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SPECIES MANAGEMENT



Invasive Species Project Guidance

Stakeholder Informed



Introduction

When species are introduced into an ecosystem where they do not naturally occur, the climatic and biological controls which limited them in their native habitat, such as predators, parasites and competing species, may not be present. As a result, some of these species become invasive, causing harm to that ecosystem by aggressively outcompeting or predateding upon other species. Invasive species threaten both habitat quality and biodiversity, so their control is vital to the conservation of native habitats and wildlife. Invasive species can also negatively impact human and animal health, and the economy.

Invasive species projects often require long-term commitment and involve the prevention of invasive species establishment, and the control or eradication of existing invasive species populations. Invasive species projects may be undertaken on their own, but can also be part of other habitat restoration projects where invasive species removal is necessary.

Invasive species projects can provide educational opportunities for learning how to identify, monitor, and properly remove invasive species, and educating the community about their impacts on the ecosystem, human and animal health, and the economy.

Building Your Program

Projects are divided into four categories: **Habitat**, **Species Management**, **Education and Awareness** and **Other Options**. You can build a program with more than one of each category but you must associate your program with at least one habitat. This Invasive Species Project Guidance is in two categories: **Species Management** and **Other Options**:

- If invasive species are managed on a comprehensive, site-wide scale, the program is an invasive species (coordinated approach) project in the **Other Options** category.
- If invasive species are controlled locally in a certain habitat, the project is an invasive species project in the **Species Management** category.

In either case, you must associate your invasive species project with the habitat in which it is taking place. You may also associate it with Education and Awareness projects.



Habitat – Projects that focus on conservation actions to protect, restore and manage different habitats.



Species Management – Projects addressing the conservation needs of targeted wildlife species or groups of species.



Education and Awareness – Projects to improve awareness, understanding and skills relating to conservation and the environment.



Other Options – Specialized projects that add value to your conservation efforts.

Browse the Project Guidance library at wildlifehc.org/pg.

What Do Invasive Species Projects Look Like?

Invasive species projects may take one or more of the following approaches:

- **Prevention:** Reducing the risk of invasive species infesting an area and reducing pathways for invasive species introduction by altering operations. This may include implementing a Hazard Assessment and Critical Control Point (HACCP) methodology, identifying a critical control point, and addressing it.
- **Early Detection-Rapid Response (EDRR):** This is also known as sentinel monitoring. EDRR monitoring should take place in high-value ecological areas or places where infestations are most likely in order to detect new infestations. Immediate removal procedures should occur when a new infestation is detected.
- **Control and Restoration:** On-the-ground removal of established invasive species infestations. This approach can involve partial control to prevent spread or reduce the population size, total control to eradicate, or habitat restoration.

Each of these approaches is valid for a certain set of circumstances. In addition, they are scalable in terms of the resource commitment the company is able to make to the project.

Considerations for Corporate Lands

Projects implemented on corporate-owned lands have different circumstances and challenges to those on public lands, protected lands or wild lands.

Which types of corporate lands are best suited for invasive species projects?

Invasive species projects are suitable for the majority of corporate landscapes. Although invasive species may be more likely to establish on disturbed lands, sites of all sizes and with a range of habitat quality and quantity have the potential to be invaded by invasive species, and therefore have the potential for projects that attempt to prevent, monitor and control invasive species.

Addressing challenges

The corporate context presents certain challenges for implementing invasive species projects. Understanding these concerns and potential ways to overcome them can help your invasive species project succeed in the long term.

Concern	Response
Teams may receive some resistance from grounds crews habituated to broadcast application of chemicals as part of their grounds maintenance.	<i>Teams could work with grounds crews to present Integrated Pest Management (IPM) or Integrated Vegetation Management (IVM) guidelines and, when necessary, spot treatment and best practices in chemical application.</i>
In contrast, some facilities may have regulatory restrictions, which may create limits on the use of chemicals to treat invasive species infestations.	<i>Directives from management or exploration of the use of IPM/IVM or biological controls may be a solution.</i> <i>Other options can also be explored with the help of experts in invasive species control.</i>

