

**Final Report to the National Fish and Wildlife Foundation:
An Evaluation of the Foundation's Conservation Easement
and Capacity Grant Building Program**

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REPORT ABSTRACT

The National Fish and Wildlife Foundation has made significant investments in land acquisition and capacity building projects for the benefit of America's wildlife. The Foundation has helped to fund some of the leading wildlife habitat protection projects in the nation over the past 15 years and has helped to create or build half a dozen very effective land trusts.

The Foundation has worked with a variety of federal and non-profit partners and has an impressive track record of leveraging matching funds in its grant making. The Foundation's match approach has leveraged more than \$10 million match dollars for investments in land projects, resulting in a ratio of about two match dollars for each dollar the Foundation invested.

Few conservation funders or land trusts have taken the time to evaluate the performance of their projects toward achieving organization goals. The Foundation can use such an evaluation to improve the selection of projects to fund, to alert applicants about the kinds of projects the Foundation would prefer to fund, and to gain a better understanding of the kinds of information the Foundation would need to make future evaluations of the effectiveness of grants in protecting wildlife habitat.

The consultants in this study analyzed nearly 100 projects and rated projects as good or not so good according to a review of project files, surveys of grantee organizations, interviews with those organizations, and a numerical rating system.

The consultants reviewed 73 land acquisition projects, rating 57 of the land acquisition projects as good and 16 as not so good. The good projects tended to involve large organizations, the preservation of more than 500 acres, and a per acre cost of less than \$100. The not so good projects tended to involve the preservation of less than 100 acres, and a per acre cost of more than \$1,000.

The grants for land acquisition were examined in two periods: before 1999 and from that year to 2002. More recently, the Foundation improved the cost-effectiveness of its grants for land acquisition by focusing on projects that involve 1,000 or more

acres. These projects were often in the rural West where large acreages are still intact and the cost per acre is low.

The consultants reviewed 25 capacity building projects and rated 16 as good and 9 as not so good. The good projects tended to involve small organizations, the addition of staff, the preservation of more than 100 acres, and an effective outreach and education program. The not so good projects tended to involve medium and large organizations, little to no land preservation, and a weak outreach effort.

A comparison of the two types of grants revealed that the majority of Foundation grants for land acquisitions have been made to larger, more established organizations with experienced staff. On the other hand, the majority of Foundation grants for capacity building have been made to small organizations with growth potential. A successful Foundation strategy has been to grow small organizations into medium to large organizations that have the financial and managerial capacity to execute large land acquisition projects. The California Rangeland Trust, the Malpai Borderlands Group, and the Forest Society of Maine are excellent examples of this capacity-building strategy.

The Foundation should consider making a number of improvements to its grant programs. First, the Foundation should consider adopting a numerical rating and ranking system for its land acquisition and capacity building projects to aid in comparing these projects across geographic areas of the country and to ensure that the most cost-effective projects are selected.

The Foundation also should consider expanding its reporting requirements from grantees both during a project and after a project has been completed. In particular, the monitoring of conservation easements is an essential part of protecting wildlife habitat, and the Foundation should be kept aware of how effectively the projects are sustaining wildlife over the long run. So far, few grantees have conducted scientific studies of the outcomes for wildlife. Although the consultants heard anecdotal evidence of positive outcomes for wildlife, the Foundation needs to work more closely with grantees to build data bases of conservation performance over time. The Foundation should consider adding a full-time file manager, conducting periodic site visits by scientists and regional directors on an ongoing basis, and creating a formal strategy for promoting long-term relationships between the Foundation and the grantees.

The Foundation also should consider taking a more active leadership role in funding capacity building projects to improve the stewardship and easement monitoring protocols of grantee organizations and to enable these organizations to evaluate the performance of their land acquisition projects. In addition, these organizations need to improve their habitat restoration projects and their understanding of the interaction between local land use planning and the preservation of private lands.

Finally, relatively few Americans know what the Foundation is or what it does. The Foundation needs to do a better job of communicating its success in habitat

protection to the land trust community, potential funding partners, and to the public-at-large. The Foundation needs to build a data base of the changes in wildlife habitat, diversity, and populations to publicize the performance of its grant projects over time. This approach could highlight the successes that come both from public funds and private donations, and would likely garner more support from taxpayers and private funders.

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Table of Contents

Description of the National Fish and Wildlife Foundation, Evaluation of Grant Projects, and Time Line of the Evaluation.....	Page
Executive Summary.....	Page
Introduction.....	Page 11
Chapter 1: Conservation Easement Pros and Cons, A Review of the Literature.....	Page 12
Chapter 2: National Fish and Wildlife Foundation Interests in Land and Capacity-Building Grant Programs and Projects: An Overview...	Page
Chapter 3: Evaluation of Interests in Land Grant Projects.....	Page
Chapter 4: Evaluation of Capacity Building Grant Projects.....	Page
Chapter 5: Application Rating and Ranking Model and Post-Grant Cost Effectiveness Model..	Page
Chapter 6: Conclusions and Recommendations.....	Page
References.....	Page
Appendices.....	Page

Description of the National Fish and Wildlife Foundation and the Evaluation of Grant Projects

The National Fish and Wildlife Foundation was created by Congress in 1984 as a tax-exempt private, non-profit organization to work for “the conservation of fish, wildlife, and plants, and the habitat on which they depend” (www.nfwf.org). The Foundation has three main goals: 1) the protection of critical species; 2) the protection of working landscapes that harbor important wildlife; and 3) promoting sound, long-term stewardship of wildlife habitats. The Foundation has an operating budget of about \$9.5 million a year and a staff of 80.

The National Fish and Wildlife Foundation has its main headquarters in Washington, D.C. and also has six regional offices. The headquarters enable the Foundation to work closely with Congress and federal agency partners. The regional offices give the Foundation important visibility and interaction with past, present, and potential project grantees.

The Foundation is governed by a Board of Directors comprised of 26 members serving 6 year terms who are appointed by the President of the United States. The Foundation is normally re-authorized by Congress every five years.

The Foundation receives grants from Congress and from private donors. The Foundation makes grants to local, state, and national conservation organizations as well as local, state, and federal government agencies involved in land conservation. Since 1984, the Foundation has made more than \$285 million in grants and leveraged \$825 million in funding from other sources (presentation by Bill Torgerson, June 23, 2005). In addition, the Foundation has promoted a variety of public-private partnerships for land conservation.

The Foundation participated in 7,173 grant projects between 1986 and 2004 (Torgerson, 2005). In 2004 alone, the Foundation made 855 grants, indicative of the dramatic increase in grant awards per year. The Foundation makes grants in two categories: a) the General Call Grants; and b) Umbrella Grants. The General Call Grants are open to applicants on a competitive basis. These grants are funded by federal money from Congress and through private donations. The Umbrella Grants address

specific projects that federal partners would like to pursue and have some funding for. The Foundation earns fees from undertaking Umbrella Grants.

In 2004, the Foundation made 242 General Call Grants involving \$40 million with a median of \$34,000 in federal funding per project. The Foundation also made 613 Umbrella Grants involving \$45.5 million with a median of \$13,000 per project (Torgerson, 2005).

At the June 23, 2005 Board meeting of the Foundation, Board members expressed concern that the Foundation was taking on too many projects and this was not only placing a heavy burden on staff, but was likely to compel an increase in staff that would raise overall annual administrative costs toward \$10 million. One potential solution discussed was a reduction in the number of grants the Foundation gives out each year, but an increase in the amount per grant.

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Evaluation of Grant Projects

Between 1986 and 2002, the National Fish and Wildlife Foundation made 171 General Call Grants for investments in habitat conservation through: (1) the purchase of conservation easements and land in fee; (2) restoration and management activities; and (3) capacity building of organizations to pursue easements and land in fee. Most projects only used one of the three activities; others involved a combination of activities. The Foundation made grants of varying sizes to a variety of nonprofit organizations, including national conservation organizations, state and local land trusts, and local, state, and federal government agencies. The Foundation asked the consultants to review a portion of these grant projects and to assess the degree of success of the varied projects—patch size, connectivity to other preserved lands, cost per acre, and gains in wildlife diversity and ecosystem health. Also, the consultants were asked to assess the effectiveness of investments in land projects versus capacity building projects. In particular, conservation easements have been advocated as an effective mechanism for maximizing habitat gains at minimum cost. Capacity building programs include species conservation and river restoration plans, hiring additional staff, workshops, publications, and training of grantee personnel.

The Board of the Foundation pushed for an evaluation of the land projects investment process and outcomes. There is a desire on the Board to shift toward larger, more strategic land project grants, while still making grants to small organizations for capacity building and easement projects. Yet, the Board is concerned that inadequate information is available to assess the long-term environmental impacts of their investments. The purpose of this evaluation is to quantify attributes of projects that resulted in maximizing long-term beneficial environmental impacts compared to the level of investment provided. At the same time, there may be qualitative aspects to successful projects that are also worth noting.

Time Line of the Evaluation of the Foundation's Conservation Easement and Capacity-Building Grants Program

The contract for the study of the Foundation's Conservation Easement and Capacity-Building Grants Program began on October 15, 2004. The study consisted of seven tasks, including:

- Task 1: A literature review of conservation easements and capacity-building, completed in January of 2005.
- Task 2: Assembling a focus group of grantees and experts, and reviewing 100 easement projects funded by the NFWF. Focus group interviews were conducted at the Foundation's main office in Washington, D.C. on December 2, 2004. The review of easement projects was completed in February, 2005;
- Task 3: Drafting a survey instrument, sending it to all grantees. This was done in February 2005.
- Task 4: Compiling and analyzing the survey results. These steps were completed in May of 2005.
- Task 5: Conducting on-site visits and face-to-face interviews with grantee staff. These were completed in early June, 2005.

The first five tasks were used to derive a descriptive model to analyze and explain what happened in the different land projects and

capacity building projects, funded by the Foundation. The descriptive model was designed to correlate certain characteristics with successful projects and correlate other characteristics with less successful projects.

Task 6: Presentations on interim results to the National Fish and Wildlife Board and staff were made on June 23, 2005.

Task 7: This Final Report, presented in August 2005, includes an application rating and ranking model that can be used to predict the success of land projects and a post-grant cost-effectiveness model that can be used to assess the wildlife and ecological benefits for wildlife compared to the project costs. The report contains recommendations, including metrics and suggested best management practices for adoption in future grant making.

EXECUTIVE SUMMARY

The purpose of this study is three-fold:

1) To determine the degree to which investments in acquisitions of land and conservation easements and in capacity-building by the National Fish and Wildlife Foundation have achieved their habitat preservation goals; and

2) How to improve the selection of acquisitions and capacity-building projects in order to:

a) To Evaluate the past investments of the National Fish and Wildlife Foundation: a) in land preservation and b) capacity-building of organizations for achieving the Foundation's habitat preservation and wildlife goals.

b) To improve the selection of land preservation and capacity-building projects to improve the likelihood of selecting projects that will produce the most benefit for wildlife.

i) to alert applicants about what constitutes a good, fundable project; and

ii) to give the Foundation measurable criteria in designing an application ranking process that will improve the likelihood of selecting successful projects in the future.

3) To draft a post-grant cost effectiveness model to compare the cost of a project to the wildlife outcomes.

The Foundation would like to know what it has done right in its easement and capacity-building grants programs and what could be done better. The result of this evaluation is four models that the Foundation can use: 1) an evaluation model for past land projects; 2) an evaluation model for past capacity building grants; 3) an application evaluation model to rate and ranking future grant applications in order to choose those applications with the greatest chance of having the most benefit for wildlife; and 4) a post-grant evaluation model to evaluate the wildlife benefits in comparison to project costs in future land projects.

General Findings:

1. Profile of grantees. The Foundation has tended to make grants for land and easement acquisitions to larger, more established organizations with experienced staff who have the know how to put together a grant proposal and complete an easement project. These organizations include: The Nature Conservancy, Trust for Public Land, Natural Resources Conservation Service, US Fish and Wildlife Service, and large regional land trusts. These major organizations received about two-thirds of the 73 grants for interests in land reviewed by the consultants under the General Applications program between 1986 and 2002.

Medium size organizations received 10 land related grants, and small organizations received 15 such grants.

There is a correlation between larger organizations and the likelihood of land protection project success, measured by a large size of land protected, part of a strategic plan, contiguity to other protected land, relatively low cost per acre, and positive outcomes for wildlife. However, there were a number of projects involving large organizations that the consultants rated not so good (isolated parcels, expensive, and with limited benefit to wildlife). These tended to be small projects of less than 50 acres and/or Wetlands Reserve Projects with the Natural Resources Conservation Service.

Fifteen of the 25 capacity building grants reviewed were made to small organizations; medium size organizations received four grants and large organizations received 6 of the capacity building grants. The Foundation had major successes in helping to create the California Rangeland Trust, and the Malpai Border Group, and helping to grow the Forest Society of Maine into an effective statewide organization. Success is measured in terms of how much land these organizations were able to preserve after receiving NFWF funds, indicating greater capacity to carry out wildlife habitat protection.

2. Projects. Based on the review of project files, surveys and interviews with grantees, and interviews with Foundation staff and funding partners, the consultants found that overall the Foundation's investments in acquiring interests in real estate and in capacity-building

projects have furthered the mission of the Foundation to protect wildlife habitat and increase wildlife populations. The Foundation has helped to fund some of the leading wildlife habitat protection projects in the nation, and has helped to create or build half a dozen very effective land trusts.

More than one million acres have been directly preserved through the acquisition of interests in real estate (both conservation easement purchases and fee simple purchases) funded in part by the Foundation. About 90 percent of this land is contiguous to other preserved lands, enhancing the viability of wildlife. Half a dozen easements involving several thousands of acres were purchased for less than \$100 an acre. The biological diversity of most areas conserved is high. Although few grantees have quantified the outcomes for wildlife, anecdotal evidence suggests very positive outcomes for wildlife.

Successful projects involving the acquisition of interests in land generally occurred in areas under low to moderate development pressure, covered large acreages of several hundred to several thousand acres, and were contiguous or within one-half mile of other preserved lands. Successful projects were less expensive to preserve and in several cases, grantees were able to preserve additional lands near to or adjacent to lands they preserved with NFWF funds, and hence likely to produce outcomes that will benefit wildlife over the long run.

The Foundation has emphasized the use of partners and the leveraging of matching funds in its grant making. Overall, this has been a successful strategy. The Foundation's match approach has leveraged more than \$10 million match dollars for investments in land projects between 1989 and 2002, and a ratio of about \$1.5 match dollars for each dollar the Foundation invested.

3. There are notable differences in the scale of land projects in the 1986-1998 period and the 1999-2002 period. For the earlier period, in about half of the land projects surveyed, the Foundation funded project involving less than 100 acres. For the 1999-2000, the majority of the projects surveyed involved projects of more than 1,000 acres, and only 15% involved projects of less than 100 acres.

4. The Foundation is seen by grantees and partners as an important funding source for both capacity building grants and land acquisition grants. The Foundation has the ability to get money “on the ground” relatively quickly. Fourteen grantees have applied for more than one grant from the Foundation, and the Foundation can expect other grantees to apply for additional funding in the future.
5. Projects involving the acquisition of interests in land had a slightly higher rate of success than capacity building grants in terms of measurable outcomes. Acquisition of interests in land tended to have direct benefits for wildlife, such as larger contiguous blocks of protected land. The best capacity building projects led to several easement acquisitions.

There are three arguments in favor of "interests in land" projects over capacity building projects: 1) the capacity now exists in most parts of the US--especially the Northeast and much of the West (thanks in part to NFWF); 2) corporate donors like Wal-Mart want to see their money preserving land; 3) it is easier to predict a high likelihood of success for an interests in land project than a capacity building project.

6. Grantees with larger staffs tend to do better in land acquisition projects than those with smaller staffs; land trusts with large, experienced staffs usually finish projects well and on time. The qualifications of the personnel implementing the grants are the bottom line in predicting success. NFWF needs to continue to fund land projects with proven, professional organizations, and only support smaller organizations with respected professionals on their staffs.
7. Expensive acquisitions of small parcels, especially in metropolitan areas are a much less cost-efficient use of funds than purchases of conservation easements on large parcels under low to moderate development pressure. Small parcels usually have little chance of meaningful conservation of biological diversity. The definition of “small” depends on the region and biome but the Theory of Island Biogeography shows us that larger islands have more species and more resilience in keeping them alive in

sustainable populations. The small, expensive parcels are mostly in metropolitan areas or vacation areas where development pressures are high.

8. There were only two easement violations identified, both in the Midwest, one of which has not been corrected.
9. The value of the Foundation's investments cannot be fully known when the Foundation selects a project for an investment. The Foundation staff make a best guess using their internal review process and external reviews. The Foundation is in effect purchasing promises, much like a venture fund invests in start-up companies; some of those companies have a better track record, product, or service than others, and a greater likelihood of future success. But whereas a venture fund might expect to fund a successful project one out of five times, the Foundation wants to try to fund a successful project every time. The Foundation should consider these projects as experiments, properly manage their uncertainty, and learn from successes and mistakes. There are many reasons why the funded projects may not live up to their promise. Some of it may have to do with the project itself, and the Foundation should have been able to see the shortcomings of the project. In other cases, the grantee did not deliver because of staff turnover, unexpected events, landowner reluctance, etc.
10. The Foundation needs to move beyond focusing on the initial project selection and grant making toward a greater focus on what happens after the project has been completed. The Foundation needs to develop new capacity to deal with post-project review in order to understand what is happening to the wildlife. This includes a full-time file manager, occasional site visits by regional directors, and a long-term relationship between the Foundation and grantees, featuring periodically updated baseline information and wildlife studies.

Recommendations

1. Recommendations for Improving Capacity Building Grants.

- a. Grants should continue to target the creation of statewide or regional land trusts. The Foundation has had good success with helping to create the California Rangeland Trust, the Malpai Borderlands Group, and growing the Forest Society of Maine, and the North Carolina Coastal Land Trust.
- b. There is a need to consolidate small land trusts into larger, more efficient and effective organizations, with the capacity to undertake the acquisition and monitoring of larger parcels of land and conservation easements. Foundation grants should induce the consolidation of small land trusts into larger, more effective organizations.
- c. Grants for publications for land conservation practitioners are not as important as they were several years ago. There is, however, a need for land conservation practitioners to understand the interaction between public land use planning and the preservation of private lands.
- d. There is a need for grants for stewardship and easement monitoring protocols, training of land trust staff, evaluations of easement programs, assessing wildlife outcomes post-easement, and understanding local land use planning are still needed. The Foundation could take a leadership role in funding these types of capacity building activities.
- e. There is a need for capacity building grants for wildlife habitat restoration projects. There are two kinds of restoration grants that could be made. First, restoration grants could be offered as a follow-up to Foundation grants for projects involving the acquisition of interests in land. Secondly, restoration grants could be offered for lands placed under easement by federal partners, especially the Fish and Wildlife Service, the Natural Resources Conservation Service, and the Forest Service (Forest Legacy Program).
- f. The Foundation should consider setting a minimum grant size for capacity building grants. A minimum of \$25,000 is suggested. This suggestion comes from discussions with NFWF staff and grantees, the observation that the Foundation

is giving few grants for under \$25,000, and overall the rising cost of living since 1990-2002 grant making period. The paperwork for a grant of less than \$25,000 is often not worth it to the grantee and it takes the same amount of NFWF staff time to administer a \$25,000 grant as a \$10,000 grant. Finally, capacity building grants of less than \$25,000 were often deemed not so good by the consultants because they did not lead to land preservation.

2. Recommendations for Improving Projects Involving the Acquisition of Interests in Land

- a. The Foundation should consider setting a minimum grant size for land projects. A minimum of \$75,000 is suggested. This recommendation comes from discussions with NFWF staff and grantees, and the land acquisition grants issued from 1999 to 2002. In that time period, the Foundation made 26 grants for land acquisition, of which only 6 were for less than \$75,000. Only two grants of less than \$75,000 protected parcels of more than 1,000 acres. The paperwork for a grant of less than \$75,000 is often not worth it to the grantee and it takes the same amount of NFWF staff time to administer a \$75,000 grant as a \$30,000 grant. Finally, given the recent run up in real estate values, a grant of less than \$75,000 probably will not preserve much land.
- b. The Foundation should consider setting a minimum parcel size. A minimum parcel size of 50 acres is suggested. Project results show that parcels below 50 acres tended to have high costs per acre. These parcels are especially vulnerable if they are isolated tracts. The Theory of Island Biogeography suggests that larger parcels of land have greater biodiversity and resilience.
- c. Require a contract of sale or an option on the property at time of application (or else within six months of application). The Foundation has not asked for these documents in the application process. Either of these documents would reduce the likelihood that a funded project involving the acquisition of

interests in land would fall through or be revised to a smaller size of property.

- d. The Foundation should consider setting a maximum easement per acre price for land projects it makes grants for. A maximum easement project price per acre is suggested at \$3,000 per acre; and a maximum fee simple price is suggested at \$5,000 an acre. It will be difficult and expensive to create large contiguous blocks of protected lands above these prices. Expensive properties are most often found in metropolitan areas where the development pressure is high. The Foundation should avoid funding projects involving the acquisition of interests in land in metropolitan areas where the property is isolated.
- e. Continue to emphasize the use of grants to preserve fewer, but larger parcels of wildlife habitat. The Foundation successfully pursued this strategy in the 1999-2002 period.

3. General Recommendations for Overall Improvement

- a. The Foundation needs to do a much better job of telling the overall story of its grant making activities. This is a positive story, but it is not getting out, in part because the Foundation is not aware of what is happening to the organizations or the properties for which it has made grants. For instance, the Straight River, Minnesota easement project of 500 acres led to the preservation of additional easements on adjacent lands. The 500 acres preserved through easement donations to NFWF in 1986 in the Beaverkill region of southern New York led to the preservation of 6,000 additional acres in the region.

The Foundation should act as a full partner with the grantees in the acquisition projects it funds. This would garner more visible public acknowledgement for the taxpayer funds that are directed to projects. It would also publicize the successes that come both from public funds and corporate donations.

Currently, very few Americans have an idea what NFWF is and how its work benefits us all. But with the recent Wal-Mart donation to the Foundation and the creation of the Acres for America program, complete with television advertisements, the visibility of the Foundation has substantially risen.

- b. File management by the Foundation needs to be improved. Professional record keeping must become the policy of Foundation. The Foundation needs at least one full-time person to manage the project files and stay in touch with the grantees. One staff person could handle at least 100 project files.
- c. There is a widespread perception among grantees that the Foundation's grant application process is onerous and complicated. The external review process is awkward for the grantees and should be managed by the Foundation. This will produce more objective reviews of project proposals. The Foundation has improved its financial reporting procedures by no longer requiring that matching funds be sent to Washington, DC headquarters.
- d. The Foundation should change the requirement that the applicant contact 5 outside reviewers for each project application. Instead, the Foundation should convene a panel of experts twice a year (or more frequently) to review, rate, and rank the applications. This model is what the National Academy of Sciences, National Institute of Health, and many other grant-making organizations do to provide objective evaluations.
- e. Grants for the acquisitions should be made only to organizations that have adopted the Land Trust Alliance's Standards and Practices for land trusts (latest edition appeared in late 2004). In addition, the Foundation should require grantees to provide the Foundation with management plans on the properties they acquire in fee or on which they purchase a conservation easement.

- f. The Foundation needs an in-house review appraiser with the expertise to conduct meaningful reviews of appraisals provided by grantees.
- g. The Foundation needs to be able to assess what is happening to the wildlife, fish, and plants on interests in real estate acquire in part with Foundation funds. Grantees have done few studies documenting the improvement in the types and numbers of species. In most cases, the anecdotal response was “things haven’t gotten worse.” This is where the Foundation needs to think of itself as more than just a bank and recognize that long-term relationships with the grantees are important. Land preservation – restoration – management – and species outcomes happen over many years.
- h. The Foundation should require that applicants provide a baseline documentation of existing species on a target property, and estimates of the expected outcomes on for those species from land preservation. Grantees should provide the Foundation 5-year reports on the status of the preserved properties—who holds the easement, changes to the property, activities on adjacent properties (preservation or development), outcomes for wildlife (species numbers, populations, invasive species, ecological stage of property). Third party reviews may be needed as well.
- i. The Easement documents vary widely in quality. NFWF needs to create a model easement and standards for baseline reports (including mandates for proper photo-points – essential for monitoring and enforcement). See the model easement in Appendix Three.
- j. NFWF needs to pay attention to easement stewardship endowments to assure that the Grantees have the funds to monitor each easement. Too many Grantees, especially the smaller grantees, have little or no endowment for this critical purpose. Larger land trusts should consider creating a separate subsidiary organization to hold and monitor their acquisitions of interests in land. The Vermont Land Trust has done this very successfully.

The Cost-Effectiveness Models

The consultants developed four models to address cost effectiveness. The consultants first developed an evaluation and ranking model that Foundation staff can use to rate and rank grant applications for the acquisition of interests in land, and identify those projects with the greatest likelihood of cost effectiveness in providing wildlife benefits. The model uses a modified Land Evaluation and Site Assessment approach to create an objective, points-based system. Factors in the model include: proposed land area of project, location to already preserved land, quality of the habitat, stewardship plans, proximity to development, sewer and water service, and zoning designation in the vicinity.

The NFWF staff can use the application evaluation model as a guide in deciding which acquisition projects to fund. The Foundation does not yet seem to have a system to compare projects from across the nation. The application evaluation model enables the staff to make such a comparison. The model is flexible and can be modified as NFWF goals and experience with the model evolves.

A basic result of the application evaluation model answers the question: where should NFWF make its investments? The application cost-effectiveness model is designed to favor large properties under low to moderate development pressure with high quality habitats and wildlife, which are contiguous to already preserved lands. The results of this study suggest that Foundation investments in these types of properties will have the greatest likelihood of protecting important habitat at a reasonable cost. By contrast, parcels of less than 50 acres in metropolitan and vacation areas will have a high cost and generally protect isolated parcels with limited long term benefit for wildlife.

The second model is a post-grant evaluation model to measure wildlife benefits compared to cost per acre. The wildlife benefits are quantified into an index, and divided by the cost per acre. The higher the ratio, the more cost effective the project outcome has been.

To make the post-evaluation model work, there needs to be baseline data from applicants on the wildlife and habitat resources on the proposed land project; then the grantees need to provide an updated baseline

periodically (say every 5 years) after the land project was been completed. To date, the Foundation has not required pre-grant and post-grant studies of wildlife and their habitat.

The third model is an outcomes evaluation model for past projects involving interests in land. The model uses a scoring system based on the acreage preserved, contiguity to other preserved lands, the ecological quality of the habitat, wildlife outcomes, and cost per acre. This model is used to discern between “good” projects that score above a basic threshold of points, and “not so good” projects that score below the threshold. Out of 73 land projects surveyed, the consultants ranked 56 of them “good” and 17 “not so good,” or a respectable success rate of 75 percent.

The fourth model is an outcomes evaluation model for past projects involving capacity building. The model uses a scoring system based on land preserved as a result of the project, increase in grantee staff, information and education results, wildlife habitat restoration results, and the ratio of the grantee match to the Foundation grant. Out of 25 capacity building projects surveyed, the consultants ranked 16 projects “good” and 9 projects “not so good,” or a success rate of 64 percent.

Monitoring and Measuring the Outcomes of Land and Capacity Building Projects

Monitoring and measuring the outcomes from the Foundation’s investments in acquisition and capacity building grants needs to be greatly improved. Currently, once a grantee submits a final report, the Foundation sends the grantee a letter stating that the grantee has met the terms of the grant and the file is then closed. This practice causes a number of problems:

1. The Foundation has little knowledge of how effective its grants have been beyond the duration of the grants, usually two to three years at the most. Benefits to species accrue over longer periods of time. In best-case scenarios, the Foundation’s grants for interests in land stimulate nearby landowners and land trusts to preserve additional lands. This result did occur in at least half a dozen projects reviewed by the consultants.

Measuring conservation outcomes is central to the

Foundation's mission. Identifying investments that have worked well for wildlife is key to continuing to make such investments; just as identifying investments that have not worked well is necessary to avoid such investments in the future. The Foundation needs to require applicants to address how they will monitor and enforce easements, as well as how they will manage properties they purchase or properties on which they will acquire conservation easements. Foundation staff have already begun to develop logic models to improve the link between what is required in the application process and information grantees must provide once the project funds have been spent to document performance over time and effects on wildlife. In other words, the applicants provide metrics they will use and then once they have received funding and completed the project, the performance results can be used by the Foundation staff to verify grantee predictions of benefits for wildlife.

2. The Foundation has required that grantees include language in the deed or easement that if a property preserved with Foundation funds is condemned for a public purpose, the amount of the grant must be returned to the Foundation and then to the respective federal agency. Without a monitoring program, the Foundation has no way of knowing whether a property it has helped preserve has been condemned. The consultants did not find any instances in which an easement funded by the Foundation had been condemned.
3. The Foundation has directly acquired some interests in real property, which it legally holds. For those interests that are not already monitored by third parties, the Foundation has a legal obligation to monitor them and to enforce the terms of any easements that are in place. Without monitoring, a landowner could conceivably go to court and petition a judge to rescind the easement because the Foundation has not monitored the easement. Typically, land trusts monitor properties on which they hold easements at least once a year and draft a monitoring report. The report is added to the project file. Foundation staff reported that the easements the Foundation holds have been monitored.

Staffing

The NFWF staff are conscientious and dedicated. Grantees spoke highly of the NFWF staff. Staff turnover at NFWF has been something of a problem, however. Most staff involved with acquisitions have been with the Foundation for less than five years. Few current staff were involved in pre-2002 acquisition or capacity building grants. Some projects had two or three grant managers during their implementation; and it was sometimes difficult for staff to close grants on time. Also, staff turnover results in a loss of institutional memory.

Regional NFWF staff have expressed a reluctance to become active in the monitoring of acquired interests in real estate in part because of the already heavy demands on their time. If the Foundation anticipates an increase in grants for land and acquisitions, the Foundation should also look to increase staff with expertise in acquisitions.

Furthermore, at least one person in the Washington, D.C. office should have responsibility for maintaining and updating the acquisition project files, preferably through an electronic relational data base accessible to staff in the regional offices. A copy of each acquisition project file should be maintained in the relevant regional office as well. Additional staff may be needed in regional offices to aid in the processing and monitoring of acquisitions.

The Foundation should also consider hiring an in-house appraiser to review property and easement appraisals. The in-house could also supervise project administrators, and, if necessary, contract with part-time appraisers in certain parts of the country or specific states.

The Foundation should also consider hiring a staff person in the Washington, D.C. office who specializes in Geographic Information Systems (GIS). The Foundation should maintain maps of its funded acquisition projects and can link data and pictures of these projects to these maps. These maps could be made available on the Foundation's website.

Innovation

The Foundation prides itself on being an innovative organization. There are three main innovations that the Foundation has successfully pioneered.

1. A re-grant program with the Maine Coast Heritage Trust in which the Foundation made a challenge grant of \$125,000 to the Trust and the Trust then made grants to nine separate land trusts for fee and easement acquisitions. Through the re-grant program, the Foundation was able to spread money to several small organizations, but only had to manage one grant to a fairly large and experienced land trust. The downside is that the Foundation needs to be assured that the grant recipients will acquire interests in quality wildlife habitat and will have the ability to monitor the easements and manage the land they acquire.
2. The preservation of large landscapes through several projects. The Foundation has funded 19 projects in the West, each of which preserved more than 1,000 acres. In the South, the Foundation funded the 8,000 acre Roper Island easement in North Carolina. And in the Northeast, the Foundation made a grant of \$2,000,000 million toward the Pingree easement project in northern Maine. The Foundation's grant leveraged 14 times that amount to enable the purchase of a conservation easement on 762,000 acres—the largest single easement in the United States. The cost of these large projects to the Foundation averaged less than \$50 an acre, an outstanding return on investment.
3. Capacity-building grants, in particular to create a effective statewide organizations. The Foundation made capacity-building grants to create the California Rangeland Trust, and the Malpai Group. These two organizations have since protected more than 200,000 acres of land. The Foundation also made a grant to the Forest Society of Maine to help expand its staff. At the time, there was no statewide land trust in Maine. The Forest Society of Maine not only grew its staff from two to four full-time staff, but increased fundraising and project capacity. Today, the Forest Society of Maine has a record of preserving more than 400,000 acres in conjunction with several partners.

Innovations that were not so successful include work with the

Wetlands Reserve Program (WRP) and habitat restoration projects. In 1996, the Natural Resources Conservation Service which manages the WRP had budget difficulties. The Foundation stepped in and funded 27 WRP projects. These projects often involved easements on marginal cropland in the Midwest and South. These projects also had the overall lowest rate of success. Seven easement projects reviewed were on parcels of less than 50 acres. The Foundation has funded very few WRP projects since 1996. The Foundation should consider having NRCS manage all WRP projects—applications and grantees—in the future.

Habitat restoration projects as capacity building grants had a low rate of success, especially in the West. Also, the need for new publications on how to do conservation easements has greatly diminished.

The Foundation is looking to continue this history of innovation. The area where there is an observed need for innovation is in promoting easement monitoring protocols and evaluating the outcomes of acquisitions of interests in land for wildlife benefits. Also, land trusts need to have a better understanding of how public land use planning interacts with the preservation of private land.

To foster more strategic acquisitions, the Foundation should explore the following opportunities:

1. Closer cooperation with partners, such as the federal Forest Legacy Program, Fish and Wildlife Service, Bureau of Land Management, Natural Resources Conservation Service, the Land Trust Alliance, the Nature Conservancy, and state and regional land trusts, to identify important species habitats to preserve. In particular, the Foundation can share and compare its regional conservation plans, drafted by its Regional Directors, with conservation plans from other organizations.
2. Creation of a national data base of preserved lands. There are now more than 5 million acres of land that have been preserved by land trusts and millions more preserved by government farmland preservation programs, and several other federal programs. There is no central data base of these preserved lands. A data base of preserved lands could be matched against a data base of desirable wildlife habitats to preserve. The data base of preserved

lands would help in the strategic preservation of species' habitats. An example of such a database at the state level is the atlas of preserved lands (both public and private) produced by the Vermont Land Trust. Also, the State of New Hampshire has a database, available on-line of its preserved lands.

