



**Alberta
Invasive Alien Species
Management Framework
DRAFT**

September 2010

Alberta Invasive Alien Species Management Framework

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Alberta Invasive Alien Species Management Framework

1.0 Introduction

1.1 Background

Invasive alien species or *invasive species* are increasingly recognized for their global and local impacts to our economy, social values, and natural environment. They create a host of harmful environmental effects to native ecosystems that include the displacement of native species and the degradation or elimination of habitat. Terrestrial plant invasive species can alter soil

Invasive alien species are defined as species introduced or spread by human action outside their natural past or present distribution, and threaten the environment, the economy, or society, including human health.

(Based on definitions contained in *An Invasive Alien Species Strategy for Canada* [Government of Canada, 2004].

properties, degrade or eliminate wildlife forage, and can adversely affect fire frequency on the landscape.

Invasive species also pose a considerable threat to endangered

species. In the United States, approximately half of the species listed as threatened or endangered under the *Endangered Species Act* are considered to be at risk primarily because of competition with or predation by non-indigenous species (Wilcove et al., 1998). In other regions of the world, as many as 80% of the endangered species are threatened and at risk due to the pressures of nonnative species (Armstrong, 1995).

Currently there are gaps in our knowledge of invasive species and their impacts to Alberta's economy. Invasive species information is too fragmentary to permit an assessment of total costs, but extrapolation from estimates in the United States provides a conservative cost estimate of \$1 billion per year over all areas of the provincial economy (McClay et. al., 2004). Worldwide, invasive species are generally considered to be the second greatest threat to biodiversity after habitat destruction (Wilson, 1992).

Certain invasive species impacts do not create a direct economic impact, but can create a secondary societal impact by creating human inconvenience or discomfort. Certain invasions impact human health, compromise aesthetic or other values, create foul odours, or change the use patterns of areas of the community.

1.2 Requirement for a coordinated approach

In Alberta, invasive species identification and management has primarily been reactive with identification, prevention, or control efforts isolated within agency mandates. Alberta's invasive species legislation (e.g., *Weed Control Act*) focuses on the control of established species and the prevention of further spread, but does not encompass potential invasions from other geographic areas. Resources are often allocated to high-profile invasive species, and do not always reflect the potential risk associated with an invasive species. Lesser-known species, for which the impacts are not well understood, are often overlooked. There are synergies available through coordinated management and effective communication.

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2.0 Invasive Alien Species Risk Management Framework

The Invasive Alien Species Risk Management Framework (the Framework) is a systematic process intended for use by governments, private companies and individuals to efficiently and effectively manage invasive species in Alberta. The Framework (Figure 1) is a risk-based approach to identifying existing and potential invasive species, assigning a management authority, assessing the potential environmental, economic, and social effects, and outlining management options.

