



AN AQUATIC SAFE HARBOR PROGRAM
FOR THE
UPPER ETOWAH RIVER

Amanda Baxter
Douglas Parsons
Alison Van Lear

for the

The Etowah Initiative

School of Law • Institute of Ecology • School of Environmental Design

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INTRODUCTION

“Conservation is a state of harmony between men and land.” – Aldo Leopold, *A Sand County Almanac*

When many people think of Federal environmental statutes, the Endangered Species Act is the first to come to mind. This visibility is both good and bad. Protecting animal and plant species from extinction garners a lot of public support. However, implementation of the Endangered Species Act also creates controversy and public outrage. Many feel the Endangered Species Act pits the rights of private landowners against endangered species protection.

Whether this is an accurate portrayal of federal species protection is not the point. The point is that tension between the federal government and the public hurts endangered species. The U.S. Government recently implemented a new Endangered Species Act program – The Safe Harbor Program — designed to bridge the gap between federal species protection and private landowner rights, and hopefully improve endangered species protection in the United States.

What is the Safe Harbor Program?

Safe Harbor is a federal program in which private landowners agree to maintain habitat beneficial to federally listed species with the assurance by the U.S. government that future land uses will not be restricted above those mandated by the agreement. The Program’s goal is to create more habitat for threatened or endangered species while providing landowners with the assurance that future restrictions will not be imposed on their land uses.

This Program is totally voluntary. However, participation creates two important benefits for private landowners. First, landowners will receive valuable information on ways to protect the habitat of endangered or threatened species. Second, they receive “safe harbor” from the possible regulatory “bite” of the Endangered Species Act.

Under the direction of the Fish and Wildlife Service and its counterpart, the National Marine

Fisheries Service, the Safe Harbor Program might possibly be the best approach to endangered species protection to date. Already, many private landowners are participating in Safe Harbor Programs across the country. The Fish and Wildlife Service, however, has yet to implement a Safe Harbor in an aquatic environment as we are proposing here.

Our Manual’s Mission

This Manual will explain the basics of the Safe Harbor Program as well as develop recommendations for its implementation in an aquatic environment; specifically the Etowah Watershed in northern Georgia. The Etowah Watershed, with its rich yet vulnerable aquatic diversity, is a prime area to implement Safe Harbor.

Finally, the Manual contains a sample Safe Harbor agreement as well as a more traditional approach to habitat protection: a conservation easement. We believe a combination of these two conservation tools is the best method to protect endangered species habitat.

A Troubling Example

The Safe Harbor Program is designed to avoid the harsh results of the Endangered Species Act that angers so many private landowners. The following summary of recent news articles describes the listing of salmon populations as federally endangered or threatened species. It should impress any landowner previously doubtful of the federal government’s power under the Endangered Species Act.

SALMON LISTINGS WILL AFFECT ALL IN WASHINGTON AND OREGON

SEATTLE – The Federal Government in March of this year extended protective status to salmon in the Pacific Northwest. For the first time federal regulations will affect neighborhoods and private activities as simple as car washing and fertilizing the lawn.

Under the Endangered Species Act, the National Marine Fisheries Service (NMFS) listed nine salmon populations mostly located in Oregon and Washington as threatened or endangered.¹ These listings represent the largest implementation of the Endangered Species Act since its enactment 26 years ago. The action will cover all major rivers in the Northwest implicating almost all the area's watersheds.

Further, these Endangered Species' listings are the first to include a major urban area. The area covers the Willamette Valley of Oregon, the heart of that state's agricultural industry, and the Southern Puget Sound including Seattle. This area is home to two-thirds of all Washington and Oregon citizens.

The NMFS believes that a degradation of freshwater habitat and urbanization contributed to the decline of the salmon populations.

A feature of the NMFS action is the proposal for critical habitat designation for the salmon as allowed by the Endangered Species Act. However, the NMFS extended its deadline for completing the habitat designation for another year. Designation of critical habitat would create a focused area for conservation regulations aimed at Federal and private activities, and may even result in more federal restrictions upon private landowners.

Many agree that a holistic approach will be most successful in saving the wild salmon. Thousands of changes in everyday life, starting at the state level down to the municipal level and even in each home, will have to occur to change the tide against the salmon's extinction.

