Conservation Profiles: Landowners Help Imperiled Wildlife
In the three decades since the Endangered Species Act became law, we’ve become more aware of the crucial role landowners play as stewards of our country’s natural resources. According to Precious Heritage, a report by The Nature Conservancy and the Association for Biodiversity Information (now NatureServe), two-thirds of the species federally listed as endangered or threatened have habitat on private land. Most landowners are good stewards of the land. They’re not just reaping the benefits of the land; they also care about the land itself.

The purpose of this brochure is to introduce some of the landowners who are using two innovative conservation tools: Safe Harbor Agreements and Candidate Conservation Agreements with Assurances. Although these tools only came into use within the last decade, and many landowners are not yet familiar with them, they already have demonstrated benefits for both landowners and imperiled species.

A brief explanation of how these conservation tools work and how they can benefit landowners follows, but more can be learned about the agreements from the participating landowners themselves, a few of whom are profiled in this document. These pages introduce only a tiny segment of the diverse group of landowners currently participating in these programs. They range from residential landowners who own only an acre to large corporations with thousands of acres. They include private forest owners, ranchers, and golf course operators. What they have in common is a willingness to lend a hand to imperiled wildlife while continuing to manage their land.

Texas rancher Bob Long (at right) lent a helping hand to the endangered Houston toad under a Safe Harbor Agreement. Since successfully restoring ponds on his property, he’s heard the male toads calling to the females.

This brochure was produced using environmentally-friendly vegetable dyes, and was printed on bio-degradable, recycled, and recyclable paper.
What is a Safe Harbor Agreement?

The basic idea behind Safe Harbor Agreements is to help private and other non-federal landowners conserve threatened and endangered species on a voluntary basis in exchange for legal assurances from the Fish and Wildlife Service that no new Endangered Species Act-related restrictions will be placed on the use of their land as a result of their voluntary beneficial measures.

An increasing awareness of three basic facts led to the creation of the Safe Harbor approach:

- Private landowners are crucial for the recovery of endangered species that occur mostly or even solely on privately owned land.
- Most landowners are good stewards of their land, and they don't want their species conservation efforts to result in more legal restrictions on how they can use their land.
- The ESA does much to prevent harm to endangered species but until recent years it offered few incentives for landowners who want to help them. In fact, landowners who put out the welcome mat for listed species are sometimes treated as if they have an illegal access to regulated species.

Depending on the species involved, the baseline may or may not be present when the agreement is signed.

The terms of the Safe Harbor Agreement, what management activities are required, and how long it remains in effect vary according to the species the involved landowners are protecting.

The non-profit organization Environmental Defense and the Service together developed the Safe Harbor concept in the 1990s. The first agreement was signed in 1995 when landowners in the North Carolina Sandhills area agreed to manage longleaf pine forest lands to benefit the endangered red-cockaded woodpecker. The Service issued an official Safe Harbor policy in 1999.

By March 2005, more than 325 landowners had enrolled over 36 million acres in 31 Safe Harbor Agreements. Another 60 agreements are under development. Over half of the Safe Harbor Agreements have several participating landowners, with a state agency, conservation group, or state agency, a tribal government, or a non-governmental organization.

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A Safe Harbor Agreement alleviates the perceived fear of increased restrictions by freezing the landowner's ESA responsibility to the existing conditions when the agreement is signed. Depending on the species involved, the baseline may or may not be present when the agreement is signed. Landowners who sign the agreement have the opportunity to protect species that are not currently listed as endangered or threatened under the ESA, and the Service together develops the Safe Harbor Agreement. The non-profit organization Environmental Defense and the Service developed the Safe Harbor concept in the 1990s. The first agreement was signed in 1995 when landowners in the North Carolina Sandhills area agreed to manage longleaf pine forest lands to benefit the endangered red-cockaded woodpecker. The Service issued an official Safe Harbor policy in 1999.

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Like Safe Harbor Agreements, Candidate Conservation Agreements with Assurances are designed to provide incentives to landowners willing to make a voluntary commitment to conserve species. An imperiled species that is covered by the Safe Harbor program, a CCAA participant can be any non-federal landowner, such as a private landowner, a local or state agency, a tribal government, or a non-governmental organization.

Candidate Conservation Agreements with Assurances target species that are candidates for listing or are likely to be candidates for listing in the near future. The ultimate goal is to conserve these species so they no longer need protection under the ESA. The candidate species are defined by the Service as species for which there is enough information to support a listing proposal, but which have not yet been proposed due to higher priority listing activities. Species likely to become candidate or proposed species in the near future also are eligible to be addressed in a CCAA.

Under a CCAA, property owners voluntarily agree to take management actions that address specific threats to a species on their land. The Service enters into an agreement with a landowner that the benefits of these management actions, when combined with benefits in other areas, will result in a net conservation benefit for the species. The added benefit is the regulatory assurances it provides to non-federal landowners.

As of March 2005, 10 CCAs had been approved, covering 24 species, and others are being developed. Examples of species covered by these agreements include the southern Idaho ground squirrel, Washington ground squirrel, lesser prairie chicken, Oregon spotted frog, the Colorado River cutthroat trout, and the greater and lesser Adams Cave beetles.