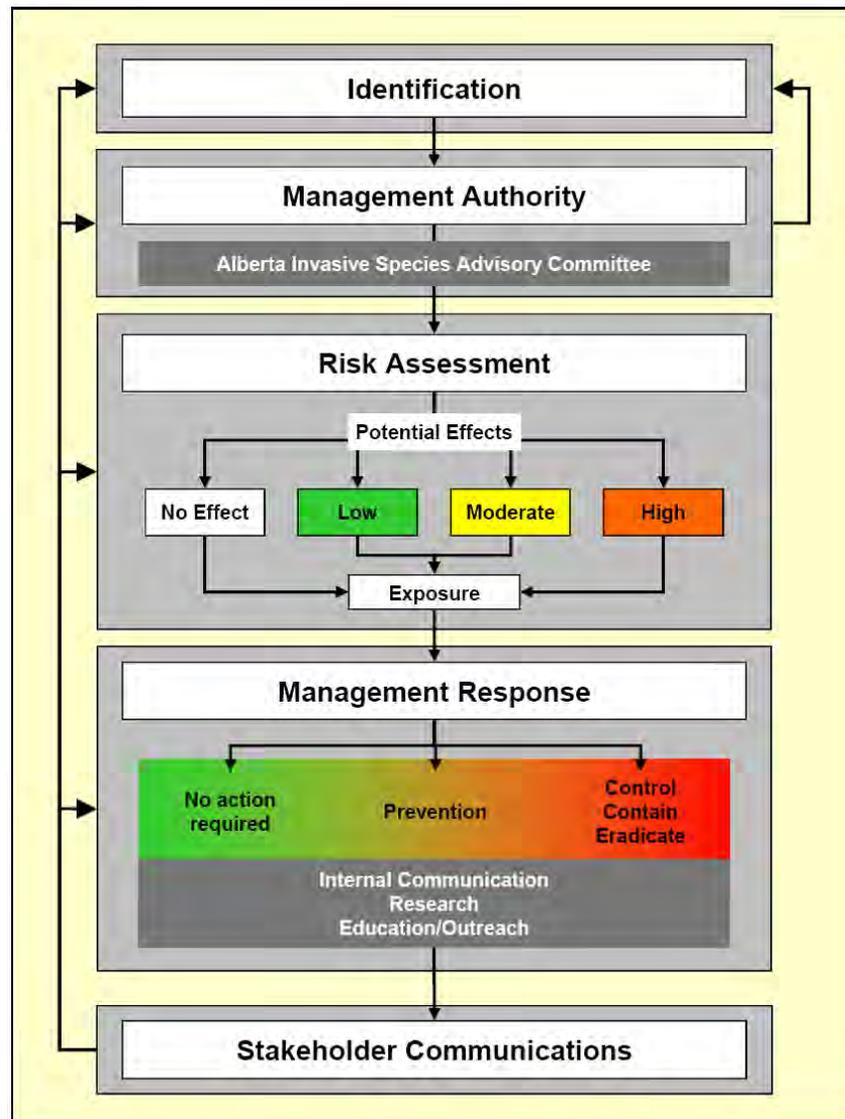


Figure 1 Schematic diagram of the *Alberta Invasive Alien Species Management Framework*, 2010.

Alberta Invasive Alien Species Management Framework

The Framework is designed to increase coordination and communications across Government of Alberta departments, increase transparency and accountability, be cost-effective and provide a consistent, standardized approach to managing the potential risks posed by unintentionally introduced invasive species. The Framework is proposed to achieve several outcomes, including decreasing the risk of invasive species, improving preparedness and awareness, enhancing communication, collaboration, and coordination among agencies, and more effectively allocating resources for invasive species management.

The private and NGO sector can utilize this Framework to assist them with identifying the threat and management of potential invasive alien species.

2.1 Identification

Identification is the first element of the Framework, and it involves scanning the landscape for existing, new and potential invasive species. Existing or established invasive species are those species which have already been identified as occurring within Alberta where data exists on their location, patterns of movement and population. New invasive species are those for which data are not readily available to track their movements and patterns and as such are more unpredictable than those which are considered established. Potential invasive species are those species which have not yet been discovered in Alberta, but which have been identified in similar environments and have the potential to be transported to Alberta. Identifying potential invasive species is important because the prevention of a potential invasion may be the most cost-effective management option.

The management authority (described in the subsequent section) is responsible for identification in their respective management area. This does not exclude others from participating in the identification of existing, new and potential invasive species. Community groups, non-government organizations, private landowners, academics and the general public are all valuable resources when it comes to the discovery and information gathering of invasive species. It is important for such groups to know who to contact with information concerning invasive species. Communication, collaboration, and coordination between different management authorities and between management authorities and other groups will ensure more complete coverage of the landscape and streamline identification processes.

2.2 Management Authority

2.2.1 Provincial Management Authority

The identification of a management authority is an important element for the effective assessment, prioritization, and management of an invasive species or an invasive pathway. In Alberta, the management of the land base and the legislation that enables such management to occur is largely assigned based on the dominant land use. There is inherent utility in identifying terrestrial invasive species management authorities based on the dominant land use (Table 1, Appendix I), as it allows existing processes, mechanisms, and legislation to be used. In cases

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where the management of an invasive species crosses multiple land uses, there is a requirement for management authorities to maximize their communication, collaboration and coordination efforts.

Table 1: Alberta government Ministries and their associated terrestrial management focus.

Ministry	Terrestrial Focus
Agriculture and Rural Development	Agricultural lands
Environment	Industrial lands
Municipal Affairs	Municipal lands
Sustainable Resource Development	Forest and public lands
Transportation	Major Water Management Infrastructure and related canals during construction
Tourism, Parks and Recreation	Parks and protected areas

The management of invasive species in aquatic ecosystems is unique; the mandates and legislation relating to aquatic ecosystems is divided between provincial agencies and also includes federal responsibilities. For example, water is allocated by Alberta Environment under the *Water Act*, fisheries are managed by Sustainable Resource Development under the *Fisheries (Alberta) Act*, and fish habitat is managed by Fisheries and Oceans Canada under the federal *Fisheries Act*. With the multiple mandates and responsibilities, there is a heightened requirement for communication, collaboration, and cooperation between management agencies.

