



# STRATUS CONSULTING

## **Evaluation of the National Fish and Wildlife Foundation's Pulling Together Initiative Final Report**

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April 2, 2009  
SC11562

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## Executive Summary

The Pulling Together Initiative (PTI) is a significant program, providing critical and effective financial support for weed control programs. PTI projects are successful in developing organizational and technical capacity, educating stakeholders and the public with regard to invasive weed risks, and controlling weeds.

While most PTI projects have controlled some or all of their baseline weed invasions, few have eradicated the invasion entirely. The threat of future weed invasions is always present. Few programs have conducted significant rehabilitation efforts, especially in regard to ecosystems or habitat. This is significant because grantees generally assume that successful weed control will benefit habitats or conservation targets, but they rarely define or measure specific desired outcomes for either habitat-level or species-specific endpoints. Thus, there was no systematic way to measure the benefits of the PTI grants for biodiversity or other conservation endpoints.

PTI has provided critical financial support for and catalyzed the formation and growth of many cooperative weed management associations. These associations have established effective partnerships, conducted cross-jurisdictional weed control interventions, and have largely sustained themselves after PTI funding has ended. This is significant because invasive plant seeds can remain viable in the environment from years to decades and because vectors for invasion function constantly. Long timeframes are required to monitor progress, assess and report results, revise approaches to address unplanned contingencies (e.g., fires or other disturbance events, unanticipated ecosystem variables, institutional barriers), and adjust interventions to achieve desired outcomes. In addition, the early detection and control of new invasive species require ongoing monitoring of areas at risk of invasion. Thus, preventing or minimizing harm from invasive plant species likely will require long-term, coordinated efforts at the local level.

This report presents the results of an independent evaluation of PTI conducted by Stratus Consulting. The overall objective of this evaluation is twofold: (1) to assess the effectiveness of PTI in mitigating the threat of invasive weeds in the United States and its territories, and (2) to provide recommendations for future grant-making that will enhance the effectiveness of this initiative. Stratus Consulting used a combination of archival research, a grantee survey, interviews with stakeholders and leading experts, a technical literature review, and field visits to evaluate three core issues: ecological effectiveness, capacity building, and education and outreach. A synopsis of findings for each of these areas follows below.

- ▶ **Ecological Effectiveness Outcomes.** The vast majority (91%) of grantees engage in weed control as a “primary” activity. Utilizing a variety of approaches, they experience a significant degree of success, for example, 78% of weed infestations are “better

controlled” than baseline conditions. It is a matter of concern, however, that the degree to which weed control activities result in specific ecological endpoints is not clear.

- ▶ **Capacity Building Outcomes.** PTI grants result in strong and diverse partnerships, and catalyze the formation of robust weed management organizations. In nearly all cases for the grantees included in the survey, partnerships and weed control activities continue after the PTI grant has ended.
- ▶ **Educational and Outreach Outcomes.** Many PTI grantees conduct educational and outreach activities. Activities conducted are frequently innovative, creative, and highly professional. Most grantees (75%) utilize volunteers, which helps to extend resources and involve the broader community. As a matter of concern, it is difficult to link PTI outputs with specific changes in landowner or community behavior.

The evaluation also addressed the management and administrative effectiveness of both the projects funded through PTI and the PTI program itself.

The evaluation offers a series of recommendations to improve PTI’s efficiency, effectiveness, and sustainability. Drawing upon our analysis, we developed a list of five specific recommendations for PTI:

1. **Promote Grantee Best Practices.** We identified a distinct set of grantee practices (detailed in Section 5.1) that promote successful, long-term weed control by cooperative organizations. PTI should compel and/or support adoption of these practices by grantees.
2. **Maintain and Increase Deliberate Geographic Clustering of Projects.** Currently, 85% of PTI grantees are located within 100 miles of another PTI grantee. PTI should take advantage of geographic clustering to support projects that contribute to conservation goals, such as supporting the National Fish and Wildlife Foundation (NFWF) keystone initiatives. Enhanced networking among near-by grantees should also be supported.
3. **Divide PTI into Two Tracks: Direct Support and Strategic Support**
  - **Direct support for weed control:** This track of PTI would continue PTI’s successful practice of directly supporting weed control activities by grantees. We further recommend dividing direct grant awards into three main categories to address differing grantee needs: start-up awards, awards to exemplar organizations, and support for fast turnaround emergency weed control grants.
  - **Strategic support for weed management:** This new track of PTI would provide funding to promote social networking among geographically clustered grantees and promote intellectual leadership in the field of cooperative weed management.

4. **Increase External Support for PTI.** PTI is an important and significant program that needs to increase its resources to meet the ongoing challenges of weed management. PTI programmatic support should be increased by broadening the grant review panel and increasing the number of funding partners.
5. **Continue to Emphasize Administrative Efficiencies.** NFWF has committed to improving administrative efficiencies through its new Easygrants process. Continuing to reduce grantee burden and regular culling and elimination of underperforming grants are additional administrative efficiencies that would strengthen PTI.

We hope that the analysis and recommendations offered here will help PTI continue to play a leading role in the important effort to control invasive weeds in the United States.

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# 1. Introduction

This report presents the results of an independent evaluation of the National Fish and Wildlife Foundation's (NFWF's) Pulling Together Initiative (PTI) by Stratus Consulting. PTI was created "to help mitigate the threat of invasive weeds" (NFWF, 2007). The initiative has been managed by NFWF and supported financially by its funding partners, which currently include the Bureau of Land Management (BLM), the U.S. Fish and Wildlife Service (USFWS), the U.S. Department of Agriculture's (USDA's) Animal and Plant Health Inspection Service (APHIS), and the USDA Forest Service (USFS). From 1997 to 2007, PTI awarded 456 grants totaling \$14.5 million.

A key strategy of PTI is supporting the development of cooperative weed management area (CWMA) partnerships to develop local capacity for weed control, management, education, and outreach. CWMA's can be defined as a geographically defined area where a majority of landowners and natural resource managers cooperate through a steering committee under a comprehensive plan that addresses the management or prevention of noxious weeds or invasive plants (CIPM, 2008). Thus, these partnerships bring together stakeholders including federal agencies, state and local government agencies, nonprofit organizations, corporations, and private landowners to work together to develop and implement projects to control invasive weeds.

The overall objective of this evaluation is twofold: (1) to assess the effectiveness of PTI in mitigating the threat of invasive weeds in the United States and its territories, and (2) to provide recommendations for future grant-making that will enhance the effectiveness of the initiative. Specifically, Stratus Consulting focused on evaluating four core issues:

1. The ecological effectiveness of individual projects and the PTI programmatic portfolio as a whole
2. The educational effectiveness of individual projects and the PTI programmatic portfolio as a whole
3. The effectiveness of partnerships, community involvement, and capacity-building in weed control activities
4. The management and administrative effectiveness of both the projects funded through PTI and the PTI program itself.

The remainder of this report is organized as follows. Chapter 1 provides background information on invasive species, their impacts, and the need for cooperative organizations to deal with this threat. Chapter 2 describes the PTI program in more detail and summarizes PTI grant activity since 1997. Chapter 3 presents the technical approach used for this evaluation.

Chapter 4 presents the results of the evaluation.

Chapter 5 synthesizes these results and presents recommendations for future grant-making. This is followed by references cited in the text. Appendix A provides a copy of the data collection framework used to guide archival research, survey development, expert interviews, and field visits; and Appendix B provides summarized results from the survey.

PTI grantee perspective on the evaluation: “I’m glad that NFWF is taking the initiative to go and find out about the projects that got funded. It shows their concern and curiosity about the projects that got funded and whether they are doing what they are supposed to be doing, and if they are not – what were the failures and what were the problems?”

## 1.1 What are Invasive Species?

Invasive species are defined as species that are non-native to an ecosystem and whose introduction causes or is likely to cause harm to economic values, the environment, or human health (Executive Order 13112, Federal Register, 1999). The focus of PTI is exclusively on invasive plant species, most of which were introduced deliberately to the United States for food, fiber, erosion control, or as ornamental garden species (Pimentel et al., 2005). These non-native species become invasive when they proliferate beyond where they were planted, such as in agricultural fields or native ecosystems where they can cause economic or environmental harm.

Plants that become invasive tend to share similar characteristics, including a short juvenile period and early and consistent reproduction that allows them to quickly displace native species (Rejmanek and Richardson, 1996). In natural ecosystems, invasive plants often become dominant after a disturbance kills or damages native vegetation and an opening is created for the invasive species to become established (Buckley et al., 2007). Thus, the vulnerability of a native plant community to invasion depends in part on its vulnerability to other disturbance events, including fire, flood, and drought, as well as human-controlled activities such as construction, grazing, and logging.

## 1.2 Environmental and Economic Impacts of Invasions

Invasive plant species can result in significant environmental harm by changing the structure and diversity of the plant community, altering water availability and soil resources, impacting wildlife habitat suitability, and changing the frequency or severity of natural disturbances such as fire (Pimentel et al., 2005). The impacts of any given plant invasion are highly variable and

depend on local climate and hydrology, the ecology of the plant community experiencing the invasion, and the characteristics of the invading species. Specific anecdotal examples of wildlife impacts from plant invasions include elk reducing their use of knapweed-infested rangeland by 96% compared to rangeland still dominated by native bunchgrasses (Sheley et al., 1998) and significant reductions in the growth rate of fish where the aquatic weed Hydrilla has invaded a lake (Colle and Shireman, 1980).

The overall environmental impacts of invasions are difficult to estimate, however, because of the complexities of ecosystems and invasions. Assessing impacts depends on understanding the geographic range of an invader, its abundance, and the per-capita or per-biomass impact of an invader on a wide range of ecosystem services or functions (Parker et al., 1999). In addition, invasive species can have positive and negative impacts simultaneously. For example, the invasive shrub Tamarisk reduces the biomass and diversity of native riparian vegetation but also provides habitat to an endangered bird species, the southwestern willow flycatcher (Zavaleta et al., 2001). Thus, understanding the likely environmental impact of a specific invasion requires developing a good understanding of local ecological resources and assessing how a particular invasive plant species might affect those resources. Standardized protocols for evaluating the impacts of invasive species provide a framework for these types of assessments and can help prioritize resources for invasive species control (Morse et al., 2004). However, assessing the impact of invasive species may also require difficult value tradeoffs. For example, in the Tamarisk example above, the endangered southwestern willow flycatcher could suffer from attempts at Tamarisk eradication. A difficult decision must be made to prioritize one environmental value (promoting the health of an endangered species) over another (the desire to have plant communities free from invasive weeds). These decisions can be complicated by statutory or regulatory considerations.

Invasive species can cause economic harm as well as environmental harm. Control efforts often are motivated by the risk of direct economic harm, where invasive species threaten the productive use of land or threaten aquatic resources. For example, impacts on grazing efficiency motivate weed control efforts in western rangelands (DiTomaso, 2000), while impacts on reservoirs motivate aquatic weed control (Cole, 2006). Most economic studies of the impacts of invasive plant species have been anecdotal. Pimentel et al. (2005) compiled individual studies of the economic and environmental costs of invasive species, reporting, for example, that recreational losses in two Florida lakes impacted by invasive aquatic plants were estimated in 1997 at \$10 million per year (Center et al., 1997, as cited in Pimentel et al., 2005), and the combined direct and indirect economic impacts of the weed purple loosestrife in riparian areas were \$45 million per year (ATTRA, 1997, as cited in Pimentel et al., 2005). In Idaho, the direct economic costs of infestation of rangelands with the invasive plant yellow starthistle were

estimated at \$8.2 million per year, with indirect costs of \$4.5 million per year<sup>1</sup> (Roxana et al., 2006). Economic models that attempt to create theoretical frameworks to evaluate the economic parameters of invasive species management are still in their early development but may help to assess the costs and benefits of alternative control strategies (Olson, 2006).

### 1.3 Need for Collaboration

Management of invasive species poses unique challenges because invasions cross jurisdictional boundaries. A project to control a specific invasive plant on a parcel of federal land, for example, will not experience long-term success if the invasive species is present on adjoining private land. This is because the untreated areas provide a seed source that continually re-invades the project site. Furthermore, the detection of new invasive species in an area depends on individuals familiar with local plant communities. Thus, invasive species control will prove more successful if the people on the land (e.g., ranchers, farmers, volunteers, land management personnel from multiple agencies) work together to identify new invaders and treat the problem across jurisdictional boundaries.

In the western United States, much of the on-the-ground management of weeds and public education efforts are conducted by local weed management organizations (Hershdorfer et al., 2007). These organizations have been classified into four different types of institutions: county weed programs, local weed districts, CWMA's, and volunteer weed groups (Hershdorfer et al., 2007). Formal cooperative structures are less common in the East, but CWMA's and volunteer weed groups have taken hold in some areas (see Chapter 2 of this report).

Because invasive plant seeds can remain viable in the environment from years to decades and because vectors for invasion function constantly (e.g., deliberate introduction of exotic plants for erosion control or other functional purposes, interstate and international transport of ornamental plants, unregulated production of bird seed, transport of seeds in horse manure, transport by vehicles along roads, transport along trails by hiking shoes or bicycle tires), weed management efforts need to be adaptive and sustainable over time. Long timeframes are required to monitor progress, assess and report results, revise approaches to address unplanned contingencies (e.g., fires or other disturbance events, unanticipated ecosystem variables, institutional barriers), and adjust interventions to achieve desired outcomes. In addition, the early detection and control of new invasive species requires ongoing monitoring of areas at risk of invasion. Thus, preventing or minimizing harm from invasive plant species likely will require long-term coordinated efforts at the local level.

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1. These estimates are given explicitly in 2005 dollars. Other cost estimates do not specify a base year, making comparisons difficult.

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## 2. Overview of the PTI Program

The PTI program began in 1997 with the goals of (1) preventing, managing, or eradicating invasive and noxious plants through a coordinated program of public/private partnerships; and (2) increasing public awareness of the adverse impacts of invasive and noxious plants. PTI has taken on these goals through a specific strategy of helping support the creation and operation of local CWMA partnerships. These partnerships bring together stakeholders, including local landowners, citizen groups, state and local governments, and local offices of federal agencies to develop and implement strategies for managing invasive plants.

The PTI program typically has sought to fund projects that include the following elements:

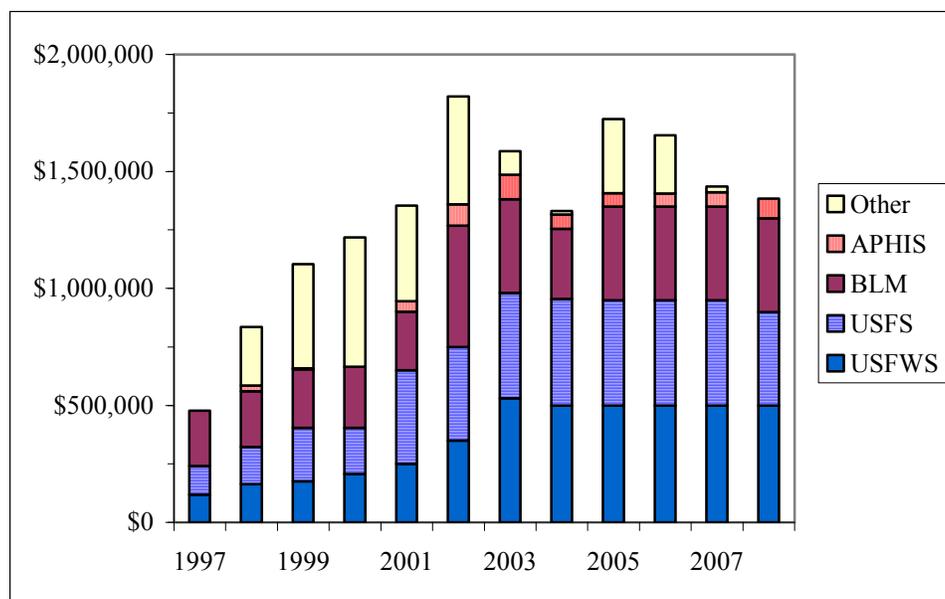
- ▶ Invasive plant control is focused on a clearly defined weed management area
- ▶ The project is governed by a CWMA partnership or other similar steering committee that includes representatives from a broad range of stakeholders
- ▶ The project has a clear long-term invasive plant management plan, based on the principles of integrated pest management
- ▶ The project includes public outreach and education, but does not focus exclusively on these activities.

This chapter provides a brief overview of the PTI program, including a synopsis of funding history, a summary of grants awarded, and a brief description of the administrative process of the program.

### 2.1 Funding History

From 1997 through 2007, 456 grants worth \$14.5 million have been awarded to grantees through the PTI program. The program began in 1997 with \$480,000 in federal funding, grew to \$1.1 million in 1999, and since 1999 has consistently awarded between \$1.1 and \$1.7 million in grants each year. All grants awarded by PTI must be matched at least 1:1 with either cash or in-kind contributions by non-federal project partners, although matches larger than 1:1 are typical. The total matching contributions associated with PTI projects has been estimated in grantee budgets at \$30.6 million, which overall represents an average matching contribution ratio of 2.1:1.

Eighty-one percent of PTI's funding from 1997 to 2007 has been provided by the four federal agencies that have provided steady support throughout PTI's tenure (BLM, USFWS, USFS, and the USDA APHIS). BLM, USFWS, and USFS have each contributed approximately \$3.7 million to PTI from 1997 to 2007, while APHIS has contributed \$500,000. Other federal agencies, including the Bureau of Reclamation (BOR), the Department of Defense (DOD), the National Oceanic and Atmospheric Administration (NOAA), the National Park Service (NPS), the U.S. Geological Survey (USGS), the Natural Resource Conservation Service (NRCS), and the U.S. Environmental Protection Agency (EPA) also have contributed funding periodically to PTI (Figure 2.1).



**Figure 2.1. Summary of PTI grant funding by year and federal funding partner.** See text for abbreviations.

## 2.2 Profile of Grantees

### 2.2.1 Evaluation sample

The profile of grantees presented here, as well as the evaluation results presented in Chapter 4, are based on a subset of PTI grants that were selected by NFWF to serve as the sample to be evaluated. The evaluation sample includes 254 completed grants that were awarded between 1997 and 2007. These grants represent 58% of the total number of PTI grants that were awarded

and contracted<sup>1</sup> by NFWF during this time period, and they account for 52% of the PTI funding during this time period. Our evaluation sample includes almost all projects awarded and contracted from 1997 to 2001 and then a decreasing percentage of awarded projects in more recent years, reflecting the fact that many of these grants have not yet been closed (Table 2.1).

NFWF commissioned the evaluation team to focus the evaluation on completed PTI projects and on the outcomes associated with these completed projects. Thus, our evaluation sample is biased toward projects funded in the first five years of PTI's existence. In addition, we do not know if there is a systematic difference between projects from 2002 to 2007 that promptly reached project completion (and thus were included in the evaluation sample) versus those that are still active or have incomplete paperwork.

**Table 2.1. Comparison of grants in the evaluation sample versus grants that were awarded and contracted for each funding year, 1997–2007<sup>a</sup>**

<b>Funding year</b>	<b>Grants in evaluation</b>	<b>Grants awarded and contracted</b>	<b>Percentage of grants in sample</b>
1997	21	21	100%
1998	34	34	100%
1999	40	40	100%
2000	37	38	97%
2001	35	37	95%
2002	31	39	79%
2003	9	37	24%
2004	16	44	36%
2005	22	63	35%
2006	8	45	18%
2007	1	39	3%
All years	254	437	58%

a. Information on completed and awarded grants was obtained from NFWF's grant tracking database.