The following websites offer more information about Safe Harbors and CCAs:


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Photograph courtesy of Jimmy Evans

The Saga of the Robust Redhorse

"You don't want to go there," muses Mike Nichols, when asked how it all started. Nichols, the Georgia Power Company's Environmental Laboratory Manager, faced a serious conundrum about 10 years ago: how could his employer get along with a recently discovered "mystery fish"? In 1991, state biologists discovered an unusual fish in central Georgia's Oconee River. Its characteristics included reddish markings, a rotund body, and distinctive molar-like teeth. Follow-up research revealed that this rare species, now called the robust redhorse (Moxostoma robustum), existed in two other rivers in Georgia—rivers also used by a number of hydroelectric dams and other structures.

To discuss the fish's uncertain future, a group of interests formed the Robust Redhorse Conservation Committee. The redhorse redbone gained listed endangered species status. The U.S. Fish and Wildlife Service then identified it as a candidate species, indicating a possible future listing under the federal Endangered Species Act.

Although water quality has improved in recent years, questions about the fish's long-term survival remain. Hydroelectric dams need specific water flows and reservoir capacity to ensure species survival. Structures and water withdrawals may limit access to spawning sites or reduce available habitat. Could catastrophic changes cause extinction? What water flow rates must be ensured for survival? These were important questions to consider as Committee goals included establishing six populations across the historic range. Evans points out that introducing a new species has unique considerations.

"Fish have hundreds of miles of access and many potential stakeholders," states Jimmy Evans as he lists Georgia Power and DNR work well together on a variety of projects, "I think it really is a major benefit to the state. Georgia Power and DNR work together on a variety of projects," states Jimmy Evans as he lists.

To address landowner concerns, a new policy under consideration by the Service was introduced. Taking a positive approach to a possible dilemma, Georgia Power signed a Candidate Conservation Agreement with Assurances in 2002 with the U.S. Fish and Wildlife Service and the Service. This agreement, the nation's first for an aquatic species, serves as a model for other power companies.

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The robust redhorse was first discovered over a century ago. In 1869, famed naturalist Edward Cope observed a rotund, or robust, fish swimming in North Carolina's Yadkin River. Inexplicably, notes and specimens, as well as knowledge of the fish's existence, disappeared for over a century.

Considering the effects of historical farming practices and overharvesting, the Service announced in 1996 the robust redhorse is surprising. Beginning in the late 19th century, deforestation and decades of subsequent erosion silted over gravel beds essential for robust redhorse reproduction.

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A sampling team headed by Jimmy Evans, a fisheries biologist for the Georgia DNR, first collected the robust redhorse more than a decade ago. "It was bizarre. How could a fish nearly 30 inches in length and over 15 pounds exist undiscovered in some of the most heavily sampled rivers in the United States?"

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Approximately half of all private timberland in Humboldt County, California, is managed under uneven-aged silviculture strategies, forestry practices that promote timber stands with trees of varying ages and habitat suitable for the federally threatened northern spotted owl (Strix occidentalis caurina).

Tim Gill, president of Forster-Gill, Inc., describes the significance of the Safe Harbor program for the protection of northern spotted owl habitat. “The government, through Safe Harbor, seems to say, ‘Thanks for letting the critters use the habitat that you as a landowner have and will allow to continue to grow, or that you assisted Mother Nature to create. Since you as a landowner have allowed this benefit for the critters to occur on your property, then at the end of the Safe Harbor Agreement you will not be penalized.’ You can reap the beneficial uses whether it is converting cellulose material to cash or leaving it for future generations.”

Since the Service encourages uneven-aged management on privately owned timberland for spotted owl habitat, the Service was interested in pursuing a Safe Harbor Agreement. Through the agreement, Forster-Gill will enhance and maintain approximately 216 acres of forested habitat. At the end of the 80 year Safe Harbor Agreement, when the terms have been met, Forster-Gill has assurances that the property can be returned to baseline conditions, including authorization for the incidental “take” of spotted owls.

As anticipated by Tim Gill, a spotted owl pair moved onto Forster-Gill’s Blue Lake property after his Safe Harbor Agreement took effect. Even with owls inhabiting its property, Forster-Gill’s harvest operations are proceeding according to plan. The company’s silviculture continues to maintain and create habitat characteristics suitable for the owl by converting a young, relatively homogenous, even-aged timber stand into an uneven-aged stand with large timber commonly associated with owl habitat.

Tim Gill’s forestry consulting firm contacted the local U.S. Fish and Wildlife Service office to discuss the possibility of a Safe Harbor Agreement.

While growing timber stands with large trees of various ages, Forster-Gill is promoting habitat characteristics favorable to the owl. As a result of its timberland stewardship, Forster-Gill provides suitable habitat that is likely to attract northern spotted owls.

Anticipating that an owl pair might eventually be attracted onto his property, Tim Gill’s forestry consulting firm contacted the local U.S. Fish and Wildlife Service office to discuss the possibility of a Safe Harbor Agreement.