Table 2: Alberta government Ministries and their associated aquatic management focus.

Ministry	Aquatic Focus
Agriculture and Rural Development	Aquaculture
Environment	Aquatic ecosystems (water quantity and quality)
Municipal Affairs	
Sustainable Resource Development	Aquatic ecosystems (aquatic biodiversity)
Transportation	Canals
Tourism, Parks and Recreation	Water bodies within parks and recreational areas

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Once an invasive species management authority is identified, they have the responsibility for the subsequent elements of the Framework, including conducting a risk assessment, developing an appropriate management response, and communicating with other agencies and jurisdictions. Management Authorities also bear responsibility for identifying the invasive species on the land base for which they are responsible.

2.2.2 Other Management Authorities

Responsibility for invasive species management also falls to municipalities. Alberta's three general types of municipalities (urban, rural and specialized) have authority under the *Municipal Government Act* to provide essential, local services and to plan and regulate the use and development of land. This authority extends to the control of weeds and other potential invasive species.

For rural municipalities, the Agricultural Service Boards are established under the *Agricultural Service Board Act* to deal with weeds, pests and soil conservation. Agricultural fieldmen are hired by Agricultural Service Boards to carry out the boards' programs. Agricultural fieldmen are appointed as inspectors or regulatory officers to enforce the *Weed Control Act*, *Soil Conservation Act*, *Agricultural Pests Act* and assist with the *Animal Health Act*. Agricultural fieldmen employ education and awareness tools as part of their day-to-day activities.

In some cases, the responsibility for managing a parcel of land has been delegated from a management authority to another organization, such as a Delegated Administrative Organization (DAO). For example, the Alberta Conservation Association is a Government of Alberta DAO with responsibility for managing lands designated as Buck for Wildlife conservation properties. The nature of a DAO's role and responsibility in the management of specified lands is typically contained within a formal agreement with the Crown.

2.2.3 Alberta Invasive Species Advisory Committee

The effective integration of invasive species management across the various management authorities is required to capitalize on the synergies afforded by collaboration and coordination of efforts. The Alberta Invasive Species Advisory Committee (Appendix II) would serve as a cross-Ministry body to facilitate the exchange of information and expertise, coordinate management of various invasive species, and align provincial and national efforts on terrestrial and aquatic invasive species.

2.2.4 Government of Canada

The federal government substantially contributes to invasive species management in Alberta, both through direct involvement on federal lands or under federal legislation, but also through indirect means such as supporting national coordination. Such coordination efforts are typically undertaken through the work of the National Councils (e.g., Canadian Council of Fisheries and Aquaculture Ministers, Canadian Council of Forest Ministers, etc.) and national standing committees like the National Aquatic Invasive Species Committee. In addition, the federal

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jurisdiction encompasses important aspects of invasive species management such as border control and monitoring as well as the monitoring of imports and exports.

2.2.5 Supporting Organizations and Partners

The management of invasive species also requires the expertise and support of other departments, organizations and agencies without direct linkages to managing land use. For example, Alberta Culture and Community Spirit provide taxonomic expertise and specimen archives through the provincial network of museums. The provision of and access to such expertise is a critical component of invasive species management because the correct identification of a species will more accurately inform its assessed level of risk.

Education and awareness of invasive species and biodiversity is often provided by government and non-governmental organizations. In general, preventing or controlling the introduction and spread of invasive species is most effectively achieved when the public and stakeholders understand the potential ramifications of an invasive species. For example, rural landowners often impose strict limitations and requirements on industrial proponents in an attempt to limit the spread of Clubroot (*Plasmodiophora brassicae*) which is a serious disease of canola.

The Alberta Invasive Plants Council was formed in early 2004 as a partnership between the provincial and federal governments, the Alberta Association of Agricultural Fieldmen, and key industries such as the Industrial Vegetation Management Association of Alberta, and the Landscape Alberta Nursery Trades Association. The Alberta Invasive Plants Council is actively working to:

- foster awareness and understanding of invasive plant issues.
- encourage action to help detect, prevent and manage invasive plants.
- bridge mandates and encourages partnerships and dialogue between organizations and stakeholders.
- serve as a respected repository and source of credible information and resources on invasive plants in Alberta.
- work toward becoming the lead agency to coordinate and enable shared responsibility of invasive plant management in Alberta.

In working to achieve these goals, the Alberta Invasive Plants Council is a key element of invasive plant awareness in Alberta.