1. A total of 463 grants were awarded from 1997 to 2007. However, 26 of these grants were terminated before a contract was completed with the grantee. The numbers of grants noted as "awarded and contracted" excludes these terminated grants.

### 2.2.2 PTI grantee organizational types

PTI grants have been awarded to a variety of grantees (Table 2.2). Local offices of federal agencies, such as USFS ranger districts, were the most common lead grantee for PTI projects. County agencies, non-governmental organizations, and quasi-governmental organizations such as Resource Conservation and Development Councils or Soil and Water Conservation Districts were the next most common grantee type. State agencies and universities were infrequent recipients of PTI grants.

**Table 2.2. Distribution of grants according to organizational affiliation of lead grantee<sup>a</sup>**

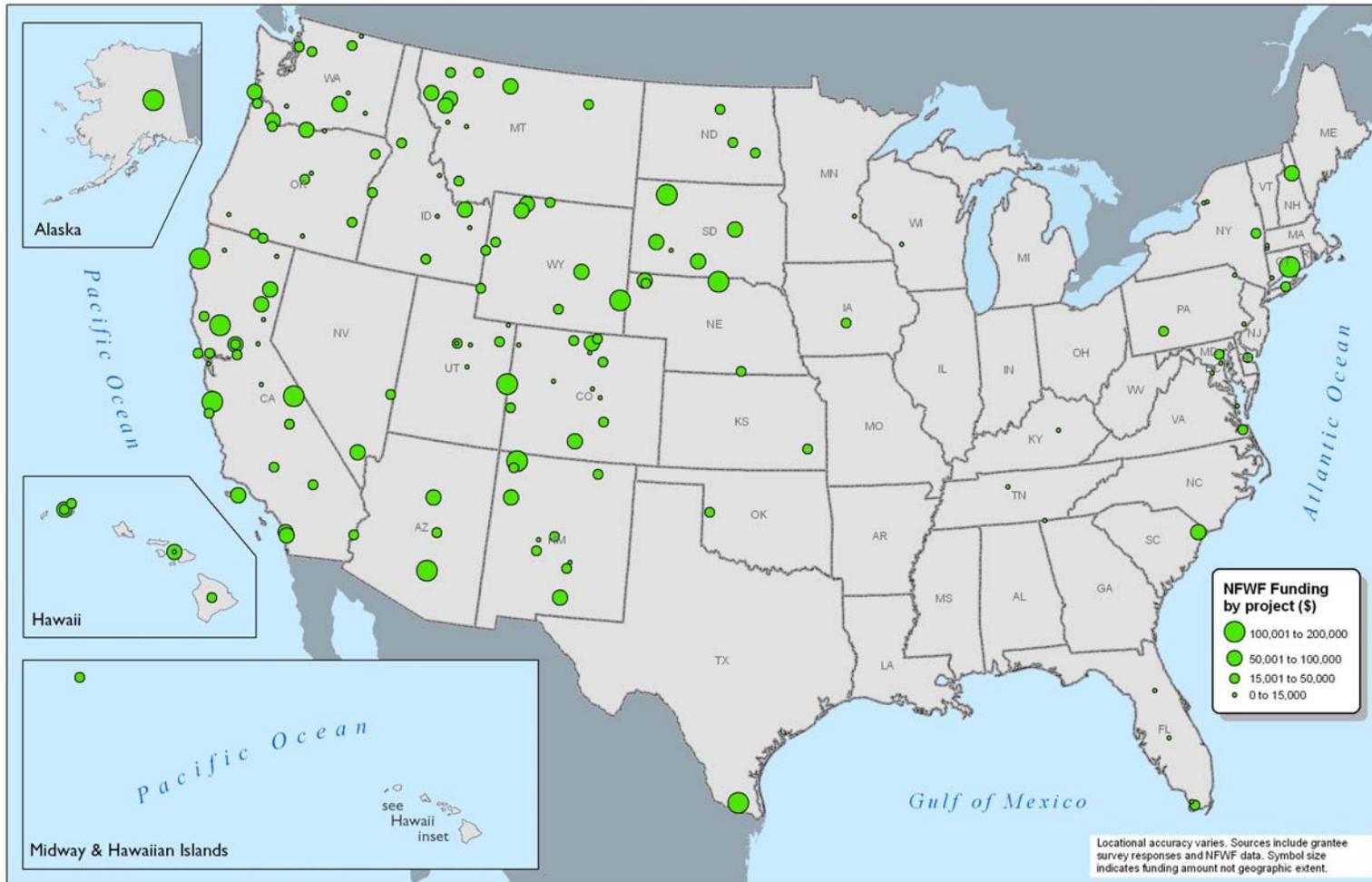
Grantee type	Grants awarded	Percentage of grants
Federal	125	27%
Nonprofit	132	29%
State	25	5%
University	17	4%
Quasi-governmental		
County	164 for these	35%
CWMA	groups together	

a. Information on awarded grants was obtained from NFWF's grant tracking database.

### 2.2.3 Locations of PTI grants

PTI grants have been awarded across a broad geographic area (Figure 2.2; note that this analysis is for completed grants only). The majority of grants have been awarded in the Western United States with another significant group along the Eastern seaboard. PTI has been largely absent from the Midwest and the South. Note that in this map, grantees who received multiple awards are represented with a single dot. The clustering of PTI grants is notable: 25% of grantees are located within 20 miles of a different PTI grantee, while 85% of PTI grantees are located within 100 miles of a different PTI grantee.

Quasi-governmental organizations such as Resource Conservation and Development Councils are local programs governed by a local decision-making council. Councils typically have representatives from county and municipal governments, state agencies, nonprofit organizations, and interested citizens. Councils receive federal funds and technical assistance, typically from the USDA NRCS.



**Figure 2.2. PTI project locations, categorized by size of project.** Information on grantee location obtained either from grantee survey responses or the NFWF grantee database. Information on NFWF funding awarded to each project was obtained from the NFWF grantee database.

## 2.2.4 Grant size

PTI grantees who completed their projects received an average of \$30,000 in federal funding and reported an average of \$66,000 in leveraged matching funds. The minimum level of federal funding received by a grant was approximately \$730, while the largest grant was just over \$200,000. Grant distribution is weighted heavily toward smaller grants, with 17% of the grants receiving \$10,000 or less in federal funding and just 1% of grants receiving over \$100,000 in federal funding (Table 2.3).

**Table 2.3. Distribution of grants according to grant size**

<b>Grant size</b>	<b>% of grantees</b>
≤ \$10,000	17%
\$10,001–\$25,000	35%
\$25,001–\$50,000	37%
\$50,001–\$100,000	10%
> \$100,000	1%

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## 3. Technical Approach

To provide an empirical basis for this evaluation's conclusions and recommendations, Stratus Consulting developed a methodology to obtain qualitative and quantitative information about individual PTI funded projects and the PTI program as a whole. Evaluation activities were divided into a project planning phase (see Section 3.1), a data collection phase (see Section 3.2), and an integration and analysis phase (see Section 3.3).

### 3.1 Project Planning

Planning activities included the development of evaluation questions and a data collection framework, which are described below.

#### 3.1.1 Development of evaluation questions

The first key activity of the evaluation was the formulation of evaluation questions to provide guidance for data collection activities. Questions first were developed by NFWF and agency funding partner staff. These original questions were revised in collaboration with the Stratus Consulting evaluation team.

The first three evaluation questions addressed outcomes of PTI-funded projects:

1. What are the ecological outcomes of PTI-funded projects? This includes both immediate outcomes and longer-term outcomes.
2. What are the capacity-building outcomes of PTI-funded projects?
3. What are the educational outcomes of PTI-funded projects?

The next question focused on project approaches:

4. What are the comparative impacts of projects that focus on:
  - a. Prevention (stopping invasive species before they arrive)?
  - b. Early detection and rapid response (finding new infestations and eliminating them before they become established)?
  - c. Control and management (containing and reducing existing infestations)?
  - d. Rehabilitation and restoration (reclaiming native habitats and ecosystems)?

The next question focused on whether and how well inputs have been transformed into desired outcomes and impacts:

5. What are the lessons learned from grant management? What are the best practices that account for project success? Answers to this question will focus on (1) practices that work well under all or most circumstances, (2) practices that seem inefficient or materially flawed in many or most circumstances, and (3) practices that appear to work well in some circumstances and poorly in others; with inventory and assessment of operational differences.

The final three questions addressed issues at the programmatic level:

6. Do PTI funded projects and portfolios address the objectives of current partners and potential future partners?
7. Are there lessons from the PTI model that extend our understanding of community-based conservation efforts?
8. How can the PTI program's effectiveness, efficiency, and sustainability be enhanced?

### **3.1.2 Data collection framework**

After evaluation questions were formulated, Stratus Consulting developed a formal data collection framework to ensure that data collection plans, interview guides, and survey questionnaires addressed relevant topics in a manner consistent with the guidance set forth in the evaluation questions. The framework was subdivided into three major informational sub-elements: (1) ecological and educational benefits; (2) administrative and operational effectiveness, efficiency, and sustainability; and (3) partnerships and community involvement. The final data collection framework utilized in this evaluation can be found in Appendix A.

## **3.2 Data Collection**

Data collection and elicitation activities included archival research, interviews with leading experts, a survey of grantees, and field visits. Each of these activities is described in further detail below.

### **3.2.1 Archival research**

Stratus Consulting reviewed available grantee project files, including proposals, grant agreements, mid-term and final reports, as well as summary information from the NFWF grants

database. The objective of this archival review was to obtain background knowledge on grantee organizational profiles, stated objectives, typical methods employed to undertake invasive plant control projects, and the scope and detail of project reports. The grants database also served as a source of data on project funding levels, funding source by federal agency, grantee organization types, and project locations.

### **3.2.2 Interviews with leading experts and literature review**

Stratus Consulting conducted telephone interviews with a small group of leading experts who have expertise on invasive weed control, the PTI program, or community-based initiatives and programs. The purpose behind this series of interviews was to obtain informed perspectives regarding key factors that influence the performance of PTI funded projects and the PTI program. Topics covered in the interviews were guided by the evaluation questions and the data collection framework. Specific topics included the following:

1. Factors that tend to enable or constrain the ongoing, long-term effectiveness of weed management efforts at the local level
2. Types of management interventions that are most used and/or most successful
3. The role of scientific assessments in weed management
4. The importance of educational events, volunteers, or other project delivery approaches
5. Differences between weed control activities on private lands versus public lands
6. Types of actions that CWMAs can take to improve the long-term sustainability of weed management activities
7. Opinions on the most effective and least effective aspects of the PTI program
8. Opinions on how frequently PTI money would “make or break” a weed management project.

A focused review of relevant secondary literature within the context of evaluating invasive weed control and education projects was conducted as part of this phase of the evaluation. The objective of the literature review was to develop a synopsis of key concepts directly relevant to locally-based conservation efforts such as CWMAs, the types of metrics that can be used to measure project status and success, and the issues and costs associated with efficient, long-term management of such projects. Results from the literature review influenced the development of the grantee survey.

### 3.2.3 Survey of project officers and Access database development

A key data gathering task was an Internet-mode survey of project officers for each of the PTI grants in our sample. The survey was developed using the data collection framework to collect additional data on the ecological context of the project, project management practices, ecological and educational objectives, project operational characteristics, partnerships and capacity-building, project officer experience with the NFWF-PTI grant process, and self-evaluations of project success. A copy of the survey instrument and the raw responses are provided in Appendix B.

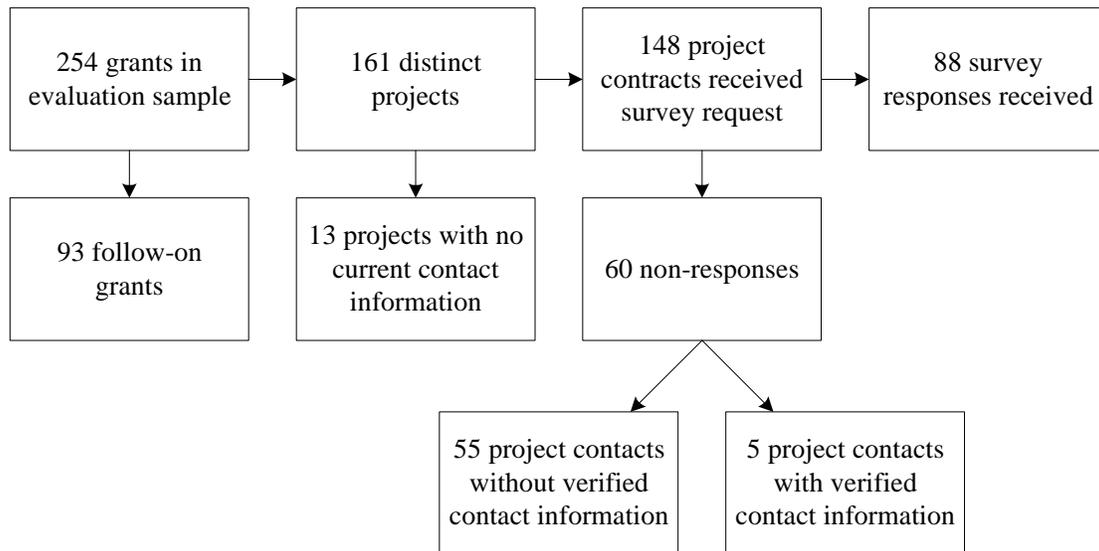
As discussed previously, our analysis was limited to the evaluation sample of 254 completed PTI grants from 1997 to 2007. After accounting for projects that received multiple years of funding, Stratus Consulting identified 161 distinct projects. We then attempted to update and verify e-mail addresses for project contacts. We were unable to obtain any contact information for 13 grantees. Thus, we sent out the survey to 148 project contacts (161 – 13). We received 88 survey responses, for a 59% response rate (Figure 3.1). It is worth noting that out of the 148 grantees who were sent the survey, 55 of these grantees never responded to multiple attempts at e-mail and/or telephone contact, so we cannot verify that the survey request was sent to a valid e-mail address still associated with someone involved with the PTI project.

Because our evaluation sample is biased toward older projects, the survey responses were also biased toward older projects. In the evaluation sample, 78% of the projects were awarded from 1997 to 2002. Similarly, for the projects represented in the survey, 79% were awarded from 1997 to 2002. Thus, responses in the survey predominantly reflect NFWF administrative practices during that time period.

Results from the survey were imported into an Access database that linked the survey results to additional project information obtained during the archival review.

### 3.2.4 Field visits and interviews

Stratus Consulting conducted 22 field visits and extended interviews with PTI grantees. The objective of the field visits was to obtain detailed information about project outcomes and methods that was not available from project archives or the survey of project officers. Projects were selected for field visits based on the desire to include projects that represent a broad cross-section of geography, timing of grant award, longevity of funding, and organizational identity. Projects also were targeted for inclusion if they appeared to have had notable success or notable difficulty in achieving key outcomes.



**Figure 3.1. Flow chart of survey responses.**

The 22 field visits occurred in California, Colorado, Connecticut, Maryland, Nebraska, New York, Oregon, Pennsylvania, South Dakota, Washington, and Wyoming. The project received their most recent grant between 2004 and 2006 in 27% of cases, between 2001 and 2003 in 46% of cases, and between 1997 and 2000 in 27% of cases. Fifty-nine percent received only 1 year of funding, 27% received 2 or 3 years of funding, and 14% received 4 or 5 years of funding. The organizations that applied for the grant included non-governmental organizations (32%), local government agencies (32%), state government agencies (9%), and federal agencies (27%). These projects also represented different primary weed management strategies, different size projects, different agency partners, and different kinds of local partnerships.

### 3.3 Integration and Analysis

Methods for integration and analysis included both quantitative and qualitative approaches. Quantitative summaries were developed for key project parameters and key survey responses based on the data collected in the database. The database was linked to a Geographic Information System (GIS) to create maps of project location and relative funding level (see Chapter 2).

Qualitative approaches focused on an in-depth analysis of the factors that affect program and project performance, including the role of science, the diversity and strength of partnerships, NFWF administrative effectiveness, the disposition of weed control efforts after conclusion of the PTI grant, and the difference made by PTI grants in the weed control community.

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## 4. Evaluation Results

PTI is a significant and effective program, providing critical financial support for weed management programs; catalyzing the formation, enabling growth, and sustaining the operations of many cooperative weed management organizations; and helping to advance the practice of collaborative natural resource management. PTI projects seem largely successful in developing organizational and technical capacity, educating stakeholders and the public with regard to invasive weed risks, and controlling weeds. PTI appears to have improved the practice of weed management through the promotion of adaptive and sustainable weed management and control techniques, formation and ongoing utilization of stakeholder partnerships, and cross-jurisdictional weed control interventions. According to one PTI grant recipient, “It is a huge deal [for NFWF] to fund noxious weed awareness and control programs. There are very few funding sources for this.” Another grantee said, “Without the PTI grant, we would have limped along. It would have been harder and slower.”

*{T}he success of...weed control programs depends on more than persistent, marked reduction in the pest population. Effective regional weed control programs need to focus not only on biological issues, but also on the ecological, scientific, economic, social and legal factors that influence the effectiveness of the program. Therefore, the implementation and subsequent evaluation of a weed control program must include all the principal factors that will ultimately determine success and sustainability.*

Anderson et al., 2003

While most PTI projects seem to have controlled some or all of their baseline weed invasions, few have eradicated the invasion entirely. The threat of future weed invasions is always present. Few programs have conducted significant rehabilitation efforts, especially as regards ecosystems or habitat. Different projects tend to have different combinations of strengths and weaknesses. In other words, it is very difficult to render dichotomous verdicts of grant performance, such as “pass” or “fail.” A fair and illuminating evaluation must therefore attempt to characterize PTI in terms of a range of relevant perspectives.

We have focused our evaluation on three primary issue areas: ecological effectiveness, organizational capacity, and educational and outreach competence. We have also examined management and administrative effectiveness. In this analysis, Stratus Consulting employed a variety of analytical framing devices to arrive at an integrated view of program and project performance, including (1) a series of eight evaluation questions (see Section 3.1.1 for list), (2) a series of simple logic models to help frame how inputs of PTI funding are transformed into outputs and outcomes, and (3) a set of nine grant performance “limiting factors.” The limiting factors are used to help orient program recommendations, including administrative effectiveness and efficiency.

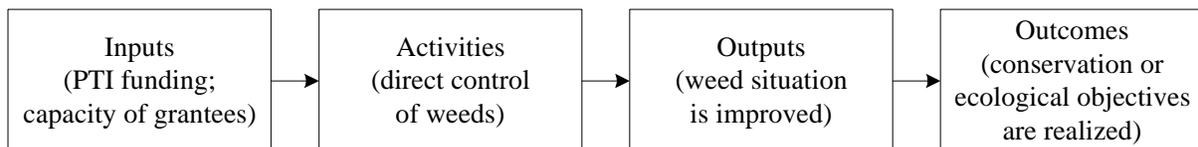
## 4.1 Ecological Effectiveness

This section of the report focuses on the ecological effectiveness of PTI projects. A simplified logical depiction of how PTI funding can lead to the realization of conservation objectives is presented in Figure 4.1. This simple logic model depicts a series of conditional relationships:

- ▶ *If the inputs (i.e., PTI funding) are provided to grantees with capacity to undertake work, then activities (i.e., direct control of weeds) will occur.*
- ▶ *If the activities (i.e., control efforts) are carried out successfully, then outputs are realized (i.e., the weed situation can be improved on the ground).*
- ▶ *If the outputs are realized (i.e., the weed situation is improved on the ground), then desired ecological outcomes can be achieved (i.e., conservation objectives are realized).*

**Snapshot – PTI Ecological Effectiveness Outcomes.** The vast majority (91%) of grantees engage in weed control as a “primary” activity. Utilizing a variety of approaches, they experience a significant degree of success, e.g., 78% of weed infestations are “better controlled” than baseline conditions. It is a matter of concern, however, that the degree to which weed control activities result in specific ecological endpoints is not clear.