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Forster-Gill, Inc. is a small family-owned and operated investment corporation engaged in practicing forestry within the range of the northern spotted owl. Tim Gill’s preferred style of harvest is low intensity, individual tree selection that promotes the growth of large trees while maintaining a continuously forested landscape.

“I feel the most important thing in regard to Safe Harbor is that the landowner is not penalized for growing habitat.”

—Tim Gill (at left)
Cheeca Lodge, an oceanside golf resort on Upper Matecumbe Key, and the endangered Schaus swallowtail butterfly (Papilio aristodemus ponceanus) both could have used a safe harbor in 1998 when Hurricane Georges slammed the Florida Keys. South Florida suffered widespread property damage. Native wildlife habitats were also affected. The butterfly was hit particularly hard, with much of its little remaining habitat in the Keys destroyed or significantly altered. Hurricanes have become a greater threat to the butterfly as its habitat declines. Only six years before Georges, the Schaus swallowtail came precariously close to extinction when Hurricane Andrew pounded the Keys. Fortuitously, Dr. Thomas Emmel, of the McGuire Center for Lepidoptera and Biodiversity (part of the Florida Museum of Natural History at the University of Florida), had already begun a captive breeding effort. He was able to restore some populations before Georges struck. Following Hurricane Georges, the U.S. Fish and Wildlife Service, Cheeca Lodge, and the McGuire Center responded to the butterfly’s plight by creat- ing a Safe Harbor Agreement that provided for the restoration of Schaus swallowtail habitat on Cheeca Lodge property. This Safe Harbor Agreement is part of the Service's continuing effort to work in partnership with private landowners to aid federally listed species. "Much of the habitat for threatened and endan- gered species in the southeast and throughout the country occurs on private land," says Sam Hamilton, Director of the Service’s Southeastern Region. "We need the direct involvement and support of private landowners, like Cheeca Lodge, to assist in conser- vation and recovery efforts for species like the Schaus swallowtail."

“We are thrilled to be involved in such a positive project. We hope that the trees we plant will someday attract Schaus swallowtail butterflies to our beautiful golf course and grounds. This agreement allows us to help the butterfly and provide educational opportunities to our customers and staff without worrying that we’ll be liable later if our situation changes. In the 10 years that the agreement is in effect, we can remove all or part of the trees we planted without penalty, even if it means that any butterflies present will be lost. This gives us complete flexibility in our operations and makes it easy for us to justify our participation.”
—Julie Olsen, Public Relations Director for Cheeca Lodge

The Safe Harbor Agreement, signed in 2001, is expected to contribute to Schaus swallowtail recovery by restoring habitat for butterflies that disperse from the remaining populations in the upper Florida Keys. By providing places for dispersing butterflies to feed and rest, habitat restored through this agreement could help them reach other suitable but unoccupied habitat in the lower Florida Keys.

Under the Safe Harbor Agreement and with a $65,000 grant from the National Fish and Wildlife Foundation, Cheeca Lodge and the McGuire Center purchased and planted native trees and nectar plants that the Schaus swallowtail uses for food and resting places. About 600 trees were planted in late 2001, including wild-lime and torchwood, which are important caterpillar food plants. Over 1,000 nectar plants were added for the adult butterflies. Dr. Jaret C. Daniels of the McGuire Center reports that almost 99 percent of the trees are thriving. He credits the high rate of survivorship to the dedication and enthusiasm of the Cheeca Lodge staff and members. "We need the direct involvement and support of private landowners, like Cheeca Lodge, to assist in conservation and recovery efforts for species like the Schaus swallowtail."

The agreement covers Cheeca Lodge’s entire 27-acre golf course and resort. Although no butterflies currently live on the property, there are more than 30 other species flying to the flowers and using the trees.

"Birds follow insects. Quite a little ecosystem has been built at the Cheeca Lodge since they started the habitat restoration program there."
—Dr. Thomas Emmel (far right)
Hawai‘i is often called the “endangered species capital of the world.” With its rich diversity of native animal and plant species, which evolved over eons in the archipelago’s geographical isolation, Hawai‘i has proved vulnerable to human-related habitat destruction, invasions of nonnative plant species, diseases spread by introduced mosquitoes, predation by nonnative animals, and habitat degradation by feral livestock. Many of its unique creatures have already been lost, and many others could follow them into extinction. But a ranching operation is taking steps to restore habitat for some rare birds and plants while improving the property’s economic value. For over a century, the 2,000-acre Umikoa Ranch on the “Big Island” of Hawai‘i was used for intensive cattle grazing, which left the native koa forest a degraded pasture. However, through the efforts of the ranch managers and their partnerships with the State of Hawai‘i, the Natural Resources Conservation Service, Ducks Unlimited, and the U.S. Fish and Wildlife Service, some of the damage is now being repaired.

To further their restoration efforts, the ranch managers signed a Safe Harbor Agreement with the Service and the Hawai‘i Department of Land and Natural Resources Division of Forestry and Wildlife in December 2001. Under the regulatory protection of the agreement, the ranch is restoring and maintaining wetland and associated upland habitats for two endangered waterfowl species, the nene or Hawaiian goose (Branta sandvicensis) and the koloa or Hawaiian duck (Anas wyvilliana). Other activities include:

1) excluding cattle from some habitats;
2) allowing controlled grazing in other areas to maintain open, short-grass habitat needed by the nene;
3) preventing the establishment of nonnative invasive plant species;
4) controlling nonnative predators in and around newly created habitats for koloa and nene;
5) prohibiting hunting in areas managed for koloa and nene; and
6) controlling the introduction of nonnative waterfowl in order to stop hybridization.