Examples of possible regulations include:

- Restrictions on new construction, especially near streams and other waterways.
- Water rationing of outdoor and indoor use during summer months.

Other effects due to the restoration of the salmon populations may include:

- Higher taxes in order to clean waterways and buy land crucial to watersheds.
- Increase cost of public services like electricity, sewer, and water.

The vastness of the possible impacts from these listings leaves communities wondering what could they have been done to avoid the drastic measures that appear so imminent. A change in attitude toward habitat conservation may have been the only positive step to save the Northwest from federal regulations. Communities in both Washington and Oregon are hoping that this change is not too late for them.²

1 63 Fed. Reg. 11482 (March 9, 1998).

2 The previous information was compiled from news articles, including: Sam Howe Verhovek, "Agency to List Pacific Salmon as Threatened," *New York Times*, March 16, 1999, 5; "Saving a Regional Icon," *New York Times*, March 18, 1999, 1; Jonathan Brinckman, "Species Act Now Covers NW Salmon, Steelhead the Listings," *Portland Oregonian*, March 17, 1999, 1; Brad Knickerbocker, "How Saving Salmon Will Change Urban Life in Northwest," *Christian Science Monitor*, March 26, 1999, 2.

History of the Etowah Watershed

The following information is based on the comprehensive water quality assessment of the Etowah Watershed compiled by Burkhead et al (1997).

North of Mexico, North America is home to the most diverse assemblages of freshwater fish in the world. The fish fauna consists of over 800 species and counting. Discoveries of new species are becoming rarer with scientists having identified most of the species and with the continued degradation of their habitat. Approximately 490 of those fish species are found in the southeastern United States and 349 inhabit southern Appalachian. The Etowah river system is home to 91 fish species, which is close to 26 percent of the total found in the southern Appalachian. The southeast is also home to numerous other species

of mussels and snails found nowhere else on the planet. This high level biodiversity makes the Etowah river system a “hot spot.” A “hot spot” is an area with an unusually high level of endemic diversity. When a species lives in only one location or region, it is considered endemic to that area.

The Safe Harbor approach to conservation allows landowners to become involved in conservation without suffering unjust legal liabilities for that participation. We will focus on endangered fish species to determine the aquatic health of a river since the scientific literature available for fishes is more comprehensive and readily available. Fish assemblages are useful tools in assessing the overall water quality in a given area.