3. Creation of more partnerships for landscape scale preservation projects, involving 1,000 acres to several thousands of acres. There are probably no more than a few dozen organizations that have the capacity to put together landscape scale preservation projects of several thousands of acres. The Foundation should identify these organizations and consider offering a special challenge grant program of \$250,000 to \$2,000,000 for projects involving the preservation of more than 1,000 acres at a time. Each landscape scale project should be justified with good science and as part of a strategic plan to protect wildlife habitat. This would be an excellent way to spend the recently acquired Wal-Mart funds in the Acres for America Program.
4. Increased grant making for specific geographic areas or to protect the habitat of specific species. Even the Foundation's general matching grant program could prioritize projects in biologically diverse and endangered landscapes. For instance, the Doris Duke Foundation undertook such targeting in 2000, by selecting the Greater Yellowstone ecosystem and southern Appalachia for both capacity building grants and grants for the acquisition of interests in land.

Introduction

This study is divided into six chapters. Chapter One presents a review of the literature on conservation easements, what they are and how non-profit and government agencies use them to preserve land, especially to protect wildlife habitat. Because the National Fish and Wildlife Foundation has made and is continuing to make grants to enable non-profits and some government agencies to purchase conservation easements, it is important to discuss the easement acquisition process and the strengths and weaknesses of conservation easements as a tool to protect wildlife habitat. Chapter One also lays out the concept of assessing potential easement projects. The consultants later use the assessment approach to evaluate the Foundation's investments in interests in land and in capacity building projects for organizations.

In Chapter Two, the consultants analyze the Foundation's grant application process, identify strengths and weaknesses, and offer suggestions for improvement. In Chapter Three, the consultants present their evaluation of the Foundation's investments in projects involving interests in land, both conservation easements and fee simple purchases. The evaluation is based on data gleaned from project files, surveys of grantees, on-site interviews with grantees, and discussions with Foundation staff. The consultants also offer a points-based evaluation model to assess the outcomes of 73 projects.

Chapter Four contains the consultants' evaluation of the Foundation's investments in organization capacity building. The consultants built a points-based model to rate the outcomes of 25 projects. In Chapter Five, the consultants present two additional evaluation models: one that the Foundation staff could use in assessing future grant applications for land projects, and the other that the Foundation staff could use to identify the

cost-effectiveness of a grant project once it has been completed and an updated baseline study of the wildlife resources conducted.

The conclusions and recommendations of the consultants appear in Chapter Six.

Chapter 1: Conservation Easement Pros and Cons: A Review of the Literature

The purpose of this chapter to review the literature on conservation easements and to determine how conservation easements can be effective in protecting wildlife habitats. What are the strengths and weaknesses of conservation easements? Are they creating maximum wildlife benefits as currently used? Or can conservation easements be improved for the long-term retention of habitats, habitat enhancement, and the protection of biodiversity?

The preservation of privately-owned land is a necessary part of programs aimed at protecting wildlife resources (Daniels 1999; Wright and Czerniak 2000). For instance, an estimated 70 percent of America's threatened and endangered species are found on private land; and private landowners own about 70 percent of the nation's remaining wetlands (Daniels and Daniels 2003).

The purchase or donation of conservation easements (also known as development rights) relies on voluntary transactions by willing landowners in which landowners and a government agency or private organization negotiate a mutually satisfactory transaction. Landowners who sell or donate land or a conservation easement receive compensation in cash and/or tax benefits (Wright and Czerniak 2000). The compensation that landowners receive is especially important when governments acquire land or conservation easements; the payment of compensation in return for restrictions on private property enables governments to avoid a "taking" of private property without just compensation under the Fifth Amendment to the United States Constitution.

Most of the preservation of privately owned land has occurred only since 1980, but has accelerated since the early 1990s (Gustanski and Squires 2000, Land Trust Alliance 2004a). According to the Land Trust Alliance, as of 2003 there were 1526 land trusts, up from about 400 in 1980

(LTA 2004a). Moreover, as of 2003 local, state and regional land trusts had conserved more than 9 million acres, double the number of acres conserved in 1998; and the number of acres under conservation easements had tripled to 5 million (LTA 2004a).

Despite these impressive numbers, a key question remains: Do private land trusts and government land preservation administrators have a strategic vision for preserving wildlife habitats or is land being preserved at random with little effect on wildlife habitats, species numbers, and overall biodiversity (Gustanski 2000; Hollis and Fulton 2002)?

1.1 What is a Conservation Easement and How Does It Work?

A conservation easement is a legally binding restriction on the uses of land that a landowner may willingly sell or donate to either a government agency or to a qualified private organization (Diehl and Barrett 1988). A private nonprofit charitable organization that has received 501(c)(3) status from the Internal Revenue Service—usually a land trust, conservancy, or sports group—is allowed to accept donations of land, conservation easements, and money, and donors are allowed to claim their donations as income tax deductions (Small 1987, 2001). These private nonprofit organizations may also purchase and hold land and conservation easements.

A landowner in the United States actually owns a bundle of rights to the land. These include: air rights, water rights, mineral rights, the right to use the land, the right to sell it, the right to pass it on to heirs, the right to lease it, and the right to develop it. In the sale or donation of a conservation easement, a landowner voluntarily separates off the right to develop the land and either sells or donates that right to a government agency or a qualified private organization (Daniels 1991, Geisler and Daneker 2000). The landowner and the entity acquiring the conservation easement sign a Deed of Easement that spells out the restrictions on the land. The Deed of Easement is essentially a legally-binding negotiated plan for how a property may be used (Wright 1998). The Deed of Easement is recorded at the county courthouse and runs with the land; if the land is sold or transferred to heirs, the restrictions in the Deed of Easement apply to subsequent landowners. The landowner who sells or donates a conservation easement still owns the land; but the landowner has granted an interest in the land to a private nonprofit organization or a government agency. Even though the use

of the land is restricted by the conservation easement, the land is still private property. Usually, there is no right of public access. In the case of wildlife reserves under conservation easements, public access is often granted only for educational and research purposes.

The terms conservation easement and development rights are used interchangeably. To distinguish between public and private land preservation programs, most writers describe conservation easements as acquired by non-profit organizations and development rights purchased by government agencies in purchase of development rights programs.

A conservation easement is legally known as a “negative easement in gross,” which spells out restrictions that apply to an entire tract of land (Daniels 1991). Typically, residential, commercial, industrial, and institutional uses are prohibited unless expressly allowed in the Deed of Easement. In the case of land devoted to wildlife habitat, permitted uses may include some farming or timber harvesting; maintenance and improvement of the habitat, or building a very limited number of dwellings or other structures.

The value of a conservation easement is estimated by a professional real estate appraiser in a written “double” appraisal. The conservation easement value is the difference between the appraiser’s estimate of the fair market value of the property if it were sold today and what the property would be worth under the restrictions of the conservation easement (Diehl and Barrett 1988).

The organization that acquires a conservation easement is accepting a long-term obligation to monitor and enforce the terms of the easement (Diehl and Barrett 1988). The easement holder should compile a baseline documentation of the conditions of the property, especially existing buildings and wildlife species and populations present. The land under easement should be visited at least once a year and a written monitoring report produced. In the case of large tracts of land, aircraft and even remote sensing are used for monitoring. If a land trust or government agency holding the easement does not monitor the easement, it could conceivably be overturned by a judge in a court of law (Daniels and Bowers 1997). Such challenges to conservation easements are a very real concern as to the durability of easements over time, though Anella and Wright (2004) notes that so far of the 7,500 easements completed only 12 have been challenged in court, and only one of those easements has been overturned.

Land trusts are now making a major effort to educate second- and third-generation owners of land under a conservation easement. The concern is that these later landowners may not be as conservation-minded as the earlier landowners who sold or donated easements, and that the later landowners may not fully understand the terms of the conservation easement.

Private nonprofit land trusts mainly acquire conservation easements through donation or bargain sale (part cash, part donation) (Daniels and Bowers 1997). Several federal agencies have acquired conservation easements on wildlife habitats, by purchase, donation, or bargain sale, including the National Park Service, the Fish and Wildlife Service, the Natural Resources Conservation Service, and the U.S. Forest Service. Several states have programs to acquire conservation easements on wildlife habitat, usually through their departments of natural resources; and some local governments have acquired conservation easements to wildlife habitat (Wiebe et al.1996).

A conservation easement may be permanent or may exist for a limited number of years—known as a *term easement*. For example, the federal Wetlands Reserve Program and the Grasslands Reserve Program have the authority to acquire conservation easements either in perpetuity or for a 30-year term (Wiebe et al. 1996). But term easements make little sense for long-term management of wildlife habitat. On the other hand, term easements may be more acceptable to landowners who do not wish to “tie the hands” of future generations, leaving open the possibility of the land being developed sometime in the future.

It is possible for a government agency to condemn land subject to a conservation easement for a public purpose, such as a highway or a school site. But condemnation of land under a conservation easement has rarely occurred. When it does happen, the proceeds from the condemnation must be split between the landowner and the organization holding the easement. The division of the proceeds is determined by a judge or spelled out in the Deed of Easement.

1.2 Land Conservation Organizations

The Land Trust Alliance (LTA) is a national organization whose mission is to promote the creation, development, and efficient operation of

land trusts. LTA was originally founded in 1982 as the Land Trust Exchange to serve as a clearinghouse of information about land trust practices. LTA has published a variety of useful books and reports on conservation easements (Barton and Hijikata 1997; LTA 1989-2004; LTA 1990, LTA 2004a, 2004b, Byers and Ponte, 2005).

Many land trusts and cooperative extension service offices in several states have produced publications on conservation easements. The annual reports of the larger land trusts provide insight into land preservation strategies and the impact of land preservation on local land use patterns (e.g. The Conservation Fund 2004; Montana Land Reliance 2004; The Nature Conservancy 2004; The Trust for Public Land 2004; Vermont Land Trust 2004).

Wright (1993) argues that land trusts are in effect conducting land use planning through their preservation of land. The question is whether this land preservation happens within a public framework of comprehensive planning and land use regulation.

Statewide and national land trusts have professional, full-time staff. Increasingly, they are using Geographic Information Systems (GIS) to identify and evaluate important wildlife habitats and to monitor properties they own or on which they hold conservation easements (Leavitt 2002). These large land trusts have become serious players in local and regional land use planning efforts, and often partner with government agencies to preserve land (Endicott 1993).

Still, most land trusts are small and have a limited local focus (Foti and Jacobs 1989; Brewer 2003). Most land trusts are staffed by volunteers, and have preserved no more than a few thousand acres, either through conservation easements or acquiring land in fee simple. The lack of full-time staff and shortage of financial resources mean that most land trusts have the ability to create only "islands" of protected land, often amid encroaching development. Islands of preserved land are usually not sufficient to protect entire ecosystems or a critical mass of land area needed to sustain larger species and species with significant dispersion (Daniels and Daniels 2003). Whittaker (1999) observes that many local land trusts are established in response to a short-term land use crisis. As a result, many land trusts lack a long-term strategy for land preservation. For these reasons, the Land Trust

Alliance has been working to encourage small land trusts to merge into larger, more effective organizations with a statewide or regional scope.

1.3 A Brief History of Conservation Easements

Conservation easements were initially used in Massachusetts in the late 19th century by the Trustees of Reservations to protect the parks that Frederick Law Olmsted designed around Boston (Brewer 2003, 131-2). In 1959, William H. Whyte wrote the first major work on conservation easements. Conservation easements began to grow in popularity in the late 1970s, in part because of the use of conservation easements to preserve farmland in Suffolk County, NY, and throughout Maryland and Massachusetts (Daniels and Bowers 1997).

In the late 1970s, attorney Stephen Small drafted the federal income tax regulations on conservation easements that became the Federal Tax Treatment Extension Act of 1980 (P.L. 96-541). Section 170(h) of the Internal Revenue Code clarified the federal income and estate tax benefits to individuals and families for donating conservation easements (Small 1987, 1988). Key among the provisions of Section 170(h) are a public benefits test and proof that significant conservation values are being protected through a conservation easement.

Small recognized that increases in real estate values were creating estate tax problems, making it difficult for families to transfer land from one generation to the next. The donation of a conservation easement could not only produce income tax benefits, but estate tax savings as well, thus enabling a family to hold onto their land, rather than have to sell it for development to pay federal estate taxes. Later, when more public and private funding for purchasing conservation easements became available, many easements were acquired through “bargain sales” featuring part cash and part donation. Bargain sales increased the relevance of the public benefit and significant conservation values tests under Section 170(h). By contrast, the purchase of a conservation easement for full appraised value does not have to meet the requirements of Section 170(h), even though it should as a matter of good practice.

In the 1980s, the Reagan Administration reduced funding for federal land acquisition programs, such as the Land and Water Conservation Fund. In response, there was a sharp increase in the number of private nonprofit

land trusts (Myers 1993a). The land trust movement also grew as a result of frustrations with the rapid pace of development in many communities and the ineffectiveness of local planning efforts to protect wildlife habitat, important landscapes, and water resources (See Brewer 2003, Healy and Short 1981). Between 1980 and 2003, the number of land trusts rose nearly fourfold from about 400 to 1,526 (Land Trust Alliance 2004a). Prior to 1980, the large majority of land trusts were found in the Northeast where there was little government-owned land. Since 1980, land trusts have proliferated throughout the United States, and there is at least one land trust in every state.

A primary strength of conservation easements is that they provide greater permanence in the landscape and hence greater protection for wildlife habitat than land use regulations. Regulations can easily be changed through variances, re-zonings, special exceptions, and conditional uses (Whyte 1968, Daniels 1999). In many parts of the United States there is a strong aversion to land use regulation, making the sale of land and sale or donation of conservation easements by willing landowners the only acceptable alternatives for protecting wildlife habitats. Conservation easements are often cited as having a lower cost than outright acquisition (Daniels 1991). On the other hand, if the land trust or government agency wants to actively manage the property, then fee simple purchase is recommended (Daniels and Daniels 2003).

Meanwhile, estate and land transfer planning have continued to be necessary because of the rising value of real estate, especially in metropolitan regions (Small 1988, 1992, 2002). Federal estate taxes begin at 37% on estates valued at more than \$1.5 million in 2005. The personal exemption from the estate tax rises to \$3.5 million by 2009. There will be no estate taxes in 2010, but in 2011 the estate tax returns at 2003 rates and exemptions (Small 2002). In short, the greater a landowner's wealth and income, the more financial incentive the landowner has to donate or sell a conservation easement as part of an estate plan or to transfer land intact to the next generation.

1.4 Drawbacks to Conservation Easements

Conservation easements do have a number of drawbacks. It is important to understand what these drawbacks are and how they might be

overcome for the protection of wildlife and wildlife habitats. Yet, there may be some problems with conservation easements that cannot easily be corrected.

One drawback is the common difficulty of determining the value of the conservation easement (Daniels and Bowers 1997; Small 2003). The value of a conservation easement for a particular property is estimated by a professional appraiser. The appraiser makes two appraisals: a) what the subject property could be expected to sell for today if it were put on the market (market value); and b) what the subject property would be worth after a conservation easement has been placed on the property (restricted value). The difference between the market value and the restricted value is the value of the conservation easement.

To estimate the market value, an appraiser can use: i) comparable sales of four similar properties in the area; ii) the replacement cost method; or iii) an income method (Diehl and Barrett 1988, Daniels and Bowers 1997). With open land, the comparable sales approach is the most common. The trouble is that sales of similar properties may be difficult to find. Moreover, market value is supposed to reflect the “highest and best” use of the property. That will depend in part on the zoning and the location, and the local market. Two appraisers can disagree on the highest and best use as well as the market value.

To estimate the restricted value, the appraiser can use: i) four comparable sales; ii) the replacement cost method; or iii) an income method. For the first approach, the appraiser would need sales of properties already restricted by conservation easements. These may be hard to find. Hence, it is common for appraisers to use an income approach to estimate a restricted value. But an income approach really is not useful if the property is going to be restricted to open space and wildlife habitat uses. And a replacement cost approach makes little sense if rare and endangered species are present.

It is important to note that a conservation easement is ultimately based on the development potential of a property, not on the value of the wildlife or wildlife habitat on the property. In fact, if a property has threatened and endangered species, it would become less attractive to developers and hence have a lower market value and hence a lower easement value because of possible development limitations under the Endangered Species Act.

Although conservation easements cost less than fee simple purchase, an easement can cost up to 85 percent of fair market value in places with high real estate prices (Daniels and Bowers 1997). More typical is a range of 30 to 60 percent of fair market value. But if the average cost of easements in an area is more than \$5,000 an acre, it will be difficult to raise enough money to preserve a critical mass of wildlife habitat (Daniels and Bowers 1997). For instance, it would cost \$1 million or more to purchase an easement on just 200 acres.

Small (2003) lists four abuses of conservation easements:

- a) Deeds of Easement that allow too many houses, too many house sites, and too much destruction of conservation values;
- b) Deeds of Easement that allow large-lot residential subdivisions;
- c) Easements that protect land that does not have significant conservation values (in violation of Section 170(h)); and
- d) Bad appraisals of easement value, especially aggressively over-valuing the easement so that the landowner can claim a large income tax and/or estate tax deduction.

Small (2004) notes that most of the abuses with conservation easements have occurred only since 2000, and have involved a very small percentage of total easement projects. Still, he emphasizes that easement practices must bear up under scrutiny by the Internal Revenue Service and the general public.

Pidot (2005) cites several problems with conservation easements:

- a) A lack of consistency and uniformity across easements. Land trusts use different easement documents that have different permitted or restricted uses.
- b) A lack of public transparency. Even though public money is being used to preserve land either directly in government programs or indirectly through tax benefits, the public has little knowledge of what land is being preserved and where. There is no public registry of conservation easements
- c) Valuation issues, similar to those mentioned by Small.

- d) Concerns about the ability of organizations to provide long term management, monitoring, and enforcement of the easements they hold. If the holder of the conservation easement does not monitor the property on a regular basis, usually at least once a year, the landowner could appeal to the courts to deem the easement null and void because the holder no longer cares about the conservation values of the property.

Wright (1998) identifies two additional possible problems with conservation easements. First, there may not be an adequate baseline documentation of the wildlife and other conservation values on a property. And second, this poor documentation may result in a poorly crafted Deed of Easement that does not provide necessary protection to wildlife and their habitat. Similarly, conservation easements that are designed to protect working landscapes, such as farming operations, may not adequately protect wildlife habitat or other natural features of the property (Duane 2004).

Daniels and Daniels (2003) recommend that if the goal of the organization or government agency is to actively manage the property for wildlife habitat, then it is better to purchase a property in fee simple rather than to acquire a conservation easement on the property. The fee simple purchase is more expensive than the purchase of a conservation easement; however, the fee simple buyer gains direct control. The easement buyer gains indirect control; the land is still private property and the easement holder must work with both the current and future landowners in a long term relationship to achieve proper management.

Another drawback with conservation easements is that they may take up to several years to complete (Diehl and Barrett 1988, Daniels and Bowers 1997, Duane 2004). Landowners need to learn about conservation easements. Family members have to agree to sell or donate an easement. Appraisals take time. Funding may or may not be readily available. As Duane (2004) discovered, the larger the parcel of land involved, the longer it tends to take to complete the conservation easement.

The success of conservation easement programs ultimately depends on willing sellers. There is no eminent domain involved. Will enough landowners in a community or region sell or donate conservation easements to create sustainable wildlife habitats? The challenge for wildlife conservation organizations and government agencies is to be able to

acquire conservation easements on contiguous land and a sufficient amount of land to ensure the long term viability of species and their habitats.

Finally, the sale or donation of a perpetual conservation easement can close out future options on a property or a large area (Daniels 1991). Nonprofit organizations and government agencies need to be careful that they are preserving the “right” properties. Yet, land preservation involves something of a gamble. If additional landowners in a community or region cannot be convinced to sell or donate a conservation easement, then preservation may only result in small, random islands of protected land that do little for the long-term maintenance of species and biodiversity.

1.5 Conservation Easements and Wildlife Protection

The theory of island biogeography underpins much of modern conservation biology. This theory emphasizes the spatial relationships among wildlife populations in habitat reserve “islands.” The mix and interaction of different species determine the viability of a given population of a certain species in a particular reserve (MacArthur and Wilson 1967, Soule 1986, Quammen 1996, Beissinger and McCullough 2002). Yet, remarkably little work has been done on the *performance* of conservation easements in general, and especially in protecting and enhancing wildlife habitats and biodiversity over time.

Conservation biologists agree on two principles: 1) habitat loss is the leading cause of the decline in species and population numbers; and 2) conservation measures should be driven by science, even though scientific opinions may vary.

To date, there have been few assessments of the effectiveness of land preservation in protecting wildlife habitat. A conservation easement can protect habitat through forbidding nearly any development of a property. A landowner’s compliance with the restrictions on development can be monitored by the organization holding the easement, and enforcement actions can be taken, if necessary. This is only one level of easement effectiveness.

The second level is whether the species on the property have reached sustainable numbers and the health of the ecosystem has

improved. Yet, habitat can be vulnerable to invasive species, encroachment from development on neighboring properties, and disease, among others. Best management practices for maintaining habitat can be spelled out in the deed of easement, or a management plan can be referenced in the deed of easement. But overall effectiveness may depend on whether large areas of contiguous properties have been preserved with conservation easements.

Some Thoughts for Organizations Involved in Protecting Wildlife Habitat

Land trusts and other organizations active in protecting and managing land for wildlife habitat should adopt written criteria for accepting easements (Byers and Ponte, 2005, p. 27). The criteria are an objective assessment tool, and typically refer to the resources of a property, the size of a property, threats to the property, distance to other preserved lands, and the capacity of the easement acquiring organization to monitor and manage the easement (Byers and Ponte, 2005). In fact several organizations use scoring systems to assess the desirability of preserving certain properties (Byers and Ponte, 2005). This assessment too approach is what the consultants present in Chapters Three and Four to evaluate the outcomes of the National Fish and Wildlife Foundation's investments in interests in land and in capacity building projects. The consultants also use the assessment approach in the application evaluation model and the post-grant evaluation model presented in Chapter Five.

Byers and Ponte (2005) recommend that organizations create a Conservation Priorities Plan to systematically identify areas for preservation. For instance, in the Lassen Foothills project which NFWF helped to fund, the Nature Conservancy used Geographic Information System (GIS) technology to map natural plant and animal communities, migration corridors, topography, ownership patterns, and more (Byers and Ponte, 2005, p. 33).

In the easement acquisition process, Byers and Ponte (2005) recommend that organizations use checklists in order to proceed in an orderly and thorough fashion, and to ensure that all of the necessary documents are placed in a project file. Of special importance are the initial baseline documentation of the condition of the property and the wildlife resources (Anella and Wright, 2004, Byers and Ponte, 2005). Drafting the easement document to adequately protect the wildlife resources is crucial.

This should involve a management plan, especially if agriculture or timbering is allowed under the terms of the easement. Finally, there should be an easement stewardship strategy, and money set aside for monitoring and enforcing the easement.

Conservation Easement and Wildlife Habitat Studies

Professor Timothy Duane of the University of California at Berkeley recently undertook an evaluation of the David and Lucille Packard Foundation's Conserving California Landscapes Initiative (CCLI). Between 1998 and 2002, the CCLI program chose to fund an array of conservation approaches, including easement transactions, planning, policy, capacity-building, restoration and stewardship. Duane credited CCLI with supporting the creation of overall conservation strategies through priority-setting planning processes with key stakeholders, while maintaining the ability to respond quickly to land acquisition opportunities. He termed this approach *strategic opportunism*. The key elements of this approach included:

- 1) A strategy in place before major development threats arose, rather than simply preserving land at random;
- 2) Multiple stakeholders and financial partnerships; and
- 3) Priority setting through strategic planning;

Duane contended that strategic opportunism allowed CCLI grantees to build partnerships with other conservation stakeholders through priority-setting and planning, policy efforts, or easement transactions. Duane noted that:

“Opportunities for easement acquisition were evaluated in the context of a strategic plan that had already identified priorities for protection and had gained the support of partners who could support agreed-upon conservation goals.... The intended results were conservation achievements that should go beyond the isolated benefits of protecting individual parcels or waterways to make conservation of entire landscapes and regions more viable.” (Duane 2004).

The Packard Foundation provided a total of \$226 million in grants for conservation easements and capacity-building projects (Duane 2004). Duane reported that:

“From 1998 through 2002, the overall CCLI program achieved conservation of 325,494 acres through land transactions (139,520 by fee title acquisition and 185,974 by easement). These conserved acres were protected through a combination of CCLI grants and Project-Related Investments (PRIs), which are short-term “bridge loans” to secure acquisition of a property that is otherwise expected to be funded by other conservation partners (who then pay off the PRI). Of this total, 230,257 acres were conserved through grants and 95,237 acres were conserved through PRIs.” (Duane 2004).

Packard’s grants resulted in the preservation of 325,494 acres, and leveraged almost \$800 million in additional land preservation funds from other partners. According to Duane, the Packard funding was particularly successful in riparian restoration. Yet, it is worth noting that the riparian success happened before the availability of federal Conservation Reserve Enhancement Program (CREP) funding, which has been widely used by farmers to create riparian buffers.

Duane found that the Packard grants were less successful in preserving working landscapes, especially agricultural land. Duane expressed some frustration that the only metric used to judge the success of the Packard grants was acres preserved. In addition, he was concerned whether there was adequate capacity in place to manage the preserved lands over time.

Duane asked four questions: 1) What worked?; 2) Where did it work?; 3) Why did it work?; and 4) What did the results say about the CCLI strategies?

Duane used a case study approach to evaluate the easements. He divided the Packard grantees into three regions: 1) Central Coast—San Francisco to Monterey; 2) Sierra Nevada; and 3) Central Valley. Duane and his team conducted 101 interviews with grantees and landowners on projects that covered about half the land preserved and two-thirds of the dollars spent by Packard.

Duane classified the Central Coast as having a “high capacity” to conduct easement acquisitions. There are several land trusts active in the region, there is considerable public ownership of land, and local land use policies are rather restrictive toward development. Capacity-building grants were generally not needed in the region.

The Sierra Nevada was considered to have a “moderate capacity” to acquire easements because of a few land trusts, a fair amount of public land management, and local government support.

The Central Valley was rated as “limited capacity” because of the near absence of land trusts, little public land, and limited local government support.

Duane identified regional conservation capacity as the key ingredient for success. This was evident in the capacity of land trusts to work with each other, with national organizations, and with public agencies in a region. Hence, the Packard funding was most successful in the Central Coast where the regional capacity was greatest and least successful in the Central Valley where capacity was generally lacking. Duane concluded that sustaining capacity is an on-going challenge as is the management of preserved lands. He wrote:

“In addition to specifying targets for acres and dollars, CCLI would have benefited from defining and monitoring intermediate outcomes, including improved regional capacity and social and political support for conservation goals. Finally, clearer ecological indicators and a comprehensive monitoring and evaluation program should be established at the outset for future programs in order to determine more precisely how well particular strategies are working” [over the long run] (Duane 2004).

Duane expressed concern that the terms of the easements, which were mainly designed for working lands, might be in conflict with biodiversity goals. For instance, he cited the existence of endangered species as a catalyst for landowners to sell conservation easements. Finally, he observed that the easement purchases often took longer than expected.

* * * *

Conservation biologists James Cox and Todd Engstrom (2001) used a Geographic Information Systems (GIS) model of spatial patterns of red cockaded woodpeckers (an endangered species) to propose land conservation strategies. They emphasized that spatial patterns of conserved lands affect the chances of survival for species with low dispersal rates or large area needs. The red cockaded woodpecker has both a low dispersal rate and needs a large area for habitat.

Cox and Engstrom applied the GIS model to an area of North Florida and Southern Georgia using four scenarios:

- 1) Status quo in which only current properties under easement were included;
- 2) Opportunistic: More easements acquired, but at random;
- 3) Strategic easement acquisition; and
- 4) All lands with red cockaded woodpeckers conserved.
Their results showed:
 - a) A low chance of survival for the woodpeckers only on land currently under easements, unless the quality of the habitat improved significantly;
 - b) Random easement acquisition would be ineffective unless an additional 70,000 acres could be conserved;
 - c) Strategic acquisition of easements could successfully protect woodpecker habitat if the key 25,000 acres could be conserved. Twenty-five territories would be needed ; and
 - d) Over 400,000 acres would need to be conserved to protect all of the habitats where woodpeckers are currently found.

Both Duane's study and the article by Cox and Engstrom suggest key elements in successful conservation easement projects. The following section examines how land trusts are attempting to ensure that their conservation easement projects preserve the "right" land for wildlife habitats.

1.6 What Makes for Good and Not So Good Conservation Easement Projects?

There are a number of strategies that non-profit and government agencies are employing to preserve wildlife habitat. A central difference among strategies is whether there is a guiding plan or merely an opportunistic preservation of land as landowners decide to enter into a conservation easement (see Figure 1.1). A guiding plan will more often be based on scientific studies and use conservation planning to design networks of preserved land to protect biodiversity where it currently exists.

On the other hand, conservation biologists frequently use predicted species distribution data; this information is based on a probable, pre-determined threshold of where sharp species decline would occur. The two strategies—where biodiversity currently exists and the probability/risk based approach—suggest different patterns of protected wildlife habitat (Cox and Engstrom 2001). Currently existing wildlife, except for plants, can move and thus may need a large area of protected land. Cox and Engstrom suggest that a probability approach would emphasize preserving just those parcels of land on which wildlife are expected to occur.

Figure 1.1 Features of Successful and Less Successful Conservation Easement Projects

Features of a Successful Conservation Easement Project

1. The conservation easement was completed within the originally proposed time frame for the grant.
2. The cost of the conservation easement was reasonable (under \$5,000 an acre on average).
3. The project preserved more than 50 acres.
4. The project was part of a state, regional, or local habitat conservation plan. The easement acquisition was strategic, based on good science.
5. The completion of the conservation easement attracted the attention of neighboring landowners, and led to the creation of contiguous easements that provide landscape level protection of wildlife habitat.
6. The habitat protected contained specific important species.
7. The grantee organization that completed the conservation easement was able to increase its capacity in fund raising, number of staff, and the number of easement projects it could undertake in the future.
8. The grantee organization has the capacity to monitor and enforce the terms of the conservation easement; and can work with the landowner on habitat restoration projects.
9. An easement project that would “stand up” under public scrutiny. Clear public benefit, and clear conservation value of project.

Features of a Less Successful Conservation Easement Project

1. The conservation easement took years to complete and the Foundation had to give the grantee a time extension to complete the

terms of the grant. This tied up Foundation funds that might have been better spent elsewhere.

2. The cost of the conservation easement was high, over \$5,000 an acre.
3. The project preserved less than 50 acres.
4. The project was not part of a state, regional, or local habitat conservation plan. The easement acquisition was opportunistic.
5. At the completion of the easement, the grantee was not able to interest neighboring landowners in placing conservation easements on their land. The easement project resulted in the creation of an “island” of preserved land.
6. The habitat protected contained a general list of species.
7. The grantee organization that completed the conservation easement was not able to increase its capacity in fund raising, number of staff, and the number of easement projects it could undertake in the future. The easement project was a “once and done” type of deal.
8. The grantee organization did not have the capacity to monitor and enforce the terms of the conservation easement; and could not work with the landowner on habitat restoration projects.
9. An easement project that would not “stand up” under public scrutiny. Limited public benefit, and limited conservation value.

Local and regional land trusts have used conservation easements to preserve almost 5 million acres (LTA 2004a). Yet, land trusts, especially small locally-focused ones, often operate according to an opportunistic approach (McQueen and McMahon 2003). Many land trusts are small, have a volunteer staff, and have preserved only a few thousand acres. While these trusts are often highly dedicated to preserving wildlife habitat, they typically do not have the scientific expertise to identify key habitats in a regional landscape. Moreover, because small land trusts have limited funds, they are compelled to be opportunistic in their acquisitions of land and conservation easements. As a result, the pattern of lands preserved is likely to be scattered, rather than a large contiguous block of core habitat areas connected by migration corridors.

The Land Trust Alliance has addressed the issue of careful selection of easement projects in its Standards and Practices which all members of LTA are supposed to follow:

“The land trust has a defined process for selecting land and easement projects, including written selection criteria that are consistent with its mission” (LTA 2004b).

In addition,

“The land trust evaluates and clearly documents the public benefit of every land and easement transaction and how the benefits are consistent with the mission of the organization” (LTA 2004b).

Land trusts with a multi-county or statewide presence tend to have scientifically-trained staff and the financial means to acquire conservation easements on several thousands of acres. They have the financial muscle to influence local land use and development patterns (Wright and Czerniak, 2000). This statement is especially true for the nationally and internationally based land trusts such as the Trust for Public Land and The Natural Conservancy.

TNC wildlife biologists have identified the need for a more proactive, rather than reactive approach to protecting wildlife habitat and a greater emphasis on maintaining overall biodiversity through ecosystem protection, rather than focusing on one or a few species (Groves *et al.* 2002). Groves *et al.* present a seven-step framework for conservation planning:

- 1) Identify conservation targets of particular wildlife communities, ecosystems, species and physical features (geology, soils, climate);
- 2) Collect information and note information gaps on habitat and landownership and development patterns;
- 3) Set conservation goals for how much of the targets should be preserved and how the targets should be distributed throughout a region;
- 4) Evaluate existing conservation areas for their biodiversity;
- 5) Evaluate the size, condition, and intactness of habitat and species for viability over time;
- 6) Create a portfolio of potential conservation areas;

- 7) Identify priority conservation areas through a) existing protection; b) conservation value; c) threats; d) feasibility for protection; and e) ability to leverage additional preservation in a region.