Koloa have begun reproducing on the ranch’s Safe Harbor acreage. Matsuura is so pleased with the results of the Umikoa Safe Harbor Agreement that he is working with the Service to manage additional habitat that may support other endangered animals, such as the Hawaiian hawk or ‘io (Buteo solitarius), and the Hawaiian hoary bat (Lasius giganteus). The management actions will also benefit listed plants, including the haha (Cyanea shipmannii), ‘ohana wai (Clermontia lindseyana), and kiponapona (Phyllostegia racemosa).

David Matsuura has been general manager for Umikoa Ranch since 1990. He convinced the owners to include conservation measures in the management of the ranch. The concept of stewardship, where diversified agriculture and conservation management can benefit each other, has become the ranch’s management objective. Working with the State of Hawai‘i Forest Stewards Project, the ranch has restored over 800 acres of degraded grazed pasture-lands to native forest trees. Restoration of koa forests increases soil-water retention capacity and provides nesting and foraging habitat for Hawaiian forest birds. With now flourishing young koa stands, Umikoa Ranch expects to provide high-value lumber through the selective harvesting and milling of unhealthy and declining trees. Sustainable ranching and ecotourism also are encouraged under the Safe Harbor Agreement.
Like the golden-cheeked warbler (Dendroica chrysoparia), Kerry Russell is a native of the beautiful Texas Hill Country. Because his family’s 130-acre ranch near Austin has prime habitat for the warbler and potential habitat for another endangered bird, the black-capped vireo (Vireo atricapilla), the U.S. Fish and Wildlife Service wanted to purchase it for inclusion within an adjacent national wildlife refuge. However, Russell wanted to keep his family’s land.

The Service and Environmental Defense then offered him another idea: the Safe Harbor program. By enrolling in a Safe Harbor Agreement for the vireo, Russell found a way to restore wildlife habitat on a portion of his ranch while remaining in control of his land. To enroll, “greatly improving the prospects of the birds by restoring high-quality habitat,” according to Wolfe. As with all Safe Harbor Agreements, the Service provides Russell with assurances that his Endangered Species Act responsibility will be limited to the amount of existing habitat, or “baseline,” present on the enrolled acreage when the agreement was signed. If habitat improvement actions attract black-capped vireos to the Safe Harbor acreage during the duration of the agreement, the presence of these birds will not restrict the Russells’ use of the enrolled 20 acres beyond the agreed upon voluntary conservation activities.

The Service issued Environmental Defense the permit for both the black-capped vireo and the golden-cheeked warbler for the Texas Hill Country Safe Harbor in December 2000. Landowners like Russell who enroll with Environmental Defense’s Safe Harbor concept as “a wonderful opportunity.” The Russells were the first landowners in the area to enroll, “greatly improving the prospects of the birds by restoring high-quality habitat,” according to Wolfe. As with all Safe Harbor Agreements, the Service provides Russell with assurances that his Endangered Species Act responsibility will be limited to the amount of existing habitat, or “baseline,” present on the enrolled acreage when the agreement was signed. If habitat improvement actions attract black-capped vireos to the Safe Harbor acreage during the duration of the agreement, the presence of these birds will not restrict the Russells’ use of the enrolled 20 acres beyond the agreed upon voluntary conservation activities.

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Since more than 94 percent of the land in Texas is privately owned, landowner involvement is crucial to warbler and vireo survival. Protecting the land from development isn’t enough to save the birds; land managers also need to manage the species, in part on landowners willing to conduct pre-scribed burns or other management actions that recreate early successional habitat.

As of March 2005, seven Hill Country landowners had enrolled a total of 2,106 acres in the Texas Hill Country Safe Harbor Agreement.

In addition to enrolling his own property, Russell has become an ambassador for the Safe Harbor approach, encouraging his neighbors to join the program. He has already seen benefits from his land management activities, with more wildlife and less damage from fire.

The golden-cheeked warbler has different habitat requirements. This brightly colored songbird nests in stands of mature Ashe juniper (known as “cedar” in Texas) mixed with oaks and other deciduous trees. With increasing urban and suburban development in the Hill Country, it’s difficult for the warbler to find suitable nesting spots. Texas Hill Country Safe Harbor landowners can aid the warbler by allowing the regeneration of hard- wood trees, which attract insects the warbler eats, as well as allowing Ashe junipers grow to maturity.

The Russell family ranch offers suitable habitat for the warbler and in time will have suitable habitat for the vireo. In his Safe Harbor Agreement, Russell has agreed to undertake several manage- ment actions, including removing excess brush, excluding cattle from bird nesting areas, controlling cowbirds, and planting oak trees, shrubs, and other plants to provide nesting and feeding sources. Although the agreement extends over 10 years, he has already seen benefits from his land man- age ment activities, with more wildlife and less damaging erosion.