As reviewed in the box above, we utilized an ensemble of evaluation tools to assess PTI’s strengths and weaknesses for fulfilling each conditional step in the logic model.



**Figure 4.1. Simple logic model for achieving ecological outcomes through PTI funding for weed control activities.**

### 4.1.1 Converting inputs to activities

Our research suggests that the first step of the logic model holds true for almost all completed PTI projects: PTI funding, in combination with grantee capacity, successfully leads to direct control of weeds on the ground. In the survey, 91% of PTI grantees report direct control of weeds as a primary activity and 6% of PTI grantees report direct control of weeds as a secondary activity (n = 88). We then probed more deeply in the survey and field visits to discover the kinds

of direct weed management activities and control strategies undertaken by grantees. We found that grantees engage in a variety of weed management activities and control strategies, consistent with the adoption of an “integrated pest management” or “integrated vegetation management” approach that targets control efforts based on (1) characteristics of the invasion (e.g., if the weed is a new invader or an established presence), (2) the biology of the weed species, and (3) ambient environmental conditions and values (Drlik et al., 1998).

Our survey found that grantees undertake a diverse regime of weed control activities. As a primary action, 85% of grantees report engaging in weed control and management (containing and reducing existing infestations), 62% engage in survey and inventory development, 59% engage in early detection and rapid response (finding new infestations and eliminating them before they become established), 25% engage in prevention (stopping invasive species before they arrive), and 16% engage in habitat rehabilitation and restoration activities<sup>1</sup> (n = 87). On average, grantees undertake between 2 and 3 different activities. The key finding here is not the specific percentages, because interviews revealed that internal definitions of these activities vary across grantees, but the finding that grantees are fairly sophisticated in their selection of weed management approaches, have a working understanding of factors that impact weed control in a given environmental setting, and appropriately employ multiple approaches to varying conditions.

Field visits corroborated these survey findings, confirming that many grantees select and apply multiple tools at different points in the project cycle. When asked directly during field visits which approach is most effective, most interviewees suggest that multiple approaches are necessary to ensure success. There was significant emphasis that prevention is the most cost-effective option, especially utilizing education, but prevention alone was generally considered inadequate to address invasive weed problems. For example, according to one grantee, “Comparing different weed management strategies doesn’t make sense because they are all strategies that you have to use to have a successful effort against weeds. Certainly we’d all love doing prevention, but the reality is that we already have significant infestations.” Another grant recipient stated, “You have to engage in all weed management strategies, because usually by the time you see the problem it is already a big problem – [you didn’t necessarily] know you could address it when it was in small infestations.”

When actually conducting on-the-ground weed control work, grantees use a diverse set of control strategies. The most common weed control method is spot chemical applications (75%),

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1. We included rehabilitation and restoration in the category of weed control activities because of its potential value in preventing the regrowth of invasive species after control efforts. We consistently found, however, that rehabilitation and restoration received the least emphasis from grantees. This was because some habitats tend to rehabilitate naturally – without the need for reseeding or replanting – and also because of logistical and financial challenges involved with restoration.

followed by broadcast spraying (44%), mechanical control (40%), bioagent applications (23%), and livestock grazing (12%) (n = 84).<sup>2</sup> Only 2% of grantees report broadcast spraying as their sole control method and only 7% report spot chemical applications as their sole control method. On average, grantees engage in two different weed control strategies. While this evidence suggests that surveyed grantees use a diverse set of control strategies, a perception persists that non-chemical control methods are underutilized. According to one grant recipient, “Most folks are just kinda stuck on herbicide [use] because they can see immediate results.” Nevertheless, almost all interviewed grantees felt that chemical control remains an extremely important tool for weed management. The exceptions were some grantees in the eastern United States who were conducting weed control in sensitive environments and felt that mechanical control was less harmful to the environment than chemical control.

#### 4.1.2 Converting activities to outputs

The diverse menu of weed control activities described above appears to lead to the successful achievement of weed control outputs for most grantees. In general, target weed “situations” appear improved in comparison to pre-project baselines, with 22% of grantees reporting in the survey that infestations were “eliminated,” 78% “better controlled,” and 7% “increasing more slowly than anticipated” (n = 88).<sup>3</sup> Self-reporting of weed control success by grantees was corroborated through site visits and photographs provided by grantees that document weed reductions after treatment (Figures 4.2 and 4.3). In site visit interviews, many grantees expressed both a sense of accomplishment and a sense of urgency about future work. For example, one grantee said, “Sometimes I’m able to step back and look. I feel like we’re in the midst of seeing our flora change before our very eyes.”

Maintenance of weed control projects is critical for creating sustained ecological outcomes, because regrowth of weeds threatens benefits already achieved. Since their PTI-funded project was completed, 80% of surveyed grantees report ongoing formal or informal monitoring of the site. Ongoing monitoring suggests, but does not guarantee, that maintenance efforts may also be occurring. Site visits also documented that many of the grantees successfully engage in ongoing weed control efforts. On the other hand, a small minority of grantees (8%) report that either their weed control efforts did not extend beyond PTI grant funding or they were unaware if these efforts had continued. One grantee claimed that “The group fizzled out when the coordinator left.” In another circumstance, the organization controlling the grant did not have an abiding interest in weed management and let their weed control activities lapse after completing their

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2. Many of the survey questions allowed multiple answers, so the total of all answers is greater than 100%.

3. Again, the total equals more than 100% because survey respondents were allowed to provide multiple answers to accommodate differential success in treating multiple weed species in a single project.



**Figure 4.2. Japanese knotweed before treatment, summer 2007.**

Photo credit: Stilly-Snohomish Fisheries Enhancement Task Force (used with permission).



**Figure 4.3. Japanese knotweed after treatment, summer 2008.**

Photo credit: Stilly-Snohomish Fisheries Enhancement Task Force (used with permission).

final grant period. In yet another example, the particular project required landowner participation that ceased once financial incentives derived from the grant ended. Grantees who were funded but not included in our evaluation sample (see Chapter 2), as well as grantees who could not be located or who did not respond to the survey, may also be more likely to represent examples of projects where activity did not continue beyond the PTI grant.

### 4.1.3 Converting outputs to outcomes

As described above, our research was able to document successful weed control efforts by PTI grantees. Considerably more challenging to document, however, is the final link in the logic chain: Are weed control outputs leading to successful ecological or conservation outcomes? To address this question, we first focused on PTI grantee objectives because the stated objective of a project can be seen as a precursor to desired future outcomes. Grantees indicate that they have a diverse set of overall project objectives (Table 4.1), with conservation-oriented objectives selected more frequently than utilitarian goals. On average, grantees report at least three different primary objectives and two secondary objectives. These results indicate that grantees see their projects as having a diverse set of potential outcomes. Archival review supports this perspective. For example, in PTI grant applications, typical grantee definitions of long-term success include statements such as: “[An] increase in native plant and animal species in riparian ecosystems.” Or, grantees suggest that long-term success can be evaluated by looking for impacts of weed control on “wildlife habitat, watershed functioning, and rangeland resources.”

**Table 4.1. Grantee self-reporting of PTI project objective (n = 88).** Note that multiple selections were allowed.

<b>Project objective</b>	<b>Primary</b>	<b>Secondary</b>
<b>Conservation-oriented objectives</b>		
Maintenance of native biodiversity	68%	19%
Wildlife habitat improvement	58%	30%
Threatened or endangered species protection	38%	30%
<b>Utilitarian objectives</b>		
Legally required control of noxious weeds	33%	20%
Water quantity or quality maintenance or improvement	32%	24%
Rangeland maintenance or improvement of forage quality	31%	19%
Fire control or reduction of fire risk	6%	32%
Maintenance of certified weed-free status for hay fields	2%	17%
<b>Educational objectives</b>		
Education or public outreach	57%	24%

Grantees self-report a high level of success in achieving their primary and secondary objectives, selected from the list provided in Table 4.1. We found 70% reporting successful achievement of all of their primary objectives and 70% reporting successful achievement of all of their secondary objectives (n = 87). Additionally, 28% of grantees report successful achievement of some of their primary objectives and 19% report successful achievement of some of their secondary objectives (n = 85). While these results are encouraging, we found little evidence through archival reviews and interviews that grantees define endpoints or conduct monitoring activities that allow them to measure or document success in achieving the objectives stated in Table 4.1. When grantees indicate, for example, that they have successfully achieved their stated objective of protecting threatened or endangered species, this is likely based on the grantees' belief that the weed control itself provides a benefit, without actually undertaking a formal assessment of the impacts of weed control on the population of the threatened or endangered species.

Additional survey data are consistent with these findings: when asked to self-identify the conservation target of a project, 56% of grantees designated a broad, categorical conservation target (e.g., native grasslands, riparian ecosystems), while relatively few (26%) stipulated an individual species or its habitat as a conservation target (e.g., Pawnee montane skipper habitat) (n = 66). This implies that only a minority of grantees are engaging in weed control because the invasive weed threatens a specific species, while the majority of grantees are engaging in weed control to generate broad benefits to habitats.

When asked directly during site visit interviews about the connection between weed control and benefits to fish and wildlife, nearly all grantees expressed that such a connection seemed obvious to them: namely, fewer weed infestations means greater biodiversity of native vegetation, which supports a wider variety of species. Most weed managers expressed skepticism about their ability to tie weed control outputs to specific ecological outcomes because of the complexity of ecological systems. Survey results are consistent with the interview findings described above: when grantees were asked to describe the “most successful” aspect of their project, only 1% offered some type of conservation outcome, while 32% indicated that controlling the weed was their greatest success (n = 85). Furthermore, several grantees raised concerns during interviews that the resources necessary to carry out the complex and long-term monitoring necessary to establish benefits to fish and wildlife would significantly detract from the work of weed management. Of the very few projects where a direct correlation was made between weed control and benefits to particular species, it was because of the involvement of an academic institution, such as, in one instance, a graduate student investigating the effect of changing riparian vegetation patterns on food availability for salmon fry. In general, weed managers appear content justifying their projects based on weed control outputs and the general assumption that native vegetation provides better habitat.

This lack of direct connection between weed control output and conservation outcome is not unique to PTI grantees, but is a challenge across the entire field of invasive plant management. As noted by many grantees, the resources required to document direct effects of weed control activities on a specific conservation target can be considerable. Further complicating matters, there is a growing literature that suggests that the assumption that weed control activities always result in net ecological benefits should be critically examined in specific situations (Zavaleta et al., 2001; Shafroth and Briggs, 2008). For example, elimination of the invasive species Tamarisk across a broad area without deliberate revegetation of native woody species can harm the endangered southwestern willow flycatcher and other birds that have come to adopt Tamarisk as habitat (Sogge et al., 2008).

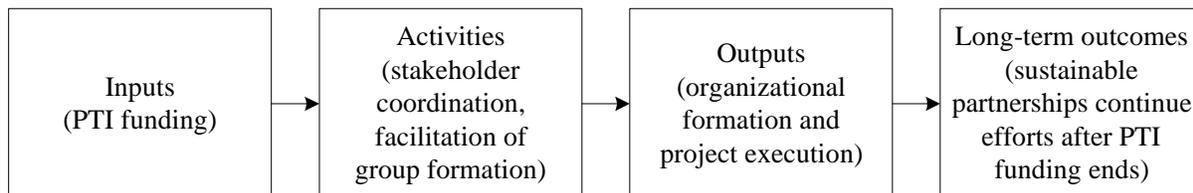
In summary, our evaluation has had a difficult task attempting to measure the success of PTI grantees in transforming weed control outputs to ecological outcomes because the PTI grantees themselves rarely define or measure specific desired outcomes for either habitat-level or species-specific endpoints. In field visits to PTI projects, we saw many examples of thriving native plant communities in areas that had previously been dominated by invasive weeds, but there was no systematic way to measure the benefits of the weed control for biodiversity or other endpoints.

## 4.2 Organizational Capacity

As is the case with many resource management issues, invasive weed problems tend to be inherently cross- and multi-jurisdictional. Effective weed intervention programs must involve all impacted parties for a sustained period. Weed management thus constitutes a significant organizational challenge, requiring the formation of multi-party programs capable of coordinated, scientifically-based management activity. Figure 4.4 provides a simplified logical depiction of how PTI funding can lead to enhancements in organizational capacity necessary to recognize, control, and manage weed invasions.

### Snapshot – PTI Capacity Building

**Outcomes.** PTI grants result in strong and diverse partnerships, and catalyze the formation of robust weed management organizations. In nearly all cases for the grantees included in the survey, partnerships and weed control activities continue after the PTI grant has ended.



**Figure 4.4. Simple logic model for achieving capacity-building outcomes through PTI funding for weed control activities.**

The logic model in Figure 4.4 depicts a series of conditional relationships:

- ▶ *If the inputs (i.e., PTI funding) are provided to grantees, then relevant activities (i.e., stakeholder coordination, facilitation of group formation) will occur.*
- ▶ *If the activities (i.e., stakeholder coordination) are carried out successfully, then outputs are realized (i.e., partnership formation and program execution).*
- ▶ *If the outputs are realized (i.e., partnerships formed and programs executed), then desired long-term outcomes can be achieved (i.e., sustainable partnerships exist that maintain weed control efforts after PTI funding ends).*

This section focuses on the effectiveness of PTI projects for building the organizational capacity of grantees to undertake weed control work. The PTI program has explicitly supported the creation of CWMA's by PTI grantees because of the recognition that projects need to span jurisdictional boundaries and engage multiple stakeholders. Thus, our evaluation of capacity-

building within the PTI program focuses in large part on the extent to which PTI is successful in fostering long-term partnerships.

Similar to the previous section, we used a variety of evaluation tools to assess PTI's strengths and weaknesses for fulfilling each conditional step in the logic model for capacity-building. This assessment provides a framework for understanding what PTI has accomplished to date and serves as a basis for the recommendations presented in Chapter 5.

#### **4.2.1 Converting inputs to activities**

Although stakeholders often recognize the need to collaborate, mere recognition does not necessarily impel joint action. In many of the field visits of PTI-funded projects, we found that the PTI grant itself often served a catalytic function to bring individuals and groups together. One grantee said, "If we hadn't had National Fish and Wildlife Foundation money, [our CWMA] wouldn't be here today." In many cases the possibility of obtaining additional resources from PTI to tackle a weed problem was sufficient motivation to bring people together to form a CWMA. For example, according to one grantee, "The [PTI weed management area requirement] did help galvanize the whole weed management area movement, which is pretty strong and does help bring in a lot of money because we are an organized group. And it started with the PTI edict that 'you will be a weed management area' because everybody reacts to funding. So it was a strong driver." This observation is supported by our survey data in which 42% of grantees reported no partnership preexisting their PTI grant while 98% reported a partnership continuing after the grant ended. Nearly all grantees involved partners, with an average of about five different partner types per grant. The most common partner categories were federal agencies, county and local agencies, and private individuals. This diversity is reflected in weed management practices, with projects treating weeds on land managed under an average of three jurisdictions, with the most common being private land, federal lands, and county or local government lands.

During field visit interviews, it became clear that some cooperative partnerships were formed immediately preceding a NFWF-PTI grant application due to a perception that it would increase chances of success. Thus, although the partnership might have existed on paper prior to the PTI grant award, grantees still view the grants as catalytic to partnership formation. This finding is consistent with survey results, where approximately three-quarters of grantees say that PTI support was "crucial" to their activity and/or current level of effort. Many PTI projects helped to create, strengthen, or revitalize existing cooperative weed management bodies, with 42% of survey respondents noting that the grant led to the creation of a new organization, 38% that the grant provided critical support to an existing cooperative group, and 56% that the grant provided support to facilitate networking activities among groups and/or individuals (n = 88, selection of multiple responses was allowed).

## 4.2.2 Converting activity to outputs

PTI projects appear to be well structured in terms of executing cross-jurisdictional, technical weed management activities, such as designing and conducting surveys and inventories, implementing control regimes, and producing and disseminating educational materials. The typical consequences of a PTI grant are improved on-the-ground weed control, increased local capacity to address weed invasions, and enhanced communication and cooperative interaction across jurisdictional boundaries. When grantees were asked to describe the “most successful” aspect of their project, the most frequent response (41%) was capacity and partnership building. In field visits, it became clear that these effects can reverberate for many years after grant funding ends. One grantee reported, “I can’t even tell you how important cooperation is. Everyone has weaknesses and everyone has strengths, but if you bring all those people together, you balance each other and you get things done.” Only in a small number of circumstances do project outputs depart from this prototypical characterization, and even then, such departures are rarely significant.

As indicated in Table 4.2, PTI partners seem quite engaged in project activities, with most partners (58%) being active throughout the term of the project. Only 4% of partners did not engage in project-related activities.

**Table 4.2. Partner engagement as reported by surveyed grantees**

<b>Level of partner engagement</b>	<b>Percentage of grantees reporting this level of engagement</b>
Active throughout the project	58%
Active at first but participation declined over time	7%
Some partners were active and others were not	31%
Partners did not engage the project	4%

Despite generally positive partnership indicators, approximately 20% of surveyed grantees indicate that the lack of critical partners or the lack of coordination among partners constrained some aspect of project implementation. In site visits it became clear that this most often meant difficulty in working with a small minority of landowners. For example, one grantee said, “I found that some landowners would acknowledge they had a weed problem, did nothing about their weed problem on their own, and were not interested in having somebody else come and do it for free.” In some circumstances, grantees reported that the landowner holdouts effectively became the seed source for infesting a much larger area. Sometimes these conflicts could be overcome with time.

Although some resource management experts suggest that sometimes partnerships become ends-in-themselves, with cooperative groups viewing success more in terms of interaction than they

do in terms of weed management or control activities, we found little evidence that this was the case for PTI grantees. During site visits, the best organized grantees, with high levels of partner engagement, also appeared to be doing the most weed control and educational outreach work.

### 4.2.3 Converting outputs to outcomes

As already emphasized, weed control requires sustained, community-scale vigilance and effort. Like other resource management initiatives, invasive weed management regimes often take many years to achieve final outcomes such as habitat restoration or species protection. Control regimes frequently need to evolve, adapt to changing circumstances, and always require follow-on monitoring and assessment. In this context, it is important that much (80%) of the activity initiated under PTI is ongoing.

In most cases reviewed in this evaluation, PTI provided critical resources either to managing a particular weed invasion for an existing weed management entity or to creating, expanding, or revitalizing a CWMA partnership. The vast majority (92%) of surveyed grantees reported that weed control, monitoring, or other activities directly related to the PTI-funded project continued after PTI funding was finished (1% responded that such activities did not continue, while 7% did not know). Major sources of support for continuing efforts came from federal government agencies (66%), county government agencies (58%), state government agencies (50%), nonprofit organizations (45%), and CWMAs (40%) (n = 80).<sup>4</sup> No other source of continuing support assisted more than 25% of the surveyed projects.