2.3 Risk Assessment

The Management Authority uses the Invasive Species Risk Assessment Tool (RAT) (Appendix III) for an official risk assessment. The RAT was developed to provide a systematic and quantitative decision-making system that can be used to assess the threat posed by a given invasive species in a specified region. The threat of the invasive species consists of its forecasted effects along with the potential exposure of the invasive in the region. The RAT will allow for the determination of the type of risk presented by the invasive species from which the

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appropriate management response can be chosen and a mechanism by which relative risks can be ranked.

The RAT allows a predictive, quantitative assessment of the likelihood of adverse impacts from alien species in the assessment region. It is based on commonly accepted principles of risk assessment and the characteristics of invasive species. The format of the tool was chosen following careful consideration of the types of frameworks or tools used in other jurisdictions, and those proposed by academic researchers. The chosen risk assessment framework is modified from an approach which has been validated for a variety of types of organisms, and has been used successfully in several other jurisdictions to rank potential invasive species.

The assessment consists of a series of questions created to determine the exposure and effects of the invasive species. Exposure questions include determination of present status, available vectors and habitat suitability while effect questions are divided into three categories – environmental, economic, and social effects. Environmental effect examines such issues as effects on ecosystems and ecosystem processes. Economic effect looks at impacts of the invasive species on specific industries such as crops, livestock and energy. Social effect includes impacts on human health, cultural value and recreation opportunities. For each of the risk questions used to screen the species, the underlying scientific rationale or justification for its inclusion is provided.

Use of the RAT allows for a consistent approach in assessing invasive species risk and provides the opportunity to determine the areas in which the invasive species will have the greatest impact. With this tool, assessments can be completed relatively rapidly and can easily support a re-examination of a species over time with the addition of new information. While the tool is used to officially assess invasive species risk, it can also be used informally. The tool has been constructed to be simple to use assuming the assessor will have a minimum level of expertise. Although guidance and rationale are provided on interpretation of the questions and subsequent scoring, it is assumed the assessor will have some familiarity with the scientific basis of the questions and of ecology in general, as the assessor will need to identify reference sources used to address various risk evaluation factors.

Once the assessment of the invasive species has been completed using the RAT, the output provided will identify what type of effect the invasive species will have on the given region – no effect, low, moderate or high. The effect along with the exposure potential of the invasive species will inform the selection of the appropriate management response to the invasive species.

2.4 Management Response

2.4.1 Direct Management Action

Management authorities can initiate direct action against an invasive species or pathway, including taking no action, prevention, control, contain or eradicate. The exposure information from the RAT will inform any management actions taken.

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2.4.1.1 No action required

For some invasive species, the Management Authority may elect to take no action at all. This management option may arise if the management of an invasive species is not economically feasible. Or the affected region may prefer the status quo despite the potential problems associated with an invasive species. Finally, action may not be taken to stop an invasive species because of some natural capacity to accommodate, mitigate, or address predicted effects of the invasion.

2.4.1.2 Prevention

Prevention is generally a cost effective method of managing invasive species because it seeks to ensure a species is not able to establish or cause harm to the environment, the economy, or society. Prevention efforts eliminate the threat posed by the invasive species.

The most efficient method of preventing invasive species entering the assessment area unintentionally as "hitchhikers" on goods, vehicles, or people is to identify the pathways by which they are introduced and to develop methods to thwart introductions. This allows efforts to focus on intercepting an invasive species at the point of entry/release or altering the behaviours, attitudes, or awareness that supports the movement and introduction of invasive species.

Key management actions that can be undertaken to achieve prevention for an invasive species include:

- identifying high priority pathways and target specific programs or efforts to address them;
- strengthening enforcement and inspection at entry points and/or collaboration with federal border authorities;
- coordination with broader provincial and national outreach and education efforts;
- strengthening linkages and communications with neighbouring jurisdictions and areas identified as sources of potential invasive species.

2.4.1.3 Control, Contain, Eradicate

For invasive species established in Alberta, management efforts shift to the control, removal or eradication of the invasive species from the affected areas. For certain invasive species, however, adequate eradication methods are not available or populations are too widespread to be feasible. In these cases, control measures may seek to suppress the population, limit dispersal or lessen the effects of the invasive species.

Control and management of invasive species populations are accomplished using an integrated pest management (IPM) approach with four basic steps (Alberta Agriculture and Rural Development):

1. Select control methods for an invasive species based on the identification of the invasive species and the understanding of its biology. IPM involves using a combination of control methods.