Darby Bradley, long-time President of the Vermont Land Trust, offered the following observations on what characteristics create the right “climate” for land preservation:

“[N]owhere in the country is the opportunity for land conservation greater than in Vermont. The combination of landowner interest, nonprofit capacity, public and private funders, political leadership, and public support has provided the ingredients for past and future success. In addition, many people and organizations share a common vision of what makes Vermont a special place in which to live and work. Land conservation is only one element of that vision—but it’s a critical one” (Vermont Land Trust, 2004, p. 7).

An important question is whether the protection of wildlife habitat can keep pace with development? Orfield (2002) argues that land continues to be developed much faster pace that it is being preserved. Even so, state and local taxpayers have been remarkably willing to raise taxes to pay for land preservation. In the five years, 1998 to 2004, voters approved more than 600 ballot measures involving more than \$23 billion (TPL 2003, 2004a). Duane (2004) notes the inherent problem of boom-and-bust cycles of funding from both private sources and the public sector. Continued financial support is critical to sustain nonprofit organizations and public programs to protect habitat (See, LTA 2004b).

Identifying Which Land to Preserve

One of the common criticisms of lands trusts, especially the smaller trusts, is that their land preservation efforts are reactive. Land preservation is often cited as a last resort in the face of impending development pressures (Richardson 2000). The landowner is ready to sell; the question is who will buy it and what will the buyer do with the land. The reactive approach to preservation features parcel-by-parcel, opportunistic acquisition transactions that may not be the most cost-effective means of achieving conservation on private land (Duane 2004).

A more proactive and strategic approach could yield greater conservation benefits and greater cost-effectiveness in the investment of scarce dollars. In fact, the Land Trust Alliance requires its members to have “a defined process for selecting land and easement projects, including written selection criteria that are consistent with its mission (LTA 2004b).

Several land trusts both large and small have undertaken scientific studies of lands to target for preservation (See *The Nature Conservancy, Last Great Places*, Thornton 2001,). State Heritage Programs are biological inventories of rare plant and animal species and their habitat. State Heritage Programs now exist in almost every state (Moore, 1996). Similar work has already been done by local governments and land trusts in their efforts to preserve agricultural lands. For instance, Daniels (Daniels, T.L. 1994) discusses the use of a modified Land Evaluation and Site Assessment (LESA) system to prioritize applications for easement sale on farmland. Tulloch et al. (2003) present a case study of using a parcel-specific GIS system to rank farmlands in importance for preservation.

Amundsen notes that prioritizing preservation projects can enable a land trust to:

- a) “Select the project with the highest value to the land trust’s mission and allocation of limited resources” (Amundsen, 2004);
- b) Use land protection criteria as required in the Land Trust Alliance’s Standards and Practices;
- c) Develop a scoring system to rank potential land preservation projects;
- d) Develop a screening system to determine which projects are acceptable and which should be rejected;
- e) Re-evaluate criteria periodically;
- f) Create a logical guide for decision-making.

Messer and Wolf (2004) go one step farther in recommending a mathematically-based optimization model for selecting preservation projects

rather than using rank-based criteria. They analyzed 186 parcels in Maryland that the Maryland Department of Natural Resources was considering for acquisition. They identified the five most important elements for preservation as:

- 1) The size of the parcel;
- 2) The percentage of the parcel already designated as green infrastructure by a local government or state agency;
- 3) A composite score of 16 ecological factors;
- 4) The proximity of the parcel to other protected land;
- 5) The relative size of the parcel for habitat, compared to the core habitat area or corridor.

Messer and Wolf contend that the optimization model is more effective because it includes costs, whereas the typical rank-based model relies solely on the ecological value of the parcel. The optimization model will result in greater conservation benefits and more land preserved for the same dollar costs as the rank-based model.

1.7. Future Research Needs and Directions

There is a notable shortage of evaluations of conservation easement programs, especially over long periods of time (Hollis and Fulton 2002; McQueen and McMahon 2003; Duane 2004). A prime question that needs to be answered is whether a critical mass of land can be preserved to enable wildlife to survive and thrive in the long run (Daniels, T. 1999). Studies of conservation easement performance are scarce, in part because most conservation easement programs are less than 20 years old. Moreover, attempts to evaluate some preservation programs may be premature (Duane 2004).

Private foundations have become an important source of funding for land preservation (Greene 1999, Daniels and Lapping, 2005). Yet, McQueen and McMahon (2003) note that the impact and effectiveness of foundation funding for land trusts have not been carefully studied. Anecdotal evidence suggests that foundation funding can be very important for particular land

trusts. For instance, the Vermont Land Trust dedicated its 2003-2004 Annual Report to the Freeman Family would have provided large amounts of money to the Vermont Land Trust through the Freeman Foundation (Vermont Land Trust 2004).

In his first address to a land trust rally in Austin, Texas in 2002, LTA President Rand Wentworth emphasized three goals: excellence in the quality of lands preserved, the need to preserve landscapes rather than random parcels of land, and increasing the pace of preservation. The first two goals put an onus on land trusts to adhere to standards of excellence and to pursue of strategic properties that will achieve a critical mass of habitat, enabling the long-term survival of species and overall biodiversity. Daniels and Lapping (2005) observe that more research is needed to explore whether conservation easements can preserve large landscapes for wildlife in a timely and cost-effective manner.

Wright (1998) identifies a host of research questions such as:

- a) Determining the optimum role of lands under easements as buffers surrounding core preserve areas;
- b) Conducting studies of threats to species on lands under easements;
- c) Conducting studies of different approaches to ecological restoration and wildlife management on lands under easements; and
- d) Determining the effects of different easement restrictions on similar properties as a way to develop better easement documents.

1.8 Conclusion

The literature on conservation easements strongly suggests that this land preservation tool is here to stay. Conservation easements have become a popular tool to protect working rural landscapes, wildlife habitat, riparian buffers, and other lands only within the past 30 years. Non-profit land trusts have preserved more than 5 million acres through the purchase of land and conservation easements, and easement donations from willing

landowners. Public funding for conservation easements has been strong. Federal funds have targeted wetlands, grasslands, working farmland, and working forests for preservation through conservation easements and have provided more than \$2 billion in funding. State and local governments have also authorized billions in funding for land preservation. Both public and private support reflect a perception that traditional land use planning and regulation are not successfully protecting valuable natural resources, especially wildlife habitats and water supplies.

The sale of conservation easements has grown in popularity among landowners as a way to get cash from the land without having to sell it outright. Moreover, the land still remains private property, although the sale or donation of a conservation easement gives the buyer or donee an interest in that private property. Land trusts and local, state, and federal government agencies have embraced conservation easements as a way to minimize development on working farm and forest lands and to protect wildlife habitats. Conservation easements thus are a popular alternative to mandatory land use regulations, especially in rural areas.

Land trusts have generally avoided making a determination whether a land preservation project was “good” or “not so good.” To some people, such a determination is a judgment call. To others, it is based on observed outcomes and measurable criteria. A fundamental concern with conservation easements is the quality of individual easement transactions. Clearly, there have been many outstanding land preservation projects executed through conservation easements (see Daniels and Daniels 2003, Duane 2004). Similarly, there have been a number of easement transactions that may not produce much in the way of public benefit (Small 2003, 2004).

Residents in hundreds of communities have recognized the need to plan for the preservation of the natural environment as well for development. Striking a balance among the natural environment, working landscapes, and the built environment is one of the biggest challenges that communities face (Daniels and Lapping 2005). McQueen and McMahon (2003) add that land preservation will have to become more proactive and less reactive. That is, land preservation should take place within a scientifically-based planning process of where it makes sense to preserve land for the long run, especially for wildlife habitat. Moreover, because public and private dollars for preserving wildlife habitat are limited, government agencies and land trusts will need to be strategic about the land they decide to preserve (McQueen

and McMahon 2003). A prime objective should be the preservation of large contiguous blocks of quality habitat to maintain core wildlife habitats and migration corridors.

Finally, an issue prevalent in much of the land preservation literature is a sense of urgency to preserve land (Brewer 2003; Daniels and Daniels 2003; McQueen and McMahon 2003;)

Chapter 2: National Fish and Wildlife Foundation Interests in Land and Capacity-Building Grant Programs and Projects: An Overview

The purpose of this study is to determine what the National Fish and Wildlife Foundation is doing well and where the Foundation can make improvements in promoting the protection of high quality wildlife habitat and the maintenance and increase in wildlife populations. The evaluation of the

Foundation's grant programs for acquiring interests in lands and capacity building is generally positive, as will be discussed at length in Chapters 3 and 4. The achievements of the Foundation, however, could be better presented both to the Foundation Board members and to the general public.

2.1 Observed Achievements and Publicity

Since its creation in 1984, the Foundation's General Call Grant program has resulted in the preservation of more than one million acres of land. Also, of the interests in land projects surveyed by the consultants, threatened and endangered species were reported on 75 percent of the properties that had been protected. The Foundation has made easement and capacity building grants in some of the largest and most successful habitat protection projects in the United States. For example, the Foundation invested \$2 million in the Pingree Family project in northern Maine which resulted in the purchase of a conservation easement on 762,000 acres at a cost of \$37.10 per acre. Moreover, forest lands will continue to be harvested according to a forest management plan and public access is allowed, which will provide continuing economic benefits to the region. More than 1,100 miles of river and stream banks are protected and the Pingree lands are adjacent to more than 326,000 of protected state and private lands. Although the Pingree lands are currently under low development pressure and are fairly remotely situated, the easement clearly gives long term protection to a critical mass of land for core habitat areas and migration corridors.

The Pingree project is only one of several impressive wildlife habitat easements. Generally speaking, the larger the acreage protected, the more successful the project is likely to be for the long-run sustainability of the wildlife and their habitat.

The Foundation has also used capacity building grants to foster the expansion and effectiveness of land trusts in preserving wildlife habitat. Three examples of successful capacity building grants are the California Rangeland Trust, the Colorado Cattleman's Land Trust, and the Forest Society of Maine. It is important to note that these organizations were able to develop into a statewide presence, garner additional funding from several sources, and significantly expand their preservation of wildlife habitat.

There are three main reasons why the Foundation has not done a better job of disseminating the outcomes of its grant programs. First, the Foundation has not kept in touch with the grantees. The Foundation protocol has been to close the files once the grant has been spent. The Foundation is largely unaware that in many cases the grants made by the Foundation were the catalyst for several subsequent conservation easement projects. At a minimum, the Foundation should be placed on the mailing list of any grantee and should receive the grantee's newsletters and annual report.

Second, a staff person at the NFWF headquarters in Washington, D.C. should be responsible for maintaining and updating each project file, and communicating to the communications and publications people any significant achievement that arose from NFWF-funded projects, as well as progress made by grantees in preserving, restoring, and managing wildlife. In short, the Foundation needs to see itself as a partner with the grantees, rather than as just a funding source. This staff person should also provide the NFWF staff and Board of Directors with an annual report on conservation easement and capacity-building projects that have been completed in the previous year.

Third, grantees need to be asked to provide evidence of outcomes in which wildlife populations have been maintained or enhanced. This would involve having the grantees conduct wildlife studies to ascertain the conditions of wildlife habitat and populations both before and after receiving a NFWF grant.

A particular benefit of maintaining up to date files is that news items in project areas accrue over time. Thus, the Foundation can track the benefits of its work, and make these benefits known to the Foundation Board, Congress, donors, partners, grantees and potential grantees, and the public at large. For instance, in 2004, the Foundation provided grant funds toward the preservation of the 11,400-acre Sparrowk Ranch in Klamath Valley, Oregon. Foundation funds were instrumental in creating the Oregon Rangeland Trust (ORT) with the help of the Oregon Cattlemen's Association. The ORT was modeled after the California Rangeland Trust. The ORT holds the easement on the Sparrowk Ranch.

The Foundation should explain in publications and on its website how the preservation of this ranch meets a number of goals of its regional conservation plan: 1) preserving working rangeland to help protect wildlife habitat (stewardship); 2) creating large blocks of preserved land; and 3) promoting the creation of effective statewide agricultural land trusts using the California Rangeland Trust model.

2.2 Project Applications, Review, and Selection

The Foundation has traditionally served a reactive role in habitat preservation. That is, local, state, and national organizations and government agencies approach the Foundation with a preliminary proposal for a project. The first point of contact is the regional Foundation offices. Regional staff screen the preliminary proposals and then work with organizations and agencies to draft full proposals.

Each full proposal involves a written application and reviews from five external peer reviewers. The reviewers come from industry, government agencies (especially the federal agency through which funding is provided), and academic institutions. Most of the regional offices have a regional conservation plan that can be used to compare applications with identified target areas. The regional directors make recommendations pro and con on the project applications. Foundation staff in Washington, D.C. then “argue out” which applications to fund. The Foundation’s Chief Operating Officer makes the final call on which applications to fund. Next, the list of applications to fund is sent to Congress. Congress has a 30-day response period. Senators and Representatives often submit letters of comment on specific projects to the Foundation. Foundation staff are often invited to discuss projects with Congress. Finally, the list of applications to fund is presented to the Foundation Board for approval. The Board meets three times a year and has the ability to go “off cycle” to expedite the review of applications, this is called an executive slate.

Congress authorizes funding for the Foundation that passes through up to 15 federal agencies, especially the U.S. Fish and Wildlife Service (FWS) in the Department of the Interior, and the Natural Resources Conservation Service (NRCS) in the Department of Agriculture. The Foundation currently receives about \$30 million a year in federal funds and about \$26 million from private sources. It is important to note that the Foundation rarely separates federal and private funds in making grants.

The Foundation is looking to expand the size of its operations to as high as \$500 million a year or more, with most of this funding coming from private sources.

The Foundation does not have a geographic preference for where it makes its grants in the United States. Nor is there a predetermined limit to the size of grants. The Foundation has made at least one grant of \$2 million (in the Pingree easement acquisition project) and a number of grants of less than \$10,000. The standard for selection has traditionally been: What are the best conservation projects?

The Foundation will only provide up to half of the funds for a project. Grantees must match Foundation funds at one to one, though often the match is two to one or greater.

A grantee is required to submit a final report to the Foundation, indicating how the grant funds were spent and the outcomes. In return, the Foundation staff send a letter to the grantee confirming that the project is complete. The file is then closed. There has been virtually no monitoring of the outcomes of the project over time.

Monitoring and Enforcement

Conservation easements require monitoring. Any land trust or government agency that acquires a conservation easement is accepting a long-term responsibility for monitoring and enforcing the terms of the easement. Land trusts and government agencies should generally monitor a property on which they hold an easement at least once a year. Nearly all grantees contacted were conducting monitoring visits at least once a year.

There should be a written easement monitoring report added to the project file and sent to the landowner as well. The NFWF could require that a grantee submit a copy of the monitoring report to the Foundation every five years. This way the Foundation can keep track of progress and problems with its investments in easement projects. Such information could be useful to the Foundation in reviewing and changing its application requirements. The monitoring reports would give the Foundation information on both the *intermediate and long-term outcomes* of its investments in conservation easements.

This sort of monitoring reporting is not uncommon. For instance, in Pennsylvania's farmland preservation program, a county is required to file an annual monitoring report with the State Bureau of Farmland Protection for each easement the county has required with state funds.

The purchase of conservation easements does not necessarily ensure the land's conservation value, especially as wildlife habitat. Conservation easements alone will not determine the degree to which a landscape will see durable, sustainable conservation of biodiversity. Thus, it is important to ask: How are the lands that NFWF has helped conserve being managed and restored in order to improve their capacity to support biodiversity? This is especially true when restoration and stewardship needs and practices are likely to be different across the nation. Review of any restoration and stewardship plans that have been developed by grantees or landowners is essential. Such plans need to be made available and monitored for implementation.

The Foundation should be aware that there are three important issues related to monitoring:

- 1) To ensure that the landowners are complying with the terms of the conservation easements;
- 2) To ensure that the easements are effective in protecting, promoting, and restoring wildlife numbers; and
- 3) To ensure that easements that the Foundation has funded have not been condemned. In the case of a condemnation, the money the Foundation provided must be returned to the Foundation and hence to the federal partner through which funding was provided. The Foundation makes grantees put this requirement in the deed of easement.

There is a sense that the Foundation would like to become more proactive and strategic in its easement and capacity building grants. This will involve more collaboration with other funding partners and projects involving larger acreages.

2.3 Evaluation of the Foundation's Application Review, Selection, and Management Process

The role of the Foundation can be seen as that of a consumer

and the applicants to NFWF as sellers promoting their proposals. The goal of the Foundation is to be a good consumer as it spends money on behalf of the public and other funders by purchasing the best deals possible in terms of habitat preserved and return on dollars spent.

To this end the Foundation has developed and recently revised a rigorous review process for selecting successful applications that includes working with applicants, pre-proposal and full proposal scoring forms, NFWF staff group discussion and evaluation, congressional review and finally the selection of projects by the NFWF Board.

The process begins with the information NFWF provides to its potential applicants as to what NFWF is striving to accomplish. This is achieved in four ways, on their web site (www.nfwf.org), in their application forms, in their printed literature about the organization and through verbal communications between the NFWF staff and their existing and potential partners.

The Foundation has made efforts to adopt application evaluation systems to determine how the easement project process is working and where improvements might be made. Foundation staff have divided the evaluation process into four steps: Prospective Implementation, Retrospective, and Dissemination.

Prospective. This first step is a needs assessment or gap analysis. It asks the question: "Should the Foundation invest in a project or program?" Most of the easement projects reviewed for this study were completed before 2001. The procedure for reviewing project applications was two-fold: 1) an internal review of the application by Foundation staff; and 2) External peer reviews from industry, government, scientists, and academics. Since 2001, Foundation staff have moved toward standardized criteria for internal and external review of applications.

Implementation. This is a performance evaluation, a process study. It asks the question: "How well is a project or program being implemented?" Prior to 2001, staff followed grant projects until they were completed. Staff made some site visits for very large grant projects, but reviews were not standardized or scientifically rigorous. Since 2001, Foundation staff have drafted a plan for project performance evaluations and have field tested it.

The next step is to establish a database and reporting system to evaluate the performance of completed projects.

Retrospective. This is an analysis of outcomes of the grant projects. It asks “What changes resulted to the habitat, species, and stewardship capacity from an investment by the Foundation?” Prior to 2001, there was no standardized reporting of outcomes. Since 2001, Foundation staff have tried to get a handle on the “cost-effectiveness” of different projects. This effort has involved reviewing pre-2001 files as well as adopting more standardized reporting on the outcomes of projects.

Dissemination. This step can be thought of as “knowledge management.” It asks: “How is information from the evaluations being shared and used?” Prior to 2001, there was no systematic publicizing of the Foundation’s projects. After 2001, staff have been working toward creating a computerized database of projects and evaluations of their outcomes. These evaluations are expected to help staff in making decisions about new project applications.

A copy of the Foundation’s evaluation instrument that was used for the Fall 2004 and Spring 2005 applications is included in Appendix One. The evaluation instrument consists of six parts:

- 1) A logic framework detailing the activities of the proposed project, the outputs, and the post-project outcomes.
- 2) Statistical indicators for measuring the proposed project’s outputs and post-project outcomes;
- 3) Potential negative impacts that may inadvertently result from implementing the project;
- 4) Evaluation strategies for accounting for and minimizing external factors that may influence the project’s activities, outputs, and post-project outcomes;
- 5) The project’s transferability and strategies for sharing key findings;
- 6) The applicant’s capacity to administer the project evaluation.

Observations/Critique. In steps 1, 2, and 6 above, it is unclear how a grantee would report post-project outcomes to the Foundation. The Foundation should ask in step 6 how the grantee will keep the Foundation informed of post-project outcomes. In addition, the Foundation can require

as part of the grant making process a copy of the easement monitoring report every 3 to 5 years from the grantee.

Another question that should be asked is: How far along is the proposed project? Two past problems with Foundation grants were they had to be extended because the project took longer than expected and a number of projects were changed after the grant had been made, resulting in less land preservation than originally envisioned. Two large and potentially high profile easement projects, the Gordon Ranch in Montana and Massawepie Mire in upstate New York, fell through altogether. Note that the Forest Legacy Program uses a “how far along” criterion in deciding which projects to fund. The rule of thumb is that the farther along the project is, the better understood the project is (especially the obstacles that need to be overcome in steps 3 and 4 above) and whether it is likely to succeed.

The Foundation does not ask for any information on local government land use policies. This is a serious omission. Local government planning and zoning directs development, and allows different land uses and densities of development in different areas. Duane (2004) in his study of the Packard Foundation grants in California (1998-2002) noted that those regions with local land use policies that supported land preservation were more successful in employing the Packard funds.

Preserving land zoned for development—whether in two-acre house lots or even commercial and industrial development runs counter to local planning and is not consistent with the public benefits test for donated conservation easements under Section 170 (h) of the Internal Revenue Code. Land zoned for fairly intense development will have a higher easement cost than land zoned for low density development.

Moreover, preserving land zoned for two-acre house lots sets up the risk that a preserved property will become surrounded by houses which will bring dogs, cats, and kids into an area. These three actors are generally not compatible with local wildlife. Also, new homeowners are likely to introduce non-native plants into an area which can out compete native varieties.

Local land use policies are one of several factors that the Foundation should weigh in deciding whether to fund an easement project. Yet,

applicants should be aware of what the planning and zoning allows in their project areas, and should convey that information to the Foundation.

Overall, the application is too open-ended. It is difficult to compare projects. An application that lends itself to a more standardized, quantitative review is needed. Good projects should literally leap off the page, and poor projects shrivel up. The sample projects are a good idea, but the objectives need to be more detailed and specific in terms of acres, types of wildlife and habitat to be protected, management plans, and proximity to development. Objectives are specific, goals are general. Specific objectives in step 1 should be closely tied to the indicators in step 2.

Foundation staff should be able to determine the transferability of a project in step 5. The application should be designed to obtain key data about the proposed project that are easily compared to other proposed projects. The current application is awkward. For example, step 6 should ask “What technical expertise, resources, and prior experience does your organization have to conduct the project evaluation?” But Foundation staff will need to conduct their own evaluation of the project, once the grant funds have been spent and a final report submitted. In addition, the evaluation of a project is not a once and done process; easement and land acquisition projects in particular will need to be monitored over time.

Specific Problems

Problem: General Goal Statements. There is a feeling among staff and outside partners that the Foundation needs to create well-defined goals and objectives that state: here is what the Foundation is doing and why.

For instance, goals could be more clearly defined by including: 1) assist others in owning land or acquiring conservation easements; 2) conserve habitat for fish, wildlife, and plants; 3) Stewardship—best management practices and monitoring and enforcement of conservation easements within a regional strategy for ecosystem functions at a landscape level.

The current written statements regarding what NFWF is striving to accomplish in wildlife conservation are vague, broad, and general. For

example, the NFWF web site states that their goals are “to promote healthy populations of fish, wildlife, and plants by generating new commerce for conservation.” The NFWF Conservation Plan states that the organizations vision is, “healthy, richer, and more abundant populations of fish, wildlife and plants for the next generation” and states its mission as, “to sustain and expand our nation’s fish, wildlife and plant resources through healthier habitats, stronger partnerships and enhanced stewardship.”

The most specific objectives regarding wildlife conservation are outlined under the Conservation Themes section of the Conservation Plan. Here more general statements such as “...larger more viable wildlife habitats” are joined by more specific statements such as, “to increase populations of wildlife to prevent listing [under the Endangered Species Act] or have a reasonable chance of success at down-listing or de-listing from threatened or endangered status.” And, “Develop and support effective control over invasive species and enhance native species viability.”

NFWF documents do speak effectively about the Foundation’s philosophical approach to wildlife conservation and state clearly their commitment to cooperation, collaboration, innovation, private property rights and the linkage between conservation and local economies. The Foundation also states that it embraces specific, measurable outcomes, quantitative evaluation and the use of adaptive management based on effectiveness monitoring. However, given the breath of the Foundation’s goals, effective monitoring for specific, measurable outcomes, regarding benefits to wildlife, will be difficult.

For example, in the grant awarded to the Society for the Protection of New Hampshire Forests for the Clarksville Pond easement project, there are potentially conflicting agendas. On one hand the goal is to perpetually protect a currently pristine lake, while at the same time the project seeks to increase public access and to support a local, outdoor recreation business. The application failed to provide any science-based evidence as how the pond fits within a landscape conservation plan nor any analysis as to what the potential impact of increased public access or campground expansion would have on the pond’s ecology. On what criterion will the effectiveness of this project be evaluated? If public use increases as a result of the added public access, facilities and the campground realizes financial success but if expanded boat movements and human use introduce invasive plants or reduces water quality, will the project be judged successful?

When wildlife conservation goals are stated in broad terms such as, “to promote healthy populations of fish, wildlife, and plants by generating new commerce for conservation” or to provide a, “healthy, richer, and more abundant populations of fish, wildlife and plants for the next generation,” *applicants, reviewers, staff and evaluators are provided with little direction as to the Foundation’s geographic or species-specific priorities.*

Is it appropriate under such goals to manage habitat for ring-neck pheasant, brown trout or western elk in eastern habitats? What is the ecological definition of “healthy population” or “richer and more abundant”? Is the priority ecosystem management, species management, biodiversity management or wildlife agriculture? Depending upon the prioritized goals, recommendations will vary. In the Clarksville Pond easement for example, if the pond ecosystem was the top priority then a modification such as limiting boat use to on site rentals and artificial lures only might have been considered, thus dramatically reducing the likelihood of introducing invasive species.

If functioning landscapes was the priority, a stronger analysis of how the pond’s protection fell within the larger plan was warranted. Was the easement strategic, falling within a larger plan, or opportunistic, and how are such opportunities prioritized by NFWF? When querying NFWF staff and partners such as representatives of the FWS and NRCS, no one was able to articulate what the specific wildlife conservation values and goals of NFWF programs were regarding easements, beyond broad statements such as habitat protection and preservation. Effectiveness monitoring of easements requires a clear understanding of the desired outcome. Broad, difficult to define goals make such evaluations challenging.

Problem: Cumbersome bureaucracy. More than half of the more than 40 grantees interviewed expressed complaints about the bureaucratic nature of the application process. This may simply be part of the federal bureaucracy. Seven grantees said they would not apply for another grant from NFWF, saying the paperwork was not worth the grant amount. Paperwork was especially a burden for small organizations.

There may be some steps that the Foundation can take to streamline the process without sacrificing the quality and depth of the application review process. First, the requirement of five outside reviewers appears

excessive. Three outside reviewers are adequate. Second, the applicants should be notified when an application is complete.

An alternative approach for reviewing applications is the Fulbright scholarship model in which applications are reviewed by one or two outside reviewers selected by the Fulbright administrators and then a panel of former Fulbright Scholars is assembled in Washington, D.C. to review and select the best applications. The strength of the Fulbright approach is that the reviews are objective. By contrast, the applicants to NFWF are selecting the outside experts. This makes little sense if the purpose is to obtain a genuinely objective review and places an added burden on the applicants to track down the reviewers. In several cases, an applicant will use the same reviewers over and over again.

The National Fish and Wildlife Foundation could send each application out to two outside reviewers—a federal partner and a local industry or education person, and then convene an advisory panel of experts in wildlife conservation and land preservation in Washington, D.C. to review the applications. The reviews would then be used by the Regional Directors and the headquarters staff in deciding which projects to present to the NFWF Board.

Problem: Lack of measurable criteria in the ranking of applications ranking to improve the likelihood of successful projects.

The most important information missing in the application process is a baseline documentation of the existing wildlife, habitat, and habitat condition. Unless NFWF staff know the current wildlife situation in each application, they will have a hard time comparing applications.

Problem: The timing of the grants. A fairly common problem observed was that grantees often applied for funding from NFWF early in the life of an easement project. While securing a grant from NFWF can give a grantee and its easement project a stamp of legitimacy, too often either projects fell through or else the project had to be amended and scaled down from the original proposal.

Ideally, funding from the Foundation should come late in the process. The applicant should present to NFWF an agreement of sale for a conservation easement (or an option to sell an easement) signed by the landowner and the applicant. This would give the Foundation a measure of

assurance that the conservation easement will be executed upon receipt of the Foundation's funds for the project. The Foundation should consider requiring the applicant to provide the Foundation with a sample conservation easement and the appraisal of easement value.

At a minimum, the Foundation should require from a grantee a signed agreement of sale for a conservation easement (or option to purchase a conservation easement) and a copy of the appraisal within six months of receiving approval for a grant from NFWF. The Foundation should not disburse funds to the grantee until the Foundation has received a copy of the signed agreement of sale or option and a copy of the appraisal. The Foundation needs to have an in-house review appraiser to oversee the review of outside appraisals. The in-house appraiser could contract with a local appraiser to do the review, if needed.

When NFWF invests in a grant, the Foundation is investing in a promise. The cost-effectiveness model presented in Chapter 4, tries to maximize the likelihood that NFWF will invest in a land project that has clear benefits for wildlife at a reasonable cost. The consultants came across at least two NFWF-funded easement projects on large tracts that fell through. There were also at least two situations where the original projects were scaled down from 60 acres to 30 and 17 respectively. These situations are not the Foundation's fault. But it would have been better if the Foundation had been contacted after the applicants/grantees had worked out basic agreements with the landowners.

Problem: Lack of information on local public policy in application process. Professor Timothy Duane in his study of the Packard grants in California noted whether local governments were supportive of conservation. Two fundamental questions that should be included for a conservation easement grant are: a) what is the property zoned for? and b) what are the adjacent properties zoned for?

Although zoning is not permanent, it does give an indication of what can happen both on the subject property if it were not preserved and on adjacent properties. For instance, it makes little sense to preserve a 50-acre parcel when the adjacent zoning allows houses on two-acre lots. The conservation integrity of the 50-acre parcel could easily be eroded by the construction of many houses nearby.

Also, why should the Foundation make a large grant to purchase a conservation easement on a relatively small parcel, simply because the parcel is zoned for two-acre lots and thus has a high easement value? Compare this situation to one where the land is zoned at one house per 40 acres. The zoning will keep down the cost of the conservation easement; and it is likely that adjacent properties are also zoned at one house per 40 acres. There is not likely to be much development next to this property once it is preserved and there is a greater likelihood of attracting interest from neighboring landowners.

Problem: Foundation's regional conservation plans are not tied to maps or to conservation plans of partners or states. The Foundation's regional directors have drafted at least three regional conservation plans to guide the Foundation's investments in conservation easements and capacity-building projects. These plans are essentially policy statements (See Appendix Two). They are helpful in screening both pre-applications and applications. The conservation plans, however, are not tied to maps. By comparison, the leading county farmland preservation programs have produced detailed, parcel-specific GIS maps of preserved lands.

The central regional plan states "We want to have a large network of connections so that we can identify the most innovative yet practical ideas, and support their translation into practice." The central regional plan notes that the region contains "138 National Wildlife Refuges, 28 national forests, seven national parks, seven national grasslands, two national prairies and five national rivers. The region contains dozens of Indian reservations, and through treaties, Native Americans have influence over more than 10% of the region's land." Yet, these areas are not presented on a map. A map of preserved and government lands would be useful to illustrate how a proposed easement project fits into the larger wildlife habitat conservation effort.

The southwest regional plan calls for "Establish[ing] base-line criteria for conservation easements to ensure support for those for easements that are 1) part of a large-scale regional strategy, 2) protect and improve important biological resources, and 3) that include a well-defined commitment to on-going stewardship of the resource." NFWF staff should include an evaluation of a grant proposal to document how the proposed easement project fits into a regional plan. In addition, the southwest

regional plan has several goals which are not prioritized. The goals include: preserving forest land, agricultural land, coastal and islands, and deserts. The cost effectiveness model can be used to prioritize proposed projects within these goal areas.

Problem: The Foundation should consider focusing more on evaluating the performance of projects that it has funded. If the Foundation wants to perform cost effectiveness studies for specific land protection projects, the Foundation will need to change the application process and the post-grant process.

Ideally, a cost effectiveness study should say, "for each dollar the Foundation invested, the grantee saved x number of plants, animals, and fish." The data to do that are not currently available. A cost effectiveness study requires data on: 1) the number and species of wildlife at the application stage; 2) the number and species of wildlife some time (e.g. every five years) after the grant project has been completed; and 3) cost of the project.

Applicants are currently not providing the Foundation with sufficient baseline data on current wildlife and habitat conditions. There is no post-grant reporting requirement. Once the grant project is completed, the project file is closed.

As a result, currently the acres preserved and the cost per acre are proximate measures of cost effectiveness. According the theory of island biogeography, the larger the parcel is the more likely the greater biodiversity.

The applicants will need to provide the Foundation with a baseline of wildlife and the habitat in the application process. Then, the applicants who obtain Foundation grants should be required to provide periodic reports or studies on the condition of the wildlife and the habitat after the project has been completed (i.e. after the land is preserved by easement or purchased in fee).

To encourage grantees to provide such reports or studies, the Foundation should consider allowing the grantees to use a portion of their match money to cover the expenses of monitoring and evaluating outcomes for wildlife.

Problem: The Foundation needs to stay in touch with grantees.

The Foundation's standard practice to date has been to close the file once a final project report is received from the grantee and NFWF has sent the grantee a letter confirming that the grantee has met the requirements of the grant. This practice raises four problems:

- 1) Holders of easements may change, and indeed in at least one case this happened;
- 2) the addresses and personnel of grantee organizations may change, and this has happened in many cases;
- 3) the easement documents that the grantees use require the grantee to return federal funds to NFWF (and hence to the federal agencies) if an easement is ever extinguished; and
- 4) NFWF staff and Board of Directors have little to no idea how the easements are performing and the outcomes for wildlife.

Problem: The Foundation is understaffed when it comes to staying in touch with grantees and evaluating investments in land projects, and disseminating results. If the Board wants to keep apprised of outcomes for wildlife, the Foundation is going to have to work more closely with the grantees and actively manage land acquisition project files. The regional staff may have to do occasional site visits. The Foundation should have a ready means to review appraisals of land and conservation easements to assure itself that the appraisals are accurate and professional quality and that the land or easement costs are reasonable. Also, many of the larger land trusts now use GIS in their evaluation of projects. The Foundation should be able to talk with the applicants and grantees about GIS methods and results. Finally, GIS maps of projects funded by the Foundation should be loaded onto the Foundation's website with interactive GIS sites.