Ranchers and Songbirds in the Texas Hill Country

Like the golden-cheeked warbler (Dendroica chrysoparia), Kerry Russell is a native of the beautiful Texas Hill Country. Because his family’s 130-acre ranch near Austin has prime habitat for the warbler and potential habitat for another endangered bird, the black-capped vireo (Vireo atricapilla), the U.S. Fish and Wildlife Service wanted to purchase it for inclusion within an adjacent national wildlife refuge. However, Russell wanted to keep his family’s land.

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Bob Russell's land is tucked along the Mohawk River within Oregon's Cascade foothills. The Mohawk Valley is a stunning expanse of rolling hills, forested lands, homesteads, and small timber farms. In 1938, a U.S. Bureau of Fisheries' survey described the Mohawk as "not a good salmon stream," but its tributaries were native habitat for a less charismatic native fish: the Oregon chub (Oregonichthys crameri).

The Oregon chub is a small minnow found only in western Oregon at lower elevations within the Willamette River drainage. It is adapted to slow-moving backwater areas, such as sloughs and beaver ponds. Landscape changes, including dam construction, stream channelization, wetland filling, and loss of riparian or streamside vegetation have resulted in a loss of backwater habitats typically used by the chub. In addition, altered flooding and temperature patterns throughout the watershed have created conditions favorable to nonnative predator fish, such as bass, that were originally checked for sport fishing. This loss of native or natural habitat and a high susceptibility to predation have drastically reduced Oregon chub abundance and distribution. In fact, only five viable populations were known to exist when the fish was federally listed in 1993 as an endangered species.

A decade of Oregon chub surveys reveals that management and protection of existing populations, and introductions of chub into suitable habitats, more than doubled the number of known viable populations. Paul Scheerer, an Oregon chub expert with the Oregon Department of Fish and Wildlife, believes recovery of this species is something that can be accomplished during his career. Since over 65 percent of the Willamette drainage is in private ownership, a major focus of chub recovery has been to work with private landowners like Bob Russell to introduce chub into small ponds and wetlands that are free from nonnative predator fish.

When Russell bought his land in 1972, a friend helped him build three ponds, and he began having hay and sheep grazing on small portions of the property. More than 20 years later, Russell heard about the Oregon chub recovery effort and thought that maybe his ponds would be a good home for the endangered fish. In 1999, Russell called the Oregon DFW, and soon Scheerer came to look at the ponds.

Scheerer found that at least one of the perennial, spring-fed ponds was suitable habitat for chub. Ponds don't have to be large to support the chub; at less than 9,000 square feet and a maximum depth of 6 feet, Russell's pond had the potential for a self-sustaining population.

Russell worked with Scheerer and U.S. Fish and Wildlife Service biologist Amy Horstman on the terms of a Safe Harbor Agreement to provide long-term assurances that Russell's typical land uses would not be restricted by Endangered Species Act regulations. Russell found the Safe Harbor policy to be a flexible tool that afforded him assurances without restricting his primary land uses. "The conditions that Paul and the Service put on the whole agreement were things I could easily live with," says Russell. Scheerer agrees, saying, "There wasn't anything that was objectionable. We set up a buffer around the pond that restricted activity, but it didn't restrict anything Bob was doing anyway." Activities limited within the buffer area include pesticide application or soil disturbing practices that could harm the chub's habitat.

Given the ease of relocating Oregon chub, a clause was inserted into the agreement that if Russell wanted to stock bass or carry out some other action that could be harmful to the chub population, he would notify the Service and Oregon DFW, and the chub could be moved to a different location. A total of 500 Oregon chub were introduced to Russell's pond in October 2001 and May 2002. The chub were taken from a natural population to provide a backup or "refugium" population as insurance against a catastrophic decline of the natural population. Some of the relocated chub spawned in 2002, and they appear to be doing very well in their new home.

Chub recovery relies on establishment of populations in the three main sub-basins of the Willamette River system. The species should be able to flourish in many of the created ponds and wetlands that are abundant on private lands, and Safe Harbor Agreements can be an ideal tool for gaining landowner support. The Oregon DFW hopes that more landowners in the Santiam, main-stem Willamette, and Middle Fork Willamette river drainages who are interested in helping with Oregon chub recovery will enroll in Safe Harbor Agreements.

"I always thought it would be nice to have a pond big enough to put fish in. I'm thinking of trout, but someone shot that down—not cold enough. Then I thought bass but never got around to it. The truth is, I really don't like to fish. We used to swim in the pond, but we never really did anything much with it. I wanted to do something to help the status of endangered and threatened wildlife in Oregon." —Bob Russell
Working through a Candidate Conservation Agreement with Assurances, responsible landowners, coupled with traditional land uses, are helping to ensure the survival of a small animal in southwest Idaho. Soulen Livestock, a family owned sheep and cattle operation headquartered in Weiser, Idaho, has welcomed nearly 200 southern Idaho ground squirrels (Spermophilus brunneus endemicus) relocated from sites where populations have been imperiled because of the decline of its sagebrush and bunchgrass habitat. The company and its federal and state partners hope the relocated squirrels will thrive, making it unnecessary to list this subspecies as threatened like its close relative, the northern Idaho ground squirrel (Spermophilus brunneus). The southern Idaho ground squirrel is found in only three counties in western Idaho and is considered a candidate for listing. Along with its other close relatives, it has been declining in numbers for perhaps two decades.