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- cultural practices (i.e. crop rotation, re-vegetation, grazing, and water level manipulation);
 - physical restraints (i.e. fences, equipment sanitation, and electric dispersal barriers);
 - removal methods (i.e. hand-removal, mechanical harvesting, cultivation, burning, and mowing);
 - the use of appropriate chemical and/or pesticides;
 - release of selective biological control agents (i.e. host-specific predator/herbivore organisms); and
 - methods to interfere with reproduction (i.e. pheromone-baited traps or release of sterile males).
2. Monitor the invasive species and natural or desired species populations in order to establish thresholds (such as population size, economic, etc.) for implementing control measures.
 3. Implement control measures when thresholds indicate control is needed, and assess their effectiveness.
 4. Keep records of all pertinent data and results.

IPM is applicable in many invasive species situations as it relies on knowledge, experience, observation, and integration of multiple control techniques. It can reduce human and environmental exposure to hazardous chemicals, and may potentially lower overall costs of invasive species control.

IPM also requires a greater understanding and long-term commitment on the part of the management authority, as it requires understanding of current research on various species, monitoring of efforts, and ongoing record keeping. For some invasive species, IPM principles require a more complete, longer-term focus to make economic sense; however, the approach offers benefits in the control of all invasive species.

2.4.2 Indirect Management Action

Management authorities may undertake actions that indirectly control invasive species or enhance direct management actions. These include internal communications, research, and education or outreach.

2.4.2.1 Internal Communication

Invasive species do not respect administrative boundaries applied by the various management authorities, so internal communications among authorities is required to ensure the actions taken by one agency are not negated by those of another. Effective internal communication allows and enables coordination of efforts across geographic areas and collaboration within areas. In the context of a management response for invasive species, internal communications amongst management authorities forms a conduit around which other actions can more effectively occur.

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2.4.2.2 Research

Research is an important component of invasive species management. The knowledge gained will improve the ability to identify potential threats, assess the potential effects, and prioritize the risks of invasive species. It also enhances the effectiveness of prevention and control methods while helping to determine if there are gaps in legislation or program policies needing to be addressed.

Key research actions to be considered by a management authority as part of a plan to address a specific invasive species or pathway include:

- understand the biology of the invasive species or invasive processes and/or factors affecting those processes;
- improve our ability to detect and stop invasive species at their point of entry or release;
- advance our ability to predict and manage new or expanding pathways of invasion;
- enhance our understanding of the potential effects of invasions on ecological, economic, and social systems;
- develop and test enhanced environmentally sound invasive species control and restoration methods;
- improve the ability to assess, monitor, record, and report on invasive species or pathways; and
- support the need for trained personnel, such as taxonomists who can help identify species

The ability to support effective research is continually being challenged by the ever expanding number of invasive species issues and the myriad of potential authorities and supporting agencies. It is important that management authorities communicate and connect across jurisdictions and administrative boundaries to ensure efforts are not duplicated.

2.4.2.3 Education/Outreach

All Albertans have a stake in reducing the effects of invasive species. Many people are unaware their actions can result in the introduction and spread of invasive species therefore, effective education or outreach programs are a critical contributor to any prevention or control programs. Informed Albertans aware of their actions can reduce the likelihood of inadvertently spreading invasive species during their day-to-day activities. Over time, this may prove more effective at controlling invasive species than other management options.

Effective education and outreach programs can be considered by management authorities and other groups involved with invasive species management should:

- target the requirements of specific audiences, such as resource managers, researchers, policy makers, hobbyists, business owners;
- communicate how prevention of an invasive species will affect quality of life, biodiversity conservation, and other human values;
- identify the actions that will avoid and minimize the spread of invasive species;

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- support the desire to learn more about invasive species, their effects, and prevention; and
- enable and motivate people to take action

Effective prevention and control will require many to change their behaviour and the way that decisions are made. Such changes are predicated on a clear understanding of the problem and acceptance of the actions needed to protect our valuable resources.

2.5 Stakeholder Communication

Non-government stakeholders are important in developing and distributing information on invasive species. While positioned within the Framework as a discrete stage, stakeholder communication and coordination activities are intended to support all stages of the framework.

The ultimate goal of stakeholder communications is to transfer critical information between the management authority and the relevant stakeholders and to ensure all key players understand and retain the invasive species messages. Beyond this goal, stakeholder communications will:

- enhance public awareness,
- build an atmosphere of trust and cooperation,
- promote realistic and attainable expectations,
- building credibility for both management authority and stakeholders,
- support the use of best management practices.