The Foundation should consider hiring a file manager or two, an in-house appraiser and a GIS person. Some of these tasks might be combined. The Foundation at a minimum needs a staff person to organize, manage, and continually update the project files and to manage correspondence with grantees in the post-grant phase. One staff person

can manage about 100 grant files. The Foundation currently has about 150 grant files.

The in-house appraiser can review appraisals of land and easements for accuracy, information, and appraised values. The in-house appraiser could also contract with local appraisers if need be. The Foundation currently relies on an outsider appraiser, Tom Smith, on an as needed basis.

A GIS person on staff would give the Foundation greater mapping and data interpretation ability. This person could work with regional directors on mapping target areas for land protection projects. The GIS staff person could work with applicants and grantees, especially on anticipating and measuring wildlife outcomes, and could load GIS maps of projects funded by the Foundation onto the Foundation's website with interactive GIS sites.

Finally, the Foundation should consider digitizing its files as well as maintaining a backup set of files off site.

Foundation staff have raised concerns that recommendations for increased staffing will diminish the net benefits of easements because of increased staffing costs. However, if the Foundation wants to know what has happened to the wildlife since a tract of land was protected, then the Foundation will have to increase staff. This person will hopefully produce information confirming positive benefits to wildlife. The Foundation could use these positive results to help attract additional federal dollars and corporate donations.

Problem: The Foundation Needs a Policy on the Time Horizon of Projects and Project Modifications. The Foundation has often been asked to extend the time horizon of projects. Similarly, some grantees have requested that a grant project be altered usually to protect fewer acres than originally proposed. The Foundation needs to have a policy of when a grant extension has gone on too long, and when a project alteration is acceptable.

The time horizon issue arose over the project involving the Foundation's 1995 grant to the Land Trust Alliance (LTA) for an update to the popular Conservation Easement Handbook, which was published in

1988. LTA proposed a 1996 publication date. The book was finally published in the spring of 2005. The consultants rated the project as “not so good” capacity building because of the nine year delay. The consultants spoke with an LTA staff person about the project, and deliberated among themselves. The Foundation staff were very happy with the 2005 update of the Conservation Easement Handbook. Foundation staff noted that during the Handbook update project LTA: a) lost its President of some 20 years; b) underwent a search for a new President, which took a year; c) spent a year engaging LTA's major funders in what should be the future of easements; d) took some time to re-write existing materials to incorporate that new vision.

The consultants did not say that the Foundation was wrong to fund the book update project. The consultants felt that it was a good project to fund, but noted that the execution by the grantee was poor. The consultants have considerable writing and publication experience, and questioned the timeliness of the project. The consultants recommended that the Foundation be careful in funding publication projects.

The consultants rated another publication project by a different grantee as “not so good” because the grantee has never filed a final report. So, technically, the grant is still outstanding. If the Foundation decides to extend the time horizon of a grant and does not want to have a definite policy, each extension should be approved by the Board, and progress toward completion should be regularly monitored.

In the case of project modifications, the Board should decide whether to approve or deny a modification, suggest a different modification, or else terminate the project.

Problem: The Foundation needs to draft a model conservation easement that is consistent across projects. The importance of the terms of the deed of easement used to protect wildlife habitat cannot be understated. Currently, there is no assurance that easements acquired directly by the Foundation or funded by the Foundation are enforceable under respective state laws. Local attorneys should review and certify the legality of easement documents.

The terms of a deed of easement should be realistic. There are two key issues. How difficult will the easement be to monitor? This is important

to ensure that the landowner is legally complying with the easement requirements. Next, will the terms of the easement result in measurable benefits for wildlife?

What language should the deed of easement contain? The Foundation has contracted with consultant Tom Smith on an as needed basis to review easement documents and to work with landowners' attorneys and federal agencies in drafting easement language. The Foundation should produce a model easement for grantees to follow, such as in Appendix Three.

Concerns over the terms of the deeds of easement used in Foundation projects arose over the Malpai easement projects in Arizona and New Mexico. The consultants deemed this to be one of the most effective of investments of conservation easements. At least one person on the Foundation staff has questioned this conclusion in large part due to the wording in the easement language. Consultant Jack Wright who evaluated the Malpai projects provided the following response:

“Support of the Malpai deals is based on the reality of land trust work in the rural West. NFWF is right in noting that the Malpai easement deeds are quite simple and not terribly strict. But if Malpai pushed for more restrictions in the easements, then the deals might not have happened. These deals happened in ultra conservative ranch country. By preventing subdivision in a region of extremely conservative politics, the Malpai easements function as the first step toward conservation - a vital first step. When combined with Malpai's rangeland improvement work, fire management, and other efforts, this is a success story. As the land tenure pattern shifts to more progressive landowners, the deeds can certainly be amended and strengthened in the future. The bottom line is this: Malpai has kept 77,000 acres of one of the most biologically diverse corners of the West from being carved up. This is a region highlighted by the Gap Project, Heritage Programs, TNC, and federal agencies. Beyond the specifics of the easement fine print and the legal qualms, that should count for a lot.”

"The Malpai easement deeds have the following shortfalls:

- 1) The easement deed format needs modernizing and a number of

standard boilerplate clauses are missing;

- 2) The mining restriction is implied but not specific;
- 3) Many issues related to signs, lighting, and design are un-addressed;
- 4) The splitting off of land for agricultural purposes needs to be tightened to specify acreage limits;
- 5) Photo point work and baseline documentation needs improvement.

On the positive side, the easement deeds include:

- 1) No subdivision (except for agricultural purposes to neighbors and then the easement always remains in force);
- 2) No removal of water rights;
- 3) No extraction of soils, sand and gravel;
- 4) No alteration of natural water courses;
- 5) No buildings except those specified in each deal - the use of trailers and up to five houses on these immense ranches (over 10,000 acres) is in keeping with ranch management needs to put people out on the land as part of animal husbandry.

These Malpai easements are meant to maintain the status quo in a ranching landscape. The goal is to conserve 800,000 acres in a mosaic of private and public land. Some change will happen on the lands Malpai protects, but the scale and remoteness of these properties are very different than in the East. Although these easements could and should be better written, the overall accomplishment on the ground is excellent. Of the 8,000 easements in America, only a dozen have had violations resolved in court. The basic intentions, recitals, of the easement most often prevail in the event of a problem. Malpai represents a bit of the old school, neighbor-to-neighbor conservation that is laudable. Fixing the deeds will be relatively easy down the line, and a recommendation I am making. But conserving the land from the most obvious harm right now is difficult. Especially in a corner of the world where conservationists were viewed so negatively until Malpai entered the picture back in 1994.”

Foundation staff raised particular concerns about the provisions in the Malpai easements that threaten the permanency of the easement if the grazing allotments are taken away. The then-current landowner would have to repay the amount of the grant. Also, under the easement, landowners are able to string barbed wire across a wildlife corridor with relative impunity.

An especially real concern is that easements can be challenged in court (especially as land changes hands) or can allow development that would not be consistent with protecting the conservation and wildlife values of a property. The defensibility and enforceability of easements over time is a major concern among Foundation staff, land trusts and in particular to the Land Trust Alliance..

Attorney Jeff Pidot, in his 2005 study of conservation easements, noted that the lack of consistency among deeds of easement presents some very real problems (Pidot, 2005). Land trusts have longed claimed one of their strengths comes from being able to tailor an easement to a landowner's needs. Pidot warns that such tailoring can be abused.

One way the Foundation might consider to minimize the problem of weak easement documents is to require that applicants provide the Foundation with a sample easement as part of the application process. The Foundation could then determine whether the applicant's easement meets the standards of the Foundation. If not, the Foundation could suggest or require changes to the applicant's easement.

The methodology my team has undertaken to evaluate projects that NFWF has funded is as follows. For land projects, we evaluated projects by size, location, and wildlife outcomes. Also, important is proximity to development, contiguity to other preserved lands (or isolation), and cost. Each project is included in an Excel spreadsheet containing information about the project and the consultant's overall evaluation.

2.4. The Foundation and Its Conservation Partners

The Foundation works with 16 federal partners, in particular the U.S. Fish and Wildlife Service (FWS) and the Natural Resources Conservation Service (NRCS), several nonprofit organizations, and private donors. The Fish and Wildlife Service personnel who were interviewed indicated that for the Rocky Mountain Region they saw their priorities as establishing connected blocks of preserved land in order to facilitate a large scale landscape for wildlife. They recognized federal ownership as unpopular and antagonistic in some western communities; thus the use of conservation easements on private lands as an important tool for achieving their goals. The Fish and Wildlife personnel viewed

NFWF as an important partner to create those large blocks of preserved wildlife habitat.

The Fish and Wildlife Service is the Foundation's leading federal partner. About \$8 million a year are passed through FWS to the Foundation. The Fish and Wildlife Service uses its Partners For Wildlife program on private lands extensively to establish conservation easements. The Fish and Wildlife Service first writes a 10-year stewardship plan for a property, which includes monitoring. Then a term easement agreement is written to address only the primary threats to the site. The Fish and Wildlife Service prefers to deal with management and stewardship plans outside of perpetual easement agreements in order to remain flexible.

About \$3 million a year passes through NRCS to the Foundation. Through the Wetlands Reserve Program (WRP), NRCS has acquired conservation easements on more than 1.5 million acres of wetlands. NRCS does not have the personnel or funds to undertake the wetlands restoration or easement monitoring and enforcement responsibilities. The Foundation could make capacity-building grants to fund technical service providers or land trusts to monitor NRCS easements

Randall Gray and Doug Lawrence of NRCS admitted to being relatively unaware of their organization's relationship with NFWF regarding easements. Mr. Gray indicated that he worked primarily with Wetland Restoration Program (WRP) with the goals of supporting migratory bird habitat and providing connected preserved wetlands. The WRP involves the federal government buying 30-year or perpetual conservation easements on primarily areas involved in prior converted wetlands and NRCS restoring them. Each state gets an allocation based on backlog of applications. NRCS has no long-term effectiveness or ecological monitoring on its easements and described the short-term monitoring as, "seat of the pants." NRCS may receive a grant to contract for Technical Service Providers to conduct monitoring. Between the WRP and the Grasslands Restoration Program NRCS is the largest easement holder nationally. NRCS is initiating a program to look at easement effectiveness. Issues than need to be addressed are the enforcement of easements and the cost of long-term monitoring.

NRCS does not work with Fish and Wildlife due to image problems

Fish and Wildlife has with landowners. Mr. Gray is responsible for approving NFWF grant money that passes through NRCS. He was not sure what the funding priorities of NFWF were.

It is important to note here that the consultants rated 12 of 21 projects involving WRP projects as “not so good.” A not so good rating means that the consultants had serious concerns about the benefits of the project for wildlife. This rating is meant to suggest to Foundation staff that they review these projects and come to an understanding of how a) the Foundation could have done a better job of selecting the projects; b) the grantees could have done a better job of implementing the projects; or c) both. In 1996, the Foundation funded 17 WRP projects through NRCS because the NRCS experienced a shortage of funds that year. In addition, the Foundation funded another 10 WRP easements through other organizations. The problem of NRCS funding has not emerged since.

The consultant who covered the South region commented:

“It is my impression overall that the NRCS-WRP easements sought from limit-resource farmers are generally more worthy from a social point of view. Unless such easements are in-holdings in protected areas, supply corridor linkage, or are contiguous to protected areas (in that order of priority) I would not rate any of these highly.”

Forest Legacy Program administrators would like to do more joint easement projects with the Foundation. The Forest Legacy Program currently has about \$70 million a year in federal funding. Forests offer important wildlife habitat and are often the headwaters of watersheds. Also, the preservation of forest lands typically involves large blocks of land, over 1,000 acres at a time. Such landscape scale easement projects are ideal for fulfilling the Foundation’s mission.

NFWF General Counsel, Karen Sprecher Keating, felt that NFWF goals were dictated by the legislation that empowered it and that the statute was no more specific than, “conserve habitat for fish, wildlife and plants for current and future generations.” Ms. Keating indicated that NFWF needs a new policy to prioritize their conservation easement grants for land preservation. She supported the concept of monitoring but was concerned about the cost. She indicated that NFWF has backed off direct easement and land acquisitions based on concerns about conservation easements raised on Capitol Hill over the last three years. Ms. Keating added that

NFWF has not checked into local laws regarding easement enforceability but thinks it would be a good idea.

During our interview with the NFWF Staff Focus Group it was indicated that their goals for conservation easements were centered around ecosystem functions based on regional plans prepared by NFWF Regional Directors, landscape level issues and endangered and threatened species conservation. When asked about easement compliance or effectiveness monitoring by grantees, the staff focus group seemed to feel that this was outside of their responsibilities. They appeared to believe that by selecting proposals from responsible well-staffed organizations they were addressing this issue satisfactorily. They also expressed the, “protect now, provide stewardship later” perspective.

They indicated that The Nature Conservancy was the most challenging partner to work with, and Ducks Unlimited was a close second. Small partners were the easiest to work with since they were more flexible in meeting NFWF needs. NFWF staff indicated that they often make grants that enable local land trusts to hire their first Executive Director; but a land trust needs already to have full-time staff in order to create the best results. When asked about their specific wildlife conservation goals as individuals and an organization they referred to the Conservation Plan as providing specific details.

The congressional review process consists of sending proposals to the Senators and Representatives within whose district the potential project falls. The elected officials are requested to provide feedback within 30-days. The Board has the final decision on proposals. Some elected officials have voiced objections to the federal government owning any more land and are, “not too hot about easements either.” These individuals have indicated that they feel the federal agencies are not doing a good job of managing the lands they have and so should not receive more. Also, The Nature Conservancy is one NFWF partner not held in high regard by some congressmen.

Tom Smith, a NFWF consultant for easements and acquisitions, talked at length about mitigation projects leaving the impression that much of NFWF easement work involves mitigation projects resulting from the activities of partners. Tom indicated that he had developed the NFWF check list for conservation easements.

Problem: The Foundation needs to work more closely with its federal partners. It was amazing that NRCS did not understand its relationship with the Foundation. Yet, it is worth noting that in 1996, the Foundation made several Wetland Reserve Program grants—a program normally administered by the NRCS. Apparently, NRCS had experienced a funding problem that year, and the Foundation stepped in to help out by funding several WRP easement projects, especially in the South and Midwest.

Moreover, the NRCS people stated that the WRP program is woefully behind in the restoration of wetlands placed under easement. Approximately only 300,000 acres out of 1.5 million acres placed under easement had received the necessary restoration work. The Foundation may wish to explore with NRCS and maybe other partners how technical personnel could be hired to carry out the remaining necessary wetlands restoration work.

The U.S. Fish and Wildlife Service (FWS) is emphasizing conservation and restoration work ahead of conservation easements. This has been a successful strategy for the FWS. The Foundation could work closely with FWS to be ready to fund easement purchases from willing landowners who have gone through the conservation and restoration process with FWS.

The consultants interviewed Rick Cooksey, head of the Forest Legacy Program, administered by the U.S. Department of Agriculture, who said that he would like to do projects with the Foundation. The Forest Legacy Program focuses on maintaining working timberlands while protecting ecological values. The program has been active in more than three dozen states and has made grants for the preservation of more than 200,000 acres. The program received \$60 million in funding under the 2002 Farm Bill.

The Foundation has identified three main program areas: working lands, critical species, and stewardship. The NRCS, FWS, and Forest Legacy program make good partners for NFWF in the Foundation's three main program areas: working lands, critical species, and stewardship. The Wetlands and Grasslands Reserve Programs of NRCS are aimed at preserving and restoring land that is part of active farming operations; the

FWS has been active in restoring natural areas on working agricultural lands and in preserving these areas with easements; and the Forest Legacy program of USDA has preserved working timberlands.

The Foundation should communicate with non-profit organizations over target areas and specific projects. Projects should be as strategic as possible. For instance, the Foundation could forge even closer ties with TNC for example to implement that group's "Conservation By Design" system in large, bioregional efforts with a real chance of achieving lasting results. One of the problems to avoid is competition among land trusts over preservation projects.

2.5 Application Rating and Ranking by NFWF Partners

The Federal Forest Legacy Application Evaluation Model

The federal Forest Legacy Program, begun in 1990, makes easement grants and provides an example for NFWF to study. Like NFWF, the Forest legacy Program administrators are trying to promote the strategic use of conservation easements.

The Forest Legacy Program has a national office in Washington, D.C. and staff in six regional offices. Currently, 39 states are participating in the Program. Each of these states has a State Forest Stewardship Committee which reviews and ranks grant applications. The top three applications from each state (not to exceed \$10 million) are then sent to the Washington, D.C. office, which ranks all of the applications for a certain fiscal year.

Program staff employ three national criteria and two capacity factors in ranking the applications. The national criteria include:

2. Importance: What are the public benefits and how widespread are they?
3. Threat: To what degree are the forest resources threatened?
4. Strategic: How would the preservation of this land be linked to larger conservation efforts? And how many partners are involved?

The capacity factors include:

- a. Readiness: How far along is the project? The farther along the better.

- b. What has the state's performance been to date? How successful has the state been at completing projects that the Forest Legacy Program has funded?

The Forest Legacy staff do not use a minimum parcel size or a cost factor in deciding which projects to fund. Staff require a Forest Management Plan on every property preserved with Forest Legacy Funds. Staff also require annual monitoring of easements they fund and a copy of the monitoring report is held at the respective regional office. Like, NFWF, the Forest Legacy Program requires a clause in the easement document that in the event of condemnation of the easement, the funds provided by the Forest Legacy Program would be returned to the Washington, D.C. office.

U.S. Fish and Wildlife Service Land and Easement Acquisition Process

The U.S. Fish and Wildlife Service (FWS) has been very active in preserving wildlife habitat, especially west of the Mississippi River. The FWS is completing 300 to 400 conservation easements a year, mainly with Migratory Bird Conservation (duck stamp) funds. Money from the federal Land and Water Conservation Fund can only be used for fee simple purchases.

The FWS relies heavily on mapping. There is for instance, a national wetland inventory project. The FWS must identify a boundary within which the FWS can work; this boundary must be approved by Congress. However, the FWS can start a wildlife refuge without Congressional authority. The FWS also identifies Waterfowl Production Areas, which must be approved by individual states, and individual counties limit the number of acres preserved. Overall, the FWS considers the Waterfowl Protection Areas approach very successful.

Outright federal purchase of land is a touchy subject in the west, because of the large amounts of land already in federal ownership. Thus, the FWS has preferred to acquire conservation easements on private lands from willing sellers. The FWS conservation easement strategy emphasizes identifying large blocks of wetlands and grassland that can be preserved. Connecting habitat through conservation easement acquisition is the primary objective. To rank potential easement projects, FWS staff ask the

basic question: How does the easement project fit into the landscape level of preservation?

According to FWS staff, the FWS holds conservation easements on two million acres in 22,000 tracts. Although the FWS has not placed a cap on per acre easement costs, in Montana the average cost of conservation easements has been estimated at 38% of the fair market value of the land.

The FWS approach has been to emphasize stewardship first and land preservation second. The Partners for Wildlife Program involves a ten- to thirty-year management agreement between the FWS and a landowner. The next step, which is voluntary, would be for the landowner to sell a permanent easement on the property. The FWS does not include management and stewardship requirements in its deed of easement.

The FWS noted that they do very few joint projects with the National Fish and Wildlife Foundation. Yet, FWS staff noted that a prime importance of the National Fish and Wildlife Foundation is that it provides a source of land preservation funding for landowners who do not want the federal government to hold an easement on their property. The FWS has a limited capacity and staff mentioned two problem areas:

1. Capacity building. Especially in the Plains States there are few local, regional, or state level land trusts that are capable of acquiring, monitoring, and enforcing conservation easements.

2. Coordinating easement acquisitions among specific landowners. The danger is that the easements will result in a patchwork of preserved habitat, rather than large contiguous blocks of preserved lands. *Easement purchases fall through because of they are not far enough along when the FWS is contacted, the total cost, or the easements take a long time to complete.* In a number of cases, the FWS has acquired a 12-month option to purchase a conservation easement on a property. The option buys time for the easement acquisition to be completed.

2.6 Capacity Building Projects

The need for new independent land trusts to preserve wildlife habitat appears to be diminishing. According to the 2004 Land Trust Census,

conducted by the Land Trust Alliance, there were 1,526 land trusts, of which 584 listed protection of wildlife habitat as their main mission.

The Land Trust Alliance has expressed concerns about the number of small land trusts that are operating with all-volunteer staff and, in some cases, a minimum amount of legal and scientific advice. LTA has launched a certification program for land trusts and has published the *Land Trusts Standards and Practices* guidebook. In addition, thanks to a grant from NFWF, LTA is undertaking a training program for land trusts to increase the professionalism and consistency of those operations. Except in rare cases, NFWF should avoid making capacity building grants to create new small land trusts. Also, NFWF should avoid making capacity building grants to all volunteer land trusts, unless the purpose of the grant is to fund at least one full-time staff position.

LTA would like to see some consolidation among the many land trusts. Often, a larger organization will have the financial capacity to hire a full-time staff and to undertake more land preservation deals. NFWF should look to make capacity building grants that will facilitate the consolidation of small land trusts into larger, more efficient, and more effective wildlife habitat preserving organizations.

An excellent example of a capacity building grant made by NFWF was to the Maine Forest Trust. At the time, Maine did not have a statewide land trust devoted to the preservation of Maine vast woodlands. The capacity building grant enabled the Forest Trust to expand its staff from two to four and to increase fundraising and land preservation efforts. The Forest Trust is now well-established in Maine and has been involved in several land preservation deals encompassing tens of thousands of forest acres. NFWF should look to make capacity building grants that will strengthen statewide land trusts, and statewide land trust consortiums, such as the Pennsylvania Land Trust Association and Gathering Waters in Wisconsin.

NFWF has made capacity building grants to help produce some of the leading publications in the land trust field. The spring 2005 publication of the updated *Land Conservation Handbook* is one such case. There are now an abundance of publications on land preservation. Except in rare cases, the Foundation should avoid funding easement-related publications.

2.7 Conclusion

The National Fish and Wildlife Foundation has funded important wildlife habitat protection projects across the United States, involving both conservation easements and building the capacity of local, regional, and statewide organizations and federal agencies.

The weak points in the grant process occur both at the project initiation stage and the post-project stage. The application process has been reactive rather than explaining clearly to potential applicants what projects are likely to have the best success of being funded, protecting quality wildlife habitat, and retaining and increasing wildlife populations. The application rating model presented in Chapter 4 is designed to rate and rank applications through an objective points-based system.

After the grantee has spent the grant funds from NFWF, the Foundation has followed a practice of “closing the file.” There has been virtually no follow-up on what has happened to the wildlife on properties preserved with conservation easements. Moreover, the Foundation does not know what additional wildlife habitat protect and species promotion has occurred on nearby properties. At a minimum, the Foundation needs to have a staff person assigned to updating and maintaining the project files. This would include receiving annual reports and newsletters from grantees and, ideally, easement monitoring reports at least every five years.

Finally, the possibility exists for greater cooperation between the Foundation and its private and federal partners. Conservation plans and strategies could be shared so that effective long-range targeting and protection of high quality habitat can be achieved. There may be specific species and geographic areas where partners could come together to protect important habitats.

Chapter 3: Evaluation of Interests in Land Grant Projects

This chapter presents the consultants' evaluation of the Foundation's investments in the acquisition of interests in land for wildlife habitat. The consultants reviewed project files, and conducted surveys of the grantees, on-site interviews with the grantees, and interviews with NFWF staff. The consultants built a model to evaluate the outcomes of the land projects. Using the model, the consultants made a determination of whether a land project was "good" or "not so good." This rating was then correlated with certain project features from the project files, surveys, and interviews. The ratings and the correlations were helpful in developing the application rating model and the post-grant cost effectiveness model presented in Chapter 5.

The consulting team reviewed 73 land protection projects (conservation easements and fee simple land purchases) for the period 1986 to 2002. The consulting team divided the files into geographic regions. Tom Daniels reviewed the project files in the Northeast. Jean Coleman was responsible for the Midwest. Elizabeth Watson reviewed the files from the South, and Jack Wright reviewed the project files from the West.

The consulting team then conducted a survey of organizations that have received grant funding from the Foundation for the purchase of conservation easements or for building the capacity of the organization to acquire conservation easements. An advance letter from NFWF Executive Director John Berry preceded the survey, informing the organizations about the survey and requesting their cooperation. The surveys were conducted from late February to mid-May. A total of 73 land protection grantees were surveyed (see Survey Forms in Appendix Four). Most of the surveys were conducted by telephone. Only a handful of surveys were conducted by mail or by e-mail.

The surveys were intended to identify characteristics of successful and not so successful land and capacity building projects. The survey consisted of two parts. The first part was aimed at understanding the organizations that received the NFWF grants in terms of size, experience, and the capacity of the organization to undertake land preservation projects. The second part was specific to easement or capacity building projects.

Consultants conducted 41 on-site interviews with grantees. Consultants also interviewed NFWF staff about the projects. Consultants

then made an overall assessment of each project. Consultants reviewed several key pieces of information from the files, surveys, and interviews:

- 1) For land projects: a) acres preserved; b) distance of the land to other preserved land; c) significance of the habitat on the land; d) observed outcomes for wildlife; e) the cost per acre; and f) any important circumstances that affected the project.
- 2) For capacity building projects: a) acres preserved; b) organizational growth in staff; c) the success of information and educational efforts; d) the success of habitat restoration efforts; e) the ratio of grantee match to the NFWF grant; and f) any important circumstances that affected the project.

Using this information, the consultants built two models; one to evaluate the land projects and the other to evaluate the capacity building projects.

3.1 Land Projects

It is useful to look first at the grantees for the land projects. The consultants found that 51 of the 73 grants for land projects went to large organizations with 8 or more paid staff. These were mainly national, regional, and statewide organizations with the personnel, experience, and financial ability to carry out projects. In addition, 15 land project grants went to small organizations of fewer than 5 employees and 7 grants went to medium organizations of 5 to 8 employees.

There were 7 grantees that received multiple grants, total of 40 grants out of the 73 grants surveyed. These grantees mainly included international NGOs, national and statewide land trusts, and federal agencies. For instance, 17 grants were made to the Natural Resources Conservation Service (NRCS) for the Wetlands Reserve Program in 1996. There were 33 one-time grants to organizations.

The consultants determined that the best way to examine the land projects was to divide them into two groups: pre-1999 and 1999-2002 (See Table 3.1). Prior to 1999, the Foundation's grants resulted in the preservation of no more than 7,311 acres a year (1996) and often much less. Moreover, except for 1996, the annual grants for land projects totaled

well under \$1 million. The ratio of match funds to Foundation funding varied considerably. Especially noteworthy is the low match ratio of 1.21 in 1996. In short, the Foundation seemed to be searching to find its role in the pre-1999 era.

In the 1999-2002 period, the Foundation funded some of the leading land preservation projects in the United States. These included the huge Pingree project of 762,000 acres in northern Maine, and the 37,000 acre Lassen Hills project in California, which at the time was the largest easement done in the that state. In addition, Foundation funding helped to preserve several western ranches of more than 1,000 acres each. In fact, 20 of the 26 projects involved the preservation of more than 1,000 acres (see Table 3.2). In short, the Foundation had evolved toward funding land projects that featured landscape scale preservation. Moreover, these large projects often involved the protection of threatened and endangered species and wildlife habitats of multi-state, national, and even international importance. Finally, in the 1999 to 2002 period, the annual number of grants was quite steady, and the ratio of match funds to Foundation funding was consistently above 2 to 1.

Table 3.1. Land Project Grants Awarded 1986-2002.

Year	Number	Grants	Ratio	Total Acres	Median
2002	7	\$1.011M	2.29	183,692*	800
2001	6	\$2.635M	1.57**	780,987***	1,488
2000	6	\$0.533M	3.55	37,110	1,850
1999	7	\$0.785M	4.53	62,725	2,555
1998	2	\$0.150M	4.33	1,575	-
1997	3	\$0.146M	2.83	1,393	400
1996	29	\$4.348M	1.21	7,311	151
1995	2	\$0.066M	1.60	444	-
1994	5	\$0.389M	2.53	1,941	271

1992	3	\$0.162M	5.24	225	78
1990	1	\$0.400M	1.00	2,740	-
1989	1	\$0.080M	1.00	106	-
1986	1	(Easement Donation)		509	-
TOTAL	73	\$10.705M	1.90	1,080,758	353

*2002 includes 146,000 acres from the Connecticut Lakes Project. **2001 includes 762,000 acres from the Pingree Project.

***The ratio for 2001 including the full \$30 million cost of the Pingree Project would be better than 10 to 1.

Table 3.2 shows that a large majority (more than 75 percent) of the Foundation's grants in the 1999-2002 period were for \$75,000 or more. Eighteen of these grants of \$75,000 or more resulted in the preservation of more than 1,000 acres. Given the Foundation's heavy load of funding projects (both General Call and Umbrella Grants), the Foundation should consider setting a minimum limit for General Call Grants for land projects. A minimum grant size of \$75,000 seems both prudent to limit the number of projects the Foundation has to deal with, and effective in funding projects that result in the preservation of large tracts of land. The larger tracts are more likely to have long term benefits for wildlife.

Table 3.2. Land Projects by Grant Size 1999-2002.

Year	Number of Grants	Grants of \$75,000* or More	Projects of 1,000+ Acres
2002	7	6	4
2001	6	5	6
2000	6	4	5
1999	7	5	5
Total	26	20	20

Note: Only two grants of less than \$75,000 resulted in the preservation of more than 1,000 acres.

*Not adjusted for inflation.

Table 3.3 indicates that prior to 1999, that nearly half of the land projects funded by the Foundation involved the preservation of parcels of less than 100 acres. These projects tended to have a higher cost per acre and to preserve habitat of local or state-level significance compared to the land projects of more than 100 acres. In the 1999-2002 period, the Foundation funded only 4 land projects of less than 100 acres and funded more than 3 times as many land projects of 1,000 acres or more compared to the pre-1999 period. These large land projects tended to have a much lower cost per acre and wildlife habitat of regional, nation, and even international significance, compared to the parcels of less than 100 acres.

Table 3.3. Size of Land Projects, in Acres, 1986-2002.

Size in Acres	1986-1998	1999-2002
0-50 acres	13	2
50.1 - 99.9	9	2
100 - 249.9	4	0
250 – 499.9	8	1
500- 999.9	7	1
1,000-4,999.9	6	10
5,000 or more	0	10
TOTAL	47	26

Table 3.4 Size and Geographic Distribution of Land Projects Surveyed, 1986-2002.

Size of Easement Project in Acres	Northeast	Midwest	South	West	TOTAL NUMBER
More than 10,000 Acres	2	-	-	7	9
5,000-10,000	-	-	1	-	1
1,000-4,999	-	2	-	14	16

500-999	2	2	2	1	7
100-499	3	7	2	2	14
50-99	4	3	2	1	10
Less than 50 Acres	4	4	7	1	16
TOTALS	15	18	14	26	73

It is important to note that the majority of easement projects in the Midwest and South were Wetland Reserve Program projects done in 1996. In that year, the Natural Resources Conservation Service (NRCS) which oversees the Wetlands Reserve Program, experienced funding problems. The National Fish and Wildlife Foundation stepped in and funded several WRP projects through NRCS. Two-thirds of the projects involving the acquisition of interests in land surveyed in the Midwest were WRP projects. Nearly all of the acquisition of interests in land projects surveyed in the South were WRP projects. Several of the WRP projects in the South involved a targeted indigent landowner program.

Table 3.5 shows the distribution of NFWF easement grants by region in 2004 dollars. The nearly half of the large grants of \$100,000 and above were made in the West.

Table 3.5 NFWF Interests in Land Grants, Dollar Amount Distribution for Projects (in 2004 Dollars).

Grant Amount	Northeast	Midwest	South	West	TOTAL
\$250,000 and above	1	3	1	5	10
\$100,000-\$249,999	5	3	4	8	20
\$50,000-\$99,999	3	1	3	9	14

\$25,000-\$49,999	2	4	3	4	13
\$10,000-\$24,999	2	5	3	-	10
Less Than \$10,000	2*	1	-	1	4
TOTALS	15	18	14	26	73

*Note: includes an easement donation to NFWF

Table 3.6 shows a break down of easement projects in each region according to acres preserved in seven size categories and average cost per acre to NFWF. This table gets at the issue of cost effectiveness, using average cost per acre as the measure. The results indicate that larger parcels had much lower costs per acre than small parcels. This is especially the case for parcels of more than 1,000 acres.

The largest number of acres was preserved in the Northeast (910,489 acres), thanks to the huge Pingree easement and the large Connecticut River Lakes easement. The West region had 150,577 acres preserved, while the Midwest had 9,083 acres preserved and South had 10,593 acres preserved.

