



POWELL RIVER
REGIONAL DISTRICT

Invasive Plant Management Strategy

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1.0 EXECUTIVE SUMMARY

Invasive plant species pose a serious threat to the Region.

Invasive plants:

- Reduce bio-diversity.
- Increase parks and operations maintenance costs
- Pose a threat to the economy
- Pose a risk to human health

The purpose of the Invasive Plant Management Strategy is to provide the Powell River Regional District (PRRD) with an efficient, cost effective, coordinated approach to managing invasive plants on District lands.

There is no “quick fix” for Invasive Species Plant management. The reality is that there are many species already present and many more on the Provincial Watch List.

Public Education

- The goal is to inform and motivate residents to take action.
- Create a training and communications plan for staff.
- Provide invasive plant education to the public through advertising and the use of demonstration sites.
- Engage with local nurseries and landscape contractors to stop the sale and planting of invasive plants.

Stakeholder Coordination

- Establish a Regional Invasive Plant Technical Review Committee with representation from City of Powell River, key landowners, managers, and Tla’amin Nation. This committee will be the mechanism for a collaborative approach to Invasive Plant Management in the region.

Assessment and Inventory

- Create an inventory of invasive plants on PRRD owned and managed lands.

Prioritization

- Determine which invasive plants pose the most immediate threat and develop long term plans for management.

Control Implementation

- Through a variety of methods (as outlined in the PRRD Integrated Pest Management Program Policy) measurably reduce invasive plant density and distribution on PRRD lands with the goal of total eradication.
- Develop an Early Detection Rapid Response Program to identify and manage invasive plants. (including new invasive plants of concern)
- Develop a Monitoring Program to ensure early detection of invasive plants.

Policy

- Develop a Noxious Weed Control Bylaw.
- Formalize Invasive Plant Control Requirements for new developments thru subdivision process and OCP's.
- Develop “desired future conditions” for all natural areas through park development and re-development projects.

Disposal

- Develop a Regional Strategy for proper disposal of invasive plants.

This component will be critical to the success of the Invasive Plant Management Strategy, as the absence of a proper disposal plan will result in the spread of plants thru illegal dumping.

2.0 INTRODUCTION

Invasive non-native plants pose a threat to our environment, health, safety, and economy due to their ability to spread rapidly and overwhelm native species. The forming monocultures damage existing flora and fauna. Invasive plants have no natural predators giving them a great competitive advantage against the desirable species. Due to the negative impacts and rapid spread, invasive plants are gaining global recognition as a serious threat. International, National, and Provincial Regulations have been developed to address this problem. Local governments need to play a key role in invasive plant management.

WHY SHOULD WE GET INVOLVED ?

- The BC Weed Control Act requires that all land owners, both public and private, are legally required to control noxious weeds. This includes lands owned and managed by the PRRD. Allowing invasive plants to remain uncontrolled puts us in contravention of provincial and federal laws.
- The BC Weed Control Act, Integrated Pest Management Act, and Range and Forest Act all provide legislation for invasive plant management.
- Severe infestations can depress property values.
- Invasive Plants impact the natural environment negatively effecting Recreation.
- Invasive Plants directly affect human health and safety. In the case of Giant Hogweed, skin burns causing blisters and long-term scarring is common.
- Invasive Plants have a wide range of detrimental impacts on agriculture, range and forest industries. Economic impact in BC is estimated to exceed \$139 million dollars by 2020.
- Severe damage to infrastructure can occur when invasive plants such as knotweed penetrate concrete, asphalt, and drainage systems.
- The World Conservation Union has declared that invasive plants are the second largest threat to biodiversity on the planet. (second only to habitat loss).

- Some invasive plants (such as Scotch Broom contains high oil content) are extremely flammable and can disrupt natural fire cycles readily carrying a fast-moving fire.
- Invasive Plants are “generalists” meaning that they use a wide variety of species for food and habitat, and can survive in a variety of climates. Uncontrolled, invasive species can spread an average of 14% annually. Eventually control will be financially insurmountable.
- Invasive plants know no boundaries. Uncontrolled species will spread between properties and inevitably jurisdictions.

There are three stages of plant invasion. During the initial stages infestation is at a low level. Eradication of individual plants can be dealt with through removal and monitoring. Second stage is known as colonization- plants begin to spread over short distance. Eradication is more difficult, but control measures are feasible to prevent further spread. The third stage is naturalization, this occurs when the plants disperse over long distances and become abundant. Eradication requires a long term strategy for control.

3.0 STRATEGY

The Strategy has 7 components:

Education and Public Awareness

Develop a communication plan to inform\motivate landowners and residents to:

- To report sightings of invasive plants
- To eradicate invasive plants on private property

This can be done through the use of:

- Newspaper Advertising
- Brochures
- Articles
- Posters
- No Dumping Signage
- Websites (PRRD, Invasive Species Council, and BC Report A Weed)
- Public Events\ Demonstration Sites ie: Public Work Parties

Engage with local Garden Centres and Landscape Contractors to stop the sale and planting of invasive plants.

Engage with local excavating contractors to ensure that equipment working in areas which contain invasive plants are thoroughly cleaned before leaving the site. There is significant documentation regarding the spread of invasive plants through use of roadside brushing and ditching equipment.