## 4.3 Educational and Outreach Outcomes

PTI grants contribute to educational and outreach goals in several ways: through grantee efforts to inform and sensitize their communities to the threat of invasive weeds and methods of weed prevention and control; through efforts to provide technical guidance and training to project staff and volunteers; and through dissemination of lessons learned relevant to the broader resource management community.

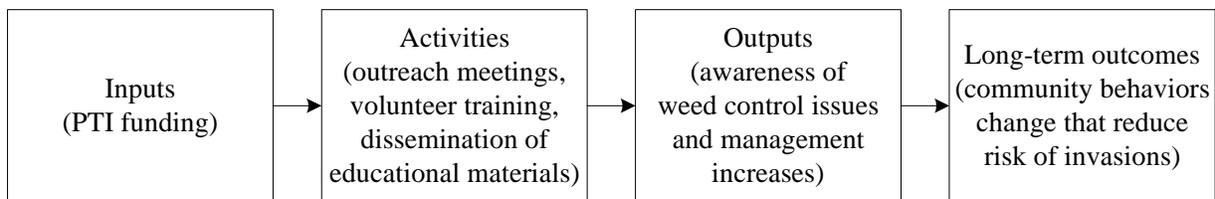
**Snapshot – PTI Educational and Outreach Outcomes.** Many PTI grantees conduct educational and outreach activities. Activities conducted are frequently innovative, creative, and highly professional. Most grantees (75%) utilize volunteers, which helps to extend resources and involve the broader community. As a matter of concern, it is difficult to link PTI outputs with specific changes in landowner or community behavior.

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4. Many of the survey questions allowed multiple answers, so the total of all answers is greater than 100%. In this case, continuing support for weed management activities often came from multiple organizations as indicated by the survey responses.

Figure 4.5 provides a simplified logical depiction of how PTI funding can support educational and outreach activities to recognize, control, and manage weed invasions. This simple logic model depicts a series of conditional relationships:

- ▶ *If the inputs (i.e., PTI funding) are given to grantees, then relevant activities (i.e., outreach meetings, volunteer training, dissemination of educational materials) will occur.*
- ▶ *If the activities (i.e., outreach meetings, volunteer training, dissemination of educational materials) are carried out successfully, then outputs are realized (i.e., awareness of weed control issues and management increases).*
- ▶ *If the outputs are realized (i.e., awareness of weed control issues and management increases), then desired long-term outcomes can be achieved (i.e., community behaviors change that reduce risk of invasions).*



**Figure 4.5. Simple logic model for achieving educational and outreach outcomes through PTI funding for weed control activities.**

As with previous sections, we used a variety of evaluation tools to assess PTI’s strengths and weaknesses for fulfilling each conditional step in the logic model for education and outreach. This assessment provides a framework for understanding what PTI has accomplished to date and provides a basis for the recommendations presented in Chapter 5.

### 4.3.1 Converting inputs to activities and outputs

Forming a community-based conservation effort requires significant outreach and education work. Our field interviews indicate that one of the most difficult aspects of weed management work involves convincing private landowners to participate in a meaningful way. According to one grantee, “The bigger educational component is door to door outreach, phone calls, talking with landowners, visiting their property – just hitting the pavement and meeting these people face to face and talking with them to provide them with the info they need to keep their property

free of weeds or to convince them to allow us to help them control their weeds.” While regulatory tools exist in many areas, especially in the western United States, which force private landowner compliance with weed management goals, these regulations are almost never enforced out of a perception that doing so would be counterproductive to long-term weed management in the area (Hershdorfer et al., 2007). Legal action was initiated when people refused to cooperate with weed management activities only when the necessary authority and political will existed. The majority of site visit interviewees indicated that the necessary authority often existed, but the political will did not. One of our grantees stated, “My theory is to work with the people instead of against them. But some people use a lot of individual notices and forced control. But I have to see those same people at church and at a ball game and on the street and at family dinners so I try not to be too crabby. But we do have a pretty good weed law.” Consequently, extensive efforts were taken in one-on-one conversations with landowners, sometimes over several years, to convince them to participate in a CWMA. Sometimes CWMA groups would employ paid staff or volunteers from the local community to increase the sense that weed management was part of being a good neighbor and not a government or “outsider” intrusion into private property rights. For example, one grantee noted that “It was important to get some on-the-ground work done to show other landowners that we are not a scary government organization that is trying to come in and take your land.”

In addition to awareness raising and community outreach efforts, PTI grants support an impressive variety and level of educational activity. Nearly two-thirds of PTI-funded projects include an educational component, with a significant number of grantees reporting that they view education as “the most effective” aspect of their program.

Nearly half of grantees (43%) report producing signage, brochures, or other educational materials; and one-third of grantees (33%) report conducting weed awareness days, weed identification workshops, or other educational events. In one California community, the local CWMA provides extensive county-wide education efforts to ensure community buy-in to weed management activities. This included outreach to every third grade class in the county for over 10 years, ensuring the education of a generation of youth, and oftentimes their parents, in the purposes and methods of weed management. The educational outreach of this particular CWMA also included high school science fair projects, local weed awareness days, booths at the county fair, and the publication of weed identification and treatment handbooks. Also relevant, 75% of projects report significant utilization of and interaction with volunteers, a factor broadly recognized as leading to increased community awareness and knowledge exchange.

#### **4.3.2 Converting to outcomes**

While PTI projects invest in education and outreach and view their outputs as effective, only anecdotal evidence is available to characterize (1) specific increases in target audience

knowledge or issue familiarity levels, or (2) changes in citizen behavior. According to one grantee, “A lot of funders like to see quantified bang for your buck – how many people did you get at a workshop, how many signs did you put up – but how do you quantify education and what goes on in peoples’ minds. But whatever you do accomplish education-wise is definitely a benefit for the entire system.” One technique that some CWMAs are engaging in, especially in the eastern United States, is focusing on changing the behavior of the plant nursery industry to limit the sale of invasive species. The environmental policy and resource management literature contains numerous examples of the “fleeting” nature of outreach efforts intended to produce long-term changes in behavioral outcomes (Wondolleck and Yaffee, 2000; Anderson et al., 2003; Wilmot and Brunson, 2008). Nevertheless, because individual actions can directly affect the spread of invasive species, PTI grantees are committed to educational efforts, even though documentation of long-term behavioral outcomes rarely occurs.

#### 4.4 Management and Administrative Effectiveness

Many grantees express frustration with NFWF administrative practices, with multiple grantees even claiming that administrative impediments discouraged them from applying to NFWF for subsequent funding. One interviewee who also works as a professional grant writer claimed that “NFWF’s on-line application is the most cumbersome thing that I’ve ever done in my life.” Another stated simply, “For the amount of money, [the NFWF grant] was simply not worth the effort.” Grantee testimony suggests that NFWF administration of PTI grants sometimes impedes program uptake and execution. Nearly half (45%) of survey respondents identify burdensome or inefficient administration as a constraint on project performance. Almost two-thirds of grantees characterize their NFWF grant disbursement experience as either “highly negative” (22%) or “somewhat negative” (44%). In commenting freely on the “least effective aspects” of their projects, 21% of grantees noted the NFWF administrative burden, which was the most frequent category of response besides “unknown/none.”

Frustration expressed by grantees with NFWF administrative practices focuses on the following areas:

- ▶ **Staff turnover.** There is a perception among grantees of high levels of staff turnover within the PTI program. High staff turnover impedes continuity and communication between NFWF and grantees. As one grantee notes: “Seems like there is a pretty high turnover in NFWF, and that lack of continuity is unpleasant. I’ve worked with maybe half a dozen people [over 5 funded projects]. And every year it seemed like it was somebody different.” A different grantee notes: “The worst thing is that NFWF changes staff constantly – I never sent two reports to the same person.”

- ▶ **Timing of grant disbursements.** Receiving money many months after applications are submitted presents challenges to grantees. As one grantee notes: “I started working with landowners...in October, and it’s going to be the next October or the next season before we do anything – that’s a long time to keep landowner interest.”
- ▶ **Lack of context and connection.** A lack of meaningful engagement by NFWF with the technical content of grantee activities limits the opportunities for NFWF to provide “value added” to grantees beyond the funding itself. One grantee notes: “The Washington NFWF office folks just really don’t have a clue who we are out here; what we’re doing. They’ve been helpful on the technical aspects of the electronic goings back and forth, but I don’t feel a real connection with the organization.”
- ▶ **Reporting burden.** An excessive reporting burden can constrain grantee activities and lead grantees to avoid seeking subsequent funding from NFWF. “Management of the grant was horrible. There were quarterly reports with long detailed questionnaires on all activities everywhere. There was more detail than what is really necessary.” A different grantee: “You give me a grant and you want me then to justify how the money was spent. I have to spend 20% of my time justifying how I spent the other 80%. Wouldn’t it be better if you just trusted me and I just had to spend 5% of the money on paper work and get 95% of the money on the ground? That involves some trust.”
- ▶ **Arcane application.** Some grantees find the NFWF application difficult and overly arcane. “Filling out some of those big grants, you just go through 6 or 8 pages of questions that I just don’t think are pertinent. They are burdensome, which is why you can pay someone \$1,000 to write a grant now. They know how to put down a paragraph of flowery words that don’t say anything. A lot of those questions I could write a sentence or two to sum it up, but what’s the grant committee going to want? A lot of us weed supervisors will put down simple stuff on a big grant and we don’t get them, then we hire a grant writer to write a bunch of stuff and we get a grant. You gotta be a grant writer to get a grant.” Another grantee notes: “The [PTI application] logic matrix is overly academic and not very useful. I feel like I’m typing in a bunch of crap...what is it going to take to sound good as opposed to what is my project really, and what are the merits of it?”

To be fair, many grantees with a negative view of NFWF administration cite practices that NFWF has already changed or discontinued, the role and behavior of individuals no longer with the organization, or federal grant management procedures over which NFWF lacks control or flexibility. That acknowledged, administrative difficulties negatively impact the prospect and performance of collaborative weed management organizations, and inhibit the potential PTI grant pool.

## 4.5 Limiting Factors

The preceding sections in this chapter presented a picture of the ecological, capacity-building, educational, and administrative effectiveness of PTI. We examined how inputs of PTI funding are transformed into activities such as weed control and partnership formation, and then into shorter-term outputs and longer-term outcomes. Through the grantee survey and field visits, we found that grantees vary in the extent to which they are able to achieve successful outputs and outcomes in the three key domains of PTI (i.e., ecological, capacity-building, and education). As part of our evaluation, we attempted to isolate factors that limit or constrain grantees in their efforts to achieve successful project outcomes.

Limiting factors can be thought of as barriers to successful achievement of desired outcomes. In the context of this study, limiting factors seem to fall into one of two broad categories – limits of knowledge and limits of capacity. Knowledge can be a limiting factor for weed control efforts if the measures needed to stop a weed from spreading or to restore weed-infested areas to healthy and productive habitat are either not known or not widely available in a format conducive to use at the local level. Capacity can be a limiting factor if there are insufficient resources to accomplish the actions that need to be undertaken or insufficient participation to have actions carried out in all necessary locations. Because successful weed control efforts generally require collaboration across jurisdictions – and especially because the PTI program has explicitly adopted support of collaborative structures as a strategy – limiting factors need to be examined within the context of collaborative frameworks. Collaborative resource management efforts tend to be subject to several, well-documented barriers or “limiting factors” (Wondolleck and Yaffee, 2000). Outlined below, several of these factors appear pertinent to PTI in varying degrees.

### 4.5.1 Limiting factors related to lack of knowledge and inadequate knowledge dissemination

The following set of limiting factors focus on how the lack of necessary knowledge can impede the achievement of desired project outcomes:

**Inadequate problem characterization, ambiguous solution.** This limiting factor occurs when a project is based on an impressionistic, predominantly narrative account of the infestation problem; rather than a data-driven, carefully operationalized scientific characterization. As a result, there is no clear linkage that can be drawn between the infestation problem, the measures needed to target weeds, and the expectation of how those weed control efforts will result in a specified conservation outcome.

There is near universal agreement that weed control strategies should be informed by and based upon a solid foundation of scientific understanding. Projects and control programs should be avoided if they are based only upon impressionistic accounts of local circumstances or the indiscriminate application of weed control measures, sometimes characterized as “spray and pray.”

Metrics that suggest adequate grantee utilization of credible, science-based inputs include the following: clear specification of target weed(s) in the project proposal; clear characterization of the size and nature of the infested area; development and/or use of a systematic inventory, scientific assessment, or weed-specific management plan; involvement of an academic institution; and characterization of a specific conservation or ecological target.

PTI projects graded well in terms of most of these metrics. Nearly all (95%) project proposals specify a specific target weed or set of weeds; and the vast majority (90%) are able to quantify how much land area was infested. A strong majority (86%) report development and/or utilization of a systematic inventory, scientific assessment, or weed-specific strategy or management plan. Another strong majority (77%) note that their project was part of a larger local or regional effort to control the same weed. Also relevant, almost half of surveyed projects report that their partnership includes an academic institution.

On the other hand, as discussed in Section 4.1, grantees typically name a general conservation outcome (e.g., “habitat improvement”) as the objective of a project, instead of a specific, measurable outcome. Also, grantees rarely articulate the specific ecological connections by which control of weeds will lead to measurable improvements in their outcome target.

To sum up, PTI grantees generally appear to characterize their weed problems adequately in terms of the type and location of weeds that are targeted for control, enabling specific control measures to be planned. Lack of knowledge of the weed problem rarely appears to be a limiting factor for PTI grantees. However, the targeted benefits of weed treatment tend to be characterized much more ambiguously, thus limiting the unambiguous achievement of measurable conservation outcomes.

**Science and knowledge gaps.** This limiting factor occurs when weed control approaches require scientific understanding, methods, data, or approaches beyond the capabilities of the project team. Alternatively, projects may neglect scientific inputs due to goal structures influenced by economic or political factors.

Few PTI grantees feel themselves constrained by science and knowledge gaps. When asked to identify factors impeding implementation, only 9% of grantees indicate that lack of scientific expertise or scientific resources to know the best way to control targeted weed(s) played a role (n = 58). In several instances during field visits, however, PTI grantees discussed how they

needed to experiment and use trial and error to find the most effective weed control methods. Grantees also expressed an interest in communication tools that would allow them to reach out to other PTI grantees and organizations involved in weed control efforts to share approaches and avoid “re-inventing the wheel” for each project.

To sum up, science and knowledge gaps for the weed control efforts themselves rarely appear to be limiting factors for PTI grantees. As discussed previously, there appear to be science and knowledge gaps linking weed control efforts to specific conservation outcomes.

#### 4.5.2 Limiting factors related to lack of capacity

The following set of limiting factors focus on how the lack of capacity to undertake necessary weed control activities can impede the achievement of desired project outcomes:

**Budget and finance.** This limiting factor occurs when weed control projects and CWMAs are negatively impacted by the lack of funding, funding shortfalls due to the timing/delay of disbursements, and/or administrative/legal limitations on types of expenditures.

Many PTI grantees report financial challenges for implementing their projects, including delays in receiving funding that cause projects to be postponed by a year or carried out with insufficient staffing, or a lack of funding to continue the project over time at a scale required to address the weed problem. In the survey, 33% of grantees characterize funding disbursement as very timely, 39% as moderately timely, 18% characterize disbursement as having significant delays, and 10% don't know (n = 88). In field visits, grantees from larger organizations tended not to be bothered by grant disbursement, because their organization could “front” the money for the weed control, knowing that reimbursement would happen later. Smaller organizations, on the other hand, found themselves hampered by the timing of disbursement, because they needed to have the money in hand to be able to hire weed control personnel or purchase necessary supplies or equipment.

To sum up, the timing and continuation of funding may be limiting factors for PTI grantees, especially those from smaller and newer organizations.

**Burdensome grant administration.** This limiting factor occurs when administrative aspects of the project (e.g., writing proposals, writing reports to funding agencies) take an excessive amount of staff and volunteer time; and when administrative elements of project management delay program services, reducing project outputs, outcomes, and efficiency.

NFWF administration of PTI grants seems to be a limiting factor in grantee performance for some PTI grantees. Nearly half (45%) of survey respondents identify burdensome or inefficient administration as an impediment to project performance. In commenting freely on the “least effective aspects” of their projects, 21% of grantees note the NFWF administrative burden,

which was the most frequent category of response besides “unknown/none.” In field visits, grantees note burdensome reporting requirements with respect to documenting matching contributions from multiple partners. In multiple instances, grantees also mention that burdensome reporting led them to avoid applying to NFWF for subsequent funding.

To sum up, administrative difficulties negatively impact the prospect and performance of collaborative weed management organizations, and inhibit the potential PTI grant pool.

**Inadequate participation by affected parties.** This limiting factor occurs when there is not coordinated participation by all parties in the affected area. If a significant number of affected owners or land managers fail to implement program interventions, the entire intervention program can be jeopardized.

As discussed in Section 4.2, metrics of partnership strength and diversity within the PTI program are high. Commonly, multiple organizations participate in the grant, control activities cross ownership boundaries, partners remain active throughout the project, and project support is provided by multiple organizations after completion of the PTI grant.

To sum up, a minority of PTI projects report inadequate or suboptimal participation by affected parties.

**Regulatory/legal limits.** This limiting factor occurs when laws or local ordinances make it difficult to conduct key aspects of the project; alternatively, lack of laws and/or local ordinances make it difficult to conduct aspects of the project.

Some evidence exists that regulatory and legal limits affect PTI grantees. In the survey, 14% of grantees note the lack of a weed-control ordinance or other legal authority impeded implementation of their project, while an additional 5% cited obstructive laws, regulations, or ordinances as an impediment (n = 58).

There also are distinct regional variations in how weed ordinances are viewed. In the western United States, weed control ordinances were often “on the books,” but project partners with enforcement authority rarely exercised this prerogative, preferring to gain voluntary cooperation. In the eastern United States, the lack of local weed control ordinances that would prevent commercial plant nurseries from selling invasive plants was seen by PTI grantees as a factor contributing to the spread of invasive species at the regional level.

To sum up, regulatory/legal limits can act as a limiting factor in certain situations, but are not universally a problem for PTI grantees.

**Constancy of approach.** This limiting factor occurs when there is a premature cessation of planned activities. Projects can be jeopardized if a plan calling for a phased or graduated program of weed control treatments and monitoring over time is ended prematurely.

This limiting factor is difficult to analyze because many projects are still in relatively early phases of their project lifecycles. Nevertheless, when asked to comment freely on the least effective aspect of their project, 13% of PTI grantees noted the failure to engage in followup activities to ensure a sustainable project life cycle (n = 85). Individual grantees also noted anecdotally that a lack of followup funding affected their weed control efforts. In a somewhat contradictory finding, however, 92% of PTI grantees indicate that weed control, monitoring, or other activities directly related to the PTI-funded project continue after all PTI funding was finished.

To sum up, constancy of approach could be a limiting factor for PTI grantees, especially with respect to maintaining a long-term commitment to weed control and maintenance to preserve project benefits over the long-term.

**Weakness of partnership.** This limiting factor occurs if partners fail to contribute, collaborative efforts are not adequately galvanized or coordinated, or if different partners do not share an understanding of the mission or approach.

For the most part, PTI partnerships appear vital and sustainable. Only 3% of grantees note that different objectives among project partners impeded implementation and 10% note that different approaches among project partners impeded implementation. Additionally, just 7% of grantees note that project partners were active at first but participation declined over time.

To sum up, this limiting factor appears to be a problem for a minority of PTI grantees.