Table 3.6 NFWF Land Project Cost per Acre by Size of Parcel and by Region (unadjusted dollars)

a) Northeast Region

Acres Category	Total Acres in Category	Average Per Acre Cost To NFWF	Number of Projects
More than 10,000 Acres	908,000	\$2.37	2
5,000-10,000	-	-	-
1,000-4,999	-	-	-

500-999	1,229*	\$174.00**	2*
100-499	921	\$138.00	3
50-99	275	\$1,000.00	4
Less than 50 Acres	80	\$3,672.50	4
TOTALS	910,505		15

*Includes easement donation on 509 acres

**Excluding the easement donation.

b) Midwest Region

Acres Category	Total Acres in Category	Average Per Acre Cost To NFWF	Number of Projects
More than 10,000 Acres	-	-	-
5,000-10,000	-	-	-
1,000-4,999	5,770	\$9.88	2
500-999	1,253	\$600.00	2
100-499	1,764	\$598.00	7
50-99	181	\$319.00	3
Less than 50 Acres	115	\$1,137.00	4

TOTALS	9,083		18
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c) South Region

Acres Category	Total Acres in Category	Average Per Acre Cost To NFWF	Number of Projects
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More than 10,000 Acres	-	-	-
5,000-10,000	8,274	\$12.08	1
1,000-4,999	-	-	-
500-999	1,282	\$351.01	2
100-499	613	\$407.00	2
50-99	181	\$886.54	2
Less than 50 Acres	243	\$813.58	7
TOTALS	10,593		14

d) West Region

Acres Category	Total Acres in Category	Average Per Acre Cost To NFWF	Number of Projects
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More than

10,000 Acres	124,663	\$6.92	7
5,000-10,000	-	-	-
1,000-4,999	24,314	\$74.90	14
500-999	940	\$313.22	1
100-499	583	\$222.98	2
50-99	75	\$1,000.00	1
Less than 50 Acres	2	\$16,000.00	1
TOTALS	150,577		26

3,2 The Land Project Outcomes Model

The initial purpose of this study was to build a cost-effectiveness model based on the wildlife outcomes and cost of each project. The data on wildlife and habitat conditions does not exist in the files or through the surveys to identify: a) the pre-grant conditions and b) the post-grant conditions. The Foundation has not required a thorough baseline documentation of the wildlife and habitat conditions as part of the application process, and has not required any reports on wildlife and habitat conditions after the grant project was completed.

To evaluate the outcome of a land project, the consultants built a model based on the example of the Land Evaluation and Site Assessment (LESA) system, developed by the Soil Conservation Service in the early 1980s. The model uses key factors in judging the success of the outcome. Each factor is made up of measurable criteria. Each criterion is assigned a weight and a points value. The weight times the points value produces a score for that criterion and hence, that factor. For example, in Table 3.7, under Acreage Protected, if the land project protected 75 acres, the criterion had a weight of 10, a points value of 2 and a score of 20. So the score for the Acreage Protected factor was 20.

The consultants identified five measurable factors:

- 1) Acreage Protected;
- 2) Distance to Other Preserved Land;
- 3) Wildlife Habitat Significance;
- 4) Observed Wildlife Outcomes; and
- 5) Cost per Acre.

The consultants added a sixth factor of “Other Circumstances” that may have affected the outcome of the project. So, although the emphasis of the evaluation model is to produce an objective, quantitative approach, there may be qualitative aspects to the project that should be noted.

The acreage protected factor reflects the fact that, according to the Theory of Island Biogeography, a large tract of land tends to have greater biodiversity than a small tract. Also, most land trusts measure their success in terms of acres preserved. Consultants identified the acres preserved from the project files.

The closer a tract of land is to other preserved land, the better for wildlife. Habitat fragmentation is a serious threat to wildlife. So the preservation of land that is contiguous to other preserved land is highly desirable. Isolated “islands” of preserved land are particularly vulnerable to development on adjacent properties. The distance to other preserved land was reported by the grantees to the consultants through the survey.

The greater the significance of the wildlife habitat the more valuable it is for wildlife. For example, habitat of national significance is more valuable than habitat of local significance. Wildlife habitat significance was reported by the grantees to the consultants through the survey.

Observed wildlife outcomes were reported by the grantees through both the survey and the on-site interviews. The outcomes varied from major results to no change to no report at all. The outcomes tended to be more qualitative than reflecting detailed studies.

The consultants identified the cost per acre for each project from the project files. A lower cost per acre was better than a higher cost per acre

because it suggests that more acreage is being preserved per dollar. Typically, the cost per acre of land varies inversely with its size.

The five factors each had a maximum of 100 points. The maximum total score for a land project was 500 points. The consultants set 220 as a cut off between “good” and “not so good” projects. In other words, projects that scored 220 points and above were rated “good,” and projects scoring less than 220 points were rated “not so good.” The consultants chose 220 points because it is roughly half way between the average scores of the “good” and “not so good” projects.

A “good” rating means that the project had positive outcomes for wildlife and was done at a reasonable cost. The good rating is also meant to suggest to the Foundation staff that the grantees involved in these projects are capable and that the process worked.

A “not so good” rating means that the consultants had serious concerns about the benefits of the project for wildlife or that the costs were excessive compared to the benefits. The not so good rating is meant to suggest to Foundation staff that they review these projects and come to an understanding of how a) the Foundation could have done a better job of selecting the projects; b) the grantees could have done a better job of implementing the projects; or c) both.

The consultants do not necessarily mean that the Foundation was wrong to fund a project that turned out “not so good.” In other words, a project may have appeared good to the Foundation staff, but the grantee did not fulfill the promise of the project. For instance, there were some land projects that either were never completed, or else were amended after the grant was awarded. On the other hand, Foundation staff can use this evaluation model to weigh the likely outcome of a future land project application.

Table 3.7 Land Project Outcomes Model.

Factors and
Criteria

1. Acreage
Protected

< 50

Weight

10

Points

0

Score

0

50-99	10	2	20
100-249.9	10	4	40
250-499.9	10	6	60
500-999.9	10	7	70
1,000-4,999.9	10	9	90
5,000 or more	10	10	100

2. Distance to Preserved Land

More than one Mile	10	0	0
One-half mile to One Mile	10	2	20
Less than one-half mile	10	4	40
Contiguous	10	10	100

3. Wildlife Habitat Significance

Local	10	1	10
Statewide	10	3	30
Regional	10	5	50
National	10	8	80
International	10	10	100

4. Observed Wildlife Outcomes

Loss	10	-2	-20
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Unknown	10	0	0
No Change	10	2	20
Minor Improvement	10	4	40
Major Improvement	10	10	100

5. Cost per Acre

\$3,000 or more	10	0	0
\$1,000-\$2,999	10	1	10
\$500-\$999	10	4	40
\$100-\$499	10	7	70
Less than \$100	10	10	100

6. Other circumstances:

TOTAL MAXIMUM POINTS = 500

The consultants rated 57 of the 73 land projects as “good” and 16 projects as “not so good.” This is a very respectable success rate of slightly more than 75 percent of the projects surveyed. The results are impressive given that the Foundation typically funded projects in their early stages, often before landowners had agreed to preserve their land.

The average score of the good land projects was 300, and the median score was 310.

The average score of the not so good land projects was 159, and the median score was 160.

The large difference in the average scores of the good and not so good projects underscores the fact that it is fairly easy to identify a good versus a not so good land project. The good land projects tended to be over 100 acres, have a lower cost per acre, be contiguous to preserved lands, have positive observed wildlife outcomes, and had significant wildlife habitat. The not so good land projects tended to involve less than 100 acres (especially less than 50 acres), a high cost per acre, isolated parcels, uncertain wildlife outcomes, and less significant wildlife habitat (see Table 3.8).

Table 3.8 Average Rating of Land Projects 1986-1998 vs. 1999-2002

Size in Acres	Average Rating and Number of Projects 1986-1998	Average Rating and Number of Projects 1999-2002
0-50 acres	189 (13)	185 (2)
50.1 - 99.9	221 (9)	145 (2)
100 - 249.9	250 (4)	-
250 – 499.9	296 (8)	150 (1)
500- 999.9	236 (7)	280 (1)
1,000-4,999.9	337 (6)	330 (10)
5,000 or more	-	346 (10)
TOTAL	245(47)	302 (26)

It is encouraging to note in Table 3.8 that the Foundation improved its average rating for land projects in the 1999-2002 period compared to the pre-1999 era. The 1999-2002 period average rating was 302, compared to 245 in the pre-1999 era, a jump of 23% in average score. This suggests that the Foundation was funding much better projects after 1998. In the pre-1999 era, the Wetlands Reserve Projects the Foundation funded accounted for nearly all of the land projects in the Midwest and South rated “not so good” by the consultants.

In the 1999-2002 period, only 4 land projects were rated not so good, compared to 12 projects in the pre-1999 era.

Table 3.9 presents ten of the leading land projects that were rated “good.” The cost per acre for these projects was generally below \$300 per

acre. This is a good bargain for the Foundation. These projects involved the preservation of at least 500 acres. The Straight River project resulted in the preservation of five additional parcels. In all, these are ten land protection projects that any Foundation would have been proud to fund.

Table 3.9 Ten “Good” Rated Land Projects.

Project Name and Region	Year	Acreage	NFWF Grant	Total Cost Per Acre	Rating
Pingree Northeast	2001	762,000	\$2,000,000	\$39.00	420
Lassen Hills West	1999	37,000	\$250,000	\$20.27	400
Conn. Lakes Northeast	2001	146,000	\$150,000	\$3.08	380
Leininger West	2000	1,850	\$100,000	\$183.78	340
Roper Island South	2002	8,274	\$100,000	\$42.30	300
Centennial West	1999	3,080	\$60,000	\$120.37	290
Castle Rock West	1998	1,550	\$75,000	\$306.45	290
Sacramento River-West	2001	2,242	\$98,000	\$266.73	290
Patterson West	1999	19,000	\$50,000	\$31.57	280
Straight River Midwest	1996	500	\$401,417	\$1,605.67	250

It is also helpful to identify the “good” and “not so good” projects according to the size of the grantee organization. Table 3.10 shows that the majority of grants for land projects surveyed were made to large organizations. It is necessary to note that 9 of the 13 not so good projects done by large organizations involved Wetlands Reserve Program projects in 1996. If the WRP projects are taken out, the percentage of good rated projects for large organizations is similar to that of medium and small organizations.

Table 3.10 Outcome Rating of Land Projects by Size of Grantee Organization

Size of Organization	Number of Land Projects	Project Outcome Rating	
		Good	Not So Good
Large:	51	38	13*
Medium:	7	6	1
Small:	15	13	2
TOTAL	73	57	16

*Nine of these projects involved Wetlands Reserve Program grants in 1996.

Table 3.11 displays the geographic distribution of the “good” and “not so good” rated projects. Land projects in the West had the highest success rate, at more than 90 percent. The Midwest had the most not so good projects. The majority of these not so good projects involved Wetlands Reserve Program projects funded in 1996 when the NRCS, which administers the WRP, had budget problems. The not so good projects in the South were all WRP projects. If the 1996 Wetlands Reserve Projects in the Midwest and South were removed from the table, the good projects would be closer to nine of out ten projects funded. Two of the not so good projects in the Northeast cost more than \$7,000 per acre and preserved less than 50 acres.

Table 3.11 Distribution of Good and Not So Good Land Projects By Region

	<u>Region</u>				<u>TOTAL</u>
	<u>Northeast</u>	<u>Midwest</u>	<u>South</u>	<u>West</u>	
<u>Good Projects</u>	11	12	10	24	57
<u>Not So Good Projects</u>	4	6	4	2	16
TOTAL	15	18	14	26	73

Table 3.12 shows the general characteristics of good and not so good easement projects. The good projects tended to be large, often preserving more than 1,000 acres, and contiguous to other preserved land. In addition, the projects were done in keeping with an organization's strategic plan. Finally, land preservation costs were generally under \$1,000 an acre (unadjusted for inflation).

The not so good projects tended to be small, protecting less than 50 acres, and isolated parcels, not close to other preserved lands. The projects were often opportunistic, coming before the organization outside of its normal land targeting process. Also, not so good projects usually carried a high cost of more than \$3,000 per acre. This price reflects significant development pressure in the area, and suggests that it would be expensive and difficult to put together large contiguous blocks of preserved land.

Table 3.12 General Characteristics of Good and Not So Good Easement Projects

<u>Characteristic</u>	<u>Good Projects</u>	<u>Not So Good Projects</u>
1. Size	More than 1,000 acres	Less than 50 acres
2. Location	Contiguous to other preserved land	Isolated parcel
3. Planning	Strategic	Opportunistic

4. Cost to NFWF	Under \$1,000 an acre	More than \$3,000 an acre
5. Organization	Large and experienced staff	Small and inexperienced staff, or poor projects proposed by large organizations

Specific Features of “Good” and “Not So Good” Projects

It is also helpful to identify the specific features of “good” and “not so good” projects. The following information correlating organization and land project features with “good” and “not so good” outcomes was compiled by the consultants from the surveys of grantees, and in many cases corroborated through the on-site interviews.

Fifty-three of the land projects surveyed involved conservation easement purchases; and 20 projects involved fee simple purchases.

The age of the grantee organizations was not a significant factor in predicting success. There were no grantee organizations less than 4 less old and three-fourths of the easement grants went to organizations of more than 20 years old. Four-fifths of the grants went to organizations with an annual budget of more than \$250,000. Just over half of the grantees had endowments of more than \$1 million. Only 5 grants went to organizations with endowments of less than \$100,000.

Two-thirds of the grants were made to organizations with 8 or more paid staff. These paid staff often had been with their organizations for 5 or more years. The number of Board members was not significant, but most grantees had more than 13 Board members.

More than 70 percent of grantees had a history of completing 20 or more conservation easements. Two-thirds of the grant recipients had experienced an increase in easement acquisitions in the past three years; one-fifth stayed the same; and only 14 percent had a decrease in easement activity. Three-quarters of grantees had preserved more than 5,000 acres through conservation easements.

In sum, NFWF has tended to make grants for interests in land to larger, more established organizations with experienced staff with the know

how to put together a grant proposal and complete a project. There is a correlation between larger organizations and likelihood of project success. However, there were a number of projects involving large organizations that the consultants rated not so good. These tended to be small projects of less than 50 acres and Wetlands Reserve Projects with NRCS.

Slightly more than half of the grantees had experience with fee simple purchases of land. Two-thirds of the grantees had purchased more than 5,000 acres in fee simple. Grantees who used NFWF funds to purchase land in fee cited two main responses for why the land was purchased rather than a conservation easement: a) the landowner refused to sell an easement; and b) extensive management of the property was needed for wildlife.

Properties protected by easements or fee simple purchase were rated as under moderate to severe development pressure, though the relatively low cost per acre of most projects did not reflect severe development pressure. Nearly all of the projects were rated strategic as opposed to opportunistic. That is, the acquisitions more often occurred in keeping with a land preservation plan. *Strategic projects also had a significantly higher rate of success (i.e. were more likely to be rated good by the consultants).*

About 85 percent of the properties protected were part of a corridor. *Only 15 percent were isolated parcels, and isolated parcels had a much lower rate of success. Two-thirds of all parcels were contiguous with other preserved lands and had a higher rate of success than non-contiguous parcels.*

All of the land protection projects preserved land with ecological value. In addition, two-thirds of the projects protected significant open space, and over half of the projects involved providing recreational opportunities.

The ecological significance of the properties protected was mainly national, regional, or state significance. Locally significant projects were rated less successful. Only 7 projects were rated as having international significance.

Threatened or endangered species were found on three-fourths of the properties protected. Half of the projects had a habitat suitability rating of “high”; one-fifth had “moderate” ratings. *Those properties with a “low” habitat suitability rating also were rated “not so good” by the consultants.* About one-fourth of grantees did not know what their properties habitat suitability rating was.

Grantees monitored nearly all of the properties protected on an annual basis. Most monitoring involved a site visit. Some grantees also interviewed the landowner; and 1/6 of grantees conducted aerial monitoring. *There were only two easement violations, both in the Midwest.*

Most grantees reported having a management plan for the properties they have conserved. In some cases, detailed studies have been conducted on the number and type of wildlife. Some grantees felt that maintaining the status quo (current numbers and species) was a good achievement. In other cases, restoration of habitat needed to be done both to maintain and to increase populations and species, particularly of rare and endangered species.

It is encouraging to note that NFWF land grants not only resulted in the protection of important tracts but also sent a signal to neighboring landowners who then conserved their land. The impacts of NFWF grants are broader and deeper than the acres conserved statistics. Some of this is revealed in the reports from grantees who note that in several cases the preservation of the NFWF-funded property encouraged neighbors to preserve their properties as well. This building of core areas and corridors of protection is commendable and increases the area of long-term wildlife habitat. The Foundation, again, should keep track of the spread of land preservation in areas where it makes grants. Moreover, NFWF-funded easement projects show local citizens and political leaders the benefits of preservation and can expand support for habitat protection in a community or region.

3.5 On-site Interviews with Grantees

As a follow-up to the written surveys, the consulting team conducted on-site interviews with a sample of the grantees were conducted between March and early June, 2005. A total of 42 on-site interviews were conducted; 8 in the Northeast, 23 in the West, 5 in the Midwest, and 6 in

the South. Of the interviews, 32 involved grantees that had received a grant for a land project and 10 involved grantees who had received a grant for capacity building. The purpose of the interviews was to meet with grantees on their home turf, ask a more detailed set of questions, and in some cases to view easement projects and the results of capacity-building grants. A copy of the on-site interview instrument is included in Appendix Six, and a summary of the site visits is presented in Appendix Seven.

Grantees generally appreciated the visits from the consultants and were very accommodating in answering questions. It should be noted that the majority of land projects reviewed occurred before 1999. Thus, some of the grantees' perceptions of NFWF were formed through dealing with the Foundation from several years ago. For instance, consultants learned and conveyed to grantees that the Foundation no longer requires grantee matching funds to be sent to NFWF headquarters in Washington, D.C. This practice had caused some accounting headaches for grantees.

The most common criticism of the Foundation was that the application process is cumbersome and expensive. Only four grantees out of the 32 surveyed said they would never apply for a NFWF land project grant again. Yet, most grantees made comments about the bureaucratic burden of the NFWF grant process. On the other hand, several grantees have submitted or intend to submit additional grant applications to the Foundation.

The consultants interviewed a variety of grantees who had received a grant for a land protection project according to size of the organization and the outcome (good or not so good) (see Table 3.13).

Table 3.13. Organizations Interviewed by Size, Number of Land Projects, and Project Outcome

Size of Organization Interviewed	Number of Land Projects	Project Outcome	
		Good	Not So Good
Large:	18	14	4
Medium:	8	6	2

Small:	6	6	-
TOTAL	32	26	6

3.6 Interviews with NFWF Staff

After completing the phone surveys and on-site interviews, the consultants then contacted NFWF Regional Directors to discuss the land projects. A copy of the interview instrument is included in Appendix Seven.

In several cases, the projects reviewed by the consultants occurred before the current Regional Directors had joined NFWF. This situation points out a major problem: the turnover of NFWF staff.

The results from these interviews were spotty. For instance, there were no projects reviewed in the Northeast during the tenure of the current NFWF Regional Director.

3.7 Summary

The consultants' review of project files, surveys and interviews with grantees, and interviews with NFWF staff confirmed that a sizable majority of land projects funded by the Foundation have produced successful outcomes both in terms of acres preserved and wildlife protected. In many cases, large acreages and land adjacent to other preserved lands have been protected. Moreover, project costs have been relatively low, indicating a good return on investment.

While acreage protected alone does not reveal the quality of wildlife habitat or the wildlife species or populations, the grantees noted that in most projects, the protection of threatened or endangered species occurred.

In several cases, outcomes for wildlife were sketchy, either because there was little to nothing in the files indicating wildlife studies after the land was protected or because grantees had not undertaken systematic studies. It is important to note that in the process of monitoring a conservation easement, the easement holder is primarily looking for violations, such as illegal buildings.

The Foundation's investments in land projects have shown considerable success, especially in the 1999-2002 period. During this time, the Foundation funded 20 projects that each preserved over 1,000 acres and at a cost of generally less \$1,000 per acre, and often for less than \$100 an acre. Several of these projects are nothing short of outstanding. The huge Pingree and Connecticut Lakes projects in the East, Roper Island in the South, Lassen Hills and several ranches in the West all have wildlife habitat of national significance. These are projects that any foundation in the United States would be proud to fund.

The Foundation should encourage General Call Grant applications that involve the preservation of such large landscape- scale tracts. On the other hand, the Foundation has reduced its funding of land projects that involve less than 100 acres. In general, the Foundation should avoid such projects because they often preserve habitats of only local or state-wide significance and carry a high cost per acre.

Chapter 4: Evaluation of Interests in Land Grant Projects

This chapter presents the consultants' evaluation of the Foundation's investments in capacity building projects to strengthen the ability of organizations to preserve land for wildlife habitat. The consultants reviewed project files, and conducted surveys of the grantees, on-site interviews with the grantees, and interviews with NFWF staff. The consultants built a model to evaluate the outcomes of the capacity building projects. Using the model, the consultants made a determination of whether a capacity building project was "good" or "not so good." This rating was then correlated with certain project features from the project files, surveys, and interviews. The ratings and the correlations were helpful in developing the application rating model and the post-grant cost effectiveness model presented in Chapter 5.

The consulting team reviewed 25 capacity building projects for the period 1990 to 2002. The consulting team divided the files into geographic regions. Tom Daniels reviewed the project files in the Northeast. Jean Coleman was responsible for the Midwest. Elizabeth Watson reviewed the files from the South, and Jack Wright reviewed the project files from the West.

The consulting team then conducted a survey of organizations that have received grant funding from the Foundation for building the capacity of the organization to preserve land for wildlife habitat. An advance letter from NFWF Executive Director John Berry preceded the survey, informing the organizations about the survey and requesting their cooperation. The surveys were conducted from late February to mid-May. A total of 25 capacity building grantees were surveyed (see Survey Form in Appendix Five). Most of the surveys were conducted by telephone. Only a handful of surveys were conducted by mail or by e-mail.

4.1 Capacity Building Projects

Capacity building projects funded by the Foundation have varied widely from publications to workshops, to restoration projects, to adding staff.

The consultants found that only 3 of the 25 grants for capacity building projects went to large organizations with 8 or more paid staff. These were mainly national, regional, and statewide organizations. Five capacity building projects went to medium-sized organizations with 5 to 8 employees, and 17 capacity building projects went to small organizations of fewer than 5 employees (see Table 4.1).

This distribution of capacity building grants according to the size of the grantees seems appropriate, given the Foundation's perception of the need to build the capacity of organizations to address statewide needs in certain geographic areas of the United States. Examples include the California Rangeland Trust in California and the Forest Society of Maine in Maine.

Table 4.1 Capacity Building Project Grants Awarded 1990-2002.

Year	Number	Total NFWF Grants	Average NFWF Grant	Grantee Size		
				Large	Medium	Small
2002	2	\$100,000	\$50,000		1	1
2001	5	\$200,000	\$40,000			5
2000	3	\$67,600	\$22,533		1	2
1999	4	\$117,877	\$29,469			4
1998	2	\$110,000	\$55,000			2
1997	2	\$141,500	\$70,750		1	
1996	1	\$1,500	\$1,500	1		
1995	5	\$92,614	\$18,523	1	2	2
1990	1	\$9,500	\$9,500		1	
TOTAL	25			3	5	17

Funding for capacity building grants has varied considerably, from a low of \$1,500 in 1996 to a high of \$200,000 in 2001. The average grant size has been above \$22,500 since 1996. The largest single capacity building grant in the survey was \$116,500 for the Malpai Borderlands Group in the Arizona and New Mexico region in 1997.

Also, it is important to note that the grantee match for capacity building grants has almost always been at least twice the Foundation's

grant. Thus, a 2 to 1 match seems to be a prudent minimum standard for the Foundation in deciding which capacity building projects to fund.

The comparison of the land projects in the pre-1999 period to the 1999-2002 period showed major differences in land preserved. The consultants wanted to see if there were similar changes in the capacity building grants, and hence the consultants compared the capacity building grants in the pre-1999 period with those in the 1999-2002 period. The amount of grants increased after 1996.

Table 4.2 shows the geographic distribution of the capacity building grants. Most capacity building projects have gone to grantees in the West.

Table 4.2 Size and Geographic Distribution of Capacity Building Projects Surveyed, 1990-2002 (in 2004 Dollars).

Grant Amount	Northeast	Midwest	South	West	TOTAL
\$100,000 and Above	-	-	-	2	2
\$50,000-\$99,999	-	1	2	4	7
\$25,000-\$49,999	1	-	2	4	7
\$10,000-\$24,999	2	-	2	1	5
Less Than \$10,000	1	-	1	2	4
TOTALS	4	1	7	13	25

4.2 The Capacity Building Project Outcomes Model

To evaluate the outcome of a capacity building project, the consultants built a model based on the example of the Land Evaluation and Site Assessment (LESA) system, developed by the Soil Conservation Service in the early 1980s. The model uses key factors in judging the success of the outcome. Each factor is made up of measurable criteria.

Each criterion is assigned a weight and a points value. The weight times the points value produces a score for that criterion and hence, that factor. For example, in Table 4.3 under Acreage Protected, if the capacity building project resulted in the protection of more than 100 acres, the criterion had a weight of 5, a points value of 2 and a score of 10. So the score for the Acreage Protected factor was 10.

The consultants identified five measurable factors:

- 1) Acreage Preserved as a result of the capacity building project;
- 2) Organization Building: Hiring More Staff;
- 3) The Effectiveness of Information and Educational Outreach Efforts;
- 4) The Effectiveness of Habitat Restoration Efforts; and
- 5) The Ratio of the Grantee Match to the Foundation Grant.

The consultants added a sixth factor of “Other Circumstances” that may have affected the outcome of the project. So, although the emphasis of the evaluation model is to produce an objective, quantitative approach, there may be qualitative aspects to the project that should be noted.

The acreage preserved factor reflects the purpose of capacity building grants is ultimately to preserve more land for the benefit of wildlife. Also, most land trusts measure their success in terms of acres preserved. Consultants identified the acres preserved from the project files and on-site interviews.

The larger the staff of a land trust, the greater the potential to preserve land for wildlife. Very small organizations often simply do not have the personnel to raise funds or meet with landowners to develop preservation projects.

Landowner education and outreach are important components of an effective land preservation organization. Once landowners understand their options, hopefully, they will choose to preserve their land.

Habitat restoration is important for the long-term viability of wildlife. Grantees provided this information through the surveys and on-site interviews. And finally, the greater the ratio of grantee match funds to

Foundation funds, the most invested the grantee is in a project, and hence the greater the interest should be in seeing the project succeed. The consultants identified the match ratios for each project from the project files.

The five factors each had a maximum of 10 points. The maximum total score for a capacity building project was 50 points. The consultants set 24 as a cut off between “good” and “not so good” projects. In other words, projects that scored 24 points and above were rated “good,” and projects scoring less than 24 points were rated “not so good.” The consultants chose 24 points because it is roughly half way between the average scores of the “good” and “not so good” projects.

A “good” rating means that the project had positive outcomes for wildlife and was done at a reasonable cost. The good rating is also meant to suggest to the Foundation staff that the grantees involved in these projects are capable and that the process worked.

A “not so good” rating means that the consultants had serious concerns about the benefits of the project for wildlife or that the costs were excessive compared to the benefits. The not so good rating is meant to suggest to Foundation staff that they review these projects and come to an understanding of how a) the Foundation could have done a better job of selecting the projects; b) the grantees could have done a better job of implementing the projects; or c) both. The consultants do not necessarily mean that the Foundation was wrong to fund a project that turned out “not so good.” In other words, a project may have appeared good to the Foundation staff, but the grantee did not fulfill the promise of the project. For instance, there were some land projects that either were never completed, or else were amended after the grant was awarded. On the other hand, Foundation staff can use this evaluation model to weigh the likely outcome of a future land project application.

Table 4.3 Capacity Building Project Outcomes Model.

1. Acreage Protected	Weight	Points	Score
Major 100 or more Acres	2	5	10

Minor: Less than 100 acres	2	2	4
None	0	0	0
2. Organization Growth			
More than One Staff Added	2	5	10
One Staff added	2	2	4
No Staff Added	2	0	0
3. Information/ Education			
Major: Workshops, Publications, Landowner Meetings	2	5	10
Minor	2	2	4
None	2	0	0
4. Habitat Restoration			
Major	2	5	10
Minor	2	2	4
None	2	0	0
5. Cost/Match			
2:1 or more match to grant ratio	2	5	10

Less than 2:1 Ratio but at least 1:1	2	2	4
Less than 1:1	2	0	0

6. Other circumstances

TOTAL MAXIMUM POINTS = 50

The cut-off for Good vs. Not So Good: 24 points

The consultants rated 16 of the 25 capacity building projects as “good” and 9 projects as “not so good.” This is a very respectable success rate of about 66 percent. The results are impressive given that the Foundation typically funded projects with small organizations.

The average score of the good capacity building projects was 37.76, and the median score was 40.

The average score of the not so good capacity building projects was 16.75, and the median score was 18.

The large difference in the average scores of the good and not so good projects underscores the fact that it is fairly easy to identify a good versus a not so good capacity building project. The good capacity building projects tended to result in the preservation of more than 100 acres, involve the expansion of staff, have an effective education outreach effort, have an effective habitat restoration effort, and have a ratio of grantee match to Foundation grant of 2 to 1 or better. The not so good capacity building projects tended to preserve less than 100 acres (or no acreage at all), involve no expansion of staff, did not have an effective education outreach effort, did not have an effective habitat restoration effort, and had a match ratio of less than 2 to 1.

Table 4.4 suggests that the success of the capacity building grants increased in the 1999-2002 period compared to the pre-1999 period. The project ratings increased by about 25 percent in the 1999-2002 period. This

suggests that the Foundation staff are selecting more successful projects. In fact, in the 1990-1998 period, 6 of the 11 capacity building projects were rated “good” and 5 projects were rated “not so good.” In the 1999-2002 period, 10 projects were rated “good” and 4 “not so good.”

Table 4.4 Average Rating of Capacity Building Projects 1990-1998 vs. 1999-2002

Number of Projects		Average Rating	Average Rating
1990-1998	1999-2002	1990-1998	1999-2002
11	14	26.36	33.14

Table 4.5 Capacity Building Project Ratings by Size of Grantee.

Year	Number	Grantee Size			Project Rating	
		Large	Medium	Small	Good	Not So Good
2002	2		1	1	1(S)	1 (M)
2001	5			5	4(S)	1 (S)
2000	3		1	2	2(S,M)	1 (S)
1999	4			4	3(S)	1 (S)
1998	2			2	-	2 (S)
1997	2	1		1	1(S)	1 (L)
1996	1	1				1 (L)
1995	5	1	2	2	4(LM,2S)	1(M)
1990	1		1		1(M)	-
TOTAL	25	3	5	17	16	9

Table 4.5 shows that the 16 “good” capacity building projects involved one large grantee, three medium size grantees, and 12 small grantees. The 9 not so good projects involved two large grantees, two medium grantees, and five small grantees.

The large grantee organizations had the lowest rate of success with capacity building grants, followed by the medium size grantees. Capacity building grants to small grantees showed the highest rate of success.

Table 4.6 Capacity Project Ratings by Size of Grant

Year	Grant Size	Project Rating	
		Good	Not So Good
2002	\$50,000	1	
2002	\$50,000		1
2001	\$20,000	1	
2001	\$25,000		1
2001	\$40,000	1	
2001	\$30,000	1	
2001	\$85,000	1	
2000	\$25,000	1	
2000	\$12,600		1
2000	\$30,000	1	
1999	\$25,000	1	
1999	\$37,877	1	
1999	\$50,000	1	
1999	\$5,000		1
1998	\$75,000		1
1998	\$35,000		1
1997	\$116,500	1	
1997	\$25,000		1
1996	\$1,500		1
1995	\$8,000	1	
1995	\$50,000	1	
1995	\$17,500		1
1995	\$2,114	1	
1995	\$15,000	1	
1990	\$9,500	1	
TOTAL		16	9

Overall Average Grant for a “Good” Project: \$37,124
 Average Grant for a “Good” Project, 1999-2002: \$39,288

Overall Average Grant for a “Not So Good” Project: \$27,400
 Average Grant for a “Not So Good” Project, 1999-2002: \$23,150

Table 4.6 shows the variety of grant amounts involved in “good” versus “not so good” outcomes. There is some indication that a larger grant is more likely to produce a good outcome. The average “good” project involved a grant of about \$10,000 more than the average “not so good” project. But there are several examples of a small grant producing a good outcome and a large grant producing a not so good outcome.

Table 4.7 presents seven of the “good” rated capacity building projects that NFWF funded. Landowner outreach and education projects seemed to be the most effective, along with funding to expand organization staff. For capacity building projects, the “good” projects generally led to land preservation deals. The “not so good” projects generally did not.

Table 4.7 Seven “Good” Rated Capacity Building Projects Funded by NFWF.

<u>Project Name and Region</u>	<u>NFWF Grant</u>	<u>Purpose</u>	<u>Results</u>
Malpai Borderlands II (NM/AZ) West	\$116,500	Landowner Outreach	77,000 acres in easements Nationally significant
NW Michigan Buffer (MI) Midwest	\$56,818	Landowner Education and Outreach	Seven Easements Acquired
Northwoods Initiative (ME) Northeast	\$25,000	Hire more staff	Growth of Forest Society of Maine into a statewide organization, easements on 400,000 acres
California	\$50,000	Landowner	This trust has

Cattleman's Riparian Initiative (CA) West		Outreach and Education	conserved a total of 157,969 acres using conservation easements.
Estate/CE Planning (CA) West	\$25,000	Landowner Outreach and Education	24 workshops held. Over 20,000 acres preserved.
Mary's River IV (NV) West	\$2,533	Stream Classification and Restoration	71 miles of stream bank restored easement on 1,433 acres.
Catawba River Protection (NC) South	\$30,000	Landowner Outreach	Easement acquired on 60 acre parcel

Table 4.8 presents the geographic distribution of “good” and “not so good” rated capacity building projects. The Midwest had the fewest number of projects, and the West the most. Because capacity building projects are somewhat risky, it is not surprising to see the West also having the largest number of projects rated “not so good.” On the other hand, the West had the largest number of projects rated “good.” Just over half of all capacity building projects surveyed were in the West.

Table 4.8 Distribution of Good and Not So Good Capacity-Building Projects By Region.

	<u>Region</u>				<u>TOTAL</u>
	<u>Northeast</u>	<u>Midwest</u>	<u>South</u>	<u>West</u>	
<u>Good Projects</u>	3	1	4	8	16
<u>Not So Good Projects</u>	1	-	3	5	9

TOTALS 4 1 7 13 25

4.3 Capacity Building Project Survey Results

Grantees organizations with an annual budget of less than \$250,000 accounted for most of the not so good projects, but the rate of not so good projects was higher among medium and large organizations. By contrast, three-quarters of the projects were good among grantees with an annual budget of more than \$250,000. Six of the nine not so good projects occurred in grantee organizations with a total endowment of less than \$50,000.