Concern	Response
<p>Many corporations are required to control noxious weeds on their lands as part of their operational permit requirements.</p>	<p><i>Corporations can receive WHC recognition for these efforts by exceeding requirements, such as by controlling invasive species not required by regulation, breaking a pathway of introduction, or controlling invasive species that impact threatened or endangered species.</i></p>
<p>Some facilities may be restricted by corporate requirements for office park aesthetics.</p>	<p><i>Directives could be provided by management, or alternatives that satisfy aesthetics while minimizing risk could be explored.</i></p>
<p>Some land managers may not have the expertise to understand the impact of invasive species project implementation on the local plant community, and to clearly read the response of the community to any invasive species eradication or control efforts.</p>	<p><i>Partnerships with NGOs and government agencies could help with evaluating success and implementing adaptive management.</i></p>
<p>Collection of baseline data on existing invasive and native plant communities may not be a priority for a corporate landowner.</p>	<p><i>Our external stakeholders determined that baseline data was a requirement for recognition of an invasive species project. WHC staff can provide assistance in designing an appropriate baseline survey.</i></p>

Getting Started with Invasive Species Projects

For a project to qualify toward Conservation Certification, you must be able to answer “yes” to five questions.

1. Is the project locally appropriate?
2. Does it have a stated conservation or education objective?
3. Does it provide value or benefit to the natural community?
4. Have outcomes been measured and is there supporting documentation?
5. Does it exceed any pertinent regulatory requirements?

Conservation and education objectives

It is a requirement of Conservation Certification that invasive species projects be designed to meet one or more conservation objectives. Objectives can guide the direction of the project, help motivate others to participate and provide a basis for evaluation.

The following are suggested objectives for invasive species projects. Your team may choose one or more

of these objectives, or develop your own relevant objectives.

- Focusing on one or more of the three approaches to invasive species management:
 - Preventing new infestations by breaking or blocking a pathway of introduction for invasive species
 - Engaging in EDRR monitoring
 - Controlling invasive species and restoring native habitats/plant communities through on-the-ground removal of established invasive species infestations
- Managing invasive species that are contributing to declines of one or more rare or protected species, thereby contributing to the conservation and recovery of those rare or protected species
- Managing invasive species that are considered the most detrimental for the state/province/region/nation

- Managing invasive species that may not be top priorities for control, but that the team identifies as appropriate for monitoring and control on-site
- Monitoring for invasive species presence and their impacts and improvements to habitats and biodiversity
- Spreading awareness and knowledge of invasive species, including their impacts, identification and control among employees and community members

The following strategies are recommended to strengthen the conservation impact of your project:

- Demonstrate an understanding of the site by identifying regional priorities for invasive species projects and aligning with those priorities
- Establish a baseline of what organisms are on the site at the project's start, upon which management objectives can be based and future actions can be evaluated
- Have a plan of action for the project that includes baseline data, goals and objectives, thresholds for taking action, and a road map for achieving the project's goals

- Include a diverse, appropriate mix of native species or non-invasive exotic species in revegetation efforts
- Describe or visually document the project's success story for employees and the community
- Prevent or control one or more invasive species that are not required by regulations, such as species that are not on the noxious species list
- Demonstrate a leadership aspect in terms of invasive species prevention and control
- Serve as a demonstration of an effective invasive species project for employees, other corporations and community members
- Employ IVM to manage invasive species
- Contribute to conservation of imperiled species by controlling invasive species that threaten them
- Establish and implement a methodology for site-level HACCP

- Work to improve communication with regional conservation organizations by engaging those groups for technical advice or help with baseline surveys, implementation, etc.
 - Contribute to a meaningful citizen science project involving invasive species
 - Participate in EDRR monitoring
 - Contribute to an existing state/province/ regional invasive species management plan or education effort
 - Incorporate a recognized conservation education curriculum into invasive species education
 - Contribute to educational efforts in order to develop future environmental leaders and scientists
 - Be in place for a minimum of 3 years, with a planned commitment of at least 5 years
- Incorporate invasive species control into an integrated strategic effort to enhance biodiversity on that landscape
 - Work with other companies in your industry to implement risk assessment and reduction of potential pathways of invasive species, and develop BMPs on a multi-site or company-wide scale
 - Educate or certify vendors to break pathways of invasive species spread
 - Work with conservation organizations to develop new solutions for preventing and controlling invasive species
 - Collaborate with neighboring landowners to control invasive species across property lines

Partnerships

Having a relationship with one or more partners with established conservation or education objectives related to invasive species, as well as a strong knowledge base in invasive species, can help a team reach its goals. A team can use such a partnership to help design, create or monitor its invasive species project and provide educational opportunities for employees and community members. Knowledgeable partners can help evaluate the success of the project and the response of local plant and animal communities. They can also identify steps to be taken to prevent additional problems, such as re-establishment of the species controlled or establishment of a new species in place of the controlled species. Partners may also be able to connect the project to local, regional or national funding opportunities.

Resources

Your project may benefit from online or printed resources available for your region to support the design, delivery, maintenance and monitoring of invasive species projects.