Appendix I - Activity Summary by Ministry

Appendix Table I-1 Activity Summary by Ministry

Framework element	Agriculture and Rural Development	Environment	Transportation	Sustainable Resource Development	Tourism, Parks and Recreation
Identification	<ul style="list-style-type: none"> ▪ Alberta Association of Agricultural Fieldmen ▪ Pest Surveillance Network ▪ Agricultural Pests Act 	<ul style="list-style-type: none"> ▪ Reclamation Inspectors ▪ Information Centre booklet “Weed Identification in Alberta” 	<ul style="list-style-type: none"> ▪ Maintenance Contract Inspectors ▪ Consultants on active construction projects 	<ul style="list-style-type: none"> ▪ Rangeland Agrologists ▪ Forest Health Officers ▪ Fish & Wildlife Biologists 	<ul style="list-style-type: none"> ▪ Surveys of protected areas are mainly conducted by Heritage Protection staff or contractors. More regular surveys of fence lines and road right-of-ways are conducted by fieldsmen.
Risk Assessment	▪	▪	▪	▪	▪
Prevention	<ul style="list-style-type: none"> ▪ Weed Control Act ▪ Agricultural Pests Act 	<ul style="list-style-type: none"> ▪ R&R/03-4 Weeds on Industrial Development Sites 	<ul style="list-style-type: none"> ▪ Alberta Transportation’s Environmental Management System Manual ▪ Engineering Consultant Guidelines for Highway and Bridge Projects ▪ Standard Specifications for Highway Maintenance 	<ul style="list-style-type: none"> ▪ SRD disposition inspection protocol ▪ Public Lands Act ▪ Forest and Prairie Protection Act ▪ Forests Act-Timber Management Regulation ▪ Wildlife Act ▪ Native Plant Revegetation Guidelines for Alberta 2001 	▪
Control, Eradicate, Contain	<ul style="list-style-type: none"> ▪ AB Weed Control Act <ul style="list-style-type: none"> ○ Ag fieldmen ○ AB Weed Control Act Regulation Advisory Committee ▪ Weed control prioritization project ▪ Agricultural Pests Act 	<ul style="list-style-type: none"> ▪ R&R/03-5 Problem Introduced Forages on Prairie and Parkland Reclamation Sites ▪ Environmental Protection and Enhancement Act – Pesticide Regulations and Code of Practice ▪ Applicator Training 	<ul style="list-style-type: none"> ▪ Alberta Transportation’s Environmental Management System Manual ▪ Engineering Consultant Guidelines for Highway and Bridge Projects ▪ Standard 	<ul style="list-style-type: none"> ▪ Rangeland Management Branch - Municipal Partnership Weed Contract program ▪ Weed control prioritization project with Alberta Agriculture ▪ Public Lands Act 	<ul style="list-style-type: none"> ▪ Routine herbicide control is mainly conducted by infrastructure and maintenances staff or contracted out. Private campground operators (if running the campground in provincially protected

	<ul style="list-style-type: none"> ▪ Alberta Ag-Info Centre 310-FARM 	and Certification	<p>Specifications for Highway Maintenance</p> <ul style="list-style-type: none"> ▪ Chemical Control of Baby's Breath Research Project 	<ul style="list-style-type: none"> ▪ Forest and Prairie Protection Act ▪ GEN 1988.2 - Weed Control on Public Land ▪ 2001-06 - Weed Management in Forestry Ops ▪ Integrating Timber Harvesting with Domestic Grazing in Green Area ▪ Flowering Rush Control Project 	<p>areas) are responsible for weed control in the facility zones. <u>Becontree</u> and hand pulling is coordinated by Heritage Protection and Heritage Appreciation staff and also involves public volunteers.</p>
Research	<ul style="list-style-type: none"> ▪ Weed control prioritization project ▪ Alberta Agriculture Research Division ▪ Pest surveillance surveys and mapping for crop pests 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ "Alberta Transportation's Weed Wise" training/workshop (currently under development) 	<ul style="list-style-type: none"> ▪ Weed control prioritization project ▪ SRD invasive plant survey form and Geodatabase project 	<ul style="list-style-type: none"> ▪ Monitoring is conducted by Heritage Protection staff (other than that, surveillance by fieldsman along the fences and roadways could be considered a combination of a survey and monitoring).
Education	<ul style="list-style-type: none"> ▪ Yearly regulatory and taxonomic training of Weed Inspectors 	<ul style="list-style-type: none"> ▪ ENV education site has document on "Weed Awareness for Reclamation" ▪ Ongoing training – Pesticide Applicator Re-certification 	<ul style="list-style-type: none"> ▪ 	<ul style="list-style-type: none"> ▪ Development of aquatic invasive species signs, brochure and website 	<ul style="list-style-type: none"> ▪ Education is conducted by Parks' Heritage Appreciation staff.