Three not so good projects occurred in grantee organizations with one or no paid staff. Most of the capacity building grants were made to organizations with 2 or more paid staff. These paid staff often had been with their organizations for 5 or more years. The number of Board members was not significant, but most grantees had more than 9 Board members.

More than half of grantees with not so good capacity building projects had completed fewer than six projects involving the acquisition of interests in land. Grantees with 84 percent of the good capacity building projects had completed six or more conservation easements. Ten of eleven grantees with good capacity building projects had also experienced an increase in conservation easement acquisitions over the past three years; 80 percent of grantees with a steady number of easement acquisitions had not so good capacity building projects. The four organizations that had preserved less than 100 acres with easements also had four not so good capacity building projects. A total of 84 percent of grantees that had preserved more than 500 acres through easements also had good capacity building projects.

In sum, NFWF has tended to make capacity building grants to small but more established organizations with experienced staff with the know how to put together a grant proposal and complete a project. There is a correlation between very small organizations and a likelihood of not so good projects.

Ninety percent of the grantees that had completed more than 10 fee simple land acquisition also had good capacity building projects. Half of the grantees with no fee simple acquisitions also had not so good capacity building projects. All of the grantee organizations that had acquired more than 100 acres in fee simple also had good capacity building projects.

Nine of 14 easement facilitation projects were rated good. Three of four staff development projects were rated good. Seven of eight projects were rated good that involved workshops for landowners; projects involving websites were rated good only in two of five cases; brochures were rated good in only half the cases; books and manuals were rated good in 60 percent of the projects; one-on-one landowner contacts were used in 13 projects, of which nine were rated good, a 70% success rate; and cooperation with other organizations occurred in seven projects, of which 5 were rated good.

In projects that involved ranking and prioritizing land for protection, GIS was an important factor in good projects. Aerial photography was used in seven projects, of which four were rated good. A quantitative ranking system was used in four projects, of which three were rated good.

Seven projects resulted in no easement acquisitions and six of these were rated not so good. Twelve projects resulted in two or more easements, and 11 of these were rated good. *In sum, capacity building projects that propose to lead to the acquisition of two or more conservation easements have a high likelihood of success both for the organization and for protecting wildlife habitat.*

A lack of experience in the land trust was the most often cited reason for the lack of acquisition of interests in land. Lack of legal assistance was another problem.

Managers of good capacity building projects had backgrounds in biology, law, land use planning, and fisheries. Managers of not so good projects had a background in GIS or biology.

The projects with the least obvious benefit were often proposed by biologists seeking to restore damaged habitats. Ecological restoration projects by their nature are more difficult to implement and evaluate because of the uncertainties of ecosystem response. Given the urgency of

land protection needs, restoration projects should be systematically integrated with easements and land purchases to maximize the use of public funds.

Land inventory projects sometimes do and sometimes do not lead to on-the-ground land protection – in some cases, they can lead directly to easements, but other times they seem to be an almost academic exercise that duplicates existing data bases. Prioritization of capacity building projects should be linked to measurable conservation easement or land purchase outcomes to be taken seriously.

Table 4.9 shows that “good” rated capacity building projects generally involved grantee organizations with large and experienced staff; the capacity building projects led to the acquisition of two or more conservation easements; an easement facilitation project was likely to be successful, compared to a wildlife habitat restoration project; and capacity building projects of more than \$25,000 were more likely to be produce a good outcome than a project of less than \$25,000.

Table 4.9 Characteristics of Good and Not So Good Capacity Building Projects.

<u>Characteristic</u>	<u>Good Projects</u>	<u>Not So Good Projects</u>
1. Organization	Large and experienced staff	Small and inexperienced staff
2. Led to two or more easement deals	Yes	No
3. Project type	Easement facilitation	Restoration
4. Amount	More than \$25,000	Less than \$25,000

4.4 On-site Interviews with Grantees

As a follow-up to the written surveys, the consulting team conducted on-site interviews with a sample of the grantees were conducted between March and early June, 2005. A total of 42 on-site interviews were

conducted; 8 in the Northeast, 23 in the West, 5 in the Midwest, and 6 in the South. The purpose of the interviews was to meet with grantees on their home turf, ask a more detailed set of questions, and in some cases to view easement projects and the results of capacity-building grants. A copy of the on-site interview instrument is included in Appendix Six, and a summary of the site visits is presented in Appendix Seven.

Grantees generally appreciated the visits from the consultants and were very accommodating in answering questions. It should be noted that the majority of capacity-building projects reviewed occurred after 1998. Still, some of the grantees' perceptions of NFWF were formed through dealing with the Foundation from several years ago.

The most common criticism of the Foundation was that the application process is cumbersome and expensive. Two of the grantees who had received capacity building grants said they would never apply for a NFWF grant again. Yet, most grantees made comments about the bureaucratic burden of the NFWF grant process. Capacity building grants tend to be for one time or two year projects.

The consultants interviewed a variety of grantees who had received capacity building grants, according to size of the organization and the outcome (good or not so good).

Table 4.10. Organizations Interviewed by Size, Capacity Building Projects, and Project Outcome

Size of Organization Interviewed	Number of Capacity Building Projects	Project Outcome	
		Good	Not So Good
Large:	-	-	-
Medium:	4	3	1
Small:	6	3	3
TOTAL	10	6	4

4.5 Interviews with NFWF Staff

After completing the phone surveys and on-site interviews, the consultants then contacted NFWF Regional Directors to discuss the capacity-building projects. A copy of the interview instrument is included in Appendix Seven.

In several cases, the projects reviewed by the consultants occurred before the current Regional Directors had joined NFWF. This situation points out a major problem: the turnover of NFWF staff.

The results from these interviews were spotty at best. For instance, there were no projects reviewed in the Northeast during the tenure of the current NFWF Regional Director.

4.6 Summary

The capacity building projects have a slightly lower percentage of good projects compared to the land projects. Yet, several of the capacity building projects were excellent and resulted in thousands of additional acres preserved (Note: the consultants did not review the capacity building grant for the Colorado Cattleman's Agricultural Land Trust). Some capacity building grants, on the other hand, produced few benefits.

Whether a capacity building project was “good” or “not so good” is more often a judgment call compared to the land projects. There are, however, some observed outcomes and measurable criteria that are helpful. General criteria include: whether the capacity building project led to the purchase of conservation easements.

The consultants rated 16 of the 25 capacity building projects as good and 9 as not so good. This is a 64 percent success rate.

Capacity building projects have had more varied results than the Foundation's investments in land preservation projects. It also appears more difficult to predict the success of a capacity building project. The good capacity building projects involved funding staff to expand an organization, and landowner outreach and education about conservation easements. These projects resulted in additional preservation of land. The not so good

capacity building projects featured publications which were not produced and restoration projects with low benefit outcomes for wildlife.

The Foundation has been wise to emphasize both land protection projects and capacity building projects. The Foundation has funded several impressive organization building projects in the South (Catawba Land Trust and North Carolina Coastal Land Trust) and West (California Rangeland Trust and the Colorado Cattlemen's Agricultural Land Trust). The greater capacity of these organizations has clearly translated into increased land protection for wildlife benefits.

The Foundation should re-assess where capacity building grants are likely to be effective given the fact that there are now more than 1,500 land trusts.

Chapter 5: Application Rating and Ranking Model and Post-Grant Cost Effectiveness Model

Cost effectiveness studies seek to compare the amount of direct investments with the quantified impacts for similar types of activities. Grantees generally do not report on the environmental (or socio-economic) impacts of their projects but instead relate it to the achievement of deliverables specified in the contract. These deliverables (e.g., restoration of 100 acres, or purchase of an easement on 200 acres) represent project outcomes rather than impacts on wildlife.

The impacts on wildlife, fish, and plants of land acquisition projects occur over time as well as over geographic space. The majority of land projects funded by NFWF were completed within three to five years. The metric to measure the outcome used in virtually every interests in land project was acres preserved. This is satisfactory as an initial outcome. But over time other metrics are more important, such as change in number of plant and animal species, populations of individual species, and habitat restoration and ecosystem health and management.

What was generally lacking in the project files was an initial baseline documentation of the wildlife numbers, species, and habitat condition at the time of the application. Thus, a before-protection and after-protection evaluation of wildlife and habitat was not available in detail. This kind before and after information is essential if the Foundation wants to do true cost effectiveness studies of their investments in land protection.

There are at least four reasons why NFWF has never enacted a set of policies for systematic monitoring of impacts. First, NFWF policy dictates that grants be allotted for only a one-year period in accordance with the federal government's budget cycle. Few impacts can be expected to arise in so short a period. Second, many grantees work in small organizations that lack the financial and personnel resources to do impact evaluations.

Third, there are no requirements that grantees present logic models when presenting their projects; their absence makes it more difficult to conceptualize and develop a series of measurements for wildlife outcomes. Fourth, NFWF has no policy specifying a specific percentage or fixed amount of funds be set aside for evaluation for each project. Under these constraints, very few grantees produce final reports that include analysis of impacts.

5.1 Cost Effectiveness Models: Purpose and Process.

A cost effectiveness model is aimed at producing a maximum return of benefits per dollar spent. For NFWF, this means maximizing wildlife benefits per grant dollar on each project:

$$\frac{\text{Total Wildlife Benefits}}{\text{Total Grant Dollars}} = \text{Wildlife benefits per grant dollar}$$

Although it is easy to identify the size of the Foundation's grant for each project, it is not easy to quantify the benefits to wildlife for each project. To identify the size and scope of the wildlife benefits, the Foundation would need to know: a) what is the condition of the habitat and the numbers of species and their populations before the applicant receives a grant from the Foundation; b) what is the condition of the habitat and the numbers of species and their populations after the grantee has completed the project that the Foundation funded; and c) how have those conditions, species, and wildlife populations changed over time (5, 10, 20 years after the project has been completed). In other words, has the stewardship of these protected lands been effective in promoting positive outcomes for wildlife?

On the one hand, the Foundation does not require applicants to present a detailed baseline study of the current wildlife populations, species, and habitat conditions. On the other, the Foundation has not required grantees to provide such baseline studies or easement monitoring reports after a land protection project has been completed. Once a grant project has been completed and the funds spent, the Foundation has simply closed the project file. This absence of baseline studies, monitoring reports, or even third party studies several years after the completion of the

project leaves the Foundation uncertain as to the outcomes for wildlife from its investments.

Ideally, a cost effectiveness study should say, "for each dollar you saved x number of critters, and the value of these critters is y." The data to do that are not available, and there would likely be considerable disagreement among wildlife biologist over placing a dollar value on two grizzly bears as opposed to four re cockaded woodpeckers. In several cases, the wildlife outcomes are sketchy, either because there was little information in the file and/or little response to the survey. But in the site visits, the consultants were able to observe and discuss outcomes for wildlife and wildlife habitat (see Appendix Seven).

In the future, the Foundation should require applicants to provide baseline studies of wildlife habitat, species, and populations. Such information will help the Foundation select the best projects, and will provide a base of information that grantees and the Foundation can use to assess outcomes. The Foundation should also require an updated baseline documentation, monitoring reports, or third party studies every certain number of years after a project has been completed. This will provide information on outcomes. The Foundation and grantee can then compare the outcomes with the pre-grant conditions and identify changes to wildlife and their habitat.

Applicants have tended to emphasize the number of acres that would be preserved with NFWF funds. Island biogeography theory does predict that the larger a parcel of land, the more diverse its wildlife and the more resilient its ecosystem will be. Thus, acres preserved and the cost per acre are approximate measures of cost effectiveness.

The drawback of relying solely on acres preserved is that acreage alone does not adequately measure: 1) the changes to the quality of wildlife habitat, or to the species and populations on a property; 2) contiguity to other protected land; 3) management plans on the property; 4) changes to adjacent properties; or 5) threats to wildlife from invasive species, disease, or climatic conditions. A project is more likely to benefit wildlife if it involves protecting land that is adjacent to other protected land and has an active management plan on it as a sign of good stewardship.

As a measure of wildlife outcomes, the consultants evaluated each grant project according to whether it was “good” or “not so good.” The good projects had clear wildlife benefits, even if those benefits were not rigorously documented or quantified. Not so good projects involved projects with little observed wildlife benefits.

5.2 The Application Evaluation and Ranking Model: A Predictive Model of Cost-Effectiveness

The consultants approached the cost effectiveness model by creating two models. The first model is a predictive model of the likely success of a project involving the acquisition of interests in land. This model offers a way to evaluate and rank applications for grants involving interests in land. The second model is a post-grant cost-effectiveness model for evaluating outcomes compared to costs, and also to test the accuracy of the first model’s evaluation and ranking of project proposals. Both models are based on the findings of the consultants’ review of the project files, grantee surveys, and site visits.

For the application evaluation and ranking model, the consultants

1. Identified characteristics of successful and not so successful projects involving interests in land.
2. Identified correlations between characteristics and successful and not so successful projects.
3. Related the cost of projects to successful and not so successful projects.
4. Defined successful projects as a) helping to create connected blocks of preserved land; b) furthering partnerships with potential for additional land preservation; c) having observed benefits to wildlife; and d) having a reasonable cost compared to benefits, measured in cost per acre.
5. Created a points-based application rating and ranking system that NFWF staff can use to rate applications for land protection grants and put them in priority ranking order. The points-based system is a modification of the Land Evaluation and Site Assessment System developed by the Natural Resources Conservation Service (then the Soil Conservation

Service) in the 1980s (see Figure 5.1). The points-based application ranking system is recommended only for projects involving interests in land. Capacity building projects by comparison encompass a fairly wide variety of projects and anticipated outcomes, and will need to be reviewed on a case-by-case basis.

Characteristics, Correlations, and Costs of Good and Not So Good Land Projects

The consultant rated 56 land protection projects as good and 17 as not so good. Land projects rated “good” by the consultants had the following general characteristics:

1. Size (especially more than 1,000 acres);
2. Contiguous to other preserved lands; and
3. A stewardship plan.
4. A fairly low cost per acre (usually below \$1,000 an acre)
5. Clear benefits for wildlife

Land projects rated “not so good” by the consultants had the following general characteristics:

1. The preservation of less than 50 acres;
2. Cost of more than \$3,000 an acre; and
3. Location in metropolitan areas with a significant amount of development nearby;
4. Uncertain or low benefits for wildlife.

Development Pressure

In its application process, the Foundation has not asked applicants to document development pressures in the vicinity of the proposed projects. Threats to a property are an important part of project assessment (Byers and Ponte 2005). A key challenge in the preservation of land is to

determine where development should be located and where land should be preserved. Local land use planning in rural areas is generally not well-considered or aimed at the protection of wildlife habitat. Thus, land trusts and Foundation partners are often placed in a position of recommending land protection projects in areas where development could encroach on these protected lands within the foreseeable future.

The Foundation should look to avoid proposed projects where the protection of land for the benefit of wildlife would be compromised by nearby development. This means that the Foundation should consider favoring: 1) larger land protection projects; 2) lands contiguous to other protected lands; and, 3) lands under low to moderate development pressure. These lands will tend to have lower costs per acre as well as have a greater potential to provide long-term benefits for wildlife.

Small, expensive tracts of land are generally located in areas with high development pressure. These lands are often zoned for residential development, at one house per two or three acres. Preserving such lands may conflict with local government plans, and developer investments.

The Foundation should ask applicants to describe the local development patterns, sewer and water infrastructure, road frontage of the proposed property, and the local zoning. This information will help the Foundation select those projects with the highest likelihood of benefits for wildlife.

Table 5.1. Sample Interest in Land Grant Application Ranking System

Name of Applicant Organization_____

**RANKING SYSTEM FOR CONSERVATION EASEMENT GRANT
APPLICATIONS TO PRESERVE WILDLIFE HABITAT**

Introduction

The ranking system is used to rate and set in priority order applications for conservation easement grants. The main purpose of the easement grant

program is to preserve high quality wildlife habitat in large blocks. Preference is given to habitat under low to moderate development pressure.

Criteria

A. Quality of the Habitat. Half of the overall points. There are three factors which are related to the quality of the habitat. Each factor is assigned a weight (from 1 to 5) and a range of possible point values (from 1 to 10). The sum of all the factors yields a score for the Quality of the Habitat category. That score is adjusted to reflect the Quality category points on a scale from 0 to 50 total 50 possible points.

B. Likelihood of Conversion. Half of the overall points. There are five factors related to the development pressure on the property. Each factor is assigned a weight (from 1 to 10) and a range of possible points (from 1 to 10). The weight times the points determines the value for a factor. To find the Total Points for a property, add the points for the Quality of the Habitat to the points for the Likelihood of Conversion.

Quality of the Habitat + Likelihood of Conversion = TOTAL SCORE
 (maximum 50 points) (maximum 50 points) (up to 100 points)

QUALITY OF THE HABITAT

<u>FACTORS</u>	<u>Weight</u>	<u>Point Value</u>	<u>Score</u>
1. Size of Property.			
-1,000 acres or more.....	4	10	40
-500 to 999.9 acres.....	4	8	32
-250 to 499.9 acres.....	4	6	24
-100 to 249.9 acres.....	4	3	12
-50 to 99.9 acres.....	4	2	8

-Less than 50 acres	0	0	0
2. Stewardship.			
-Management Plan on Property.....	1	10	10
-Regional Management Plan (e.g. Watershed).....	1	5	5
-No plan on Property or Regional Plan.....	1	0	0
3. Wildlife Habitat Value.			
-Exceptional (High).....	5	10	50
-Significant (Medium).....	5	5	25
-Some (Low).....	5	1	5

TOTAL Maximum points for Quality of the Habitat = 100 points multiplied by the adjustment factor (1/2) = 50 points maximum

LIKELIHOOD OF CONVERSION TO DEVELOPED USE

<u>FACTORS</u>	<u>Weight</u>	<u>Point Value</u>	<u>Score</u>
1. Development in the Area.			
-10 or more residential or commercial lots adjacent	10	2	20
-20 or more within 1/2 mile.....	10	4	40
-Scattered lots within 1 mile.....	10	7	70
-No significant development in area.....	10	10	100
2. Zoning.			

-No zoning.....5	0	0
-Residential, commercial, or industrial zoning within 1/4 mile.....5	4	20
-Between 1/2 and 1/4 mile.....5	6	30
-Large lot agricultural, forestry, or rural zoning (more than 10 acres per dwelling) within 1/2 mile radius.....5	8	40
-Large lot agricultural, forestry, or rural zoning (more than 10 acres per dwelling) covering more than 1/2 mile radius.....5	10	50
3. Distance to Central Sewer or Water Service		
-Existing capacity within 1/4 mile.....5	0	0
-Existing capacity within 1/2 mile.....5	4	20
-Existing capacity within 1 mile.....5	6	30
-No capacity within 1 mile.....5	10	50
4. Road Frontage		
-Over 1 mile buildable frontage.....5	10	50
-1/2 to 1 mile of		

buildable frontage.....5	5	25
-1/4 mile to 2,499 feet of buildable frontage.....5	3	15
-Less than ¼ mile of frontage...5	0	0
5. Distance to a Property with a Conservation Easement or Government-owned Open Space		
-Adjacent.....10	10	100
-Within 1/2 mile.....10	7	70
-More than 1/2 mile.....10	0	0

TOTAL Maximum points for Likelihood of Conversion =
350 points

multiplied by the adjustment factor (1/7) = 50 points maximum

Example A: Property A is a 250-acre woodlot with no buildings. The property has no forest management or stewardship plan, but the property provides beautiful scenic views. There are deer, rabbits, and a variety of birds on the property, but no rare or endangered species. There are some scattered houses in the area. The surrounding zoning is for two-acre lots. The property is beyond 1 mile of sewer or water service. The property has 4,000 feet of road frontage, and is within ¼ mile of a 100-acre farm under easement.

<u>Quality of the Habitat Factors</u>		<u>Likelihood of Conversion Factors</u>	
	<u>Score</u>		<u>Score</u>
1. Size	24	1. Development	70

2. Stewardship	0	2. Zoning	30
3. Habitat Value	5	3. Distance to Sewer	50
		4. Road Frontage	25
		5. Distance to an Easement or Govt Land	70
TOTAL	29	TOTAL	200
times 1/2 =	14.5	times 1/7 =	35

Quality of Habitat Score + Likelihood of Conversion Score= TOTAL
SCORE

$$14.5 + 35 = \underline{49.5}$$

The Quality of the Habitat was low; there was no management plan and the species on the property were not special. The Likelihood of Conversion was moderate meaning that the property and neighboring properties would probably not be developed in the near future.

NFWF staff would have to determine a minimum acceptable number of points for an application to be considered for an easement grant. For instance, if the cut-off were 50 points, this property could be rejected outright rather than considered in comparison to applications with a rating of more than 50 points.

With any points-based rating and ranking system, there may be some trial and error involved. The advantage of such a system, however, is that it is consistent and objective.

The data required for the rating and ranking system should be readily available from a property appraisal. If the Foundation requires an applicant to present a signed contract of sale for an easement as part of the application, the applicant will be able to provide the necessary information. The Foundation staff would have to make an assessment of the

environmental quality of the property: high, medium, or low. A panel of outside experts could help in making this assessment for each application.

Example B: Property B is 5,000 acres of ranch land. The property has rare waterfowl, and a soil and water conservation plan. There is little development within one mile and no zoning. The property is more than one mile from central sewer and water service, and has more than one mile of road frontage. The property is more than one mile from the nearest preserved or government-owned land.

<u>Quality of the Habitat Factors</u>		<u>Likelihood of Conversion Factors</u>	
<u>Score</u>		<u>Score</u>	
1. Size	40	1. Development	100
2. Stewardship	10	2. Zoning	0
3. Habitat Value	50	3. Distance to Sewer	50
		4. Road Frontage	50
		5. Distance to an Easement or Govt Land	0
TOTAL	100	TOTAL	200
times 1/2 =	50	times 1/7 =	28.64
Quality of Habitat Score + Likelihood of Conversion Score= TOTAL SCORE			
50 + 28.64 = <u>78.64</u>			

Property B has a perfect Quality of the Habitat score; this is a large property with quality habitat. There is a management plan, and the species on the property are rare. The Likelihood of Conversion is moderate meaning that the property and neighboring properties will probably not be developed in the near future.

The NFWF staff would then compare the score of this property (78.64) to scores of other applications to decide the order in which the

Foundation should make grants. Thus, properties scoring 80 or 85 points would be funded ahead of this property at 78.64 points, whereas properties scoring 70 or 60 would be funded after this property if funds remain.

Example C: Property C is a 50 acre tract of open land. The property has rare waterfowl, but no management plan. There are 12 residential lots adjacent to the property. The adjacent land is zoned residential. The property is within ¼ mile of central sewer and water service, and has less than 1/4 mile of road frontage. The property is within ½ mile of preserved land.

<u>Quality of the Habitat Factors</u>		<u>Likelihood of Conversion Factors</u>	
<u>Score</u>		<u>Score</u>	
1. Size	8	1. Development	20
2. Stewardship	0	2. Zoning	20
3. Habitat Value	50	3. Distance to Sewer	0
		4. Road Frontage	0
		5. Distance to an Easement or Govt Land	70
TOTAL	58	TOTAL	110
times 1/2 =	29	times 1/7 =	15.71
Quality of Habitat Score + Likelihood of Conversion Score= TOTAL SCORE			
29 + 15.71 = <u>44.71</u>			

Property C has a middling Quality of Habitat score; this is a small property with significant wetlands habitat. There is no management plan, and the species on the property are rare. The Likelihood of Conversion is fairly high meaning that neighboring properties are either developed or will probably be developed in the near future.

The Foundation can provide the rating and ranking system to the applicant at the pre-application stage. The applicant can conduct a preliminary rating of the property according to the measurable criteria in the rating and ranking system. Thus, the applicant can ascertain very quickly what the score of the application is likely to be and whether the application has a good chance of being funded.

The Foundation could put the rating and ranking system on its website. This would benefit not just potential grant applicants, but also land trusts and government agencies which are looking for a model rating and ranking system.

5.3 Post-Grant Cost Effectiveness Model

The post-grant evaluation model serves two purposes. First, it can be used to compare the baseline documentation of wildlife conditions presented in the application with the post-grant outcomes presented by the grantee through an updated baseline, monitoring reports, or a third party study. The outcomes can be quantified and the cost of the project can then create a measure of cost effectiveness for each project.

Second, the post-grant evaluation can help determine the accuracy of the project evaluation and ranking model used in the initial selection of projects. *In other words, did the projects that were selected and funded meet the expectations for success?*

Grantees should be alerted up front in the application process that they will be expected to provide an assessment of outcomes for wildlife habitat and wildlife species and populations after the grantee has preserved a property. To set the stage for the assessment of outcomes, applicants should be required to provide a baseline documentation of wildlife habitat and wildlife species and populations. This includes a description of the wildlife habitat to be preserved (wetlands, uplands, riparian areas, etc.), the acreage of the property, and wildlife population counts and the types of species currently on the property. Recognizing that wildlife habitats are dynamic systems, the applicants should also describe what stage of ecosystem lifecycle the property is in (bog, climax forest, etc.).

Once the protection of a property is finalized (either in fee simple or by easement), the grantee should forward a copy the easement or sale documents to the Foundation. The deed of easement or the land deed will document the number of actual acres preserved and the cost of the easement.

The evaluation of a land protection project should occur at regular intervals, such as every five years. The grantee should provide the Foundation with: a) a written easement monitoring report, with photos of the property, and indicating any violations of the easement; b) an updated baseline report with changes to the wildlife on the property (invasive species, increase or decrease in populations or species), restoration efforts, a property management plan and an evaluation of whether the landowner has followed the management plan. Also, the grantee should describe any changes to adjacent properties, particularly if new development has occurred or if any adjacent lands have been preserved.

Finally, the grantee should make a determination of the benefits of the project for wildlife in comparison to the costs. Foundation staff should then make their own cost-benefit assessment. The Foundation should compare the outcomes of each project to the rating and ranking of each project from the cost effectiveness model. The Foundation staff can use this exercise to compare predicted outcomes from the cost effectiveness model to actual outcomes.

If the actual outcomes are consistent with the predicted outcomes, then the evaluation and ranking model is doing its job: the Foundation is selecting the most effective projects. If, however, there are variations in actual outcomes compared to predicted outcomes, Foundation staff should look to revise the evaluation and ranking model.

The application evaluation and ranking model and the post-grant evaluation model offer the Foundation a transparent process. Acquisitions of interests in land are a form of advertising. If NFWF is funding high quality projects, then federal partners and private organizations are more likely to want to enter into projects with NFWF and, in the case of Congress and private donors, give money to NFWF to continue its good work in protecting wildlife habitat and sustaining wildlife species and populations.

Post-Grant Evaluation Model

The post-grant evaluation model for cost effectiveness follows the format presented at the start of the chapter:

$$\frac{\text{Total Wildlife Benefits}}{\text{Total Grant Dollars}} = \text{Wildlife benefits per grant dollar}$$

For each project, there needs to be a way to quantify wildlife benefits. Such quantification is likely to raise questions from wildlife biologists, however, there are some measures of outcomes that can be placed into an index of wildlife outcomes.

In the survey of grantees, the consultants asked the grantees to rate the quality of the habitat on the site (International, national, regional, state, and local. The grantees were also asked if there were threatened and endangered species on the site. The consultants asked about management outcomes, such as the implementation of management plans and restoration. Documented threats and activities on adjacent lands emerged in some cases. Invasive species are a very real concern.

Note that species recovery goals do not simply mean an increase in species populations. Increasing populations is not always a good outcome. Stability once achieved in an ecosystem is a true sign of wildlife population health. In fact, if a threatened and endangered species continues to increase past carrying capacity it may signal an ecosystem imbalance (predator/prey ratios etc.), and it may trigger a backlash from humans. Witness the controversy over grizzly bears in Montana. The bear biologists are advising de-listing the grizzly bear because the recovery plan numbers have been met; but some environmentalists are opposing this.

Finally, there may be qualitative aspects that affected the outcome of the project, such as slowness of grantee to implement a wildlife management plan or restoration, or grantee receiving an award or special recognition for the project.

Criteria

- 1. Documented species recovery goals met
- 2. Documented species recovery goals met for threatened or endangered species

- 3. Changes to adjacent lands
- 4. Documented positive management outcomes
- 5. Documented increase in threats to wildlife (e.g. invasives)
- Total Maximum Points = 100 Total Minimum Points = -70
- Index of Outcomes
- ----- = Index of Cost Effectiveness
- Cost per acre

Table 5.2 Post-Grant Outcomes Index Model

WILDLIFE OUTCOME

<u>FACTORS</u>	<u>Weight</u>	<u>Point Value</u>	<u>Score</u>
1. Documented species recovery goals met			
Major Progress	5	4	20
Minor Progress	2	4	8
No Change	1	4	4
Loss	-2	4	-8
2. Documented species recovery goals met for threatened or endangered species			
Major Progress	5	6	30
Minor Progress	2	6	12
No Change	1	6	6
No threatened or			

Endangered species Originally on site and no change	0	6	0
Loss	-2	6	-12
3. Changes to adjacent lands			
Major Development	-4	5	-20
Minor Development	-2	5	-10
No Change	2	5	10
Preservation	4	5	20
4. Documented Positive Management Outcomes			
Major Benefit	4	5	20
Minor Benefit	2	5	10
No Change	1	5	5
Decline in management	-2	5	-10
5. Documented Increase in Threats to Wildlife (e.g. invasives, water pollution)			
Major	-4	5	-20
Minor	-2	5	-10
None	1	5	5

Reduction in Threats	2	5	10
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6. Other circumstances

Total Maximum Points = 100
 Total Minimum Points = -70

$$\frac{\text{Index of Outcomes}}{\text{Cost per acre}} = \text{Index of Cost Effectiveness}$$

The higher the index of outcomes (closer to 100) and the lower the cost per acre of the project, the higher the index of cost effectiveness is.

If the project received a negative post-grant score, then the project did not produce positive net benefits for wildlife.

The index of cost effectiveness for a project can be compared to the evaluation and ranking of the project at the application stage. Ideally, a project that received a high initial evaluation and ranking would produce a high index of cost effectiveness.

With any points-based evaluation model, there may be some trial and error involved. The advantage of such a system, however, is that it is consistent and objective.

The following two examples are hypothetical results.

Example A: Property A is a 250-acre woodlot with no buildings. The property has no forest management or stewardship plan, but the property provides beautiful scenic views. There are deer, rabbits, and a variety of birds on the property, but no rare or endangered species. There are some scattered houses in the area. The surrounding zoning is for two-acre lots. The property is beyond 1 mile of sewer or water service. The property has 4,000 feet of road frontage, and is within ¼ mile of a 100-acre farm under easement.

NFWF made a grant of \$50,000 to the ABC Land Trust to purchase a perpetual conservation easement on Property A. The total price was \$250,000 or \$1,000 an acre. Five years after the easement was purchased, the ABC Land Trust updated the baseline documentation of the wildlife and submitted a copy to the Foundation. The update documented a major increase in deer and rabbits, but no threatened or endangered wildlife. There had been little management work performed on the property. The ABC Land Trust monitored the property each year to ensure that no development illegal was taking place. There had been a considerable amount of housing development on adjoining lands. There were minor observed increases in invasive species.

Wildlife Outcome Factors

	Score
1. Increase in Wildlife Populations: Major	20
2. Increase in Threatened Species: Major	0
3. Changes to Adjacent Lands Minor development	-20
4. Management Outcomes Major benefit	0
5. Increased Threats Minor	-5
TOTAL SCORE	- 5

$$\frac{-5}{\$1,000} = -0.005$$

A score of -0.005 indicates a negative low degree of cost effectiveness for wildlife. Note that this tract received a low score of 49.5 in the application evaluation and ranking model. Results for this project suggest that the application evaluation and ranking model warned the Foundation not to select this project. The post-grant evaluation model suggests that the project produced negative cost effective results for the wildlife.

Example B: Property B is 5,000 acres of ranch land. The property has rare waterfowl, and a soil and water conservation plan. There is little development within one mile and no zoning. The property is more than one mile from central sewer and water service, and has more than one mile of road frontage. The property is more than one mile from the nearest preserved or government-owned land.

NFWF made a grant of \$125,000 to the XYZ Land Trust to purchase a perpetual conservation easement on the ranch. The total easement price was \$500,000 or \$100 an acre. Five years after an easement was purchased on the ranch, the XYZ Land Trust updated the baseline documentation of the wildlife and submitted a copy to the Foundation. The update documented a major increase in rare waterfowl. Buffer strips had been planted between areas where cattle graze and the waterways used by the waterfowl. There had been only slight development on adjoining lands. There were no observed changes in threats, such as water pollution or invasive species.

Wildlife Outcome Factors

	Score
1. Increase in Wildlife Populations: Major	20
2. Increase in Threatened Species: Major	30
3. Changes to Adjacent Lands Minor development	-10
4. Management Outcomes Major benefit	20
5. Increased Threats None	5
TOTAL SCORE	65

$$\frac{65}{\$100} = 0.65$$

A score of 0.65 indicates a high degree of cost effectiveness for wildlife. Note that the ranch project received a high score of 78.64 in the application evaluation and ranking model. Results for the ranch project suggest that the application evaluation and ranking model guided the Foundation toward selecting a high quality and cost effective project. The post-grant evaluation model suggests that the ranch project produce positive and highly cost effective results for the wildlife.

5.4 Cost Effectiveness of Capacity Building Projects

Capacity building projects exhibit considerable variety. Thus, in choosing which capacity building projects to fund and in measuring the cost effectiveness of capacity building projects, the Foundation will have to rely more on the judgment of staff and outside reviewers than with land projects.

The consultants found that the capacity projects they rated as “good” tended to lead to land protection results, whereas the “not so good” capacity building projects did not.

In the application process, the Foundation should consider asking applicants seeking capacity building grants how the proposed project will lead to more land protection. Also, the Foundation should consider placing greater scrutiny on capacity building grants that are more indirectly and of long-term potential benefit to wildlife, such as publications and staff training.