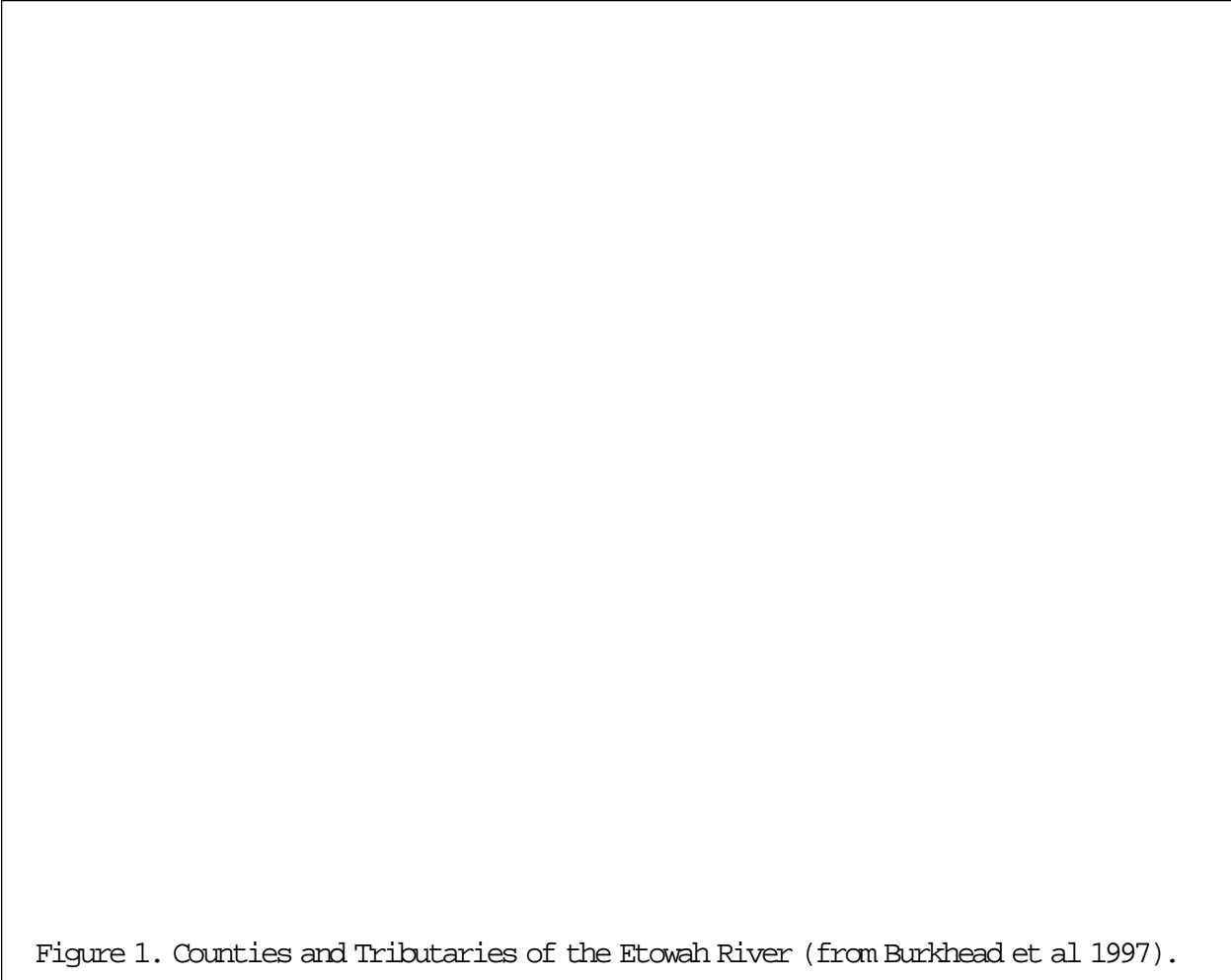


Figure 1. Counties and Tributaries of the Etowah River (from Burkhead et al 1997).

Status of the Aquatic Fauna

Unfortunately, the Coosa River and many of its major tributaries, including the Etowah River, have had more extirpations than any other similarly sized river system in the United States. Extirpation is when a species disappears from a localized area. It does not mean that the species is extinct, only that it can not be found in a given area. It has been estimated that the Etowah River has more imperiled fishes (17 total) and invertebrates (16 total) than any other river of similar length in the entire southeast region of the United States. The reason for such levels of extirpations and imperilment can be attributed to habitat loss and degradation. Many of the imperiled species inhabit areas that have been fragmented from the original extent of their home range.

Some of the most significant threats against aquatic fauna in the Etowah are:

- reservoir construction
- landfill development
- urban sprawl
- poor storm water run-off control

These are among the most pressing threats the Etowah River is facing. The Upper Etowah River lies directly in the path of an ever-expanding metropolitan Atlanta. The Safe Harbor Program can be an effective program to mitigate against the adverse effects of these potential threats.

Fish fauna of the Etowah River

The Etowah River flows 165 miles from its headwaters on the Appalachian Trail in northeast Georgia to its mouth at the confluence with the Oostanaula River where it forms the Coosa River south of the city of Rome, Georgia. What makes the Etowah River system so unique is the incredibly high levels of fish endemism (four species). Many of these species have been recently discovered. The Etowah Darter was first described in 1993 and the Cherokee darter in 1995. Two of the remaining species are yet undescribed but were discovered in 1993 and 1994. There are also two undescribed minnows and one undescribed sucker that are known or are presumed to have occurred in the Etowah River.

Sixteen percent (15 species) of the native fauna in the Etowah River system are considered extirpated from the area. Their extirpations are no surprise considering the widespread habitat degradation in the Etowah watershed.

The following are descriptions of several of the endangered or threatened species found in the Etowah River system. The following information was provided by Bud Freeman, an aquatic Ecologist at the University of Georgia's Institute of Ecology. These are several of the target species for this manual. The agencies who implement the aquatic Safe Harbors may use this information as a guide to focus their energies on particular habitats and different species' ranges as to maximize the total net conservation benefit of the Safe Harbor. This information will ensure that the most efficient methods are used to target relevant land areas in the Etowah River watershed.