"Caddyshack Meets Bonanza"

Like many ranch operations in the West, Soulen Livestock operates on a mixture of federal, state, and private lands. In the vicinity of the squirrels, the company owns some 42,000 acres of range land and leases approximately the same amount of Bureau of Land Management and state land. Soulen Livestock is one of the largest range sheep operations left in the state, with 8,000 ewes tended by Peruvian herders who stay year-round with the sheep over an extensive range. The company also has 1,000 cow and calf pairs. Margaret Soulen Hinson is a partner in Soulen Livestock with her father, Phil, and brother, Harry. Her husband, Joe, is a former timber industry executive and now a partner in a natural resource consulting firm. "Joe’s knowledge of the Endangered Species Act and his experience with such plans as Candidate Conservation Agreements with Assurances was a real advantage," she says. "This is complicated business," Margaret notes.

Now, based on the experiment on the Soulen operation, Joe’s firm, in cooperation with Environmental Defense, U.S. Fish and Wildlife Service, Idaho Department of Fish and Game, and the Idaho Governor’s Office of Species Conservation, is working with other local ranchers on similar agreements. The Leopold Stewardship Fund—an initiative of the Sand County Foundation and Environmental Defense that is dedicated to conserving rare species on working private lands—is helping fund this work. Thanks largely to the example set by Soulen Livestock, an “umbrella” Candidate Conservation Agreement with Assurances was signed in March 2005, covering the four counties thought to be the historic range of the species.

Most of the squirrels relocated to the Soulen ranch came from a golf course in Weiser, home of one of the largest southern Idaho ground squirrel populations. "As you can imagine, we became the object of a lot of good-natured jokes about taking squirrels off the golf course and letting them roam free on the ranch. We sometimes refer to the whole effort as ‘Caddyshack Meets Bonanza.’"

Some people speculate that, with the loss of their native habitat, these squirrels use artificial habitats, such as farms and golf courses, because these man-made grasslands provide abundant grass for food and enough people to discourage raptors, badgers, snakes, and other predators.

"My family, and certainly Joe and I, all share a love of wildlife and the out-of-doors. It is, in fact why we all got into this business, and we want to see all the wildlife for which we have some responsibility do well through the way we run our operation."

"While few may ever notice or perhaps care about southern Idaho ground squirrels, it’s important to us to show that they, too, can have a home on the land that we manage."

—Margaret Soulen Hinson (at left)
From the beginning, the concept of cooperation was as much a part of this Safe Harbor as the landowner and the endangered bird. Before landowners were able to enroll, four parties—TNC, the U.S. Fish and Wildlife Service, the Virginia Department of Game and Inland Fisheries, and Environmental Defense—met repeatedly to work out the details of the agreement. The goal was to encourage landowners to take voluntary actions to protect and increase the tiny population of endangered red-cockaded woodpeckers (Picoides borealis) in southern Virginia.

Nowhere are the woodpeckers rarer than in Virginia, where a 2003 census counted only 24 individuals in 6 groups. Nearly all of them are found on TNC’s 2,600-acre Piney Grove Preserve in Sussex County. Long before there was an endangered species list or Safe Harbor Agreements, red-cockaded woodpeckers were a common sight in the longleaf and other pine forests that dominated the southeast. John James Audubon noted that the bird was “found abundantly” from Texas to New Jersey and inland into Tennessee. Since Audubon’s time, the red-cockaded woodpecker has become rare, losing nearly all its preferred open, old-growth southern pine habitat to timber harvesting, agriculture, development, and fire suppression.

The woodpecker was listed as an endangered species in 1970, but its decline continued, particularly on private lands. The ESA prohibits harming or harassing the bird without a permit, but until the development of Safe Harbor, the ESA offered no incentives to encourage landowners to restore the bird’s nesting and foraging habitat.

In 2001, when the International Paper Company enrolled in the Virginia Red-cockaded Woodpecker Safe Harbor Agreement, it was administered by The Nature Conservancy. IP, the world’s largest paper and forest products company, became the first Virginia landowner to enroll in a Safe Harbor Agreement. Such a partnership was demonstrated in 2001, when the International Paper Company enrolled the Virginia Red-cockaded Woodpecker Safe Harbor Agreement, which is administered by The Nature Conservancy. IP, the world’s largest paper and forest products company, became the first Virginia landowner to enroll in a Safe Harbor Agreement. Such a partnership was demonstrated in 2001, when the International Paper Company enrolled in the Virginia Red-cockaded Woodpecker Safe Harbor Agreement, which is administered by The Nature Conservancy. IP, the world’s largest paper and forest products company, became the first Virginia landowner to enroll in a Safe Harbor Agreement.

Darden notes that voluntary Safe Harbor participation does not mean that a landowner relinquishes control or ownership of the land, nor does it affect all activities on the land. Instead, he says, “It is certainly a win-win proposition for everyone.”