Just as with the land projects, the Foundation should require grantees for capacity building projects to provide an update of the results. Such an update could be essentially a one time evaluation, say, five years after the completion of the project. Such results might include information on number of staff hired, land protected thanks to new staff, miles of riparian corridor restored, publications sold or distributed, etc. Foundation staff will have to judge the effectiveness of these outcomes both in themselves and ultimately for wildlife; and compare the results to the grant and project costs.

5.5 Conclusion

The cost effectiveness model consists of two parts: a model to evaluate and rank applications for grants involving interests in land; and a model to evaluate the cost effectiveness of the outcomes for wildlife. The application evaluation and ranking system enables Foundation staff to compare land project applications from across the country and put them into a priority order that reflects likelihood of successful outcomes for wildlife. The post-grant model enables Foundation staff to evaluate outcomes for wildlife and to compare the outcomes with the predicted likelihood of success from the application evaluation model. This will help to answer the question

There also needs to be a post-easement evaluation to determine the accuracy of the cost-effectiveness model. Did those projects that the Foundation funded live up to expectations for wildlife benefits? How accurate was the application evaluation model? With any points-based rating and ranking system, there may be some trial and error involved. The advantage of such a system, however, is that it is consistent and objective.

In order to conduct a thorough post-grant evaluation, the Foundation must required applicants to provide initial updated baseline inventories of wildlife habitat and wildlife populations and species and then have grantees provide updated baseline information to document changes after a property was protected.

The cost effectiveness models are flexible and can be adjusted as needed. The application evaluation model can also be used as a *guide* to decision making by the Foundation, rather than as an absolute predictor of a successful project. Similarly, the post-grant model can be used to identify successes or problems. But the Foundation may need to conduct further analysis to determine whether a project did not succeed as expected because of the Foundation's selection process or because of problems with implementation and execution by the grantee.

Chapter 6: Conclusions and Recommendations

The National Fish and Wildlife Foundation has helped to fund some of the leading wildlife habitat preservation projects in the United States. The Foundation has also made capacity building grants that have led to expanded land trust staffs, training of staff, and the creation and dissemination of information on conservation easement practices. The Foundation has been involved in partnerships with a wide variety of land protection organizations, including local, regional, statewide, and national land trusts, as well as government agencies. The Foundation has especially worked with the federal Fish and Wildlife Service, the U.S. Forest Service, and the Natural Resources Conservation Service. Grantees generally spoke highly of the Foundation staff, and feel that the Foundation is an important source of funding for wildlife habitat protection projects.

Since 1990, the Foundation has averaged about 10 conservation easement and capacity building projects a year in its General Call Grants category. Foundation Board members wanted to know what have been the outcomes of these investments, as well as how to identify potential projects that are most likely to benefit wildlife.

It is helpful to look at the Foundation's land projects before 1999 and in the 1999-2002 era. It is apparent that before 1999, the Foundation was searching for a role to play. The funding of Wetlands Reserve Projects in 1996 is one such example. This was a stop gap effort to help out the Natural Resources Conservation Service during a time of budget problems for the NRCS. Yet, the projects funded had rather hit or miss results for wildlife.

In the 1999 to 2002 period, the Foundation found its stride. The foundation did 26 projects, of which 20 involved the preservation of more than 1,000 acres. These projects reflect landscape scale preservation and have generally had very positive outcomes for wildlife. Yet, the Foundation continued to fund some small preservation projects of less than 100 acres, which had little benefit beyond the local area.

So a question arises, was the Foundation lucky in the 1999 to 2002 period to have applicants present several good to outstanding projects? There may be some truth in that conjecture. However, the important point for the Foundation is to set standards that foster such success in the future. These standards include: a) a minimum size of grant for land projects—\$75,000 is suggested; b) a minimum size for land projects—50 acres is suggested, though 100 acres would be preferable given the goal to achieve landscape scale preservation; c) the development of an application rating and ranking system to compare applications; d) a requirement that an application contain a baseline documentation of the wildlife and habitat on the property proposed of acquisition; e) a requirement that an applicant present a signed contract of sale for an easement or land; and f) a requirement for monitoring and reporting protocols in the post-grant phase.

6.1 Outcomes

The outcomes for wildlife have been uncertain in part because the Foundation has done virtually no follow-up on the easement and capacity-building projects it has funded. At a minimum, the Foundation needs to greatly improve the management of its project files, and monitor the effects of its investments. In many cases, the Foundation will be pleased with the results. For instance, conservation easements were donated to the Foundation in 1986 on 400 acres in the Beaverkill region of southern New York. In 2004, the Open Space Institute reported that it had preserved a total of 6,000 acres in the Beaverkill region. Thus, the Foundation's early preservation work laid a base for future preservation in the region.

The outcomes of conservation easement acquisitions occur over time as well as over geographic space. The majority of projects funded by NFWF were completed within three to five years. The metric to measure the outcome used in virtually every case was acres preserved. This is satisfactory as an *initial outcome*. But over time other metrics are more important, such as change in number of plant and animal species, populations of individual species, and habitat restoration and ecosystem health and management.

Most grantees have a management plan for the properties they have conserved. In several cases, detailed studies have been conducted on the number and type of wildlife. Some grantees felt that maintaining the status quo (current numbers and species) was a good achievement. In other

cases, restoration of habitat needed to be done both to maintain and to increase populations and species, particularly of rare and endangered species.

It was encouraging that NFWF grants resulted in the protection of important tracts that sent a signal to neighboring landowners who then conserved their land. This building of corridors of protection is commendable and increases the area of long-term wildlife habitat. The Foundation, again, should keep track of the spread of land preservation in areas where it makes grants.

The purchase of land or conservation easements does not necessarily ensure the land's conservation value, especially as wildlife habitat. Conservation easements alone will not determine the degree to which a landscape will see durable, sustainable conservation of biodiversity. Thus, it is important to ask: How are the lands that NFWF has helped conserve being managed and restored in order to improve their capacity to support biodiversity? This is especially true when restoration and stewardship needs and practices are likely to be different across the nation. Review of any restoration and stewardship plans that have been developed by grantees or landowners is essential. Such plans need to be made available and monitored for implementation.

Recommendation #1

The Foundation should focus on a long-term relationship between the Foundation and the grantees to understand what is happening to the wildlife.

This emphasis will require four shifts in staff and resources:

- There will need to be a staff person, such as a Full-time File Manager, who manages the project files and stays in touch with the grantees;

- Applicants will need to provide more upfront information, such as a baseline documentation of wildlife and habitat conditions on a property proposed for preservation;

- The Foundation will have to place greater emphasis on what happens to a property and the wildlife after a project has been completed and the Foundation will need to develop new capacity to deal with post-grant review

in order to understand what is happening to the wildlife. This should include a post-grant cost-effectiveness model, such as described in Chapter 4;

- The projects files will need to contain applications, baseline documentation, appraisals, easement documents, final grant report, monitoring reports, management plans, and grantee newsletters and annual reports.

6.2 Application Process

While acres preserved have been the main, and in many cases the only measure of outcomes, there are other measures that the Foundation should emphasize in its grant application process. A baseline documentation of the wildlife habitat and the existing wildlife species on the property to be preserved would be helpful. Expected post-project species and populations are also important. Existing exotic species and management plans to reduce exotics would be helpful.

The Foundation should be aware that the more exacting the Foundation is in its application process the less appealing the grant process will be to smaller land trusts. This is not necessarily a bad thing. There are too many small land trusts in the United States. Most land trusts are small, all volunteer organizations with the capacity to preserve only “islands” of wildlife habitat. The Foundation should seriously consider setting a minimum easement grant of \$75,000 along with a minimum acreage size of 50 acres. Projects that preserve less than 50 acres are not likely—except perhaps in the case of islands for sea birds—to preserve enough land to maintain a minimum viable habitat of wildlife.

If the Foundation wishes to continue to make small grants to local land trusts, the Foundation should do this through a “re-grant program.” The model is the re-grant program that the Foundation set up with the Maine Coast Heritage Trust (MCHT) in the late 1990s. The Foundation made a challenge grant to the MCHT and the MCHT then established an easement grant application program with several small land trusts. The Foundation was able to spread its funding and the MCHT did the majority of the administration.

Recommendation #2

The Foundation should require a baseline documentation on the quality of the habitat and condition of the wildlife on a targeted property.

An applicant for a land project should provide a baseline documentation of the quality of the habitat and the wildlife on a property proposed for easement acquisition or fee simple purchase. For examples of baseline documentation, see Annella and Wright (2004) and Byers and Ponte (2005).

Recommendation #3

For assessing the quality of the habitat, the Foundation should convene a panel of experts in Washington, DC twice a year or more frequently to review the applications.

Currently, the Foundation requires that applicants present five recommendations from experts of their choosing. This process is awkward for the applicants and often does not provide the kind of objective review that the Foundation should have. Many organizations convene a panel of outside experts to review and rank applications, such as the Fulbright Program and the National Academy of Sciences. The Foundation should consider convening a panel of outside experts once or twice a year or more frequently to review applications.

Recommendation #4

The Foundation should require the applicant to provide a copy of the appraisal of an easement or land proposed for acquisition.

The appraisal should be reviewed by the Foundation as part of the application process. Is the appraisal accurate? Is the land or easement value reasonable?

Recommendation #5

The Foundation should require the applicant to provide a monitoring and reporting protocol.

Preserving a property from development is only a first step in the long-term management of a property for the benefit of wildlife. The Foundation desires to know the outcomes for wildlife from the land projects it is funding. Currently, the Foundation does not require that an applicant or a grantee provide a monitoring or reporting protocol. Monitoring and

reporting are essential for the Foundation to stay in touch with a grantee and for the Foundation to know whether there have been easement violations or easement condemnations, in which case the Foundation would be entitled to reimbursement of the grant, for return to the respective federal agency.

Also, an issue raised by NFWF attorney Karen Sprecher Keating is that the Foundation has funded easements in some states where there are marketable title acts that require re-recording of easements so that they will not be extinguished (See Byers and Ponte, 2005, p. 21).

6.3 The Application Evaluation Model and the Post-Grant Cost-effectiveness Model.

Land project grant applications should be evaluated and ranked according to an objective, points-based model. Such models have been used for several years by land trusts (Byers and Ponte, 2005) and county farmland preservation programs (Daniels and Bowers, 1997). The application evaluation model presented in Chapter 4 reflects a number of important factors: 1) quality of the habitat; 2) size; 3) proximity to other preserved lands; 4) threats; and 5) local government policy.

The actual cost issue is best dealt with by setting limits. In general, the Foundation should generally avoid funding interests in land projects that exceed \$3,000 an acre. The Foundation has funded some projects that preserved less than 50 acres and required amendments and extensions to the original grant application. These projects have generally produced little wildlife benefits and have involved a high price per acre. Often these projects involved limited developments, where developable land was slated for house lots and habitat of only local significance was targeted for preservation.

Projects involving interests in land of less than 50 acres and more than \$3,000 an acre are almost always in metropolitan areas where development pressures are intense. It will be very difficult for the Foundation, land trusts, and government agencies to compete with developers for these metropolitan lands or to protect land that is or will become surrounded by development. Here, public policy is encouraging residential development, which runs counter to the public benefit test for conservation easement donations under Section 170(h) of the Internal

Revenue Code. The Foundation should favor areas under low to moderate development pressure where it is more likely that large contiguous blocks of preserved habitat can be assembled.

In most cases, the larger the acreage, the more successful the project is likely to be for the long-run sustainability of the wildlife and their habitat.

The Foundation should adopt a post-grant cost effectiveness model along the lines of the model presented in Chapter 4. This model will enable the Foundation to: 1) identify the pre-grant and post-grant wildlife and habitat conditions and thus discern changes in each interest in land project funded; 2) create an index of wildlife outcomes that then can be divided by the project's cost per acre to create a measure of a project's cost effectiveness; and 3) compare the cost effectiveness of difference projects which will help the Foundation assessing the performance of specific grantees, and in reviewing future applications for land projects.

6.4 Recommendations for Acquisitions of Interests in Land Projects

Recommendation #6

The preservation of strategically located, landscape scale projects involving a thousand or more acres should take precedence over the preservation of small, isolated parcels.

Corollary: *The NFWF should establish a 5 year goal to preserve a certain minimum number of acres of habitat and types of habitat.*

The Foundation may feel a need to spread its funds geographically, especially those funds the Foundation receives from the U.S. Fish and Wildlife Service (FWS). However, the Foundation should feel no such obligation with the private funds it receives, and should use these funds to target the acquisition of easements on large parcels of 1,000 or more acres. The Foundation pursued such a strategy with considerable success in the 1999-2002 period. During this time, the Foundation funded 26 projects (surveyed by the consultants) of which 20 involved the preservation of more than 1,000. Such large easement projects are most likely to occur in the Western states, Alaska, the Great Plains, parts of the South, and northern New England and upstate New York. In other words, the Foundation should continue what it has done, but avoid land projects of

less than 100 acres, and especially land projects of less than 50 acres. Projects of fewer than 50 acres on average produce little conservation benefit and often involve high per acre easement prices and housing developments. Such projects may make the Foundation look as though it is helping to preserve someone's backyard or front yard, rather than protecting important wildlife habitat.

Also, The Foundation has been wise to avoid the Wetlands Reserve Program projects with NRCS since 1996. These projects have varied successes, accounting for nearly all of the land projects in the Midwest and South rated "not so good" by the consultants.

Recommendation #7

The Foundation should avoid making grants for land projects for less than \$75,000.

In the 1999-2002 period, the Foundation made 26 grants for land projects, of which 20 were for \$75,000 or more. These projects were all rated good by the consultants. Moreover, given the sharp increase in land prices since 2002, it will not be in the interests of a grantee organization to apply for less than \$75,000. Also, if the Foundation is looking to continue its preservation of large tracts of 1,000 acres or more, the Foundation's grants will need to be at least \$75,000. The organizations that have the financial and staff capacity to preserve and manage or monitor 1,000 or more in a land project are usually large organizations. Finally, it costs the Foundation roughly as much in time and personnel to administer a \$30,000 grant as a \$75,000 grant. In general, larger grants are more likely to be proactive and strategic rather than reactive and opportunistic.

Recommendation #8

The Foundation should require that an applicant for a NFWF easement grant provide a signed contract of sale for an easement or a signed option to purchase an easement. .

There were two large land projects, both involving more than 4,000 acres that failed because the grantee did not have the landowner on board at the time the grantee applied for funding from the Foundation. To minimize such situations, the Foundation should require a signed contract of sale for an easement or land, or a signed option to sell an easement or

land. This indicates that the landowner is on board, and the likelihood of completion of the project is high.

Similarly, there were at least two cases in which grantees proposed to preserve 50 or more acres and then preserved fewer than 50 acres. In such cases, the grantee underestimated the amount of funding or time needed to complete one or more easement purchases.

The Foundation should try to avoid situations where grant projects fail or have to be amended. The Foundation should require a signed contract of sale for an easement or signed option to purchase an easement. These documents indicate the willingness of the landowner to sell an easement. Also, this means that an applicant will seek Foundation funding rather late in the life of the project. Most of the details about the project will have been worked out.

Recommendation #9.

The Foundation should allow part of the grantee's land project matching funds to be used for monitoring and enforcement of the conservation easement.

The monitoring and enforcement of perpetual easements is a long term obligation for grantees, and involves personnel and other expenses. Monitoring and enforcement are essential to maintain the integrity of the easements and this provide quality wildlife habitat over time (Byers and Ponte, 2005).

The Foundation easement grants should allow part of the grantee's matching funds to be used for easement monitoring. If the minimum easement grant were set at \$75,000, the Foundation could allow up to 10% of the matching funds to be used to create an easement stewardship fund for that property.

Recommendation #10.

Applications for NFWF grant funds should include:

- 1) The a baseline documentation of the conservation values of the property proposed for protection;*
- 2) The public benefits;*
- 3) The threats to the property;*

- 4) *The envisioned outcomes of the project;*
- 5) *A grantee's conservation priority action plan for targeted properties in a region and proof of scientific planning and prioritizing habitat projects;*
- 6) *How the proposed project ranks among the properties in the target region;*
- 7) *A draft deed of easement; and,*
- 8) *A plan for restoration and stewardship linked to ecological indicators. This requirement will reveal the stewardship capacity of the applicant organization.*

These requirements would mean that the grantee would have to present an appraisal of a conservation easement on the proposed property, along with a signed contract of sale or signed easement purchase option.

The conservation values and public benefit are important requirements of Section 170(h) of the Internal Revenue Code for donated conservation easements. Because many, if not most easement projects today involve bargain sales of part cash and part donation, proper documentation of conservation values and public benefit are a wise policy for NFWF.

Moreover, NFWF often uses federal funds (i.e. taxpayer dollars) in its grants. Accountability to taxpayers is a valid consideration in such easement projects. As for documenting threats to the property, the Land Trust Alliance Standards and Practices provides valuable guidance:

“The land trust examines the project for risks to the protection of important conservation values (such as surrounding land uses, extraction leases or other encumbrances, water rights, potential credibility issues or other threats) and evaluates whether it can reduce the risks. The land trust modifies the project or turns it down if the risks outweigh the benefits” (LTA 2004)

As for outcomes, the applicant should provide more information than just acres to be protected by conservation easements. The expected outcomes compared to the cost of the project should give NFWF reviewers an idea of the costs and benefits involved in the project, and whether the benefits outweigh the costs or vice versa.

Recommendation #11

The Foundation should devise and adopt a points-based rating and ranking system for applications for interests in land. The ranking system should have a minimum point threshold below which an application will be rejected outright. Available funds should be allocated to the highest ranking projects.

The Foundation's current grant application process relies upon a description of the proposed project and the comments of five outside reviewers. There does not appear to be a system for comparing applications based on their merits for wildlife habitat protection, the extent of the threats to a property, and the likelihood of a successful outcome.

A points-based ranking system will enable the Foundation to rank land projects both within a region and across regions. This will help the Foundation direct funding to the best projects in a more objective fashion. This application rating model is presented in Chapter 4.

Recommendation #12

The Foundation should consider adopting a maximum easement price per acre for the easement projects it will participate in. A maximum easement project cost of \$3,000 per acre is suggested.

The Foundation has expressed a goal of maximizing conservation benefits per dollar invested. Generally, the larger the land parcel to be protected, the lower the cost per acre of the easement. The Foundation should seek to fund projects that will result in landscape scale preservation of habitat. However, there may be smaller parcels with a significant number of rare and endangered species that are also adjacent to other preserved parcels of land.

The Foundation should keep in mind that the value of a conservation easement is based on the development potential of a property, not the value of the property as wildlife habitat. At easement prices of more than \$3,000 an acre, the land is under a high level of development pressure. It is unlikely even if the property is preserved that the surrounding properties can be preserved as well. The Foundation should avoid creating "islands" of preserved land surrounded by development.

Recommendation #13.

The Foundation should require a management plan for a property. The management plan should be referenced in the deed of easement and made part of the baseline monitoring data.

Ideally, the management plan should be completed by the time a conservation easement is placed on the property or by the time the property is acquired in fee. The Foundation should review and approve the management plan.

Recommendation #14.

There should be a checklist of steps in the review, approval, and administration of grants for easements and capacity building.

The checklist should be placed in each project file to identify whether all of the necessary steps have been achieved. The checklist will help create consistency in the content of each project file. For easement grants this will include: a) an appraisal of the easement value; b) a copy of the deed of easement; c) a baseline documentation of the habitat and wildlife on the property at the time the easement was placed on the property.

Note the checklist approach presented in Byers and Ponte (2005) in the Conservation Easement Handbook.

Recommendation #15.

The Foundation needs to have a long term relationship with its grantees.

There are several steps the Foundation can take. First, When the Foundation sends the grantee a letter confirming that the grantee has fulfilled the terms of the grant, the Foundation should enclose a questionnaire asking the grantee about the process. Did the grantee have a good experience working with NFWF? What aspects of the grant process were positive? What could be improved?

Second, the Foundation is not hearing the full story of how its grants are enabling grantees to leverage funds, increase conservation capacity, raise local and regional landowner interest, and generate conservation benefits that go beyond the grantees' easement and capacity-building achievements.

In both the case of easement grants and capacity building grants, the grantee should be required to put the Foundation on its mailing list and to send the Foundation copies of its newsletters and annual reports. This would require far greater management and updating of grantee files than the Foundation has done so far. The benefit to the Foundation is the ability to track grantee progress in preserving and managing wildlife habitat and protecting and promoting wildlife.

There should also be a post-grant monitoring process in which the grantee provides the Foundation with an updated baseline documentation and monitoring report at least every five years. The Foundation should consider allowing a grantee to use a percentage of the easement grant (or matching funds) for monitoring the easement.

6.5 Recommendations for Capacity Building Projects

Recommendation # 16

The Foundation should avoid making grants for capacity building projects for less than \$25,000.

Foundation has made most of its capacity building grants to small land trusts with fewer than 5 employees. Some of these projects have been very successful and others of very limited success. The consultants more often rated capacity building grants of less than \$25,000 as “not so good,” compared to grants of \$25,000 and above.

A further standard to consider is the ratio of the Foundation’s grant to the applicant’s match. The consultant’s found more “good” rated capacity building projects had a match ratio of 2 to 1 or higher. In other words, the more money the applicant was willing to put into the project compared to the Foundation, the better the project outcome was.

Finally, given increased costs since 2002, a grant of less than \$25,000 is not likely to go very far. Also, it takes an equal amount of staff time to administer a \$10,000 grant as a \$25,000 grant.

Recommendation #17.

The Foundation should focus on capacity building grants for easement monitoring and evaluation of outcomes, restoration projects, and some organizational development in selected regions.

The Land Trust Alliance has identified easement monitoring as a major challenge for land trusts. Also, few land trusts perform systematic evaluations of the outcomes of their easements or fee simple acquisitions.

The Foundation has funded restoration projects with widely varying results. However, restoration of habitat is very important, and the Foundation should study the elements of successful and not so successful restoration projects.

The Foundation should consider two important facts for future capacity building grants: 1) there are many publications available on conservation easements; and 2) there are more than 1,500 land trusts. This is not to say that the Foundation should avoid funding publications in the future. Rather, the Foundation staff and board should be convinced that additional publications will have tangible benefits for wildlife habitat and wildlife populations. Also, the Foundation may want to help start land trusts in parts of the United States that are currently underserved, such as parts of the Gulf Coast, Appalachia, and the Great Plains. But creating new land trusts in the Northeast, Colorado, and California should be avoided except to help form statewide land trusts.

6.6 Recommendations for Staffing

Recommendation #18

The Foundation staff should receive training on conservation easements.

It is apparent that NFWF staff have little hands-on experience in managing a conservation easement purchase program. In the future, the Foundation should try to hire personnel with at least two years of experience in operating conservation easement programs.

The Land Trust Alliance, based in Washington, D.C., could easily provide training. The Land Trust Alliance regularly offers a variety of training programs for land trusts; and the Foundation recently made a grant to the Land Trust Alliance for training programs.

Recommendation #19

The Foundation should hire an in-house review appraiser.

The Foundation does not have its own internal review appraiser. The Foundation has contracted with consultant Tom Smith to review easement appraisals on an as needed basis. The Foundation has been funding between 10 and 12 easements a year.

The Foundation should hire an internal review appraiser, especially if the Foundation decides to increase significantly the number of grants for conservation easements.

The Foundation should require that an applicant for an easement grant submit an appraisal of the property's easement value as part of the application process. An in-house review appraiser can aid in the review of applications. This is a very important step because the appraisal of easement value is essentially an educated guess. An in-house appraiser should review the methodology of the appraisal, the validity of the comparable sales, and the final estimate of easement value.

The consultants found at least one case where the appraised easement value seemed very high. The NFWF regional director at the time challenged the appraiser's figures and the final grant was smaller than originally proposed. The consultants rated this project as "not so good." This process was very time consuming, and resulted in the preservation of a small parcel surrounded by rural residential lots. A consultant did a site visit to the property.

An in-house appraiser could be available on either a part-time or full-time basis, depending on how many easements the Foundation wants to fund in a given year.

Recommendation #20

The Foundation should add a GIS specialist to its staff.

A need for the Foundation and indeed for land trusts and government agencies is better mapping of preserved lands. The Land Trust Alliance has even mentioned the need for a national map of preserved lands. The Fish and Wildlife Service has done mapping in its land preservation efforts. Mapping can help identify the best places to preserve wildlife habitat, especially for creating large contiguous blocks of protected habitat and wildlife migration corridors. GIS mapping by the Foundation could be coordinated with mapping by the Foundation's partners. Mapping could be

coordinated with the Foundation's regional conservation plans and wildlife management plans developed by the states to aid in reviewing both pre-applications and applications for easement and capacity building grants.

A GIS specialist should maintain a map of the Foundation's easement and capacity-building grants. This map should contain a "hot spot" of each project which has information about the project. This map could be put on the Foundation's website and be interactive, offering users a wealth of information. This would be an excellent way for the Foundation to disseminate its accomplishments.

Recommendation #21

The Foundation needs to hire or designate at least one staff person for file management and maintaining contact with the grantees.

The Foundation needs to stay in touch with the grantees and update files as baseline information, studies, and grantee newsletters and annual reports are submitted. This way the Foundation will have a much better sense of the outcomes of the projects it is funding.

6.7 Recommendations for Innovations with Conservation Easement and Land Acquisition Grants

Recommendation # 22

The Foundation should be willing to fund land preservation in a transfer of development rights program.

Transfer of development rights (TDR) programs occur within public land use planning programs. A number of local governments have set up TDR "banks" to purchase development rights (conservation easements) from willing sellers who own land in so-called "sending areas" that have been designated for protection. The local government can then sell the development rights to developers who in return are allowed to develop at a higher than normal density in designated growth areas.

Recommendation # 23

NFWF should be willing to continue to fund fee simple purchases of land for wildlife habitat.

Daniels and Daniels (2003) note that if the goal is to actively manage a property, it generally makes more sense to own the property outright rather than acquire a conservation easement to the property and have to work through the landowners for wildlife management. On the other hand, fee simple purchase is more expensive than the purchase of a conservation easement. Nonetheless, fee simple purchase is especially attractive for additions to existing wildlife refuges, state parks, national parks, or state or national forests.

6.8 Where Should the Foundation Go From Here?

We wish to offer some final suggestions about future priorities the Foundation Board may want to pursue or at least debate.

1. Farmers, ranchers, and foresters own most of the privately-held land in America. There are roughly 930 million acres of private farm and ranch land and 480 million acres of private forest lands. This amounts to 64 percent of all the land in the 50 United States. The future of much of the nation's wildlife is literally in the hands of these private landowners.

The Foundation has made efforts to fund projects that work with these three groups of landowners, and should continue to do so. At the same time, the Foundation should understand that these landowners often want to remain on their properties and want to continue to earn a living from the land. Protecting working lands in such a way that agricultural and forestry operations can continue poses both opportunities and challenges.

The main opportunity is that a conservation easement is a good tool to compensate a landowner for development restrictions placed on his or her property, while allowing the landowner to continue to farm, ranch, or harvest timber according to a management plan. Moreover, there are many farms, ranches, and forests that are under low to moderate development pressure and the easement costs are relatively modest, well under \$3,000 an acre.

The White House Conference on Cooperative Conservation scheduled for late August, 2005, is one such recognition of the need for conservation organizations and owners of working lands to work together for a variety of environmental benefits as well as the economic survival of the businesses on those lands.

2. Capacity building grants should be aimed at fewer but larger projects. Grants should target the creation of statewide or regional land trusts, especially through the consolidation of small land trusts. There are nearly 600 land trusts working to protect wildlife habitat. Many of these organizations have limited financial and personnel resources to protect significant acreages or to monitor and enforce easements over the long run.

The Foundation should target grants for stewardship and easement monitoring protocols, evaluations of easement programs, wildlife habitat restoration projects, and assessing wildlife outcomes post-easement. The Foundation could take a leadership role in funding these types of capacity building activities.

3. In the spirit of working with its partners, the Foundation should help to convene a symposium or workshop in part as a call to action on the need to evaluate investments in conservation easements, and in part to disseminate the findings of this report and the evaluation of the Foundation's investments with the Bureau of Land Management (BLM). The Foundation and its partners should discuss a wide range of issues related to conservation easements. These issues should include: a) strategic land protection; b) easement monitoring protocols; c) assessments of outcomes for wildlife; d) defending easements; e) how to maximize easement success and minimize risk; f) stewardship funds; and g) the role of capacity building in successful conservation easement programs.

The partners should include federal agencies, such as the Fish and Wildlife Service, Natural Resources Conservation Service, Bureau of Land Management, the U.S. Forest Service (in particular the Forest Legacy Program); national-based organizations such as The Nature Conservancy, Ducks Unlimited, Land Trust Alliance, and the Trust for Public Land; and a variety of land trusts—organizations that have received grant funds from the Foundation. These land trusts are important to invite not only for their perspectives but also as a follow-up to the surveys and on-site interviews conducted for this report. This is a way to improve relations between the grantees and the Foundation.

4. It is time for the Foundation to take a greater leadership role

in the land conservation community. This includes a greater effort to publicize the work of the Foundation. This effort will in turn attract more corporate sponsors to help fund the Foundation's work.

The Foundation should have a regular presence at the annual Land Trust Rally, which is attended by more than 1,000 land trusts each year. The Foundation should obtain the mailing list of members of the Land Trust Alliance and send them the Foundation's newsletters and annual report.

The Foundation should help to fund workshops on protecting wildlife habitat both nationally, as in item number 3 above, and regionally with the participation of the Foundation's regional directors.

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Appendix One: NFWF Grant Project Application and Evaluation Model

What Makes a Good Pre-Proposal?

A successful pre-proposal is brief, to-the-point, and descriptive. Ensure that the pre-proposal addresses:

- Conservation need and benefit of proposed action(s);
- Opportunities for substantive multi-sector involvement and coordination;
- Staff qualifications and organization's track record;
- Integration of program monitoring and evaluation; and
- Ability to use Foundation grant to leverage additional non-federal resources.

Full Proposal

(1) Evaluation's Logic Framework:

(a) Objectives: List up to seven of the project's principal objectives. State each objective in one sentence, not exceeding 25 words per sentence.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.

(b) Framework: Project Activities → Project Outputs → Post-Project Outcomes

Using the table below, outline the framework for the project's progression, from its *activities* during implementation to the results of each activity once the project ends. Also include any medium- to long-term *outcomes* that are expected to occur after completing the project. Limit description of each item in a table's cell to no more than 20 words. In filling out the table, a specific activity does not necessarily have to directly link to a project output and post-project outcome.

Definitions:

- (a) Activity:** A task that is necessary to achieve a result from the project's funding (e.g., recruiting volunteers, conducting controlled burns, planting native species, creating curriculum materials, working with landowners to identify areas for easements and acquisition).
- (b) Project Output:** What results after activities are completed and the project ends (e.g., change in wildlife habitat, dissemination of knowledge, change in understanding of an ecological topic, change in land ownership through acquisition of easements).

(c) *Post-Project Outcome*: A medium-to long-term result that occurs after the project ends. An outcome may impact the natural environment (e.g., change in survival rates of a particular species) and/or impact people (e.g., more awareness of natural resources and conservation).

Activities	Project Outputs	Post-Project Outcomes

Samples of logical frameworks for three hypothetical projects are provided in the attached Word document.

2. Indicators.

This section deals with proposed indicators. Indicators are defined as discrete, measurable elements for outputs and outcomes identified in the logic framework.

- a) Using the listed outputs and outcomes in the logic framework, describe their proposed indicators. To the best extent possible, justify the scientific credibility of each one.
- b) For each indicator, state whether there is a **baseline value** (value of the indicator prior to the initiation of the project). For those with a baseline value, please provide this value.
- c) For each indicator, hypothesize the **predicted value**.
- d) Summarize the method and/or data utilized to measure each indicator. If data are to be collected for a sample, please provide information about the sampling strategies. Also describe any pertinent details related to the methods used for measuring the indicators.
- e) If funding were made available for tracking of mid-to-long term outcomes after the project ends, briefly identify indicators and methods used for implementing the indicators.

3. Applicability

Applicants are to respond to the four questions below. The response to all four questions should not exceed 500 words.

- a. What methods, techniques and findings of this project can *best* be used in other types of natural resource conservation practices? Discuss the strength of these applications to different locales, future years, and organizations.
- b. Discuss any aspects of the project that might be *most* difficult for other people to use in their conservation efforts.
- c. Describe the strategies that would be used to distribute the key findings from this project, including the final evaluation report.
- d. What valuable lessons could be learned from this project if awarded and implemented that would be *most* useful to others involved in conservation?