Appendix II - Alberta Invasive Species Advisory Committee

Invasive Alien Species
Interdepartmental Working Group

January 25, 2007

Purpose

Coordinate, align, and provide recommendations to the Alberta Biodiversity Steering Committee towards the Alberta Government's actions on addressing the threats of Invasive Alien Species.

Mandate

Under the direction of the Alberta Biodiversity Steering Committee (SC), the Interdepartmental Invasive Alien Species Working Group (WG) will undertake to:

- a) Coordinate, align, and where possible consolidate Government of Alberta legislation, policies, programs, communications, and partnerships towards addressing the impacts of invasive alien species.
- b) Develop a risk management framework and assessment tool to minimize the impacts of Alberta's current and threatening invasive alien species.
- c) Provide advice and support towards the Government of Alberta's implementation of the National Invasive Alien Species Strategy and action plans and other related federal legislation, policies, and programs.

Operations

- Regular bi-weekly meetings will be held, although some may be dropped or rescheduled, depending on agenda items and the collective wishes of WG members.
- Alberta Sustainable Resource Development will provide secretariat support for the WG.
- The WG will be co-chaired by Sustainable Resource Development and Agriculture Food and Rural Development. Services will include preparation of meeting agendas, running of meetings and preparation of minutes of meetings.
- The WG may establish task-oriented subgroups with specific responsibilities, such as: background research, preparation of work plans and preparation of draft documents. Subgroups may include individuals that are not members of the WG, but must include at least one full WG member.
- WG members will work in a spirit of cooperation and respect, seeking to ensure effective involvement and input from all participating GoA departments and program areas.
- Regular feedback will be sought from the SC by the WG at key decision points in the specific project development process.
- The WG will ensure an effective design and delivery of consultations with key stakeholders and the general public, including oversight and management of contracts that may be required to support this activity.
- Sustainable Resource Development will handle administration of contracts.

Membership

- The Working Group will consist of senior professionals and middle managers that represent the interests of all participating GoA departments. Normally there will be at least one Working Group member that parallels each Steering Committee member in terms of departmental/program representation.
- Membership categories are as follows:
 - a) Full members: official designates for participating departments and program areas

- b) Alternate members: individuals who provide back-up to full members for the purpose of attending meetings, etc. when full members are not available
- c) Corresponding members: key contacts within other GoA departments who are not actively participating in this initiative but who wish to be kept apprised of progress through minutes of meetings and other key documents.
- WG members and alternates are listed in Appendix A.

Accountability

The Working Group is accountable to the Alberta Biodiversity Steering Committee (see governance chart in Appendix B). WG members have been empowered to represent the interests of their department for the purpose of developing draft documents that will ultimately require review and approval by the Steering Committee.

Decision-making and Conflict Resolution

Decisions will be reached by consensus¹ where possible. Where consensus cannot be reached, the chairperson may table the issue for future discussion. Also, a WG member may request that a decision be deferred for a reasonable period of time to provide an opportunity for consultation within their department. Issues that remain unresolved will be referred to the Steering Committee for direction and decision.

Communications and Confidentiality

Working Group discussions, draft materials, agendas, and minutes of meetings are to be distributed and shared, on a discretionary basis, only within the Government of Alberta. Formal communications with parties outside of the Government of Alberta are subject to review and approval of the Steering Committee.

Timelines

The intent is that the Working Group will remain active until disbanded by the Alberta Biodiversity Steering Committee.

Organization and Resources

The participation of Working Group members will be at the expense of their respective departments. Primarily SRD and other key departments will provide substantive manpower and financial resources, needed by task-oriented subgroups.

¹ Consensus is understood to mean that discussion continues until such time as all participants involved agree that a conclusion or decision is, on balance, fair to their interests, given the needs of others, and that they can live with it.

