to seed set or seed development if seed drop is indicated as the main vector of spread.

In order to ensure extirpation success, the following additional activities must occur:

- Treated sites must be checked in at least a two-pass system.
- The area beyond the last treated plant must be checked for immature plants.
- There must be zero percent missed plants and zero percent surviving plants at the end of the growing season within the treated site.
- Annual monitoring must occur within and around the treatment sites.



Extirpation is the eradication of the invasive plant from a defined area.

Containment

Containment of an invasive alien plant species means that an invasive alien plant species will only be allowed to exist within a defined “containment” area. Therefore, one hundred percent of the invasive alien plant species beyond the containment boundary will be treated. The following activities must occur for effective containment:

- Treated sites must be checked in a two-pass system.
- The area beyond the last treated plant must be checked for the spread of the species.
- There must be zero percent missed plants and zero percent surviving plants at the end of the growing season within the treated site unless otherwise specified.
- Selected sites will be monitored for efficacy of treatment and annual monitoring around the treatment sites will occur.
- Seed pick up and dispersal sites within infested areas need to be identified and sometimes treated.
- Biocontrol agents will be used for containment when available if other means are not acceptable.

The Containment Lines Function can be used to filter data based on Containment Lines in the IAP Program – Data Entry. This is discussed in **Module 2.3 – Understanding Administrative Areas & Containment Lines** (see Part II of the Reference Guide).

Rehabilitation

Rehabilitation of infested areas will be through the use of good resource management practices and the encouragement of healthy biological control agent populations, where available, unless the use of other treatment techniques can be justified with a long-term cost/benefit analysis.

Additional Information

For additional information, refer to the following resources derived for Forest Investment Account Standards (available in Part IV of this guide):

- Control Measure Standards
- Vector Matrix Table