**Inadequate capacity.** This limiting factor occurs when project execution is hampered by inadequate training, materials, or staffing.

A minority of grantees find that they have inadequate capacity to undertake their projects. A lack of staff, training, necessary equipment, or other non-scientific project inputs was cited as impeding project implementation by 19% of grantees. Additionally, when asked to comment freely on the least effective aspect of their project, 13% of grantees note a lack of capacity to address problems, i.e., either insufficient financial or technical resources, or unsustainable or nonexistent partnerships. In addition, through field visits and interviews, we found that some grantees struggle with basic tasks (e.g., conducting an inventory, writing a funding proposal).

To sum up, this limiting factor appears to be a problem for a minority of PTI grantees. Anecdotally, inadequate capacity appears to be a limiting factor for smaller organizations with fewer internal resources to draw on.

### 4.5.3 Summary

Figure 4.6 summarizes the PTI programs in terms of the limiting factors outlined above. Items checked as green are not presently viewed as programmatic constraints. Items checked as yellow are worthy of observation and continual improvement. Items checked as red represent areas of significant concern, subject to near-term mitigation.

Budget and Finance			
Inadequate Participation by Affected Parties			
Inadequate Problem Characterization, Ambiguous Solution			
Burdensome, Inefficient Project Administration			
Science and Knowledge Gaps			
Regulatory/Legal Limits			
Constancy of Approach			
Weakness of Partnership			
Inadequate Capacity			

**Figure 4.6. NFWF-PTI evaluation summary: Characterization of limiting factors.**

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## 5. Recommendations for Grant Selection and Strategic Program Management

The PTI program has supported weed management for over a decade. It plays an acknowledged and important role in efforts to control invasive weed species in the United States, and, in many ways, the program is a model for stimulating the broader field of cooperative resource management. As described in Chapter 4, the majority of PTI grantees surveyed have successfully controlled weeds using integrated approaches, formed diverse and sustainable partnerships, and conducted significant educational and outreach activities. However, we believe there are opportunities to enhance the effectiveness, efficiency, and sustainability of the PTI program.

Drawing upon our analysis, we developed a list of five key recommendations for PTI. An overview of these recommendations is presented first, followed by in-depth discussions.

1. **Promote Grantee Best Practices:** We found a distinct set of grantee practices (detailed in Section 5.1) that promote successful, long-term weed control by cooperative organizations. PTI should compel and/or support adoption of these practices by grantees.
2. **Maintain and Increase Deliberate Geographic Clustering of Projects:** PTI should take advantage of geographic clustering to support projects that contribute to conservation goals, such as supporting NFWF keystone initiatives. Enhanced networking within grantee clusters should also be supported.
3. **Divide PTI Funding into Two Tracks: Direct Support and Strategic Support**
  - **Direct support:** This activity area would continue PTI's successful practice of directly supporting weed control activities by grantees. We further recommend dividing direct grant awards into three main categories to address differing grantee needs: start-up awards, awards to exemplar organizations, and support for fast turnaround emergency weed control grants.
  - **Strategic support:** This new activity area would provide funding to promote networking among geographically clustered grantees and promote intellectual leadership in the field of cooperative weed management.
4. **Increase External Support for PTI.** PTI is an important and significant program that needs to increase its resources to meet the ongoing challenges of weed management. PTI programmatic support should be increased by broadening the grant review panel and increasing the number of funding partners.

5. **Continue to Emphasize Administrative Efficiencies.** NFWF has committed to improving administrative efficiencies through its new Easygrants process. Continuing to reduce grantee administrative burden and regular culling and elimination of underperforming grants are additional administrative efficiencies that would strengthen PTI.

Prior to providing more details and discussion of the recommendations given above, we outline a contextual observation regarding the practice of weed management. It is our hope that NFWF and its partners will act in light of this observation, both with respect to implementation of our recommendations and also with regard to other matters of weed control management and policy.

### **Weed management as a continuous, ongoing need**

Factors such as the increasing globalization of nearly all economic sectors and the variety and resilience of invasion vectors combine to make invasive species management a process of long-term, perhaps perpetual, response and adaptation. This does not mean that particular efforts to prevent or eradicate invasive weeds are doomed to failure. Rather, it means that the discipline and practice of weed control should be conceived and managed as an ongoing and continuous public-private enterprise.

In brief, weed control programs should be structured and managed as an ongoing public utility, much like a water system or municipal fire department. Similar to a fire department, weed control involves ongoing needs for education and prevention, needs to continually monitor and eliminate “flare-ups” that may occur after a previous control effort, and the ability to quickly increase engagement and activity when a new threat emerges. Many current weed control efforts instead frame the issue as a series of discrete, episodic intervention initiatives, perhaps adopting a crisis management perspective without a framework that sees the weed control enterprise as an ongoing need. This results in an unduly narrow conception of the weed management issue, perhaps constraining how managers think about alternative policies, intervention approaches, partnership arrangements, and managerial institutions.

It is our sense that several doable and pragmatic changes in PTI’s grantee selection philosophy and grant management regime are consistent with the adoption of the type of perspective outlined above.

## **5.1 Recommendations to Promote Grantee Best Practices**

A major goal of our analysis has been to identify practices that account for project success. Drawing upon our ensemble research approach, we looked for practices that tended to work well under all or most circumstances. All grantees should be encouraged to adopt these practices or to

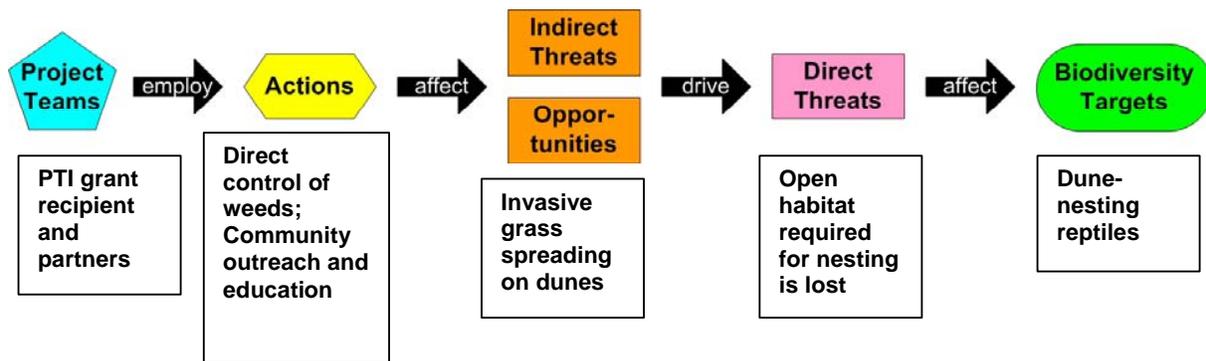
note specifically why the practice does not apply in their situation. These practices could be turned into explicit preference criteria for grant selection (i.e., points are awarded for grantees who clearly address each of these elements in their proposals) and as explicit items that need to be addressed in mid-term and final reports. At a programmatic level, PTI could measure its commitment to best practices by tracking the number of grantees that include these practices over time.

Phrased as recommendations, best practices include the following:

- ▶ **Increase specificity of desired conservation outcomes:** The PTI application should be revised to ask grantees for specific conservation outcomes (with examples of specific versus general outcomes) and for indicators for how changes in the conservation outcome could be assessed over time. Grantees that provide a clear logical framework for how and why their weed control activities will lead to a specific conservation outcome should be ranked more highly during the application scoring process. Grantees also should be asked whether their weed control efforts could have unintended negative consequences and what actions would mitigate this threat. An increase in the specificity of conservation outcomes will improve the alignment between PTI's program and NFWF's strategic objectives, as well as the alignment with agency habitat and wildlife priorities.

This does not mean that grantees should be required to directly measure the impact of weed control on a specific wildlife species – as noted in Chapter 4, the type of research this would require is difficult, expensive, and beyond the technical capacity of many grantees. Instead, grantees should be encouraged to think clearly about the logical connections between their weed control activities and a specific conservation outcome. An example in Figure 5.1 depicts how weed control efforts affect an invasive grass spreading on sand dunes, which in turn was threatening the open habitat required for nesting by dune-nesting reptiles. Using this framework, a grantee could monitor acres of open habitat maintained through weed control activities as a reasonable indicator of conservation benefit.

- ▶ **Adopt a multi-party executive structure:** Cooperative weed control efforts can be sustained through the formation of a large partnership with a Board of Directors; this helps to insulate the project against (the nearly inevitable) individual or lead agency management or mission changes. Cooperative efforts can be crippled if all coordination efforts, institutional memory, and leadership are placed in the hands of a single individual. While individual “champions” can “jump start” programs and provide a source of considerable energy, commitment, and creativity, the resultant organization risks stagnation and/or dissolution if that individual vacates their leadership role.



**Figure 5.1. Example of logic model, linking grantee actions to a conservation target.** This model was adopted from a framework developed by the IUCN (International Union for Conservation of Nature) – CMP (The Conservation Measures Partnership).

- ▶ **Partner with an independent research institution:** Cooperative weed control efforts should strive to include a college, university, or independent research institution. An independent scientific partner provides important neutral information on best practices for weed control and program management. Such a partner will help to insulate the program from political and socioeconomic pressures that may influence other partners.
- ▶ **Include partners who clearly demonstrate how proposed project outcomes will benefit their clients or constituencies:** Cooperative weed management efforts should take care to ensure that partner agency missions entail the achievement of ecological endpoints that are consistent with specified project outcomes. This will help to ensure that their clients and stakeholders see the direct relevance of weed control efforts and support ongoing weed management activities. For example, the clients of a state Game and Fish Department are typically hunters and fishermen; programs that control weed infestations that threaten game and fish habitat will be welcomed by the departmental constituency.
- ▶ **Link networking and social interaction with specific on-the-ground goals and objectives:** Cooperative weed management efforts should guard against “collaboration for its own sake.” Although social capital is critically important, it is a means to achieving ecological outcomes and not an end in itself. PTI should ensure that collaborative efforts are clearly associated with a logical sequence of activities, outputs, outcomes, and end-states. Grantee progress reports that merely extol interaction should be subject to followup queries about activity and achievement levels.

- ▶ **Include specific, ongoing, and adaptive education and outreach activities:** Cooperative weed management efforts must emphasize education and maintain an ongoing, high level of public awareness because gaps in public support can result in project abandonment, especially during periods of economic stress. Cooperative weed control efforts are likely to fail unless all partners understand the basic biology of the invasive species and how the control measure is supposed to work (e.g., spraying or insect release must be done at a specific time of the year).
- ▶ **Emphasize project leadership based on shared vision and shared values:** It is important to emphasize leadership based on shared objectives and values, not upon response to an “invasion” crisis. Cooperative weed control must be viewed as a sustained, ongoing community enterprise.
- ▶ **Develop detailed, long-term monitoring plans, including roles to be played by different partners:** Cooperative weed management efforts should emphasize monitoring, not only as a valuable source of guiding data, but also as a team-building, collaborative, trust-building activity. Efforts should focus as much attention and resources on followup monitoring as they do on planning. This is necessary to (1) ensure the long-term effectiveness of control interventions, and (2) help keep partners active, engaged, and personally invested in their mutual effort.

## 5.2 Maintain and Increase Deliberate Geographic Clustering of Projects

NFWF should take advantage of the fact that many PTI grants are geographically clustered (see Figure 2.2). As noted in Chapter 2, 85% of PTI grantees are located within 100 miles of another PTI grantee. This geographic clustering could be turned into a strategic advantage for the PTI program. For example, enhanced networking among clusters of near-by grantees (both past and current) could facilitate the sharing of regionally appropriate data and practices, contribute to increased efficiencies and economies of scale for education and outreach efforts, create shared capacities, and provide opportunities for mutual assistance in the context of early detection, rapid response (EDRR) situations.

In addition to taking advantage of existing geographic clusters, PTI could deliberately prioritize funding for grantees in select locations or landscapes of interest that best match NFWF and agency priorities. For example, an objective of supporting NFWF’s keystone initiatives could result in a geographic prioritization such as this:

- ▶ **Priority #1:** The PTI project is in a location where the project is specifically designed to reduce invasives for the direct benefit of a NFWF keystone species.
- ▶ **Priority #2:** The PTI project is reducing invasives in locations targeted by a NFWF keystone initiative for which invasives are considered a priority threat.
- ▶ **Priority #3:** The PTI project is reducing invasives in locations targeted by a NFWF keystone initiative for which invasives are not considered a priority threat.

Similar prioritizations could be used to provide support for other conservation targets or landscapes of interest. It also may be possible and advantageous for NFWF to “anchor” geographic clusters of projects through the designation of one grantee as an “exemplar” organization. Exemplar organizations would be especially effective, high-capacity organizations, willing to mentor and facilitate networking among other regional grantees.

### **5.3 Divide PTI Funding into Two Tracks: Direct Support and Strategic Support**

This recommendation for refining PTI’s strategic approach involves the designation of two tracks for PTI funding. The first track would focus on refining PTI’s current successful approach of directly funding public/private partnerships to undertake weed control and public education. A new track of PTI would be created to provide additional strategic support for weed management activities.

#### **5.3.1 Direct support for weed control**

PTI’s current approach appears to be a sound strategy for sustaining long-term weed management and control projects. Our interviews with outside stakeholders confirmed that within the weed management community, PTI’s general strategic approach is viewed positively and PTI is seen as playing a unique role in developing cooperative structures for weed control.

As discussed in Sections 2.2.1–2.2.3, PTI grantees are diverse in terms of their needs, capabilities, and organizational type. It is our judgment that strategic, program, and administrative efficiencies could be achieved if NFWF segregated PTI into three different types of grants. Each type would address a fairly unique set of needs and ideally adopt different management and administrative practices.

- ▶ **Startup focus:** As indicated in Table 2.3, a significant number of PTI grants (17%) are quite small (\$10,000 or less) and go to startup groups seeking to formalize their association through the development of a plan and/or formation of a CWMA. Such groups typically have modest needs and may lack grant writing experience. The relatively limited award sizes and limited risk entailed under such a model might make it possible for NFWF to eliminate or significantly reduce reporting requirements, adopt a single-phase proposal process, and streamline the proposal review and award process. Some or all grantees in this category could be solicited to help build or strengthen geographic clusters of weed control capability.
- ▶ **Exemplar organizations:** As emphasized throughout this report, weed control initiatives require an intensive and well-executed multi-year effort to successfully tackle a weed problem. Increasing organizational competence and capacity are therefore key to weed control program success. This program component would move away from grant selection based on the goal of weed program establishment, and provide large (\$50,000+), multi-year awards to established organizations to assist them in intensifying their weed control activities and building high-capacity organizations. Grants such as these would likely be few in number, and might correspond closely with efforts to establish geographic clusters of projects. Awardees in this category would need to certify capability and willingness to mentor other regional grantees and to conduct ongoing social networking, educational, and outreach activities.
- ▶ **Early detection/rapid response focus:** To be operated through a third-party re-granter, NFWF could create a fund to support rapid response proposal reviews and quick awards, consistent with the parameters of an EDRR. This fund would need to be recognized as a higher risk component of the PTI portfolio. The third-party re-granter would be chosen for their ability to cost-effectively manage small grants, with efficient paperwork and rapid award times.

### 5.3.2 Strategic support for weed management

We suggest creating a new track for the PTI program focused on the promotion of social networking and intellectual leadership in the field of cooperative weed management. PTI projects have adopted a wide range of scientific and managerial innovations to undertake their individual programs. For a modest investment, NFWF (possibly working through one or more partners) could help grantees share lessons learned, techniques and protocols adopted, and other but equally important advancements with fellow grantees, with the broader resource management community.

It would be very helpful to create a web-based work space for grantees and others dealing with invasive weed issues. A web-based resource could include access to shared tools (e.g., inventory protocols, models), model memorandums of understanding and other sample collaborative documents, example education and outreach resources, and peer-to-peer communication channels (e.g., blogs, Wikis) to share “how to” information about organizational and treatment best practices between groups. It is vitally important that the weed management community have easy access to current research and best practices through as many channels as possible. For example, the non-governmental organization “Collaboration for Environmental Evidence” has published systematic reviews on the effectiveness of different treatments for two weed species that PTI grants have targeted: Japanese knotweed and tansy ragwort (Roberts and Pullin, 2004; Kabat et al., 2006). PTI grantees should be aware of these resources and take these findings into account when planning weed control activities.

Building on the geographic proximity of many PTI projects, regional grantee meetings could be convened to provide an opportunity for past and current grantees (and possibly other allied organizations) to share best practices and lessons learned that are relevant to their particular area. These forums could be conducted by “exemplar” grantee organizations. In field visits, we found that most grantees were unaware that there were other PTI grantees located nearby. As an additional benefit, such forums could provide an efficient means through which PTI staff and sponsors could interact more closely with current grantees, potential future grantees, and potential funding partners.

## 5.4 Increase External Support for PTI

PTI is an important program and needs to accommodate program expansion to accomplish its objectives. We have two specific recommendations within this area:

- ▶ **Broaden grant review panel:** The current grant review panel consists of representatives from NFWF, the federal funding agency partners, and a representative from USGS in an advisory capacity. Broadening participation on the grant review panel would help PTI increase transparency, avoid any perception that PTI grants are awarded to “insiders” and are not fully merit-based, and provide additional perspectives on funding priorities. Although federal funding agency partners ultimately need to be the final decision-makers for funds spent by their agencies, they could make a commitment to fund projects based on group consensus.
- ▶ **Increase number of funding partners:** There is a strong need for PTI funding. Each year, numerous worthy projects go unfunded. It would help PTI’s sustainability to increase and broaden PTI’s funding base. While PTI’s primary sponsors have mission objectives directly focused on invasive weed control, NFWF could identify and seek to

engage federal program partners working in affinity with weed control, such as wetland restoration or wildfire control. As another tact, agency funding partners that contributed in past years but have stopped participating could be queried about why they stopped participating and whether there are possibilities for them to participate again. Adding funding partners outside of the federal government, including industry or foundation partners, would also improve PTI's sustainability by diversifying its funding base and providing funds that are not tied to the federal funding cycle.

## 5.5 Continue to Emphasize Administrative Efficiencies

Over the course of the PTI program, NFWF has worked to improve administrative efficiencies. The introduction of NFWF's Easygrants system represents another significant step toward improving efficiency. We suggest two specific practices to incorporate in this area.

**Reduce grantee administrative burden:** A significant proportion of PTI grant monies is awarded to fledgling efforts and organizations, groups that cannot reasonably be expected to have achieved high levels of operational proficiency. At least in the beginning, such groups are very likely to lack the competence and infrastructure through which to efficiently administer federally-sponsored grants. As described in Section 4.4, a significant number of PTI grantees feel that NFWF funding and administrative procedures are unduly burdensome. NFWF has an opportunity to consider and implement a series of administrative streamlining actions designed to reduce grantee burden, while maintaining high levels of accountability and transparency. Figure 5.2 illustrates a variety of widely applied administrative streamlining techniques that we believe would be appropriate for use in the NFWF-PTI context. In addition, the adoption of different grant types would reduce the administrative burden for grantees receiving smaller grants.

### Figure 5.2. Example grant management streamlining mechanisms

- ▶ Exceptions reporting
- ▶ Self certifications
- ▶ Elimination of steps (e.g., elimination of pre-proposal process steps for grantees pre-certified to meet specified conditions)
- ▶ Electronic reporting
- ▶ Multi-term funding
- ▶ Project portals.