APPENDIX 'A'

Membership of the Interdepartmental Invasive Alien Species Working Group 2007

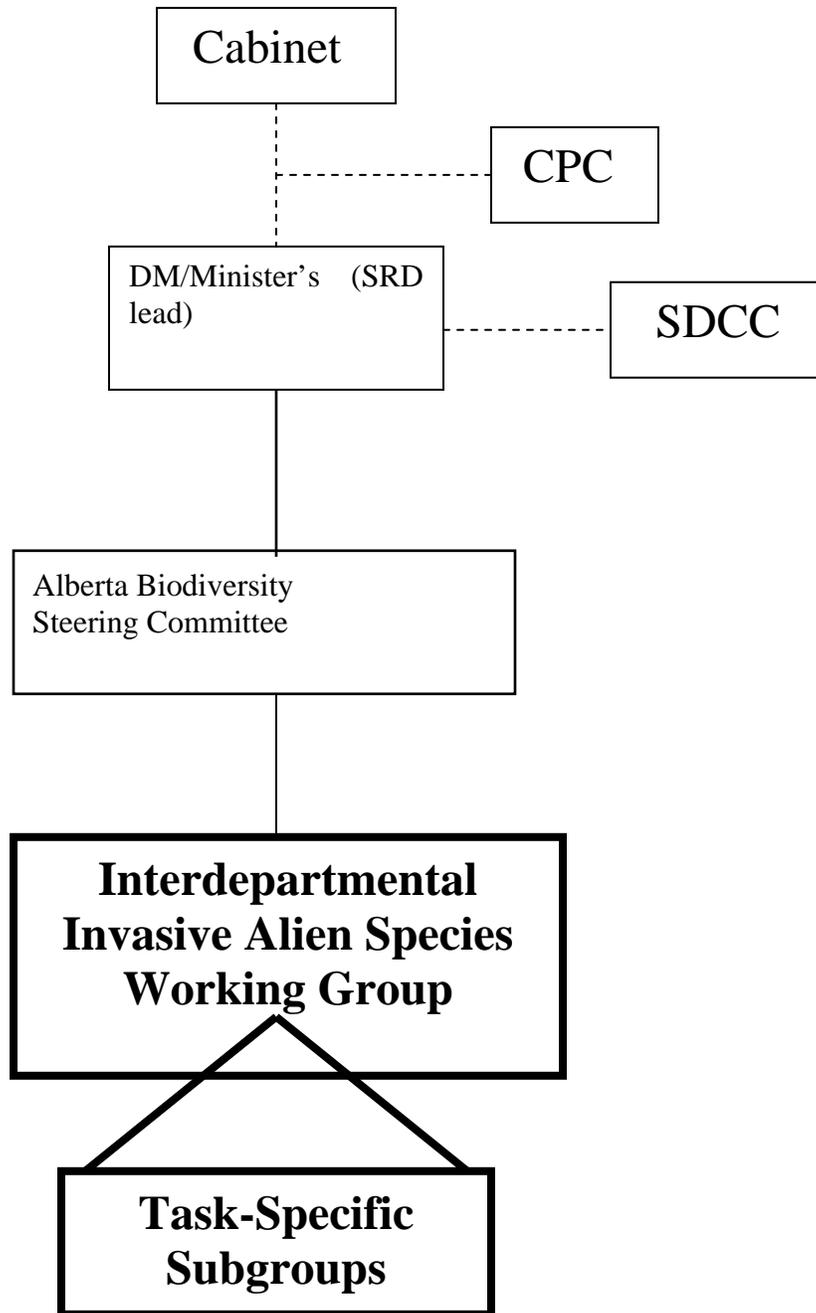
Organization and Representative	Contact Information	Alternate	Contact Information
Agriculture and Food Paul Laflamme, Co-chair	Phone: (780) 422-4911 Fax: (780) 427-1057 Paul.Laflamme@gov.ab.ca		
Agriculture and Food Debbie Oyarzun, Alt. AFRD Co-chair	Phone: (780) 415-9930 Fax: (780) 427-5921 Debbie.Oyarzun@gov.ab.ca		
Environment Gary Byrtus	Phone: (780) 427-9911 Fax: (780) 422-6712 Gary.Byrtus@gov.ab.ca	Darlene Howat	Phone: (780) 427-5445 Fax: (780) 422-4192 Darlene.Howat@gov.ab.ca
Tourism, Parks, Recreation and Culture Ksenija Vujnovic	Phone: (780) 960-8170 Fax: (780) 960-8605 Ksenija.Vujnovic@gov.ab.ca	Lorna Allen	Phone: (780) 427-6621 Fax: (780) 427-5980 Lorna.Allen@gov.ab.ca
Sustainable Resource Development Cam Lane, Co-chair Corporate Business Support	Phone: (780) 427-9451 Fax: (780) 422-5136 cam.lane@gov.ab.ca		
Sustainable Resource Development Scott Millar Fish and Wildlife Division	Phone: 427-7758 Fax: 422-9559 Scott.Millar@gov.ab.ca		
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APPENDIX 'B'

Proposed Governance Structure



Appendix III - Alberta Risk Assessment Tool