Etowah Darter (*Etheostoma etowahae*)

Legal Status

Federal status: Endangered

Georgia status: Threatened

Description

The maximum total length of adult Etowah darters is approximately 70mm. This darter has a compressed body with eight broad blotches marking the dorsum and up to eleven indistinct dark bars along the sides. A close relative of the greenbreast darter (*E. jordani*) and the lipstick darter (*E. chuckwachatte*), the Etowah darter is distinguished by the absence of red spots along the sides or orange color on the lips. Males have brilliant red bands in the dorsal and caudal fins, and bluish coloration on the anal fin.

Range and Habitat

The Etowah darter occurs only in Georgia, where the species is restricted to the Etowah River system upstream from Allatoona Reservoir (Coosa River system).

The Etowah darter's preferred habitat is riffles, typically in moderate to strong current, over gravel and cobble substrata. Etowah darters

occur in the main channel of the Etowah River and in larger tributaries to the river.

Diet

The Etowah darter feeds on aquatic invertebrates. Other aspects of the species' life history remain unstudied.

Threats to Existence

The Etowah darter is particularly vulnerable to habitat loss because of its narrow distribution, which is restricted to a geographic area (the upper Etowah River system) presently under pressures that accompany an expanding human population. Development and road construction in the Etowah River watershed threatens to degrade river and stream habitat by accelerating sediment and contaminant input to the river. Water-supply reservoirs under construction or planned on tributaries to the Etowah River, including Yellow Creek and Sharp Mountain Creek, could significantly alter water flow and thermal regimes in main channel riffles that provide habitat for Etowah darters.

Conservation and Management Recommendations

Conserving the Etowah darter and other unique aquatic resources of the Etowah River, depends on maintaining habitat quality in the less-impacted portion of the river upstream from Allatoona Reservoir, and ultimately on improving habitat and water quality in the lower part of the river. It is essential to eliminate sediment runoff from land-disturbing activities (such as roadway and housing construction) and inputs of contaminants (such as fertilizers and pesticides). Forested buffers should be maintained along the banks of the river and the smaller tributary streams that feed the river. Maintaining natural patterns of streamflow by preventing excessive water withdrawal or unnaturally flashy runoff (such as from urban storm water runoff) also is an essential element of protecting riverine habitat quality. The Etowah darter and other fishes that similarly depend on riffle habitats are especially vulnerable to streamflow depletion because habitats with swift currents are diminished at low flows.

Cherokee darter (*Etheostoma scotti*)

Legal Status

Federal Status: Threatened

Georgia Status: Threatened

Description

The Cherokee darter has a rounded snout, a distinct dark bar beneath the eye, and 7 to 8 dorsal blotches that may fuse with the 7 to 8 lateral blotches (which elongate into slightly oblique greenish-olive bars in breeding males). The anterior lateral line pores are usually outlined in black. Breeding males have an interior red window and a single broad reddish band in the first dorsal fin (in contrast to the related Coosa darter, *E. coosae*, which has five discrete bands in the first dorsal fin) red in the second dorsal fin, and a green-edged anal fin; the caudal fin may also be edged in green. Adult size is 40 to 65 mm total length.

Range and Habitat

The Cherokee darter is endemic to the upper Coosa River system in Georgia. Currently, this species is known only from about twenty small tributaries to the Etowah River. Populations of Cherokee darters exhibit a fragmented pattern of disjunct populations, above and below Allatoona Reservoir. Approximately 50% of all known populations and 60% of the largest population occur in Cherokee County, Georgia.

Cherokee darters typically inhabit small to medium sized streams, in association with gravel and cobble substrata. The Cherokee darter is not found in streams with moderate or thick deposits of silt and sediment, and cannot survive in impoundments.

Diet

The Cherokee darter feeds on benthic aquatic invertebrates.

Life History

Little is known about the life history of the Cherokee darter. It is presumably similar to

better studied, related darter species (such as the Coosa darter) which spawn in the spring and deposit eggs on the surfaces of clean rocks. Life span is unlikely to exceed three or four years.

Threats to Existence

Potential threats to the Cherokee darter are impoundment and degradation of tributary streams in the Etowah River watershed. Stream degradation results from poor land-use practices in forestry and agricultural settings, failure to control soil erosion from construction sites and bridge crossings, and increased storm water runoff from developing urban and industrial areas. The Cherokee darter, like many stream fishes, is intolerant of impoundment. The Yellow Creek Reservoir will eliminate one population of the Cherokee darter, and the proposed Sharp Mountain Creek Reservoir would eliminate another population. New highway construction in Cherokee County, such as the proposed Outer Perimeter, will unavoidably alter many sections of known Cherokee darter habitat.