**Regular culling and elimination of under-performing grants:** While PTI is a strong program and most grantees appear highly competent, NFWF should make a concerted effort to identify and discontinue grants that fail to meet a reasonable minimum level of performance. This process should be driven by the careful consideration of diverse project performance criteria, including substandard weed control, lack of administrative competence, insubstantial partnership activity, lack of education and outreach efforts, and failure to adopt scientifically credible approaches and protocols. Reporting requirements should be designed so that these indicators of under-performing grants can be easily flagged by PTI administrators. NFWF would benefit at an

organizational level by investigating under-performing grants in some detail, possibly including interviews and field visits with grantee personnel.

## **5.6 Conclusion**

Achievement of conservation goals for fish and wildlife requires the effective, ongoing control of invasive weed species that threaten native habitat. The PTI program has supported weed management efforts since 1997 and is a model for cooperative resource management across jurisdictional boundaries. The successful creation and support of numerous weed control organizations, many of which have maintained themselves over long time periods, is a significant accomplishment for PTI. Moving into the future, PTI will ideally focus its efforts on targeted geographic areas, on awarding grants that match the specific needs of different types of grantees, and on providing additional strategic support for weed management through promoting social networking and intellectual leadership. In this way, PTI will best enhance its effectiveness, efficiency, and sustainability for carrying out its mission of mitigating the threat of invasive weeds.

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## A. Data Collection Framework

### 1. Ecological and educational benefits

It is important that projects be characterized and assessed in terms of scientifically verifiable descriptions and metrics of current status and projected progress toward management goals, including (1) preventing, managing, or eradicating invasive and noxious plants through a coordinated program of public/private partnerships; and (2) increasing public awareness of the adverse impacts of noxious plants. We also will consider ancillary benefits of weed control for ecological processes.

#### Potentially available ecological information and metrics:

- ▶ Where specific weed(s) targeted by the project? If so, which ones?
  - Is the weed of concern a federally or state listed noxious weed? Federal, see: <http://plants.usda.gov/java/noxiousDriver>. State, see: <http://plants.usda.gov/java/noxiousDriver>.
- ▶ Was the weed problem addressed through the project characterized through:
  - A scientific assessment of the ecosystem of concern?
  - A weed specific strategy or strategic document?
  - An inventory or map (including GIS) of the weed(s) of concern?
  - Other?
- ▶ What was the focus of the project's actions (note: can choose more than one)?
  - Prevention (stopping invasive species before they arrive).
  - Early detection and rapid response (finding new infestations and eliminating them before they become established).
  - Control and management (containing and reducing existing infestations).
  - Rehabilitation and restoration (reclaiming native habitats and ecosystems).
  - Education and outreach.
  - Capacity building.
  - Social network creation.
  - Knowledge dissemination.

- ▶ What type of control strategy did the project utilize?
  - Chemical applications.
  - Bio-agent applications.
  - Mechanical control (e.g., weed pulling).
  - Combined or phased approach.
  - Other (e.g., goats).
  
- ▶ How much land area had the weed infested prior to the project?
  
- ▶ How much land area was directly treated for the weed?
  
- ▶ What types of infrastructure enhancement were associated with the project?
  - Training.
  - Equipment.
  - Chemicals.
  - Information collection and dissemination.
  - Actor/network creation or maintenance.
  
- ▶ Was the treatment primarily conducted on or in:
  - Roadsides?
  - Riparian areas?
  - Rangeland?
  - Forest?
  - Other habitat type? If so, please specify.

**Potentially available education information and metrics:**

- ▶ Did the project perform public outreach?
  - Did the project install education signage? If so, what type, in what locations, and who was the intended audience?
  - How many outreach events, such as “weed awareness days,” were accomplished? What was the estimated attendance?
  - Did the project engage in other public outreach activities? If so, what were they?

**Potentially available project benefit information and metrics:**

- ▶ Did the project benefit any of the following? (Note the primary benefit and any secondary benefits. Also, note if actual benefits deviated from objectives.)
  - Rangeland maintenance or improvement?
  - Maintenance or improvement of water quantity and/or quality?
  - Legally required control of noxious weeds?
  - Maintenance of certified weed-free status for hay fields?
  - Benefits for native habitat?
  - Benefits for threatened or endangered species?
  - Benefits for biodiversity?
  - Benefits for fire control?
  - Some other primary purpose? If so, what was it?

**2. Administrative and operational effectiveness, efficiency, and sustainability**

Our framework will be designed to collect data that allow us to document the characteristics that impact a project's basic operational profile, focusing on factors that influence efficiency and stability over time. These factors typically include organizational context, management structure, budgetary control and execution, public knowledge and support, and technical and logistical institutional capacity.

**Potentially available context/management information and metrics:**

- ▶ Where was the project implemented?
  - On private land? If so how many landowners did the project engage?
  - On public or tribal land? If so, please provide names of the relevant National Forest and Ranger Districts, the BLM Resource Area(s), National Park or Monument, Tribal Area, Weed Management Area, or other geographical designation.
  
- ▶ What organization led, managed, or coordinated this project? Is this the same organization with budgetary control?
  - A county weed organization.
  - A weed district.
  - A CWMA.
  - A volunteer weed organization.
  - A nonprofit entity.
  - A state government agency.

- A federal government agency.
- Other.
  
- ▶ How was the project implemented?
  - Does the project have paid staff?
    - Who do project staff report to?
    - Were there paid staff members in partner organizations?
  - Did the project utilize volunteers?
    - Extensively.
    - Sometimes.
    - Almost never.
  - What roles did volunteers play?
    - Advisory.
    - Outreach.
    - Labor.
    - None.
  - Who did the volunteers report to?
  
- ▶ In addition to the PTI grant proposal, does the project have a written plan?
  - Is the project included as part of a CWMA Comprehensive Plan (or similar document)?
  - If “yes,” does the plan include any of the following?
    - Schedule.
    - Protocols or procedures.
    - QA/QC processes.
  
- ▶ Do any of the project partners have authority to enforce state or local weed control laws?
  - No authority to enforce local weed control laws.
  - Authority, but little history of enforcement.
  - Authority and a history of aggressive enforcement of local weed laws.

**Potentially available budget information and metrics:**

- ▶ What was the monetary amount of the PTI grant (if applicable, list all years)?
  - What was the monetary amount of any matching contributions, and where did they come from?
  - Over what timeline was this budget expended?
  - Describe budgetary and expenditure controls.

- ▶ How was the project budget divided among the following activities?
  - Education and outreach.
  - Monitoring, inventories, and mapping.
  - Capital expenses such as control agents or developing biological control populations.
  - Operational weed control.
  - Habitat rehabilitation/restoration.
  - Project administration.
  - Other.
- ▶ What resources are available apart from the PTI grant and matching “challenge” funds? Are there other sources of resources?
- ▶ Did the organization receive a subsequent PTI grant for the same project or for a different project?
- ▶ What additional weed control or weed education actions have take place after the PTI grant ended? What funding supported these actions?

**Potentially available public awareness information and metrics:**

- ▶ How many phone calls, letters, e-mails, or other inquiries did the lead organization receive regarding this project?
- ▶ How many paid advertisements/announcements in print media, TV, or radio were purchased? How many days did such advertisements run and what audience did the message reach?
- ▶ How many news stories were published (in print media) or reported (on TV or radio) regarding this project?
- ▶ Did the project participate in events such as fairs and/or “weed weeks?”
- ▶ Were there any other indications of public knowledge about the project?
- ▶ Did public awareness activities lead to any changes in project support or management?

### 3. Partnerships and community involvement

PTI projects are premised on partnerships between federal agencies, state and local governments, private landowners, and other parties interested in developing long-term weed management projects within the scope of an integrated pest management strategy. Our review framework will be designed to obtain data that allow us to document the factors which influence program partnerships, such as level and nature of commitment, expectations for joint involvement, achievement of individual and joint goals, and ancillary benefits. Note that data collection framework element #3 – partnerships and community involvement – is a subset of element #2 – administrative and operational effectiveness, efficiency, and sustainability. It has been separated out because of its importance to the PTI program-wide objectives.

#### Potentially available partnership information and metrics:

- ▶ Did the lead organization partner with other individuals or groups to implement the project?
  - Were there other agency partners?
  - Were there private landowner partners? If so, how many and with control over how many acres?
  - What percentage of applicable landowners or managers participated in the project?
  - Were there important landowners or managers who did not participate in the program?
  - Were there non-governmental organization partners?
  - Was the partnership primarily financial? If not, what was the nature of the partnership?
  - Is the partnership documented through a memorandum of understanding, letter of intent, or similar written agreement?
  - How long did it take to form the partnership?
  - Did a community partnership exist prior to the PTI grant? If so, how long had it operated?
  - Did the partnership (if any) supported by the PTI grant continue after the grant ended?
  
- ▶ Did any of the partners have formal roles?
  - Which partner(s) has formal responsibility for implementing each phase of the project?
  - Which partner(s) had formal responsibility for planning the project?
  - Did any partner(s) have any other formal role?

- ▶ What were the key contributions of each partner? For example, a particular skill, resource, or ability, such as technical knowledge about weed control methods, financial assistance, or ties to the local community of private landholders?
- ▶ What were the full set of objectives of each partner in the project? Is there documentation of partner objectives?
- ▶ What modes of communication and knowledge sharing were used among the partners?
  - Web site.
  - Listserv.
  - Formal meetings.
  - Informal meetings/tailgate conversations.
  - Phone calls.
  - E-mail.
  - Other.

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## **B. Grantee Internet Survey Questions and Summary Results**

Note that the answer to Question 12 was cut off when the survey results were generated. The full response to Question 12 can be found in a table at the end of this appendix.

# National Fish and Wildlife Foundation Pulling Together Initiative --

## 1. Introduction

You have been asked to participate in this survey because your organization has received funding from the National Fish and Wildlife Foundation's Pulling Together Initiative (NFWF PTI) program. Your participation will help us better understand the impact of the PTI program on weed management. This information will help the National Fish and Wildlife Foundation improve its future support for weed management activities.

This evaluation is being conducted by a third party (Stratus Consulting Inc.). Your name, your organization, and your project will never be associated with any answers you give to this survey without your explicit permission. Your identity will be kept completely confidential.

Before starting the survey, you may need to collect or review information on your NFWF PTI funded project. This information may be several years old, and quickly reviewing or having at hand information on that project will improve the speed and accuracy of this survey.

Based on the experience of some current grant recipients who took the survey as a "pre-test", we estimate that the survey will take about 20 minutes to complete if you are familiar with your project. Thank you very much for your time during this busy season.

1. Please fill out these questions. We are asking for contact information so that we can follow-up with a subset of grantees.

Note: If you have received funding in multiple years for different phases of the same project, we are asking you to fill out a single survey and include all project phases in your answer.

(Confidentiality reminder: your name, organization, and project will never be associated with your answers to questions in this survey without your explicit permission)

Your Name:	<input type="text"/>
Your Title:	<input type="text"/>
Your Organization:	<input type="text"/>
PTI project name(s):	<input type="text"/>
PTI project ID(s):	<input type="text"/>
County of project site:	<input type="text"/>
State of project site:	<input type="text"/>

2. Please characterize your involvement with the PTI funded project.  
(Please select all that apply).

- I was directly involved in project implementation.
- I have second-hand knowledge of the project (example - through conversations with co-workers).
- I am familiar with the area where the project took place and am aware of current conditions in the area.

# National Fish and Wildlife Foundation Pulling Together Initiative --

3. What kind of information do you have that indicates the location of the project treatment area?

(Note: If you use the program "Google Earth", an easy way to find latitude and longitude is to zoom in to your project site location. Latitude and longitude for the cursor's position are located in the bottom left corner of the Google Earth page).

(Please select the option that appears highest on the list.)

- Latitude and longitude
- UTM coordinates
- Township, range, and section
- Name of nearest feature shown on a USGS topographic map
- Driving directions to project site or other descriptive information
- ZIP code of project site
- I have no project location information

## 2. Location Follow-Up

4. Please provide latitude and longitude (either in degrees, minutes, seconds OR as a decimal degree).

Latitude (e.g., 40d 25m 15s N):

Longitude (e.g., 120d 17m 30s W):

5. What geodetic system are these coordinates in?

- NAD 27
- NAD 83
- WGS 84
- Unknown

## 3. Location Follow-Up

6. Please provide UTM coordinates.

Northing coordinate (e.g.,   
4479671.87 N):

Easting coordinate (e.g.,   
220732.05 E):

UTM zone (if known):

# National Fish and Wildlife Foundation Pulling Together Initiative --

7. What geodetic system are these coordinates in?

NAD 27

NAD 83

WGS 84

Unknown

## 4. Location Follow-Up

8. Please provide township, range, and section for the project site.

Township (e.g., T32N):

Range (e.g., R18E):

Section (e.g., S24):

Additional specificity  
(e.g., SW 1/4):

## 5. Location Follow-Up

9. Please name the nearest feature on a USGS or USFS topographic map.

Feature name:

TOPO map name (if known):

Map series or scale (e.g., 7.5' or  
1:24,000):

## 6. Location Follow-Up

10. Please provide driving directions to the project site or other descriptive information.

## 7. Location Follow-Up

11. Please provide the zipcode for the project site.

## 8. Project Characteristics

First we'd like you to answer some questions about the actions taken by your NFWF - PTI funded project.

(Note: This is the first of four main sections in the survey. The four sections are: project characteristics, project objectives, operational characteristics, and partnerships. Each section will take a few minutes to complete.)

# National Fish and Wildlife Foundation Pulling Together Initiative --

## 12. Which weed species were targeted by your PTI funded project(s)?

Select weed species from the list below

Primary target weed	<input type="text"/>
Secondary target weed	<input type="text"/>
Other target weed	<input type="text"/>
Other target weed	<input type="text"/>
Other target weed	<input type="text"/>

Other (please list all weeds and indicate if a primary or secondary control target) or state 'Unknown' and explain

## 13. What weed management actions did your PTI funded project take?

(Mark all that apply)

	Primary action	Secondary action	Didn't use
Survey or inventory development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prevention (stopping invasive species before they arrive)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Early detection and rapid response (finding new infestations and eliminating them before they become established)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Control and management (containing and reducing existing infestations)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rehabilitation and restoration (reclaiming native habitats and ecosystems)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify)

## 9. Project Characteristics I I

### 14. In the area of concern to your project, approximately how much land area was infested by the targeted noxious weed(s) prior to the project?

- 0-9 acres
- 10-99 acres
- 100-499 acres
- 500-999 acres
- 1000-4999 acres
- 5000-9999 acres
- 10,000 acres or more
- No reliable data

# National Fish and Wildlife Foundation Pulling Together Initiative --

15. Approximately what percentage of the land area of concern to your project was directly managed for the targeted noxious weed(s)?

- 0 percent
- 1-20 percent
- 21-40 percent
- 41-60 percent
- 61-80 percent
- 81-99 percent
- 100 percent
- No reliable data

16. What type of control strategy did your PTI funded project use?

(Mark all that apply)

	Primary Strategy	Secondary Strategy	Didn't Use
Chemical applications (broadcast spraying)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chemical applications (spot treatment)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bio-agent applications (e.g., leaf eating beetle)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical control (e.g., weed pulling, mowing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Livestock grazing (e.g., goats)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<input type="text"/>		

17. Where did weed control activities take place?

(Mark all that apply)

	Primary Location	Secondary Location	Didn't Use
Private lands owned by individuals or farming/ranching operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Private lands owned/managed by a non-profit organization	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Military lands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Non-military federal lands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tribal lands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State lands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
County or local lands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 10. Project Objectives

Now we'd like to ask you questions about project objectives.

(Note: This is the second of four main sections in the survey)

# National Fish and Wildlife Foundation Pulling Together Initiative --

18. Did the project take any of the actions listed below?

(Mark all that apply)

	Primary Action	Secondary Action	Not in Project
Direct control of weeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Produce educational signage or materials about invasive weeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organize a weed awareness day(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Create a new cooperative weed management area or similar partnership group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support activities for an existing cooperative weed management area or similar partnership group	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Support activities to help create connections between groups and individuals managing weeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<input type="text"/>		

19. What led your organization to focus on the weed problem addressed through your PTI funded project?

(Mark all that apply)

	Primary Motivation	Secondary Motivation	Didn't Use
On-the-ground reconnaissance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A systematic inventory or map of the infestation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A scientific assessment of the ecosystem of concern (e.g., watershed management plan, resource management plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A weed specific strategy or management plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unsure / Don't Know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<input type="text"/>		

20. Was your PTI-funded project part of a larger local or regional effort to control the same invasive weed(s)?

Yes

No

Don't know

21. If relevant, please identify the "conservation target" that the project hoped to benefit through control of invasive weeds. For example, "sea turtles" or "coastal dune habitats".

## 11. Project Objectives II

## 22. What were the objectives of this PTI funded project?

(Mark all that apply)

	Primary objective (s)	Secondary objective(s)	Not a project objective
Rangeland maintenance or improvement of forage quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Water quantity or quality maintenance or improvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Legally required control of noxious weeds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance of certified weed-free status for hay fields	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wildlife habitat improvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Threatened or endangered species protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance of native biodiversity	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire control or reduction of fire risk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Education or public outreach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify)

## 23. In your opinion, did the project accomplish its primary objective(s)?

(Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)

Yes, all objectives

Yes, some objectives (please comment below)

No, none of the objectives

Which primary objectives were accomplished if you selected 'some' above?

## 24. In your opinion, did this project accomplish its secondary objectives?

(Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)

Yes, all objectives

Yes, some objectives (please comment below)

No, none of the objectives

There were no secondary objectives

Which secondary objectives were accomplished if you selected 'some' above?

## 12. Project Objectives III

25. What were the most effective aspects of this PTI funded project?

(Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)

(Please answer "unknown" if you do not have specific knowledge of project implementation.)

26. What were the least effective aspects of this PTI funded project?

(Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)

(Please answer "unknown" if you do not have specific knowledge of project implementation.)

27. How does the target weed(s) situation today compare to the pre-project baseline in the area that was targeted by your PTI funded project?

(Mark all that apply)

- Weed infestation(s) have been eliminated
- Weed infestation(s) are better controlled than before the project
- New weed(s) have infested the project area
- Weed infestation(s) have gotten worse since the project finished
- Weed infestation(s) have increased since the project finished, but not as quickly as was projected prior to the project
- Weed infestation(s) have stayed approximately the same since the project
- Don't know

## 13. Operational Characteristics

Now we'd like you to answer some questions about the operational characteristics of your PTI funded project(s).

(Note: This is the third of four main sections in the survey)

## National Fish and Wildlife Foundation Pulling Together Initiative --

28. What type of organization had the lead responsibility for implementing this PTI funded project?

(Please choose the option that most accurately describes the organization or choose 'other.')

- A conservation district (e.g., soil and water conservation district, other districts established under state law)
- A resource conservation and development program (sponsored by USDA NRCS)
- A cooperative weed management area
- A citizen-based volunteer initiative
- A non-profit organization (e.g., The Nature Conservancy)
- An academic institution
- A county government agency
- A state government agency
- A federal government agency
- A tribal government agency
- Other

Please also provide the organization's name

29. Did the organization with lead responsibility for project implementation also have budgetary control?

- Yes
- No

## 14. Operational Characteristics II

## National Fish and Wildlife Foundation Pulling Together Initiative --

30. What organization had budgetary control over this PTI funded project(s)?

(Please choose the option that most accurately describes the organization or choose 'other.')