A search for “invasive species” in the Conservation Registry returns nearly 400 projects implemented through WHC’s certification program. This is a great place to find inspiration for your project and see what others are doing in and around your location.

The following terms, in any combination, may be useful when searching online for items related to this theme:

invasive species	non-native species
noxious weeds	monoculture
exotic species	indigenous species
introduced species	native species
weeds	restoration
exotic pest plants	hazard assessment and critical control point
invasive exotics prevention	early detection and rapid response
nonindigenous species	

Understanding the Application Process

Documentation

When applying for Conservation Certification, you will provide documentation of the planning, implementation, maintenance and monitoring of your invasive species project. The following is required documentation for invasive species projects; however, you may also submit additional supporting materials.

Photographs or videos that depict the progress of the project implementation and management.

Maintenance plans that demonstrate appropriate activities that meet the needs of the habitat to fully support the target species and support the conservation and education objectives.

Baseline data that provides a biological baseline upon which post-implementation monitoring can be based and used to evaluate the progress of the project and determine next steps. For invasive species management, baseline data should be gathered for one or more of the following, depending on the conservation and education goals of the project and available resources: invasive species, native species, or imperiled species.

Monitoring logs that show the frequency, type, and results of monitoring of the project, whether in an informal manner or a scientifically rigorous manner.

Examples of technical advice utilized in the project, such as consultants, guidebooks, websites, journal articles, etc.

HACCP Methodology: If an HACCP methodology is developed for the site or company, the methodology should be documented, after which a critical control point should be identified and addressed. The HACCP process should address the following questions:

- How did the invasive species get here?
- What are the potential impacts of having the invasive species here?
- What are the pathways by which the invasive species may have arrived?
- Where is the critical control point—the most effective place in the pathway to stop the invasion?

Application questions

As you complete the application online, you will be asked the following questions about your invasive species project. These questions will help us understand and evaluate your project.

The following questions are for the invasive species project in the **Species Management** category. Please refer to page 18 for questions for invasive species projects in the **Other Options** category.

	Question	Why this question is important
Overview	What are the project’s conservation objectives?	<i>This provides us with a description of your project to allow us to assess it. We also want to know what you are trying to achieve.</i>
	Does the project target a specific invasive species or a group of invasive species for prevention or control?	
	Name the species or group and list several species in the group with common or scientific names.	
	Briefly describe the control or prevention methods being used for each species.	
	Is your project implemented site-wide, at one or multiple locations at your facility, or both?	
	Please give the size of the area being actively controlled for invasive species.	
	Please give the size of the area where invasive species are being actively prevented or monitored.	
	Upload photos showing the invasive species project.	
	When did on the ground work for the project begin?	

	Question	Why this question is important
Implementation	Provide a timeline of completed activities to control or prevent invasive species.	<i>Control and post-control activities will determine the success of the project.</i>
	Upload documentation of these activities.	
	Do you have a post-control restoration plan?	
	Please upload your post-control restoration plan.	
Baseline and Monitoring	Was baseline data collected for this project?	<i>Baseline data collection and monitoring are essential to understand the impact of the project and to be able to adapt the project develops.</i>
	Explain the types of baseline data collected.	
	Upload the baseline data.	
	Is there active monitoring of the project?	
	Select each type of monitoring that is being carried out.	
	List each type of monitoring, including the frequency and list any plans or protocols used.	
	Upload the monitoring protocols, if applicable.	
	Upload the monitoring data and any analysis, if applicable.	
	Provide a brief summary of results from monitoring.	

	Question	Why this question is important
Innovative Methods and Leadership	Are innovative methods or practices being developed or used to prevent or control invasive species?	<i>Industry has a critical role to play in preventing and removing invasive species from their lands and to promote the importance of integrated invasive species management.</i>
	Please describe the method.	
	Does your project illustrate leadership on invasive species control and prevention to industry, community or other audiences?	
	Please describe how your project illustrates leadership in invasive species control and prevention and, to what audience.	
	Please upload documentation of your project's leadership role in invasive species control or prevention.	
	Is there a commitment at this site to ensure long-term success?	
	Please describe the commitment.	
Employee Participation	Do employees actively contribute to the invasive species project?	<i>Employee participation can strengthen a project and contribute to its longevity.</i>
	How many employees actively contribute to the project on a regular basis?	
	Describe how employees are involved in this project.	
	How many employee hours were spent on the following activities each year? Planning and Implementation	