Conservation and Management Recommendations

Conserving populations of the Cherokee darter depends on maintaining and improving habitat quality in small streams feeding the Etowah River by: eliminating sediment runoff from land disturbing activities (such as roadway and housing construction); maintaining forested buffers along stream banks; eliminating inputs of contaminants (such as fertilizers and pesticides); and maintaining natural patterns of stream flow. Watershed clearing and urban development can lead to unnaturally flashy stormwater runoff, which scours stream channels and results in lower baseflows. For these reasons, containing and slowly releasing storm water runoff from developed areas in an important element in protecting stream habitats for fishes and other aquatic organisms. Impounding streams should be a last resort for developing water supplies.

The Endangered Species Act

A. Overview

In 1973, Congress enacted the Endangered Species Act to provide “a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved [and also] to provide a program for the conservation of such endangered species and threatened species...”¹

The major provisions of the ESA include:

Section 4, which provides the Secretary of the Interior with the authority to determine and list species as endangered or threatened. This section also requires the Secretary to designate the range over which the species is endangered and to designate the species’ areas of “critical habitat”.

Section 7 prohibits any federal agency from engaging in an activity which is likely “to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species ... which is determined to be critical” unless the agency consults first with the Secretary and then applies for an exemption.

Section 9. This section has the greatest impact on private land development activities — it makes it “unlawful for any person... to take any species” considered to be endangered. “taking includes “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in such conduct.”² Harm has been broadly defined by the Fish and Wildlife Service to include “an act which actually kills or injures wildlife. Such an act may include significant

habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns....”³

Section 10. Exceptions to Section 9 — Section 10 provide for the issuances of permits in two situations: (1) scientific purposes: if the prohibited activity is to be carried out “for scientific purposes or to enhance the propagation or survival of the affected species”; (2) incidental taking: the Secretary may issue a permit to “take” if “such taking is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity” - with several limitations.

Section 11. Provides for the enforcement of the ESA and lists civil and criminal penalties for violations of the Act.

B. Evaluation

The Endangered Species Act has become one of the “most controversial limitations on land development.”⁴ While the ESA is well-intentioned, it is criticized for having unintended consequences. Namely, in trying to force landowners to conserve habitat, “it has made endangered species the enemy of landowners. It pits socially valuable activities such as forestry and farming against habitat protection.”⁵ The Secretary of the Interior has empowered the U.S. Fish and Wildlife Service (FWS) to exercise some control over all lands, including those privately owned, which shelter endangered species. The FWS is criticized for administering its responsibilities in a way which completely disregards the economic and social impact of its regulations on landowners.⁶ However, it should also be noted that there is nothing in the ESA which *compels* a landowner to create habitat to support endangered species in the future.

One particularly harsh example of how the ESA has been applied occurred in California. The Stephens Kangaroo Rat, which appears on the federal Endangered Species list, was found on a small family farm in Southern California. Because tilling the soil can destroy the habitat of the kangaroo rat, the family was prevented from farming over 800 acres of their land. In addition, federal officials designated 1600 acres of the farm

as a preserve for the kangaroo rat - all without any consent or even input by the family who owned the farm and with no compensation to the family.⁷

There are criminal sanctions and citizen suit provisions for violating the Act. Penalties can include fines up to \$50,000 and up to one year imprisonment.⁸

As a result of harsh regulatory situations like that in California, ESA actually creates *disincentives* for private landowners to manage their lands in an environmentally appropriate way. Thus, “[t]he Endangered Species Act does not work because it discourages property owners from maintaining habitat or species on their land. They frequently act to *eliminate* habitat, for fear of losing use of their property to the federal government regulations.”⁹ Landowners have even gone so far as to consult with biologists about how to make their land inhospitable to endangered species.¹⁰ Understandably, landowners fear the liability of owning land which is habitat to endangered species since its use may be restricted without compensation.