On IP’s Safe Harbor property, restoring habitat is the job of Harvey Darden. As the company’s Forestry Operations Team Leader for Virginia, he oversees the 286 acres enrolled in the Safe Harbor Agreement. Darden has worked for the company for 27 years and is responsible for the management of IP’s Virginia lands. His Virginia roots go back even further. A native of Southampton County, he has a lifelong love of the land and says that “being a good steward of the land is very near and dear to me.”

Darden is restoring and enhancing the woodpecker’s foraging habitat by thinning pine stands, removing hardwood undergrowth, and regenerating the pine forest. In the past, periodic wildfires maintained the open park-like structure of these forests, which meets the nesting and foraging habitat requirements of the birds. Today, wildfires are suppressed, and IP’s management actions mimic those fires, such as prescribed burns or other means of hardwood control, woodpecker abandonment and fire suppression. In return for IP’s beneficial actions, the Safe Harbor Agreement guarantees that at the end of the agreement, the company can return to the baseline population of woodpeckers—it’s IP’s case, zero—present when the agreement was signed.

Darden says that the Safe Harbor Agreement meshes perfectly with IP’s sustainable forestry goals. When asked why IP chose to participate in a Safe Harbor Agreement, his answer is simple: “Because it’s the right thing to do.”

Other Virginia landowners within a 40-mile radius of Piney Grove Preserve are eligible to enroll in the Safe Harbor Agreement. By encouraging neighboring landowners to improve habitat for the woodpecker, The Nature Conservancy hopes to enlarge the Virginia population and secure its future in the state. Recognizing that the bird’s future in Virginia depends on having enough foraging and nesting habitat, TKC’s Virginia State Director Michael Lipford says, “Forging partnerships with private landowners is essential. International Paper’s commitment to Safe Harbor sets an admirable example that we hope other landowners will follow.”

“It gives us increased management certainty and the opportunity to improve habitat for a federally listed species. The Safe Harbor plan frames the habitat conditions we have agreed to provide, and through it, International Paper demonstrates our commitment to sustainable forestry.”

—Jimmy Bullock, International Paper’s Manager of Sustainable Forestry and Wildlife
A Statewide Approach for Red-cockaded Woodpeckers

As soon as the South Carolina Statewide Safe Harbor Agreement was announced in March 1998, landowner interest spread like fire in a longleaf forest. As of March 2005, 104 landowners and 396,911 acres were enrolled in the statewide program. The agreement built upon the success of the nation’s first Safe Harbor, the North Carolina agreement launched in 1995 for the red-cockaded woodpecker (Picoides borealis). The South Carolina Safe Harbor was developed by the U.S. Fish and Wildlife Service, South Carolina Department of Natural Resources, South Carolina Forestry Commission, South Carolina Red-cockaded Woodpecker Conservation Coalition, Westvaco Corporation, and Environmental Defense. The Service granted SCDNR an “umbrella” Safe Harbor permit, under which the state agency enrolls individual landowners. The following profiles only hint at the diversity of landowners enrolled in this Safe Harbor Agreement.

Donald Dyches

Donald Dyches’s 891-acre Hampton County property is a mix of pine plantation, hard-crook forest, mature river bottom, open pineland, and isolated wetlands. But there’s one thing missing that he wants to have on his land: red-cockaded woodpeckers. Dyches purchased his land in pieces, originally intending to use it for deer hunting, but his interests have expanded to include forestry and land restoration. Due to the condition of the property when he bought it, Dyches had to restore isolated wetlands that had been ditched and drained, regrow old-growth pines, and clear invasive hardwoods. When he learned about the state’s Safe Harbor umbrella permit, it appealed to him as a way to protect both the bird and the landowner. He enrolled in 2002, and now he recommends it to “anybody and everybody” as a win-win situation.

Turkey Hill Plantation

H. Stovall, III, was ready for a Safe Harbor Agreement when he learned of the program. As a registered forester and manager of Turkey Hill Plantation, he was well aware that the prescribed burns that encourage quail and red-cockaded woodpeckers could also bring Endangered Species Act regulation. Although Turkey Hill had already welcomed a nesting pair of bald eagles, the plantation’s burning schedule had been slowed to avoid “woodpecker problems.”

However, Morrison no longer sees red-cockaded woodpeckers as a problem since enrolling the 17,500-acre plantation under the state’s umbrella Safe Harbor Agreement. He is eager to pursue environmental protection and management, and is considering ecotourism possibilities to supplement Turkey Hill’s quail hunts. Under the agreed upon conditions of the Safe Harbor, he says, “Turkey Hill can ‘do what we wanted to do,’ and practice the environmental management under which everybody wins.”

Brosnan Forest and Norfolk Southern

Long before the Safe Harbor program came along, the Norfolk Southern Corporation was managing its 16,000-acre Brosnan Forest to benefit the red-cockaded woodpecker. The rail transportation company had established the property as a conference and recreation center, as well as an employee vacation retreat. Managing for quail hunting also created habitat attractive to red-cockaded woodpeckers. Mark Clement, Brosnan Forest’s General Manager of Facilities, explains that Safe Harbor “makes it a lot easier to do the right thing.” It “takes away our liability for encouraging growth of the woodpecker population,” allowing the company to attract woodpeckers and still meet its fiscal responsibility.