	Question	Why this question is important
Other Participants	Do any groups or individuals outside of your company actively contribute to the project on a regular basis?	<i>It is not always possible to recruit outside groups to a project. Conservation and education partners can strengthen a project and provide different audiences to use it for lessons or recreation, thus broadening its reach.</i>
	Select the types of groups.	
	List the names of the groups you work with.	
	Describe their involvement in this project.	
	How many hours were spent by the groups on the following activities each year? Planning and Implementation	
	If you work with an invasive species specialist and have a current letter of support from them, upload it here.	
	List additional sources of technical advice (e.g. website, guidebook, etc.) and describe how they were used.	
Regulatory Requirements	Are any aspects of the project done in relation to regulatory requirements?	<i>Going beyond compliance is a requirement for certification.</i>
	Explain how the project exceeds requirements.	
Connectivity	Does the project connect with other invasive species projects on neighboring land?	<i>Connectivity on-site and across fence lines helps to decrease fragmentation, one of the leading causes of habitat loss.</i>
	Describe how the project connects with the other invasive species projects.	

	Question	Why this question is important
Alignment	Does the project align with any larger scale initiatives? (e.g. corporate strategy, regional conservation plan, migratory pathway, watershed plan, etc.)	<i>Aligning conservation efforts with large-scale conservation plans and other regional conservation initiatives allows a site-based activity to support a landscape-scale objective.</i>
	Is the project part of a corporate level commitment to invasive species?	
	Upload documentation of your corporate commitment to invasive species.	
	Does the project align with an existing conservation plan or other large-scale initiative?	
	List the conservation plans or other large-scale initiatives the project aligns with and provide website links, if available.	
	How does your project align with these large-scale initiatives?	
Existing Certification	Does this project have third party invasive species certification?	<i>Other certifications or recognitions illustrate strong efforts and commitment.</i>
	List the certifications and provide a website link if available.	

The following questions are for the invasive species (coordinated approaches) project in the **Other Options** category. Please refer to pages 13-17 for questions for invasive species projects in the **Species Management** category.

	Question	Why this question is important
Comprehensive Protocol	What comprehensive protocols are being used to address invasive species?	<i>EDRR and HACCP are two accepted protocols for coordinated approaches to invasive species management. Other protocols can be submitted for consideration in this project.</i>
Early Detection/ Rapid Response	Summarize the Early Detection/Rapid Response plan.	
	Upload the EDRR.	
Hazard Assessment – Critical Control Point	Summarize the Hazard Assessment – Critical Control Point plan.	
	Upload the HACCP.	
Other Protocol	Summarize the comprehensive protocol.	
	Upload a copy of the protocol.	
Supply Chain	Do you collaborate with suppliers on prevention/control of invasive species?	<i>Leveraging your position to impact vendors can be a very powerful at depending on your industry.</i>
	Describe the collaboration.	
Regulatory Requirements	Are any aspects of the project done in relation to regulatory requirements?	<i>Going beyond compliance is a requirement for certification.</i>
	Explain how the project exceeds requirements.	

Content development for Conservation Certification

To inform the development of Conservation Certification, WHC analyzed the projects it was recognizing through its certification program to assess whether they were aligned with contemporary conservation and education priorities.

Following this assessment and using information from it, WHC convened Advisory Committees around conservation and education themes to develop the content that would guide practitioners and applicants in the future. This content is the basis for the Project Guidance and the online application process.

The following provided feedback on the initial draft of the Invasive Species Project Guidance:

Patrick Burch, Dow AgroSciences, The DOW Chemical Company
Peggy Brady, National Oceanic and Atmospheric Administration, U.S. Department of Commerce
Stas Burgiel, U.S. National Invasive Species Council, U.S. Department of Agriculture
Mary Byrne, Pollinator Partnership
Phil Cowan, Landcare Research - Manaaki Whenua, a New Zealand Crown Research Institute
Hilda Diaz-Soltero, Animal and Plant Health Inspection Service, U.S. Department of Agriculture
Chris Dionigi, U.S. National Invasive Species Council, U.S. Department of the Interior
Andy Ernst, Ernst Conservation Seeds, Inc.
Clarence Fullard, National Marine Fisheries Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce
Doug Holy, Natural Resources Conservation Service, U.S. Department of Agriculture
Janis McFarland, Syngenta Crop Protection, LLC
Susan Pasko, National Oceanic and Atmospheric Administration, U.S. Department of Commerce
John Peter Thompson, Invasive Species and Sustainability Consultant

More information can be found about this process in the “Our Impact” section of wildlifehc.org under “Commitment to Transparency.”

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The WHC Strategy and Planning team can help you build a successful project by identifying needs, making connections with partners and resources, and providing strategies that meet business and conservation goals. Contact us today.

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Every act of conservation matters.