	<p>strategy for communicating conservation options to landowners.</p> <p>Awareness and information sharing leads to better informed participants who are better able to serve their constituencies.</p>		<p>knowledge that adapts to changes in landuse and funding.</p>			
2. Development of a GIS-based plan that integrates existing Riparian Area Prioritization plans with results from 1 above.	<p>Delineate critical conservation areas.</p> <p>Create GIS-layers and develop model.</p> <p>Develop plan that integrates significant aquatic areas with areas with viable rural economies.</p> <p>Develop priority list of landowners to work with.</p>		<p>GIS model that allows for additions of new or better data.</p>		<p>Number of landowners identified and contacted.</p>	<p>TBD</p> <p>75</p>
3. Landowner outreach and enrollment	<p>Create property specific conservation plans and action steps to achieve.</p> <p>Establish partnerships with rural landowners.</p>		<p>Transfer of rights in the properties and/or enrollment in a conservation program.</p> <p>Maintain viable rural economies.</p> <p>Reduce threat of sprawl development and impervious surface.</p> <p>Diminish parcelization and fragmentation.</p>		<p>Number of site visits conducted</p>	<p>None</p> <p>45</p>
4. Develop and	<p>Conserve and improve wildlife</p>		<p>Improve water quality.</p>		<p>Number of property- specific</p>	<p>28 to date</p> <p>30</p>

<p>implement property specific conservation options plan, including easements and acquisitions.</p>	<p>habitat. Develop community of conservation owners/partners.</p>	<p>Maintain outdoor recreational opportunities. Enhance public well-being from retained rural land/open space and protected drinking water.</p>	<p>conservation plans written Monies leveraged to projects Acres secured under easement or enrolled in a conservation program</p>	<p>~ \$12 million in donated and purchased easements; ~ \$10 million secured for projects in progress 3,250 acres under easement; 3,500 acres of projects in progress</p>	<p>\$1 fun (fa spe \$6 tot 2,0 12</p>
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Coastal Louisiana Land Trust Creation (The Nature Conservancy)

Activities	Short-Term Outputs	Long-Term Outcomes	Indicator	Baseline Value	Short-Term Predicted Value
Create legal framework for new land trust.	Approved articles of incorporation; granting of 501(C) 3 status; draft bylaws for new land trust.	Long-term solution to issues faced by coastal wetland landowners.	Approval of request for 501(c)3 status by Internal Revenue Service. Drafting of land trust bylaws that adhere to current Land Trust Alliance standards and practices.	N/A. No similar entity currently exists in Louisiana	Completed and/or approved documents hand.
Clarify process for identifying ownership in coastal zone.	Approval by Department of Natural Resources of process to establish boundaries; complete initial transaction to set precedent for new process.	Increased support for surface protection and restoration from private landowners and mineral owners.	Formal approval of boundary determination process by Secretary of Department of Natural Resources. Completion of initial transaction.	N/A N/A	Completed and/or approved documents hand.
Obtain initial donation of a minimum of 1,000 acres of priority coastal wetland.	1,000 acres of donated land. List of potential conservation areas within restoration zones; ownership information on priority tracts; list of landowners contacted and general response to proposal of surface donation; fee title ownership of initial tract.	Template developed for future donations of coastal wetlands in the restoration zones.	Number of landowners contacted for donation of surface rights. Number of tracts and acres donated within priority conservation zones. Documentation of potential conservation areas and ownership information on priority tracts. Landowners contacted	N/A N/A N/A 0	Half of the landowners contacted (0.5) will agree to donation of surface rights during the first year or two of the project. During the years 2-5, the ratio of 0.2 is expected. 1,000 – 10,000 acres. N/A N/A
Launch new land trust.	Functional board of trustees and advisory	Reduced complexity in negotiating surface use agreements for	Quality of the Board of Trustees. (<i>indicators to be determined</i>)	N/A; trust does not exist	TBD

Activities	Short-Term Outputs	Long-Term Outcomes	Indicator	Baseline Value	Short-Term Predicted Value
	committee; job description for executive director.	<p>coastal restoration projects.</p> <p>Although TNC and other non-profits will provide technical assistance and staff support to the new land trust, within 3 years the trust will be fully operational and self-sufficient. It is anticipated that the board will hire the executive director within 6 months of trust establishment and needed staff will be hired by the executive director soon thereafter.</p>	<p>Quality of advisory committee (<i>indicators to be determined</i>).</p> <p>Reduction in complexity in negotiating agreements.</p> <p>Length of negotiation of public surface use agreements</p>	<p>N/A; trust does not exist</p> <p>Negotiation of surface rights by the state of Louisiana takes one or more years.</p> <p>N/A</p>	<p>TBD</p> <p>The newly created trust should be able to expedite the state approval of surface agreements to 9-12 months.</p> <p>N/A</p>

Conservation of Weeks Bay (AL)-II (Weeks Bay Reserve Foundation)

Activities	Short-Term Outputs	Long-Term Outcomes	Indicator	Baseline Value	Short-Term Predicted Value
Procure U.S. Army Corps of Engineers Permits Consult with conservation partners	Project is approved by appropriate agencies Plan is approved and ready to commence	Adhere to permit guidelines Project has been successful and will lead to other partnerships	Permit procured # Partners	Permit not yet procured 8 partners (with a total of 825 members from the non-profit sector; state and federal agencies).	Habitat restoration project begins. Increase from areas of natural resource management and fund raising.
Prepare site for debris pile removal Remove the invasive species, ti ti Conduct prescribed burn on bog Consult with master gardeners and foresters about replanting seedlings	Construct road and remove debris pile Ti ti is eradicated Site is prepped and burned Trees suitable for the native ecology of this bog will be planted	Invasive species are precluded from entering the site via debris pile The site is continually monitored to ensure species does not reappear. Trees are monitored for growth and mortality rate.	Removal of debris pile Density of Ti ti plant (#/Meter ²) Density of White Top pitcher plant (#/Meter ²) Survival rate of long-leaf pine, spruce pine, and cypress	Debris pile 90% Ti Ti coverage in the proposed restoration area The current density of the white top pitcher plant is 5 % coverage	Debris pile is removed The white top pitcher plant coverage is expected to increase in density of 10% to 50% 150 long leaf per acre will be planted 80% success rate of long leaf, spruce pine and cypress trees There will be a 60 % survival rate of spruce pine and 50 per acre will be planted. There will be a 40 % survival rate with the cypress and 50 per acre will be planted.
Monitor pitcher plant bog for sustainability of native plants	Data will be collected and analyzed on the native plants	Monitoring reports will be generated and subsequent monitoring will occur	Number of reports	N/A	2 --. One during the project and another at its completion.
Acquire additional property	Efforts are undertaken to get additional property donated to the Foundation in the vicinity of the Juniper tract.	An established relationship with the property donor will allow for additional donations of parcels. This success story will be utilized for future donations from landowners in Coastal Alabama.	Number of acres acquired Price/acre of acquired property	Zero acres \$2,000 – \$4,000 with a willing seller \$15,000 an acre with a realtor.	The adjoining property owner has intentions of donating ½ acre a year over the next 3 years. This acreage will adjoin the bog. There are other tracts the Foundation has identified that will also be sought after as a donation.

Activities	Short-Term Outputs	Long-Term Outcomes	Indicator	Baseline Value	Short-Term Predicted Value
Develop and conduct a fundraising plan for the Weeks Bay Reserve Foundation	Develop an annual art fund raiser	The annual art fund raiser becomes a popular event that funds operational expenses of the Weeks Bay Reserve Foundation	Number of members	500 dues-paying members	Reach the 1,000 membership level. \$60,000 will be raised in non-federal dollars
Develop a planned giving program	This program will allow implementation of long term strategic goals.	A vehicle will be available for corporations and individuals to make large donations and see tangible results	Dollar amount of funds raised	\$50,000 a year	\$40,000 will be raised in federal dollars

Appendix Two: NFWF Regional Conservation Plan – Excerpts from Central Region

Key Opportunities:

1. Tall and mixed grass prairie. The prairies are considered by some to be the rarest and most fragmented ecosystems and to a certain degree functionally extinct. Once the continent's largest ecosystems, less than 1% of the tall grass and 5% of mixed grass prairie remains in small, widely scattered plots - insufficient habitat for most prairie species which require vast areas (bison, elk, prairie chicken, discissel etc).

Conservation Threats:

- Lack of habitat--99% of tallgrass lost; 95% of mixed grass lost.
- Fragmented habitat--very few preserved areas of landscape scale.
- Drained wetlands--most prairie wetlands have been drained
- Nutrient and pesticide issues
- Encroachment on prairie remnants by urban land uses
- Precipitous decline in grassland birds
- Limited private market and resulting high cost for quality restoration
- Prairie restoration science is still emerging—no standards.
- Limited knowledge of forb production

Conservation Strategies:

- Protect and restore tallgrass prairie in tracts larger than 1,000 acres.
- Support efforts to enhance watershed function including wetland restoration, stream bank protection, and disabling of water management technology such as tiles and ditches.
- Support market based restoration approaches including enhanced prairie seed production
- Conserve and enhance declining species, especially grassland birds.
- Special consideration to protecting prairie oak savannah.
- Geographic interests include: the Driftless area, Oak Openings of Ohio, Sand Hills, Flint Hills, Prairie Pothole region and the Missouri Couteau.

Special Circumstances:

- High priority for FWS, FS and NRCS
- Potential corporate ties to agriculture industry
- Increasing public interest in prairie
- Potential for carbon sequestration.
- Very few foundations are active in prairie work
- Potential to work with Native American plains tribes

2. Great Lakes Basin. The Great Lakes system is a continentally important ecosystem. Together the lakes hold 10 percent of all the freshwater in the world, they have been among the most productive freshwater fisheries in the world and they provide water, scenery and recreation to

almost 10 percent of the U.S. population. But, this system has also been heavily influenced by human inhabitation. Heavily industrialized, farmed and used for transportation, the watershed has been heavily impacted by the pollution from a variety of sources.

NFWF's focus in the Great Lakes is not on the lakes themselves but the important tributary and wetlands habitat that surrounds them. Specifically, we target Great Lakes tributaries by seeking to improve agricultural and forestry practices. We also seek out specific habitat restoration opportunities on tributaries including dam removal projects. We also focus on protecting and restoring coastal wetlands.

Conservation Threats:

- Heavy use of Great Lake dunes and islands
- Invasive aquatic species
- Public usage and recreational demand
- Drained wetlands including coastal marshes
- Excessive nutrients, herbicides and pesticides
- Declines in native fishes

Conservation Strategies:

- Support implementation of local watershed scale plans
- Maintain and enhance aquatic communities
- Restore self-sustaining populations of native fishes including sturgeon, lake trout and coaster brook trout.
- Promote conservation education in urban areas, seek to connect people to Great Lakes watershed
- Work with tribes around Great Lakes
- Promote sustainable forestry

Special Circumstances:

- EPA Great Lakes National Program support
- Growing Interest by national and regional foundations.
- Potential to work with tribes around Great Lakes
- Numerous potential corporate partners in the region.

3. Work with the tribes to help restore Native Americans lands. There are dozens of reservations in Central and three of the nation's ten largest tribes have their headquarters in the region. As recent U.S. Supreme Court decisions have affirmed the rights of many tribes to hunt and fish well beyond their reservation boundaries the tribes have taken on new wildlife management responsibilities. We see an opportunity to work with the tribes to help work on conservation matters on tribal lands and to help develop and deliver conservation education programs.

Threats:

- Conflicts over resources with non-natives

- Limited environmental education for tribal leadership, membership and youth
- Degraded landscapes.
- Limited funding capacity for natural resource programs.

Conservation Strategies:

- Create awareness of NFWF and its programs
- Build capacity to obtain support for conservation projects
- Support conservation education for tribes and non-native resource users

Special Circumstances:

- This area is of interest to almost every federal partner and many large foundations we have talked with.

4. Supporting wildlife habitat in agricultural settings. Agriculture has been the dominant force in the landscape of the Midwest for 150 years. Until the past fifty years many small diverse farms supported an abundance of wildlife species in a patchwork of cropland and edge habitats. The intensification of agriculture since the mid-1970's, however, has had a dramatically negative effect on wildlife.

Conservation Threats:

- Reduced habitat, especially for grassland birds.
- Poor water quality and hypoxia
- Expansion of row crop agriculture onto wetlands and previously uncultivated areas
- Dramatic intensification of agriculture

Conservation Strategies:

- Increase conservation knowledge of farmers and private landowners
- Seek to mimic natural systems
- Encourage long-term transitions to production practices that enhance the environment
- Encourage conservation friendly agricultural practices such as buffer strips and no-till plowing.
- Foster market development of alternative, especially perennial, crops

Special Circumstances:

- Focus of NRCS
- Strong philanthropic interest in private lands
- Potential to work with agricultural industry
- Few foundations are active in this area

Appendix Three: Model Conservation Easement

The following model conservation easement was drafted by Professor Jack Wright of New Mexico State University and Larry Kueter a Colorado attorney. Although the model easement may be more appropriate for conservation easements in western states, the model contains language that could be used on any conservation easement project.

CONSERVATION EASEMENT DEED

The crafting of a deed of conservation easement can be done competently in a variety of ways. The following sequence corresponds to the “Model” Deed of Conservation Easement that was developed as a team effort of the New Mexico Land Conservancy. The language is found in that sample deed. The structure of a deed should include the following. The specific language can vary but these points must be covered.

Title: Deed of Conservation Easement, property name

Recitals:

- A. **Property** – acres, owner, reference to Exhibit 1 (legal description)
- B. **Water Rights**
- C. **Mineral Rights**
- D. **Scenic and Open Space Values**
- E. **Ecological Values**
- F. **Agricultural Values**
- G. **Historic Values (if any)**
- H. **Recreation Values** (if this qualification category used)
- I. **Clearly Delineated Government Policies** – plans, policies, conservation strategies, laws that help qualify the easement as a charitable deduction
- J. **Public Benefit** – a summary of what is protected and how the public benefits
- K. **Baseline Documentation** – reference to the baseline report
- L. **Qualifications** – cite 501(c)(3) status of trust, legal ability to receive easements
- M. **Purpose and Intent** – landowner intends to make charitable gift of the property interest described in the deed.

RECITALS AND ANY “WHEREAS” CLAUSES” ARE KEY PROVISIONS IN COURT CASES. CLEAR LANGUAGE OF LANDOWNER INTENT HERE TRUMPS ALL THE FINE POINTS ON RESTRICTIONS IN THE DEED.

Agreement:

Landowner agrees to grant and receiver accept the easement

1. **General Rights Retained by Landowner** – what they hold on to
2. **Uses of the Property** – describes the ranch, farm uses, etc.

A. **Construction**

1. Construction Inside Building Envelopes
 - a. Ranch or Farm Headquarters Building Envelope
 - b. Residential Building Envelope (if any)
 2. Construction Outside Building Envelopes
 - a. Agricultural Structures and Improvements
 3. Temporary Structures – when, how long, where, what type?
- B. **Subdivision** – prohibited or restricted in number and location of any “Building Envelopes.” The language must be absolutely unambiguous.
- C. **Water Rights** – landowner shall take all steps to keep water rights with land, water cannot be diverted off the property except for ecological purposes agreed to in writing by the Grantee.
- D. **Agriculture** – all practices compatible with conservation values O.K.
- E. **Timber** - No clearcutting typically allowed. Methods, location, board feet Per year, stipulated for disease, insect infestation, distance from any T&E species, raptor nest, sensitive site is stipulated.
- F. **Utilities** – prohibition of new above ground lines except for those needed to serve the allowed building envelopes, notification to trust need in all cases
- G. **Roads** - maintenance, repair and reconstruction of existing roads O.K., Roads to continue agriculture or access allowed improvements O.K. Gravel surface only, etc.
- H. **Off-Road vehicle use** – use of such vehicles for non-agricultural purposes is typically prohibited.
- I. **Impervious Surfaces** – paving, covering, treating soil prohibited except in Building envelopes or as otherwise allowed.
- J. **Mining** – Soil, sand, gravel, and rock may be extracted from stipulated areas for on-property purposes is allowed, providing that no more than x acres is disturbed. Subsurface mining, etc. is prohibited. “Remoteness Test” must be passed, report from Geologist. Some Western easements allow oil and gas wells and stipulate where, density, restoration, linked to state laws on siting and restoration.
- K. **Refuse** – dumping of non-compostible refuse prohibited except for a typically allowed dump site for old barbed wire, etc., Site specified.
- L. **Hazardous Materials** – landowner may use agri-chemicals in line with applicable Federal, State, or local laws. Aerial application is often prohibited.

- M. **Commercial Activity** – usually prohibited except for agriculture related Enterprises such as road side stands, etc.
 - (a) Home Occupations – usually allowed, traffic issues dealt with
 - (b) Lodges, Bed and Breakfasts – case by case basis
 - (c) Commercial Recreation – more than *de minimus* (non-developed) recreational use is usually prohibited.

- N. **Passive Recreation** – allowed, limited to hiking, horseback riding, etc.

- O. **Public Access** – controlled by landowner, nothing in Deed conveys access
- P. **Signs** – size, number, location stipulated

- 3. **Perpetual Duration** – perpetual easement

- 4. **Responsibilities of Landowner**
 - (a) Taxes
 - (b) Upkeep and Maintenance
 - (c) Liability and Indemnification
 - (d) Insurance

- 5. **Landowner Warranties**
 - (a) Title Warranty – Landowner warrants that they have title to the land, Lien from the bank has been subordinated (cite Subordination Agreement, Exhibit ____)
 - (b) Environmental Warranty – landowner has no knowledge of toxics on the property, no hazardous waste dumps

- 6. **Inspection**
 - (a) Annual – monitoring once a year by Grantee, notice of visit
 - (b) Emergency – if emergency, Grantee can enter

- 7. **Enforcement** - details of legal enforcement process

- 8. **Transfer of Easement** – CE goes to another group (named in some deeds)
 - (a) Involuntary – if land trust ceases to exist, or fails to monitor and enforce the easement
 - (b) Voluntary – if land trust wants to transfer easement, notify Landowner, their preferences, process to transfer

- 9. **Amendment** – process for amending the Deed of Easement

10. Termination

- (a) Condemnation – if land “taken” for public use, stipulates process, share of proceeds goes to Grantee based on their ratio of the easement value compared to the unrestricted fair market value of the property
- (b) Changed Conditions – through no fault of the landowner, The conservation values can no longer be protected.
- (c) Other Termination Provisions
- (d) Economic Value – landowner agrees that their land may significantly appreciate in the future – this is not grounds for terminating the easement. Unprofitability of agriculture in the future is not grounds for termination.

- 11. **Approvals** – procedure for landowner getting consent of Grantee to do something where permission is needed.
- 12. **Notices** – procedure for notices, permissions, addresses of parties
- 13. **Transfer of the Property** – when property is transferred or sold, Landowner shall notify the Grantee in writing
- 14. **Subsequent Mortgages** – Landowner can borrow on the land, But any such mortgage is subordinate to the Easement.
- 15. **Waiver** – No term of easement can be waived except by signed agreement No weakening of essential easement restrictions allowed.
- 16. **Incorporation** – recitals, exhibits, etc. are hereby incorporated into the Deed
- 17. **Interpretation** – Deed interpreted as written, legal interpretation
- 18. **No Third Party Beneficiaries** – no third party (such as an environmental group, agricultural organization, city, individual, etc) has legal standing, rights, or responsibilities in the administration of the easement
- 19. **Counterparts** – legal explanation about how documents signed
- 20. **Severability** – if one provision of Deed is found illegal, invalid, etc, the Deed as a whole is still in force.
- 21. **Integration** – the Buck Stops Here, the Deed is the sole basis for interpretation
- 22. **Recording** – Grantee must record Deed in a timely manner, spelled out

23. **Acceptance** – date of Resolution of receiver accepting the Easement.

Signature Pages

Metes and bounds description of property under easement

Subordination Agreements (if necessary)

Appendix Four: Survey of NFWF Easement Grant Recipients

The surveys of NFWF grant recipients were divided into two types: a) those who received grants for the acquisition of conservation easements and/or fee simple land purchases; and b) those who received grants for capacity-building projects. Then on-site interviews were conducted with some of the grantees. NFWF staff were surveyed about the grant projects, and finally, the respective member of the consulting team made an overall evaluation of the project.

National Fish and Wildlife Foundation Survey of Grant Recipients

This survey is being conducted by PennPraxis under contract with the National Fish and Wildlife Foundation. The purpose of the survey is to help the Foundation evaluate its investments in the preservation of wildlife habitats. The Foundation is looking to improve its grant application process and to invest its grant funds as efficiently as possible for wildlife habitat benefits.

Your organization is one of more than 100 being surveyed. Your answers to the following questions will be kept confidential and will be provided to the Foundation only in a tabulated form or anonymously. All information you provide will be kept confidential; no one from NFWF will see your responses. The survey contains two separate sections and will take approximately 20 minutes to complete.

[If this is a telephone survey, move this to end of questionnaire; use as part of closing spiel.] Thank you again for your participation in this study. If you have any questions about the survey, please contact me, -----, at ____, or the lead consultant, Professor Tom Daniels, at (215) 573-8965 or thomasld@design.upenn.edu. You also can contact Matt Birnbaum at NFWF (202) 715-0700 or matthew.birnbaum@nfwf.org to learn more about NFWF's interest in this study.

I greatly appreciate your assistance.

Sincerely,

Name of Consultant

A. PROFILE OF ORGANIZATION THAT RECEIVED A GRANT FROM NFWF

This section of the survey is designed to identify the features of organizations that are using conservation easements and fee simple land acquisitions to preserve wildlife habitats. Please select the answer which best matches the numerical range provided.

1) How old is your land trust or public agency:

- 3 years or less ____
- 4-10 years ____
- 11-20 years ____
- More than 20 years ____

2) What is the total budget of your organization for 2005?

- \$10,000 or less ____
- \$10,001-\$50,000 ____
- \$50,001-\$100,000 ____
- \$100,001-\$250,000 ____
- More than \$250,000 ____

3) What is the total endowment of your organization for operations, monitoring, and enforcement?

- Under \$50,000 ____
- \$50,000-\$100,000 ____
- \$100,000-\$500,000 ____
- \$500,000-\$1 million ____
- Over \$1 million ____

4) How many paid staff are there in your organization?

- All volunteer staff ____
- 1 paid person ____
- 2-4 paid people ____
- 5-8 paid people ____
- More than 8 paid people ____

5) How many paid staff have been employed for

- Less than 2 years _____
- Less than 5 years _____
- 5 of more years _____

6) How many Board members are there in your organization?

- 8 or less ____
- 9-13 ____
- More than 13 ____

7) What is the total number of conservation easements completed by your land trust or public agency office?

- None ____
- 1-5 ____
- 6-10 ____
- 10-20 ____
- More than 20 ____

8) In what year was your first conservation easement completed? _____

9) Has the number of conservation easements acquired by your organization increased or decreased within the last 3 years? _____

10) What is the total number of acres conserved by conservation easements?

- 100 acres or less ____
- 101-500 acres ____
- 501-1000 acres ____
- 1001-5,000 acres ____
- More than 5,000 acres ____

11) What is the total number of fee acquisitions completed by your land trust or public agency office?

- None ____
- 1-10 ____
- More than 10 ____

12) What is the total number of acres conserved by fee simple acquisitions?

- 100 acres or less ____
- 101-500 acres ____
- 501-1000 acres ____
- 1001-5,000 acres ____
- More than 5,000 acres ____

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B. NFWF-Funded Conservation Easement and Land Acquisition Projects

This second section focuses on conservation easement projects and fee simple acquisition projects that were funded in part through a grant from the National Fish and Wildlife Foundation.

Name of Project: _____

13) Were fee-simple land acquisitions part of the project? Yes ___ No ___
If yes, explain and answer question 14 below. If no, go to question 15.

14) Why was land purchased instead of placed under conservation easement? Was it due to:

- Landowner unwilling to donate or sell easement ____
- Public access/recreation was a major part of the project ____
- Intensive land management needed ____
- Incompatibility of existing land uses with conservation values ____
- Other (specify) _____

15) What was the degree of immediate threat to the targeted property/landscape?

Severe ____

Moderate ____

Slight ____

Explain citing facts/plans/reports _____

16) Was the completed conservation easement(s) done as part of a long-term organizational or regional strategy or was it based on unique opportunities?

Opportunistic ____

Strategic ____

If strategic, name of the strategy and year it began: _____

If based on a unique opportunity, briefly elaborate: _____

17) Was the land placed under a conservation easement within a protected area or corridor, or was it on an isolated parcel?

Was it part of a corridor ____

Was it an isolated parcel ____

What is the name of ecological/scenic corridor _____

What is the acreage, configuration, and extent of corridor: _____

What is the distance of the parcel from other conserved lands (easements, parks, monuments, etc.):

Contiguous ____

Less than one-half mile ____

One-half to one mile ____

One to five miles ____

More than five miles ____

What types of conserved land are near the parcel _____

18) Which of the following categories of “Significant Conservation Values” are present on the property and protected by the conservation easement?

Ecological ____

Open Space ____

Historic ____

Recreation ____

Brief summary of conservation values _____

19) Rank the ecological significance of the property at the highest level that applies:

Internationally significant ____

Nationally significant ____
Regionally significant ____
Statewide significance ____
Local significance ____

20) What plans have designated the property as ecologically significant (specific reports, plans, and ranking): _____

21) Were Threatened or Endangered Species or other special status species present on project land? Yes ____ No ____

If yes, which species: _____

Status, ranking, or other descriptor _____

22) What is the Habitat Suitability Ranking of the property?

High ____

Moderate ____

Low ____

Don't Know ____

Explain _____

23) What have been the observed and/or measured ecological outcomes of the conservation easement or fee simple acquisition, and how were they observed or measured?

Brief Narrative _____

24) How often has the easement been monitored?

Never ____

Once ____

Annually ____

Other (explain) _____

25) How was the conservation easement monitored (check all that apply)?

Brief site visit ____

4-8 hour inspection ____

Landowner interview ____

Aerial monitoring ____

Other (explain) _____

26) Have any violations of the easement occurred? Yes ____ No ____

27) If yes, what kind of violation(s)?

Subdivision of the land ____

Explain _____

Structure built ____

Explain _____

Road constructed ____
Explain _____

Mining ____
Explain _____

Water rights sold or transferred ____
Explain _____

Timber harvest ____
Explain _____

Fence built ____
Explain _____

Commercial development/activity ____
Explain _____

Recreational development/use ____
Explain _____

Garbage or other dumping ____
Explain _____

Signs ____
Explain _____

Other ____
Explain _____

28 How was the violation corrected?

Not corrected due to inaction ____
Explain _____

Violation corrected voluntarily by landowner ____
Explain _____

Violation corrected by threat of legal action ____
Explain _____

Violation corrected based on court judgment ____
Explain _____

Court case pending or in progress ____
Explain _____

Appendix Five: Capacity Building Grants Survey

A. PROFILE OF ORGANIZATION THAT RECEIVED A CAPACITY-BUILDING GRANT FROM NFWF

This section of the survey is designed to identify the features of organizations that are using conservation easements and fee simple land acquisitions to preserve wildlife habitats. Please select the answer which best matches the numerical range provided.

1) How old is your land trust or public agency:

- 3 years or less ____
- 4-10 years ____
- 11-20 years ____
- More than 20 years ____

2) What is the total budget of your organization for 2005?

- \$10,000 or less ____
- \$10,001-\$50,000 ____
- \$50,001-\$100,000 ____
- \$100,001-\$250,000 ____
- More than \$250,000 ____

3) What is the total endowment of your organization for operations, monitoring, and enforcement?

- Under \$50,000 ____
- \$50,000-\$100,000 ____
- \$100,000-\$500,000 ____
- \$500,000-\$1 million ____
- Over \$1 million ____

4) How many paid staff are there in your organization?

- All volunteer staff ____
- 1 paid person ____
- 2-4 paid people ____
- 5-8 paid people ____
- More than 8 paid people ____

5) How many paid staff have been employed for

- Less than 2 years _____
- Less than 5 years _____
- 5 of more years _____

6) How many Board members are there in your organization?

- 8 or less ____

9-13 ____
More than 13 ____

7) What is the total number of conservation easements completed by your land trust or public agency office?

None ____
1-5 ____
6-10 ____
10-20 ____
More than 20 ____

8) In what year was your first conservation easement completed? _____

9) Has the number of conservation easements acquired by your organization increased or decreased within the last 3 years? _____

10) What is the total number of acres conserved by conservation easements?

100 acres or less ____
101-500 acres ____
501-1000 acres ____
1001-5,000 acres ____
More than 5,000 acres ____

11) What is the total number of fee acquisitions completed by your land trust or public agency office?

None ____
1-10 ____
More than 10 ____

12) What is the total number of acres conserved by fee simple acquisitions?

100 acres or less ____
101-500 acres ____
501-1000 acres ____
1001-5,000 acres ____
More than 5,000 acres ____

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B. NFWF CAPACITY – BUILDING GRANTS

This second section focuses on capacity-building projects that were funded in part through a grant from the National Fish and Wildlife Foundation. The purpose of these capacity-building

projects was to increase the ability of organizations to promote the use of conservation easements to preserve wildlife habitats.

Name of Project: _____

13) What was the primary focus of the project?

Easement Facilitation (e.g. Landowner Education) _____

Prioritization of lands for easements _____

Easement Planning _____

Staff Development _____

What is the name of any report or plan created? _____

14) If easement facilitation, how was this done? (Check all that apply)

Workshops _____

Websites _____

Continuing Legal Education seminars (CLEs) _____

Brochures _____

Books/manuals _____

One-on-one landowner contact _____

Cooperative project with agricultural or other organization _____

Other _____

Summary of actions: _____

15) If prioritization and planning, how were lands assessed and priorities set for protection? (Check all that apply)

Geographic Information System analysis _____

Field work _____

Aerial photographs _____

Quantitative ranking system _____

Reliance on previous studies _____

Landowner/citizen involvement _____

Other _____

Summary of process _____

16) How many conservation easements have been completed as a result of the capacity-building project? _____

None _____

One _____

2-5 _____

More than 5 _____

17) What have been the observed and/or measured ecological outcomes of these conservation easements, and how were they observed or measured?

Brief Narrative _____

18) If no easements were completed, what was the reason?

- Parcels not specified in application ____
- Lack of expertise in agency or land trust ____
- Landowners not supportive ____
- Potential easement(s) fell through ____
- Lack of sufficient funding ____
- Other _____
- Explain: _____

19) What were the backgrounds/skills of land trust or public agency person(s) who managed the capacity building project? (Check all that apply)

- Biology ____
- Geographic Information Systems ____
- Remote sensing ____
- Law ____
- Land Use Planning ____
- Other (specify) _____

20) What specific skills were missing or insufficient to facilitate the completion of conservation easements?

- Legal (conservation easement deed preparation) ____
- Landowner negotiations ____
- Tax planning ____
- Baseline documentation ____
- Geographic Information Systems ____
- Other _____
- Explain: _____

Appendix Six: On-Site Interview Agency or Land Trust Assessment of NFWF-Funded Project

1) Position/involvement of respondent in the NFWF-funded project_____

2) No staff members remain from the time of the project_____

3) **The project furthered the Mission of the NFWF?**

Strongly Agree ____

Agree ____

Disagree ____

Strongly Disagree ____

4) **Rank the overall outcome of the project.**

Excellent ____

Good ____

Fair ____

Poor ____

5) **What were the strongest components of the project? (check all that apply, rank one as most important):**

Preplanning and targeting ____

Competent staff ____

Sufficient funding ____

Landowner(s) willing to participate ____

Leadership of one or more individuals ____

Other (specify and briefly explain)_____

6) **What were the main problems experienced during the project? (Check all that apply, rank one as most important):**

Lack of preplanning/targeting____

Lack of competent staff ____

Insufficient funding ____

Landowner(s) unwilling to participate ____

Failure of leadership in one or more individuals ____

Other (specify and briefly explain)_____

7) **The NFWF granting process was clear, fair, and efficient.**

Strong Agree ____

Agree ____

Disagree ____

Strong Disagree ____

8) **Brief explanation of respondent's views on the strengths and weakness of Foundation granting process_____**

9) What specifically needs to be improved in the Foundation granting process?

10) Additional funding leveraged to the effort since the NFWF project? _____

None ____

Under \$100,000 ____

Over \$100,000 ____

11) Narrative summarizing staff member's assessment _____

Appendix Seven: NFWF Staff Outcomes Assessment

NFWF STAFF MEMBER ASSESSMENT

- 1) **Position/involvement of NFWF respondent in the project** _____
- 2) **No NFWF staff members remain from the time of the project** ____
- 3) **The project furthered the Mission of the NFWF?**
Strongly Agree ____
Agree ____
Disagree ____
Strongly Disagree ____
- 4) **Rank the overall outcome of the project.**
Excellent ____
Good ____
Fair ____
Poor ____
- 5) **What were the strongest components of the project? (check all that apply, rank one as most important):**
Preplanning and targeting ____
Competent staff ____
Sufficient funding ____
Landowner(s) willing to participate ____
Leadership of one or more individuals ____
Other (specify and briefly explain) _____
- 6) **What were the main problems experienced during the project? (Check all that apply, rank one as most important):**
Lack of preplanning and targeting ____
Lack of competent staff ____
Insufficient funding ____
Landowner(s) unwilling to participate ____
Failure of leadership in one or more individuals ____
Other (specify and briefly explain) _____
- 7) **The NFWF granting process was clear, fair, and efficient.**
Strong Agree ____
Agree ____
Disagree ____
Strong Disagree ____
- 8) **Brief explanation of respondent's views on the strengths and weakness of Foundation granting process** _____

9) What specifically needs to be improved in the Foundation granting process?

10) Additional funding leveraged to the effort since the NFWF project _____

None ____

Under \$100,000 ____

Over \$100,000 ____

11) Narrative summarizing Foundation staff member's assessment

Appendix Nine: Consulting Team's Assessment of Project

1) Consultant's name and contact information:

2) The project furthered the Mission of the NFWF?

Strongly Agree ____

Agree ____

Disagree ____

Strongly Disagree ____

3) Rank the overall outcome of the project.

Excellent ____

Good ____

Fair ____

Poor ____

4) What were the strongest components of the project? (Check all that apply, rank one as most important):

Preplanning and targeting ____

Competent staff ____

Sufficient funding ____

Landowner(s) willing to participate ____

Leadership of one or more individuals ____

Other (specify and briefly explain) _____

5) What were the main problems experienced during the project? (Check all that apply, rank one as most important):

Lack of preplanning/targeting ____

Lack of competent staff ____

Insufficient funding ____

Landowner(s) unwilling to participate ____

Failure of leadership in one or more individuals ____

Other (specify and briefly explain) _____

6) The NFWF granting process was clear, fair, and efficient.

Strong Agree ____

Agree ____

Disagree ____

Strong Disagree ____

7) Brief explanation of consultant's views on the strengths and weakness of Foundation granting process _____

8) What specifically needs to be improved in the Foundation granting process?

9) Additional funding leveraged to the effort since the NFWF project? _____

None ____

Under \$100,000 ____

Over \$100,000 ____

10) Narrative of consultant's assessment_____

11) Main findings (such as):

- **Targeting of property proved essential for success**
- **Better prioritization needed**
- **Easement documents good overall, baseline fair.**
- **Other points.....**