Stakeholder Engagement and Coordination

Create a “Regional Invasive Plant Technical Review Committee.” This Committee will be made up of representatives from stakeholder’s, and landowners. ie: Powell River Regional

District, City of Powell River, School District 47, BC Hydro, Forests Lands Natural Resource Operations, Ministry of Transportation Infrastructure, Forest Companies, Brookfield Power, Coastal Invasive Species Committee, Agriculture, Tla'amin Nation, etc. The Group will be responsible for:

- Developing a collaborative approach for invasive plant management in the Region.
- Determining priorities for invasive plant species to be managed.
- Provide a support network by sharing information, and discussing challenges and success's in dealing with invasive plants.

Maintain an ongoing relationship with the Coastal Invasive Species Committee. The Committee has proven to be a valuable resource with extensive contacts.

Assessment and Inventory

Provide necessary staff training in invasive plant identification and recordkeeping.

Develop a formal inventory of invasive plants on PRRD owned and managed lands.

Encourage landowners and residents to report the presence of invasive plants utilizing the BC Report A Weed Website and App.

Encourage key landowners to make use of the inventory provided through the provincial reporting program and to use this information to create invasive plant management strategies.

Prioritization

With input from the Regional Invasive Species Technical Working Group, determine which invasive plants pose the most immediate threat for the region. Priorities will need to be periodically reviewed and may change as time progresses.

Policy

Develop a "Noxious Weed Bylaw." This bylaw would allow the PRRD to enforce the control of the noxious weeds identified in the Bylaw. ie: Japanese Hogweed, and Japanese Knotweed. The intent of a Noxious Weed Bylaw is to work cooperatively with property owners to control the species that have been determined to pose the highest risks. The proposed bylaw would aim to prevent the further establishment of species, such as Hogweed and Knotweed with noxious weed status under the Provincial Weed Control Act. Under the Act, all landowners are legally responsible for the management of noxious weed species. This Bylaw would assist and formalize requirements of the Act within the local government context.

Invasive plant control\eradication and habitat enhancement provisions should become part of the subdivision application\approval process and should be included in Area OCP's.

Control Implementation

Using a variety of methods as outlined in the Integrated Pest Management Plan Policy measurably reduce invasive plant density and distribution on PRRD owned and managed lands, with the goal of total eradication.

Develop an Early Detection, Rapid Response Program. It has been proven that control is far more cost effective and successful if invasive plants are managed in the early stages, and prior to colonization.

Develop a Monitoring Program to ensure that new plants and re-emerging plants are identified and dealt with at an early stage.

Disposal

A critical component of the Invasive Plant Management Strategy will be a Regional Invasive Plant Disposal Program. Indeed, without a proper means of disposal, desired results will be impossible to attain. The program will ensure responsible and complete destruction of invasive plant material to ensure that it does not take root in other locations. The most successful and efficient means of disposal is burning. Open burning does not provide a high enough heat to ensure total eradication of all plant components. Air Curtain Burning Technology does provide the required temperature to destroy the plant components and is compliant with environmental regulations. There are portable units available which will allow disposal onsite for larger infestations. Destroying plants at the site will be very important as transporting materials creates the risk of seed distribution while enroute to disposal site.

Incorporate the Invasive Plant Management Strategy into the PRRD Solid Waste Management Plan.

With ownership of a portable Curtain Burner to further advance the success of the strategy, when the unit is not “on the road in use” it should be located at a central location for public drop off of invasive plants.

In order to prevent illegal dumping of invasive plants and the resulting spread of plants, it would be advantageous that there be no tipping fee charged for drop off of invasive plants.

4.0 PROPOSED 5 YEAR WORK PLAN

Year 1

- Create and begin implementation of Public Education\Communication Plan.
- Establish Regional Invasive Plant Technical Review Committee, create Terms of Reference, and determine frequency of meetings.
- Develop and implement an Early Detection and Rapid Response Program.
- Conduct Staff Training- Invasive Plant Identification and Inventory Documentation.
- Develop Noxious Weed Bylaw.
- Complete Invasive Plant Inventory of PRRD owned and managed lands. This inventory should be repeated every 3-5 years to measure change in plant abundance and distribution.

Throughout the 5 Year Plan

Once an invasive plant and site are determined to be a priority for treatment:

Procedures from the IPMP will be implemented ie:

- Mechanical
- Cultural
- Biocontrol
- Herbicide Treatment

5.0 FINANCIAL IMPLICATIONS

Public Education Program	\$10,000 year 1 and \$5,000 annually after.
Regional Invasive Plant Technical Review Committee	\$1000 annually
Continued partnership with Coastal Invasive Species Committee	Maximum \$5000 annually

Note: Staff time for Control\Eradiation work will come from Individual Facilities Operations Budgets.

6.0 CONCLUSION

If left unchecked, invasive plant species will continue to proliferate in the region, and further degrade the environment, causing economic, environmental, and social impacts. As the public gains an increased awareness about this problem, there will be increased demand for PRRD action to preserve and protect the quality of open space habitat in parks, and throughout the region. Vegetation management programs and projects remain the responsibility of the individual property owners or managers; however the Regional District should establish an effective coordinated invasive plant management program that assists and works with all regional land owners. By implementing the Work Plan in this document the Regional District will be setting an example and taking a leadership role in invasive plant management.