Many realize that the “stick” of regulations and penalties will not be adequate to protect listed species on non-federal lands. To encourage landowners to voluntarily participate in some type of species conservation or recovery plan, a “carrot” to reward beneficial behavior by private property owners may also be necessary.¹¹

C. The “Carrot”

By creating the Safe Harbor Program, the FWS has taken positive steps to harmonize environmental conservation with landowner prosperity. The concept was conceived by the FWS in April 1995. Under voluntary, cooperative agreements between the FWS and private landowners, a landowner maintains or enhances existing populations of listed species and restores, and/or maintains their land in a manner beneficial to the listed species. In exchange, the FWS provides assurance that future landowner activities will not be subject to ESA restrictions above those applicable to the property at the time of the agreement. Any non-federal landowner can request the development of a Safe Harbor Agreement. A Safe Harbor can only be created for a species which is listed as endangered or threat-

ened under the ESA. Although there are some distinctions between endangered and threatened species in the ESA, all listed species are treated uniformly under a Safe Harbor Agreement.

A. Procedure for the development of a Safe Harbor Agreement

The Procedure for developing a Safe Harbor Agreement can be found in proposed federal regulations which are expected to be passed at anytime.¹²

1. The FWS must first determine what is called the “baseline” or the agreed upon target conditions of the applicant’s property. This is a very important step as this will determine what the landowner’s current responsibilities are under the ESA. Since Safe Harbor Agreements can only waive *future* ESA regulation, it is necessary to determine what if any responsibilities the landowner has now under the Act.

Baseline can be determined in two ways. It may be described as the number and location of individuals of the species presently located on the property. It may alternately be described as the habitat characteristics needed to support the species, and any other surrogate measure that adequately describes the specie’s use of the applicant’s lands at the time of enrollment in the program. For example, the baseline may be a certain width buffer zone which is crucial to the habitat of a listed species.

2. The FWS then reaches an agreement with the landowner as to what activities the landowner is willing to undertake to benefit the listed species. These activities include:

- Reducing Habit Fragmentation
- Providing for Habitat Connectivity
- Increasing Available Habitat by Restoration or Enhancement
- Providing Buffers for Protected Areas
- Maintaining or Increasing Populations
- Creating Areas for Testing/Implementing New Conservation Strategies¹³

3. Finally, FWS will formalize the agreement and will issue an Enhancement of Survival

Permit.¹⁴ This permit authorizes any future “take” (as defined by Section 3(18) of the ESA) above the baseline. The permit ensures that if a landowner abides by the agreement, s/he can develop the land so long as s/he remains above the baseline.

A Safe Harbor Agreement’s main function is to encourage private landowners to participate in pro-active species conservation by eliminating the uncertainty of future ESA liability if s/he should attract more of the listed species. This program is designed to provide benefits to both the landowner and to the listed species.¹⁵

B. Private Landowners and Their Role in the Preservation of Endangered Species

This program necessarily targets non-federal landowners because it has become increasingly evident that private landowners play a critical role in the conservation and protection of listed species. Currently, 703 plant species and 478 animal species are listed as endangered or threatened.¹⁶ The FWS and the General Accounting Office concluded in 1995 that at least 712 species occur on private lands. The FWS estimates that one third to one half of the protected species do not occur at all on federal lands.¹⁷

Because a great number of species occur on private lands (and some ONLY on private lands), the cooperation of private landowners is vital to the success of the ESA.

Figure 2 identifies two troubling points. First, only 3% of listed species are improving on private lands. This compares dismally with the 18% improvement rate of species found entirely on federal lands. If the goal of the ESA is to reduce the number of species which become extinct each year, a tool to reach private landowners who host endangered or threatened species must be discovered.

A second point evidenced by the above graph is that we know extremely little about the status of over half of the listed species found on private lands. If experts have an incomplete understanding of the status and cause of a species decline, this makes it very difficult to design an effective plan for recovery of the species. Safe Harbor would enable FWS to research these species and to more actively evaluate the needs of species located exclusively on private lands.

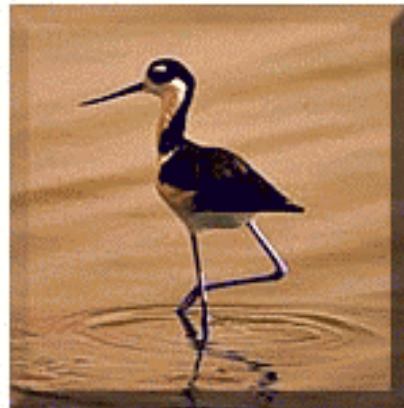
Figure 2.