A conservation district (e.g., soil and water conservation district, other districts established under state law)

A resource conservation and development program (sponsored by USDA NRCS)

A cooperative weed management area

A citizen-based volunteer initiative

A non-profit organization (e.g., The Nature Conservancy)

An academic institution

A county government agency

A state government agency

A federal government agency

A tribal government agency

Other

Please also provide the organization's name

## 15. Operational Characteristics III

31. How would you characterize the disbursement of the NFWF PTI money granted to your project?

(Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)

Very timely

Moderately timely

Significant delays

Don't know

If you would like, please comment on your experience with NFWF grant disbursement, especially in comparison to other federal, state, local, or private grants

## 16. Operational Characteristics IV

## National Fish and Wildlife Foundation Pulling Together Initiative --

32. Was the project implemented with the help of any of the following?

(Mark all that apply)

- Volunteers
- Project partner staff
- Staff specifically paid for by the PTI grant
- Contractors
- None of the above

### 17. Operational Characteristics V

33. To what extent did this project use volunteers?

- Extensively
- Sometimes
- Rarely
- Never

34. What role did volunteers play (you may select more than one answer)?

- Advisory
- Outreach/education
- Labor

Other (please specify)

### 18. Operational Characteristics VI

35. Did weed control, monitoring, or other activities directly related to the PTI funded project continue after all PTI funding was finished?

- Yes
- No
- Don't know

### 19. Operational Characteristics VII

## National Fish and Wildlife Foundation Pulling Together Initiative --

36. Where did financial, technical, and/or logistical support for continuing the project beyond the PTI funding come from?

(Mark all that apply)

- A conservation district (e.g., soil and water conservation district, other districts established under state law)
- A resource conservation and development program (sponsored by USDA NRCS)
- A cooperative weed management area
- A citizen-based volunteer initiative
- A non-profit organization (e.g., The Nature Conservancy)
- An academic institution
- A county government agency
- A state government agency
- A federal government agency
- A tribal government agency
- Other (specify below)

Please also provide the organization(s)'s name

## 20. Operational Characteristics VIII

37. Please describe any monitoring of the PTI project site that has taken place since the PTI funded project was completed.

- Formal monitoring of the site has been ongoing (e.g., periodic surveys of plants or wildlife)
- Informal monitoring of the site has been ongoing (e.g., drive-bys, walk-arounds)
- Formal monitoring of the site occurred in the past, but is no longer going on
- Informal monitoring of the site occurred in the past, but is no longer going on
- No monitoring has occurred since project completion
- Don't know

Other (please specify)

# National Fish and Wildlife Foundation Pulling Together Initiative --

38. In your opinion, did any of the following impede implementation of your PTI funded project?

(Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)

(Mark all that apply)

- Burdensome or inefficient project administration by project staff
- Burdensome or inefficient project administration by NFWF
- Lack of a weed-control ordinance or other legal authority
- Lack of scientific expertise or scientific resources to know the best way to control targeted weed(s)
- Lack of staff, training, necessary equipment, or other non-scientific project inputs
- Obstructive laws, regulations, or ordinances
- Critical partners did not participate in the project
- Different objectives among project partners
- Different approaches among project partners
- Don't know

Other (please specify)

39. Would your PTI funded project have been possible without the support of the PTI money?

(Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)

- Yes, we could have fully conducted the project
- Yes, we could have conducted the project, but at a \*slightly\* smaller scale
- Yes, we could have conducted the project, but at a \*much\* smaller scale
- No, the PTI money was crucial to this project being conducted
- Don't know

Comments

## 21. Partnerships

Now we'd like you to answer some questions about partnerships and community involvement in your PTI funded project.

(Note: This is the final main section of the survey).

40. Did the lead organization partner with other individuals or groups to implement the PTI funded project?

Yes

No

## 22. Partnerships I I

41. Which of the following worked as partners implementing the PTI funded project?

(Mark all that apply)

- Private landowner(s), farming or ranching operations
- Non-governmental or non-profit organizations
- Citizen based volunteer group(s)
- An academic institution (e.g., technical school, college, or university)
- A business or other "for-profit" entities (besides farming or ranching operations)
- One or more federal agencies
- One or more state agencies
- One or more county or local agencies

Other (please specify)

42. Did the partnership exist prior to receiving the PTI grant?

Yes

No

If 'Yes' for how many years did the partnership exist prior to receiving the PTI grant?

43. Did the partnership continue after the PTI grant ended?

Yes

No

If 'Yes' for how many years did the partnership exist after the PTI grant (or is the partnership ongoing)?

# National Fish and Wildlife Foundation Pulling Together Initiative --

44. How did project partners engage in the project?

(Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without explicit permission)

- Active throughout the project
- Active at first but participation declined over time
- Some partners were active and others were not
- Partners did not engage the project

45. How did the partners on this PTI funded project communicate with each other?

	Primary method	Secondary method	Not used
Website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electronic Listserv	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Formal meetings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Informal meetings/tailgate conversations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phone calls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Email	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<input type="text"/>		

## 23. Wrap Up

46. Is there any other information you would like to provide to assist in understanding your PTI funded project or to assist in improving the PTI program overall?

(Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)

47. Would you like to be notified when the final evaluation report is publicly available?

- Yes
- No

If 'Yes' please provide an email address. This address will be used only to correspond with you about this evaluation.

48. Thank you for taking our survey! Can we contact you for further information on your PTI funded project or about the PTI program overall?

Yes

No

If 'Yes' please provide an email address and/or phone number. This contact information will be used only to correspond with you about this evaluation.

49. NFWF Project IDs

Project 1

Project 2

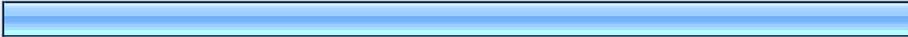
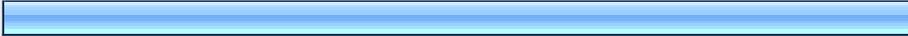
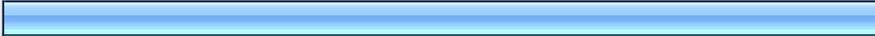
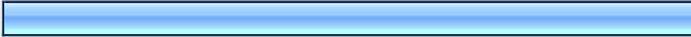
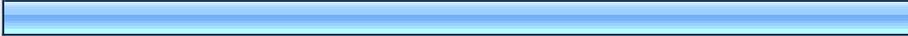
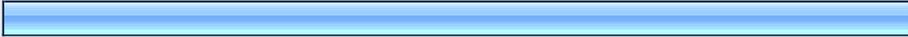
Project 3

Project 4

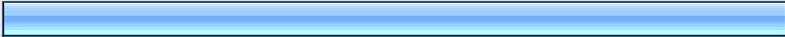
Project 5

# National Fish and Wildlife Foundation Pulling Together Initiative -- Survey of Past Grant Recipients

**1. Please fill out these questions. We are asking for contact information so that we can follow-up with a subset of grantees. Note: If you have received funding in multiple years for different phases of the same project, we are asking you to fill out a single survey and include all project phases in your answer. (Confidentiality reminder: your name, organization, and project will never be associated with your answers to questions in this survey without your explicit permission)**

		Response Percent	Response Count
<b>Your Name:</b>		100.0%	88
<b>Your Title:</b>		100.0%	88
<b>Your Organization:</b>		100.0%	88
PTI project name(s):		96.6%	85
PTI project ID(s):		76.1%	67
<b>County of project site:</b>		100.0%	88
<b>State of project site:</b>		100.0%	88
		<i>answered question</i>	<b>88</b>
		<i>skipped question</i>	<b>0</b>

**2. Please characterize your involvement with the PTI funded project. (Please select all that apply).**

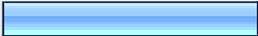
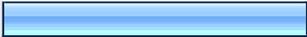
		Response Percent	Response Count
<b>I was directly involved in project implementation.</b>		86.4%	76
I have second-hand knowledge of the project (example - through conversations with co-workers).		11.4%	10
I am familiar with the area where the project took place and am aware of current conditions in the area.		26.1%	23
		<i>answered question</i>	<b>88</b>
		<i>skipped question</i>	<b>0</b>

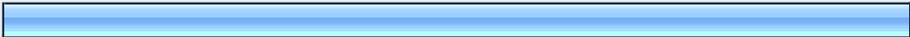
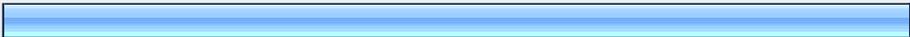
3. What kind of information do you have that indicates the location of the project treatment area? (Note: If you use the program "Google Earth", an easy way to find latitude and longitude is to zoom in to your project site location. Latitude and longitude for the cursor's position are located in the bottom left corner of the Google Earth page). (Please select the option that appears highest on the list.)

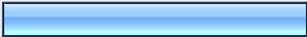
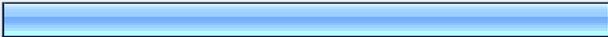
		Response Percent	Response Count
Latitude and longitude		20.7%	18
UTM coordinates		6.9%	6
Township, range, and section		16.1%	14
Name of nearest feature shown on a USGS topographic map		16.1%	14
Driving directions to project site or other descriptive information		11.5%	10
ZIP code of project site		19.5%	17
I have no project location information		9.2%	8
		<b>answered question</b>	<b>87</b>
		<b>skipped question</b>	<b>1</b>

4. Please provide latitude and longitude (either in degrees, minutes, seconds OR as a decimal degree).

		Response Percent	Response Count
Latitude (e.g., 40d 25m 15s N):		100.0%	17
Longitude (e.g., 120d 17m 30s W):		82.4%	14
		<b>answered question</b>	<b>17</b>
		<b>skipped question</b>	<b>71</b>

5. What geodetic system are these coordinates in?			Response Percent	Response Count
NAD 27			27.8%	5
NAD 83			22.2%	4
WGS 84			16.7%	3
Unknown			33.3%	6
			<i>answered question</i>	<b>18</b>
			<i>skipped question</i>	<b>70</b>

6. Please provide UTM coordinates.			Response Percent	Response Count
Northing coordinate (e.g., 4479671.87 N):			100.0%	5
Easting coordinate (e.g., 220732.05 E):			100.0%	5
UTM zone (if known):			100.0%	5
			<i>answered question</i>	<b>5</b>
			<i>skipped question</i>	<b>83</b>

7. What geodetic system are these coordinates in?			Response Percent	Response Count
NAD 27			33.3%	2
<b>NAD 83</b>			<b>66.7%</b>	4
WGS 84			0.0%	0
Unknown			0.0%	0
			<i>answered question</i>	<b>6</b>
			<i>skipped question</i>	<b>82</b>

8. Please provide township, range, and section for the project site.			
		Response Percent	Response Count
Township (e.g., T32N):	<input type="text"/>	100.0%	14
Range (e.g., R18E):	<input type="text"/>	100.0%	14
Section (e.g., S24):	<input type="text"/>	78.6%	11
Additional specificity (e.g., SW 1/4):		0.0%	0
		<i>answered question</i>	<b>14</b>
		<i>skipped question</i>	<b>74</b>

9. Please name the nearest feature on a USGS or USFS topographic map.			
		Response Percent	Response Count
Feature name:	<input type="text"/>	100.0%	13
TOPO map name (if known):	<input type="text"/>	38.5%	5
Map series or scale (e.g., 7.5' or 1:24,000):	<input type="text"/>	38.5%	5
		<i>answered question</i>	<b>13</b>
		<i>skipped question</i>	<b>75</b>

10. Please provide driving directions to the project site or other descriptive information.		
		Response Count
		10
		<i>answered question</i>
		<b>10</b>
		<i>skipped question</i>
		<b>78</b>

11. Please provide the zipcode for the project site.

		Response Count
		18
	<i>answered question</i>	<b>18</b>
	<i>skipped question</i>	<b>70</b>

12. Which weed species were targeted by your PTI funded project(s)?

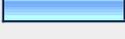
Select weed species from the list below

	A - G	Absinth wormwood	Black henbane	Black swallow-wort	Bull thistle	Canada thistle	Cogon grass	C
Primary target weed	2.7% (2)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	11.0% (8)	0.0% (0)	0.
Secondary target weed	7.8% (4)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	5.9% (3)	0.0% (0)	0.
Other target weed	2.5% (1)	2.5% (1)	5.0% (2)	0.0% (0)	5.0% (2)	<b>15.0% (6)</b>	0.0% (0)	0.
Other target weed	0.0% (0)	0.0% (0)	3.1% (1)	0.0% (0)	6.3% (2)	<b>18.8% (6)</b>	0.0% (0)	3.
Other target weed	0.0% (0)	0.0% (0)	4.5% (1)	0.0% (0)	9.1% (2)	<b>13.6% (3)</b>	0.0% (0)	0.

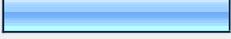
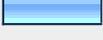
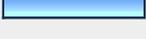
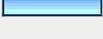
**13. What weed management actions did your PTI funded project take? (Mark all that apply)**

	<b>Primary action</b>	<b>Secondary action</b>	<b>Didn't use</b>	<b>Response Count</b>
Survey or inventory development	<b>73.0% (54)</b>	23.0% (17)	4.1% (3)	74
Prevention (stopping invasive species before they arrive)	33.3% (22)	<b>45.5% (30)</b>	21.2% (14)	66
Early detection and rapid response (finding new infestations and eliminating them before they become established)	<b>70.8% (51)</b>	19.4% (14)	9.7% (7)	72
Control and management (containing and reducing existing infestations)	<b>87.1% (74)</b>	10.6% (9)	2.4% (2)	85
Rehabilitation and restoration (reclaiming native habitats and ecosystems)	19.2% (14)	<b>47.9% (35)</b>	32.9% (24)	73
			Other (please specify)	17
			<b>answered question</b>	<b>87</b>
			<b>skipped question</b>	<b>1</b>

**14. In the area of concern to your project, approximately how much land area was infested by the targeted noxious weed(s) prior to the project?**

		Response Percent	Response Count
0-9 acres		4.8%	4
10-99 acres		19.0%	16
100-499 acres		15.5%	13
500-999 acres		7.1%	6
<b>1000-4999 acres</b>		<b>21.4%</b>	18
5000-9999 acres		9.5%	8
10,000 acres or more		13.1%	11
No reliable data		9.5%	8
		<b><i>answered question</i></b>	<b>84</b>
		<b><i>skipped question</i></b>	<b>4</b>

**15. Approximately what percentage of the land area of concern to your project was directly managed for the targeted noxious weed(s)?**

		Response Percent	Response Count
0 percent		3.5%	3
<b>1-20 percent</b>		<b>24.7%</b>	21
21-40 percent		12.9%	11
41-60 percent		8.2%	7
61-80 percent		10.6%	9
81-99 percent		14.1%	12
100 percent		15.3%	13
No reliable data		10.6%	9
		<b><i>answered question</i></b>	<b>85</b>
		<b><i>skipped question</i></b>	<b>3</b>

16. What type of control strategy did your PTI funded project use? (Mark all that apply)				
	Primary Strategy	Secondary Strategy	Didn't Use	Response Count
Chemical applications (broadcast spraying)	<b>56.9% (37)</b>	18.5% (12)	24.6% (16)	65
Chemical applications (spot treatment)	<b>85.1% (63)</b>	12.2% (9)	2.7% (2)	74
Bio-agent applications (e.g., leaf eating beetle)	32.2% (19)	<b>35.6% (21)</b>	32.2% (19)	59
Mechanical control (e.g., weed pulling, mowing)	<b>50.7% (34)</b>	35.8% (24)	13.4% (9)	67
Livestock grazing (e.g., goats)	20.0% (10)	28.0% (14)	<b>52.0% (26)</b>	50
			Other (please specify)	9
			<b>answered question</b>	<b>84</b>
			<b>skipped question</b>	<b>4</b>

17. Where did weed control activities take place? (Mark all that apply)				
	Primary Location	Secondary Location	Didn't Use	Response Count
Private lands owned by individuals or farming/ranching operations	<b>79.7% (55)</b>	11.6% (8)	8.7% (6)	69
Private lands owned/managed by a non-profit organization	38.6% (22)	19.3% (11)	<b>42.1% (24)</b>	57
Military lands	12.2% (5)	2.4% (1)	<b>85.4% (35)</b>	41
Non-military federal lands	<b>76.3% (45)</b>	5.1% (3)	18.6% (11)	59
Tribal lands	11.9% (5)	11.9% (5)	<b>76.2% (32)</b>	42
State lands	<b>53.8% (35)</b>	24.6% (16)	21.5% (14)	65
County or local lands	<b>62.1% (41)</b>	19.7% (13)	18.2% (12)	66
			<b>answered question</b>	<b>87</b>
			<b>skipped question</b>	<b>1</b>

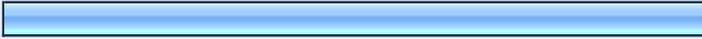
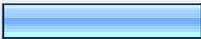
**18. Did the project take any of the actions listed below? (Mark all that apply)**

	<b>Primary Action</b>	<b>Secondary Action</b>	<b>Not in Project</b>	<b>Response Count</b>
Direct control of weeds	<b>90.9% (80)</b>	5.7% (5)	3.4% (3)	88
Produce educational signage or materials about invasive weeds	<b>46.1% (35)</b>	44.7% (34)	9.2% (7)	76
Organize a weed awareness day(s)	33.3% (21)	31.7% (20)	<b>34.9% (22)</b>	63
Create a new cooperative weed management area or similar partnership group	<b>51.4% (37)</b>	20.8% (15)	27.8% (20)	72
Support activities for an existing cooperative weed management area or similar partnership group	<b>48.5% (33)</b>	30.9% (21)	20.6% (14)	68
Support activities to help create connections between groups and individuals managing weeds	<b>62.0% (49)</b>	34.2% (27)	3.8% (3)	79
			Other (please specify)	7
			<b><i>answered question</i></b>	<b>88</b>
			<b><i>skipped question</i></b>	<b>0</b>

**19. What led your organization to focus on the weed problem addressed through your PTI funded project? (Mark all that apply)**

	Primary Motivation	Secondary Motivation	Didn't Use	Response Count
On-the-ground reconnaissance	<b>90.7% (68)</b>	9.3% (7)	0.0% (0)	75
A systematic inventory or map of the infestation	<b>58.1% (36)</b>	27.4% (17)	14.5% (9)	62
A scientific assessment of the ecosystem of concern (e.g., watershed management plan, resource management plan)	<b>46.7% (28)</b>	28.3% (17)	25.0% (15)	60
A weed specific strategy or management plan	<b>63.5% (40)</b>	25.4% (16)	11.1% (7)	63
Unsure / Don't Know	20.0% (3)	0.0% (0)	<b>80.0% (12)</b>	15
			Other (please specify)	18
			<b>answered question</b>	<b>85</b>
			<b>skipped question</b>	<b>3</b>

**20. Was your PTI-funded project part of a larger local or regional effort to control the same invasive weed(s)?**

		Response Percent	Response Count
Yes		77.3%	68
No		21.6%	19
Don't know		1.1%	1
		<b>answered question</b>	<b>88</b>
		<b>skipped question</b>	<b>0</b>

21. If relevant, please identify the "conservation target" that the project hoped to benefit through control of invasive weeds. For example, "sea turtles" or "coastal dune habitats".

