Responding to Shrinking Budgets: How to Keep Controlling Invasive Plants with Reduced Program Funding

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Introduction

Land managers face challenges from two sides. On the one hand, outside threats to natural and cultural resources continue and increase in their intensity and menace. On the other, programmatic support to manage those threats is steadily eroding. In the case of the national park system, there is now less available project funding to preserve and protect our precious resources than during the previous five years.

When it comes to the threat posed by invasive nonnative plants, Pimentel et al. (2005) estimates there are at least 25,000 exotic plant species in North America. An eastern park example illustrates the challenge. Shenandoah National Park, Virginia, has documented fully 25 percent of its known terrestrial plant species as not native to its region (NPSpecies 2007).

Programmatic funding trends are not encouraging. It is an economic case of guns or butter. The United States' war on terrorism is suppressing most domestic budgets to flat or decreasing levels. Program funding for the nationally funded National Park Service (NPS) Mid-Atlantic Exotic Plant Management Team has steadily eroded as indicated by the Consumer Price Index. Though ostensibly a flat budget during the fiscal years 2003–2007, the CPI indicates their purchasing power has decreased 13 percent during the period (Figure 1). That equates to 13 percent fewer hours of labor or available supplies that they can purchase relative to 2003.

If your programmatic funding is drying up as well, you will need to consider how to get things done in different, cheaper ways. Åkerson and Forder (2006) described ways to improve programmatical output by use of contracts, cooperation, and collaboration to capture the available expertise and staff time of outside organizations. Building a program of volunteerism is another powerful way to accomplish work and grow a citizen base of support and advocacy.

Volunteers in the Parks

Working with volunteers in the parks (VIPs) is not new to the National Park Service. The VIP program, established in 1970 under Public Law 91-357, garners millions of hours

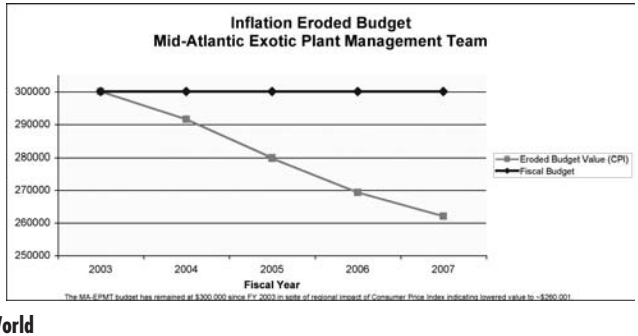

Figure 1. Chart illustrating the seriously eroded federal budget devoted to invasive plant control for the Mid-Atlantic Exotic Plant Management Team as calculated by the consumer price index for the region.

of assistance each year for the NPS. "In fiscal year 2005, 137,000 volunteers donated 5.2 million hours to your national parks" (NPS 2007). The types of services that volunteers cover includes a broad range of activities such as interpretation, reenactment, science and practical resource management, maintenance, and clerical duties, among others. Most common are volunteers that contribute more than 25 hours per year. A recent emphasis is to encourage volunteers that may only be able to contribute fewer than 10 hours per year.

Short-term volunteers

The NPS Mid-Atlantic Exotic Plant Management Team and Shenandoah National Park, with the support of the National Parks Foundation and Tauck Foundation, have formed a short-term volunteer program that focuses on a public that may only be available for a few hours. Called the Shenandoah National Park Short-term Volunteer Program, the effort is proving to be a great boon to resource management.

In fiscal year 2006, as part of the Short-term Volunteer Program, the park conducted 21 field events involving 392 volunteers who contributed 772 volunteer hours in the field. There were also ten volunteers and student interns who contributed 868 hours as part of the invasive plant management program. All told, there were 402 short-term volunteers who contributed 1,640 volunteer hours to manage invasive plants (Figure 2). FY 2006 was the first field season for the program. We anticipate even more volunteer hours in the years to follow.

The program is more than a way to generate volunteer work accomplishment in the park. It is a vehicle for educating the public about the dangers of invasive species and helping them learn ways of combating invasive plants at the park and back at their home areas. They are also briefed on how they might avoid future invasive species introductions by their awareness and advocacy. Finally, it generates interest in parks and the protection of our precious natural and cultural resources.