Friendfield Plantation

Throughout his 30 years at Friendfield Plantation, Virgil Dugan has faced an endangered species dilemma. Managing the plantation for quail meant inadvertently managing for red-cockaded woodpeckers, and Dugan was concerned about the potential restrictions. Beginning in the mid-1970s, just a few years after the bird was listed as an endangered species, he participated in state meetings and other discussions. “Everyone was a little distraught,” he remembers.

By enrolling Friendfield’s entire acreage in a Safe Harbor Agreement, Dugan has found a way to maintain the property’s mature longleaf forest without fear of increased regulation. The woodpeckers seem to be happy, too; they’ve increased from 9 to 22 groups.

Mark Clement

in Brosnan Forest
Good Hope Plantation

When Good Hope Plantation enrolled 11,000 acres in the Safe Harbor Agreement in 1999, consulting forester Al Epps had been managing the property for almost 20 years. He found it a challenge to deal with the potential red-cockaded woodpecker presence on the quail and timber plantation. He recognized the potential of a Safe Harbor even before the agreement was announced. Epps sees no disadvantage in the Safe Harbor Agreement, which has worked very well for Good Hope. “Incentives are key,” he explains, saying that he’s looking forward to more cost-share programs, particularly for small landowners, and that money would be well spent to provide assured funding for management activities such as prescribed burns.

Hobcaw Barony and the Belle W. Baruch Foundation

After New York financier Bernard Baruch created a winter home and hunting retreat from an area once used for rice plantations, he opened it to such guests as Winston Churchill, General Pershing, and President Franklin Roosevelt. Now owned by the Belle W. Baruch Foundation, the 17,500-acre property is dedicated to research, education, and conservation. Among the wildlife species finding a home there is the red-cockaded woodpecker. Clemson University researchers have studied these birds since the 1970s, and in 1999 Hobcaw Barony became one of the first enrollees in the state’s umbrella Safe Harbor Agreement. About 8,000 acres of Hobcaw Barony were enrolled, with an identified baseline of 23 woodpecker groups.

Enrolling in Safe Harbor was a wise decision, according to plantation manager George Chastain. Under the agreement, he uses prescribed fire and mechanical means to restore the pine woods to the natural open state of a longleaf forest, and installs cavity inserts to assist nesting woodpeckers. Chastain explains that Safe Harbor “works well with what we do.” Although the foundation is a non-profit organization, he says that, like any private landowner, he is responsible for paying the bills and needs some assurance that the property will stay financially secure.

A Statewide Approach for Red-cockaded Woodpeckers
To learn more about enrolling in a Safe Harbor Agreement or Candidate Conservation Agreement with Assurances, call Environmental Defense’s office in Washington or one of the organization’s regional offices.

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Wildlife Program
1875 Connecticut Avenue, NW
Washington, DC 20009
202-387-3500

National Headquarters
257 Park Avenue South
New York, NY 10010
212-505-2100

For information about Safe Harbor Agreements or Candidate Conservation Agreements with Assurances, contact the U.S. Fish and Wildlife Service office for your state.

Headquarters
1-703-358-2105
http://endangered.fws.gov/
Arlington, Virginia, and Washington, DC

Pacific Region (Region 1)
1-503-358-2105
http://pacific.fws.gov/
Hawaii, Idaho, Oregon, Washington, American Samoa, Commonwealth of the Northern Mariana Islands, Guam, Pacific Trust Territories

California/Nevada Operations
1-916-414-6464
http://pacific.fws.gov/
California, Nevada

Southeast Region (Region 4)
1-404-679-7313
http://southeast.fws.gov/
Alabama, Arkansas, Louisiana, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Florida, Tennessee, Puerto Rico, U.S. Virgin Islands

Northeast Region (Region 5)
1-413-253-8927
http://northeast.fws.gov/
Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia

Mountain-Prairie Region (Region 6)
1-303-236-4258
http://mountain-prairie.fws.gov/
Colorado, Kansas, Montana, Nebraska, North Dakota, South Dakota, Utah, Wyoming

Alaska (Region 7)
1-907-786-3868
http://alaska.fws.gov/
Alaska

Southwest Region (Region 2)
1-505-248-6604
http://southwest.fws.gov/
Arizona, New Mexico, Oklahoma, Texas

Great Lakes, Big Rivers Region (Region 3)
1-612-713-5343
http://midwest.fws.gov/
Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, Wisconsin

To learn more about enrolling in a Safe Harbor Agreement or Candidate Conservation Agreement with Assurances, call Environmental Defense’s office in Washington or one of the organization’s regional offices.

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Information is also available at www.environmentaldefense.org/go/conservationincentives.
Environmental Defense, a leading national non-profit organization, represents more than 400,000 members. Since 1967, Environmental Defense has linked science, economics, law and innovative private-sector partnerships to create breakthrough solutions to the most serious environmental problems.

The U.S. Fish and Wildlife Service is responsible under the Endangered Species Act for conserving and recovering our nation's rarest plant and animal species and their habitats, working in cooperation with other public and private partners.