			Response Count
			66
<i>answered question</i>			<b>66</b>
<i>skipped question</i>			<b>22</b>

22. What were the objectives of this PTI funded project? (Mark all that apply)

	Primary objective(s)	Secondary objective(s)	Not a project objective	Response Count
Rangeland maintenance or improvement of forage quality	<b>40.9% (27)</b>	25.8% (17)	34.8% (23)	66
Water quantity or quality maintenance or improvement	<b>41.8% (28)</b>	31.3% (21)	26.9% (18)	67
Legally required control of noxious weeds	<b>42.6% (29)</b>	26.5% (18)	32.4% (22)	68
Maintenance of certified weed-free status for hay fields	3.3% (2)	25.0% (15)	<b>71.7% (43)</b>	60
Wildlife habitat improvement	<b>63.0% (51)</b>	32.1% (26)	4.9% (4)	81
Threatened or endangered species protection	<b>44.0% (33)</b>	34.7% (26)	21.3% (16)	75
Maintenance of native biodiversity	<b>72.3% (60)</b>	20.5% (17)	7.2% (6)	83
Fire control or reduction of fire risk	7.9% (5)	44.4% (28)	<b>49.2% (31)</b>	63
Education or public outreach	<b>67.6% (50)</b>	28.4% (21)	4.1% (3)	74
			Other (please specify)	8
<i>answered question</i>			<b>88</b>	
<i>skipped question</i>			<b>0</b>	

23. In your opinion, did the project accomplish its primary objective(s)? (Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)

		Response Percent	Response Count
Yes, all objectives		70.1%	61
Yes, some objectives (please comment below)		27.6%	24
No, none of the objectives		2.3%	2
Which primary objectives were accomplished if you selected 'some' above?			28
<b>answered question</b>			<b>87</b>
<b>skipped question</b>			<b>1</b>

24. In your opinion, did this project accomplish its secondary objectives? (Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)

		Response Percent	Response Count
Yes, all objectives		70.6%	60
Yes, some objectives (please comment below)		18.8%	16
No, none of the objectives		2.4%	2
There were no secondary objectives		8.2%	7
Which secondary objectives were accomplished if you selected 'some' above?			16
<b>answered question</b>			<b>85</b>
<b>skipped question</b>			<b>3</b>

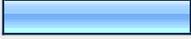
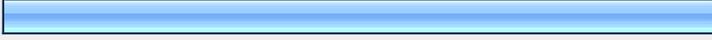
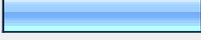
**25. What were the most effective aspects of this PTI funded project? (Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission) (Please answer "unknown" if you do not have specific knowledge of project implementation.)**

		Response Count
		85
	<i>answered question</i>	85
	<i>skipped question</i>	3

**26. What were the least effective aspects of this PTI funded project? (Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission) (Please answer "unknown" if you do not have specific knowledge of project implementation.)**

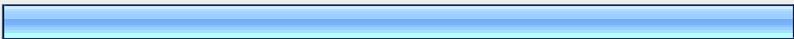
		Response Count
		83
	<i>answered question</i>	83
	<i>skipped question</i>	5

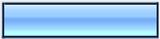
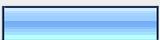
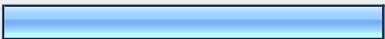
**27. How does the target weed(s) situation today compare to the pre-project baseline in the area that was targeted by your PTI funded project? (Mark all that apply)**

		Response Percent	Response Count
Weed infestation(s) have been eliminated		20.5%	18
<b>Weed infestation(s) are better controlled than before the project</b>		<b>78.4%</b>	69
New weed(s) have infested the project area		21.6%	19
Weed infestation(s) have gotten worse since the project finished		8.0%	7
Weed infestation(s) have increased since the project finished, but not as quickly as was projected prior to the project		8.0%	7
Weed infestation(s) have stayed approximately the same since the project		8.0%	7
Don't know		5.7%	5
		<b><i>answered question</i></b>	<b>88</b>
		<b><i>skipped question</i></b>	<b>0</b>

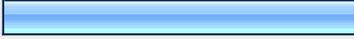
**28. What type of organization had the lead responsibility for implementing this PTI funded project? (Please choose the option that most accurately describes the organization or choose 'other.')**

		Response Percent	Response Count
A conservation district (e.g., soil and water conservation district, other districts established under state law)		4.7%	4
A resource conservation and development program (sponsored by USDA NRCS)		0.0%	0
A cooperative weed management area		12.8%	11
A citizen-based volunteer initiative		1.2%	1
<b>A non-profit organization (e.g., The Nature Conservancy)</b>		<b>24.4%</b>	21
An academic institution		2.3%	2
A county government agency		19.8%	17
A state government agency		8.1%	7
A federal government agency		22.1%	19
A tribal government agency		0.0%	0
Other		4.7%	4
Please also provide the organization's name			48
<b>answered question</b>			<b>86</b>
<b>skipped question</b>			<b>2</b>

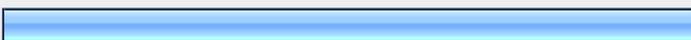
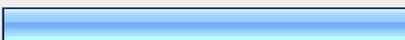
29. Did the organization with lead responsibility for project implementation also have budgetary control?				
			Response Percent	Response Count
Yes		87.4%	76	
No		12.6%	11	
			<b>answered question</b>	<b>87</b>
			<b>skipped question</b>	<b>1</b>

30. What organization had budgetary control over this PTI funded project(s)? (Please choose the option that most accurately describes the organization or choose 'other.')				
			Response Percent	Response Count
A conservation district (e.g., soil and water conservation district, other districts established under state law)		16.7%	2	
A resource conservation and development program (sponsored by USDA NRCS)		8.3%	1	
A cooperative weed management area		0.0%	0	
A citizen-based volunteer initiative		8.3%	1	
A non-profit organization (e.g., The Nature Conservancy)		16.7%	2	
An academic institution		0.0%	0	
A county government agency		8.3%	1	
A state government agency		0.0%	0	
<b>A federal government agency</b>		<b>41.7%</b>	<b>5</b>	
A tribal government agency		0.0%	0	
Other		0.0%	0	
			Please also provide the organization's name	7
			<b>answered question</b>	<b>12</b>
			<b>skipped question</b>	<b>76</b>

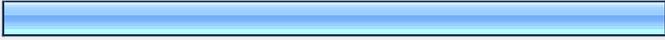
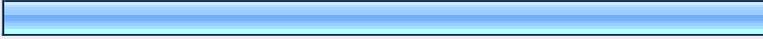
**31. How would you characterize the disbursement of the NFWF PTI money granted to your project? (Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)**

		Response Percent	Response Count
Very timely		33.0%	29
<b>Moderately timely</b>		<b>38.6%</b>	34
Significant delays		18.2%	16
Don't know		10.2%	9
If you would like, please comment on your experience with NFWF grant disbursement, especially in comparison to other federal, state, local, or private grants			32
<i>answered question</i>			<b>88</b>
<i>skipped question</i>			<b>0</b>

**32. Was the project implemented with the help of any of the following? (Mark all that apply)**

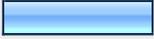
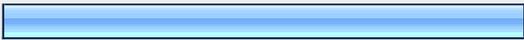
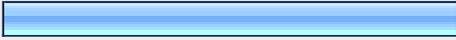
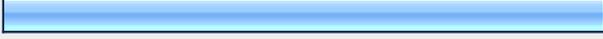
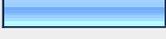
		Response Percent	Response Count
Volunteers		72.7%	64
<b>Project partner staff</b>		<b>76.1%</b>	67
Staff specifically paid for by the PTI grant		44.3%	39
Contractors		52.3%	46
None of the above		1.1%	1
<i>answered question</i>			<b>88</b>
<i>skipped question</i>			<b>0</b>

33. To what extent did this project use volunteers?			
		Response Percent	Response Count
Extensively		48.4%	31
Sometimes		42.2%	27
Rarely		9.4%	6
Never		0.0%	0
		<b>answered question</b>	<b>64</b>
		<b>skipped question</b>	<b>24</b>

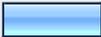
34. What role did volunteers play (you may select more than one answer)?			
		Response Percent	Response Count
Advisory		41.3%	26
Outreach/education		73.0%	46
Labor		84.1%	53
		Other (please specify)	6
		<b>answered question</b>	<b>63</b>
		<b>skipped question</b>	<b>25</b>

35. Did weed control, monitoring, or other activities directly related to the PTI funded project continue after all PTI funding was finished?			
		Response Percent	Response Count
Yes		92.0%	80
No		1.1%	1
Don't know		6.9%	6
		<b>answered question</b>	<b>87</b>
		<b>skipped question</b>	<b>1</b>

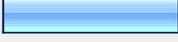
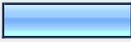
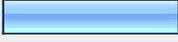
**36. Where did financial, technical, and/or logistical support for continuing the project beyond the PTI funding come from? (Mark all that apply)**

		Response Percent	Response Count
A conservation district (e.g., soil and water conservation district, other districts established under state law)		23.8%	19
A resource conservation and development program (sponsored by USDA NRCS)		16.3%	13
A cooperative weed management area		40.0%	32
A citizen-based volunteer initiative		21.3%	17
A non-profit organization (e.g., The Nature Conservancy)		45.0%	36
An academic institution		18.8%	15
A county government agency		57.5%	46
A state government agency		50.0%	40
<b>A federal government agency</b>		<b>66.3%</b>	<b>53</b>
A tribal government agency		6.3%	5
Other (specify below)		17.5%	14
Please also provide the organization(s)'s name			33
<b>answered question</b>			<b>80</b>
<b>skipped question</b>			<b>8</b>

37. Please describe any monitoring of the PTI project site that has taken place since the PTI funded project was completed.

		Response Percent	Response Count
Formal monitoring of the site has been ongoing (e.g., periodic surveys of plants or wildlife)		52.3%	45
Informal monitoring of the site has been ongoing (e.g., drive-bys, walk-arounds)		51.2%	44
Formal monitoring of the site occurred in the past, but is no longer going on		4.7%	4
Informal monitoring of the site occurred in the past, but is no longer going on		4.7%	4
No monitoring has occurred since project completion		2.3%	2
Don't know		10.5%	9
Other (please specify)			10
		<b>answered question</b>	<b>86</b>
		<b>skipped question</b>	<b>2</b>

**38. In your opinion, did any of the following impede implementation of your PTI funded project? (Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission) (Mark all that apply)**

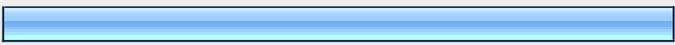
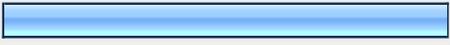
		Response Percent	Response Count
Burdensome or inefficient project administration by project staff		10.3%	6
<b>Burdensome or inefficient project administration by NFWF</b>		<b>44.8%</b>	26
Lack of a weed-control ordinance or other legal authority		13.8%	8
Lack of scientific expertise or scientific resources to know the best way to control targeted weed(s)		8.6%	5
Lack of staff, training, necessary equipment, or other non-scientific project inputs		19.0%	11
Obstructive laws, regulations, or ordinances		5.2%	3
Critical partners did not participate in the project		13.8%	8
Different objectives among project partners		3.4%	2
Different approaches among project partners		10.3%	6
Don't know		19.0%	11
	Other (please specify)		25
	<b>answered question</b>		<b>58</b>
	<b>skipped question</b>		<b>30</b>

**39. Would your PTI funded project have been possible without the support of the PTI money? (Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)**

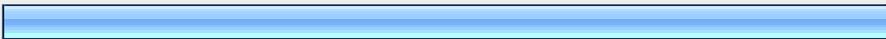
		Response Percent	Response Count
Yes, we could have fully conducted the project		1.1%	1
Yes, we could have conducted the project, but at a *slightly* smaller scale		10.2%	9
Yes, we could have conducted the project, but at a *much* smaller scale		23.9%	21
<b>No, the PTI money was crucial to this project being conducted</b>		<b>61.4%</b>	<b>54</b>
Don't know		3.4%	3
		Comments	14
		<b><i>answered question</i></b>	<b>88</b>
		<b><i>skipped question</i></b>	<b>0</b>

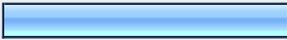
**40. Did the lead organization partner with other individuals or groups to implement the PTI funded project?**

		Response Percent	Response Count
Yes		95.4%	83
No		4.6%	4
		<b><i>answered question</i></b>	<b>87</b>
		<b><i>skipped question</i></b>	<b>1</b>

41. Which of the following worked as partners implementing the PTI funded project? (Mark all that apply)			
		Response Percent	Response Count
Private landowner(s), farming or ranching operations		73.8%	62
Non-governmental or non-profit organizations		63.1%	53
Citizen based volunteer group(s)		40.5%	34
An academic institution (e.g., technical school, college, or university)		48.8%	41
A business or other "for-profit" entities (besides farming or ranching operations)		23.8%	20
<b>One or more federal agencies</b>		<b>83.3%</b>	70
One or more state agencies		71.4%	60
One or more county or local agencies		76.2%	64
	Other (please specify)		11
		<b>answered question</b>	<b>84</b>
		<b>skipped question</b>	<b>4</b>

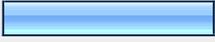
42. Did the partnership exist prior to receiving the PTI grant?			
		Response Percent	Response Count
Yes		58.3%	49
No		41.7%	35
	If 'Yes' for how many years did the partnership exist prior to receiving the PTI grant?		27
		<b>answered question</b>	<b>84</b>
		<b>skipped question</b>	<b>4</b>

43. Did the partnership continue after the PTI grant ended?				
			Response Percent	Response Count
Yes			97.6%	80
No			2.4%	2
If 'Yes' for how many years did the partnership exist after the PTI grant (or is the partnership ongoing)?				39
<i>answered question</i>				<b>82</b>
<i>skipped question</i>				<b>6</b>

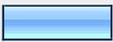
44. How did project partners engage in the project? (Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without explicit permission)				
			Response Percent	Response Count
Active throughout the project			57.8%	48
Active at first but participation declined over time			7.2%	6
Some partners were active and others were not			31.3%	26
Partners did not engage the project			3.6%	3
<i>answered question</i>				<b>83</b>
<i>skipped question</i>				<b>5</b>

45. How did the partners on this PTI funded project communicate with each other?					
	Primary method	Secondary method	Not used	Response Count	
Website	16.2% (6)	8.1% (3)	<b>75.7% (28)</b>	37	
Electronic Listserv	5.3% (2)	23.7% (9)	<b>71.1% (27)</b>	38	
Formal meetings	<b>72.9% (51)</b>	20.0% (14)	7.1% (5)	70	
Informal meetings/tailgate conversations	47.7% (31)	<b>49.2% (32)</b>	3.1% (2)	65	
Phone calls	<b>72.5% (58)</b>	27.5% (22)	0.0% (0)	80	
Email	<b>66.2% (49)</b>	28.4% (21)	5.4% (4)	74	
			Other (please specify)	6	
				<b>answered question</b>	<b>82</b>
				<b>skipped question</b>	<b>6</b>

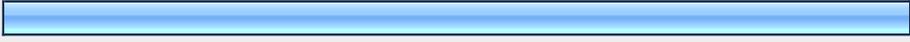
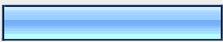
46. Is there any other information you would like to provide to assist in understanding your PTI funded project or to assist in improving the PTI program overall? (Confidentiality reminder: your name, organization, and project will never be associated with your answer to this question without your explicit permission)		Response Count
		36
		<b>answered question</b>
		<b>36</b>
		<b>skipped question</b>
		<b>52</b>

47. Would you like to be notified when the final evaluation report is publicly available?			
		Response Percent	Response Count
Yes		77.0%	67
No		23.0%	20
If 'Yes' please provide an email address. This address will be used only to correspond with you about this evaluation.			46
			<b>answered question</b>
			<b>87</b>
			<b>skipped question</b>
			<b>1</b>

**48. Thank you for taking our survey! Can we contact you for further information on your PTI funded project or about the PTI program overall?**

		Response Percent	Response Count
Yes		88.2%	75
No		11.8%	10
If 'Yes' please provide an email address and/or phone number. This contact information will be used only to correspond with you about this evaluation.			51
<b>answered question</b>			<b>85</b>
<b>skipped question</b>			<b>3</b>

**49. NFWF Project IDs**

		Response Percent	Response Count
Project 1		100.0%	88
Project 2		40.9%	36
Project 3		23.9%	21
Project 4		10.2%	9
Project 5		5.7%	5
<b>answered question</b>			<b>88</b>
<b>skipped question</b>			<b>0</b>

	Absinth wormwood		Black henbane		Black swallow-wort		Bull thistle		Canada thistle		Cogon grass		Crown vetch		Dalmatian toadflax		Eurasian watermilfoil		Garlic mustard	
Primary target weed	0.0%	0	0.0%	0	0.0%	0	0.0%	0	11.0%	8	0.0%	0	0.0%	0	4.1%	3	0.0%	0	0.0%	0
Secondary target weed	0.0%	0	0.0%	0	0.0%	0	0.0%	0	5.9%	3	0.0%	0	0.0%	0	5.9%	3	3.9%	2	2.0%	1
Other target weed	2.5%	1	5.0%	2	0.0%	0	5.0%	2	15.0%	6	0.0%	0	0.0%	0	7.5%	3	0.0%	0	2.5%	1
Other target weed	0.0%	0	3.1%	1	0.0%	0	6.3%	2	18.8%	6	0.0%	0	3.1%	1	6.3%	2	0.0%	0	0.0%	0
Other target weed	0.0%	0	4.5%	1	0.0%	0	9.1%	2	13.6%	3	0.0%	0	0.0%	0	4.5%	1	0.0%	0	0.0%	0

	Giant salvinia		Hounds-tongue		Hydrilla		Japanese hops		Knotweed		Leafy spurge		Miconia		Musk thistle		Orange hawkweed		Perennial pepperweed	
Primary target weed	1.4%	1	0.0%	0	4.1%	3	0.0%	0	8.2%	6	11.0%	8	1.4%	1	4.1%	3	1.4%	1	11.0%	8
Secondary target weed	0.0%	0	3.9%	2	0.0%	0	0.0%	0	0.0%	0	15.7%	8	0.0%	0	7.8%	4	2.0%	1	7.8%	4
Other target weed	0.0%	0	5.0%	2	0.0%	0	0.0%	0	0.0%	0	12.5%	5	0.0%	0	5.0%	2	0.0%	0	15.0%	6
Other target weed	0.0%	0	3.1%	1	0.0%	0	0.0%	0	0.0%	0	9.4%	3	0.0%	0	9.4%	3	0.0%	0	0.0%	0
Other target weed	0.0%	0	4.5%	1	0.0%	0	0.0%	0	0.0%	0	4.5%	1	0.0%	0	4.5%	1	0.0%	0	4.5%	1

	Purple loosestrife		Scotch thistle		Spotted knapweed		Tamarisk (saltcedar)		Tansy ragwort		Water hyacinth		Yellow starthistle		Yellow toadflax		Response count
Primary target weed	1.4%	1	2.7%	2	9.6%	7	9.6%	7	0.0%	0	0.0%	0	13.7%	10	0.0%	0	73
Secondary target weed	2.0%	1	3.9%	2	11.8%	6	7.8%	4	0.0%	0	0.0%	0	3.9%	2	3.9%	2	51
Other target weed	2.5%	1	2.5%	1	15.0%	6	0.0%	0	0.0%	0	0.0%	0	0.0%	0	2.5%	1	40
Other target weed	3.1%	1	12.5%	4	3.1%	1	9.4%	3	0.0%	0	0.0%	0	0.0%	0	9.4%	3	32
Other target weed	4.5%	1	4.5%	1	9.1%	2	9.1%	2	0.0%	0	0.0%	0	13.6%	3	9.1%	2	22