Organization

The Short-term Volunteer Program is overseen by the Mid-Atlantic Exotic Plant Management Team liaison. A Student Conservation Association intern (SCA volunteer leader) leads the day-to-day activities of contacting volunteers and potential volunteer groups, setting up field events, overseeing the field activity, and documenting those activities. Public outreach is vigorously pursued. The first year of field activity helped to fine-tune the program for future years.

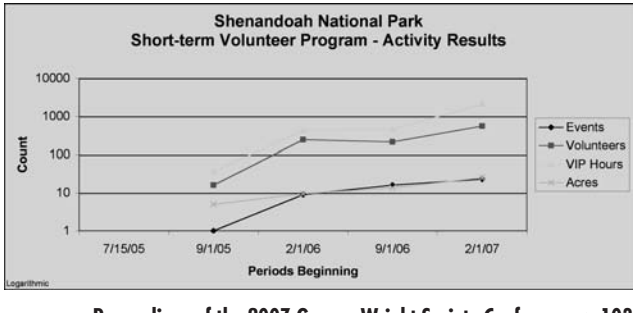

Figure 2. Chart illustrating the assistance provided by short-term volunteers at Shenandoah National Park. Volunteers come from schools, universities, special-interest groups, clubs, and the general public.

Four types of field events emerged as a natural outflow of the program. The first are special events. Two special events have been developed to date, including a May event known as *Save the Meadow!* and a September event linked with National Public Lands Day (Figure 3). These serve as high profile opportunities for the park to attract and work with many volunteers at one time. In the first year, those events attracted 30 and 70 people, respectively. We anticipate much stronger turn-out as the event reputation and publicity increases.

The second type of event focuses on groups by appointment. In the first year, group sizes varied from 10 to 120 people. The SCA volunteer leader made initial contacts and set up the time and place for gathering and field work. Groups included civic organizations, professional societies, church youth groups, university classes and clubs, middle school and high school groups, home school families, and youth organizations. Many of the school and university-affiliated groups hoped to fulfill service learning requirements of their schools. The program became a way for them to fulfill their need. Group events generated the greatest number of volunteers and volunteer hours within the program.

A third type of event is akin to "pick-up basketball." The SCA volunteer leader went to one of the park visitor centers and led the interested public in invasive plant control for one-to-three hours. Posters were set up at several locations to attract the public in an opportunistic fashion. People that responded came to the park and enjoyed their stay but may not have known what to do next or wanted to "give back" to the park in some way. This approach, frankly, was the least successful in generating volunteers. It was informative to the park, however, by suggesting a public activity that the park's interpretation program could cut, in light of their shrinking budget.

Figure 3. Some of the volunteers who provided assistance in controlling the invasive oriental lady's thumb during National Public Lands Day hosted at Shenandoah National Park, September 29, 2007.

Finally, as a spin-off from the other short-term volunteer activities, interest by some of the original volunteers developed into their willingness to participate in longer-term relationships. Several became volunteer leaders that were willing to serve when large groups or special events were scheduled. These relationships were very encouraging and helpful to the program.

Strategic planning

In the first year of operations, planning and preparations took place that allowed for smooth operations in the first field season. A strategic plan was created that describes the various volunteer types, provides protocols for preparing for and administering field events, and provides forms for documenting field activity. Maps of potential work areas were created with descriptions of the likely exotic plant species and optimal control methods. A safety plan was made part of the overall strategic document that helps organize the thinking of the volunteer leader to keep safety uppermost in their planning and administration.

As part of the first year of planning, a database of potential volunteers and volunteer groups was created and populated. At time of this writing, 240 groups and individuals are part of the database—made possible by countless telephone calls in that first year of planning. It is used extensively now for contacting groups to set up field events and notify volunteers of future special events.

Continuous improvement

Volunteers are asked to provide feedback subsequent to their field experience. Using an approved questionnaire, the information helps inform park staff of the need for program improvements. The National Park Foundation handles the tallying and analysis of the questionnaire responses.

Conclusion

The Shenandoah National Park Short-term Volunteer Program has proved highly beneficial to the park in several ways. It is a boon to resource management. It generates public goodwill and long-term advocacy among the participants—for parks and against invasive exotic species that harm park resources. Finally, it increases the number of visitors to the park in these days of changing tastes in recreation.

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