C. Existing Safe Harbor Agreements

One of the main problems of the ESA is uncertainty over what actually constitutes “take” (and therefore a violation of the Act). The courts have held that a landowner can do anything which does not actually kill or injure wildlife by “significantly impairing essential behavioral patterns.”¹⁸ But what does this mean in practical terms? A Safe Harbor Agreement provides an answer to this question by translating the general prohibitions of the ESA into more specific descriptions of prohibited activities.¹⁹

To date, Safe Harbor Agreements have been developed in only five areas of the country and each one has been extremely successful:

1. In Hawaii, a Safe Harbor Agreement has been implemented under authority of Section 7 of the ESA to protect the black necked stilt which makes its home in marshes and wetlands. Stilts have become endangered for two reasons. First they were a legal game bird until 1941, so much of the population has been reduced by hunters and gamers. Second, wetlands are drained and developed on a daily basis. Thus, as the habitat on which the black necked stilts depend disappears, the species will also disappear.



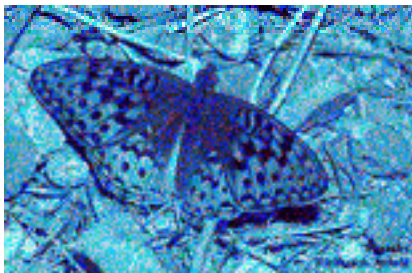
2. In 1996, Southwest Texas created a Safe Harbor Agreement to protect the rare Aplomados falcon. The agreement authorized the incidental take of species above the baseline under Section 10(a)(1)(B) of the ESA. The Aplomados falcon, the rarest of North American falcons, had been part of the grasslands of Texas and New Mexico until Americans started overgrazing cattle and suppressing fires. In 1952, it looked like all breeding activity in the US had ceased and the species was doomed to extinction. However, in the early 90's, a remnant population of 25 nestlings were found in Southern Mexico. When The Peregrine Fund proposed to Texas residents that it be allowed to release the birds on private

property after breeding them in captivity, many refused out of fear of ESA punishment. A Safe Harbor Agreement was the key to enrolling landowner participation and today over 1 million acres are enrolled and over 100 birds are released by the Peregrine fund each year.



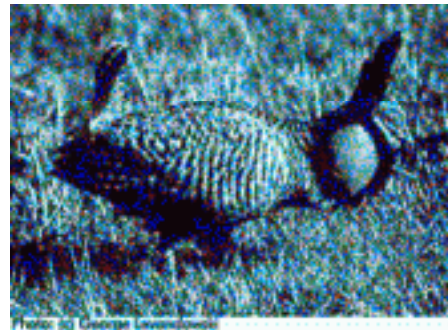
3. In Oregon, a Safe Harbor Agreement protects the Oregon silverspot butterfly by enhancing its host plant. This agreement was also created under the authority of Section 7 of the ESA. The butterfly requires one of three types of grasslands for habitat - in the US only eight locations still exist where this habitat occurs. The butterfly also requires a meadow species of violet under which the female species deposits her eggs and on which the young larva feed. The goal of this Safe Harbor agreement is to preserve and increase the rare habitat of the butterfly in order to strengthen its chances for survival.

4. In Texas, an agreement was created in 1995 to protect the Attwater's prairie chicken,



which occurs largely on private land. The agreement was drafted pursuant to Section 10(a)(1)(B) which permits future incidental "take" of the species (above the baseline).

The prairie chicken is currently the rarest bird in Texas. It once ranged over 6 million acres in Louisiana and Texas and numbered around one million in population. However, as agriculture, urban sprawl, and industrial development claimed the chicken's grasslands home, the species rapidly began to decline. The population hit an all time low in 1996 when only 42 of the birds remained in the wild. However, in the early 1990's, biologists began to breed the prairie chicken in captivity and has since begun to release the birds through Safe Harbor Agreements with residents of Texas. Now, between 50 to 60 prairie chickens are released each year.



5. The very first Safe Harbor Agreement was developed in the Sandhills area of North Carolina in April, 1995 to protect the red-cockaded woodpecker. A century ago, this bird was very common in the southeastern United States. As logging and farming claimed many of the high trees which were home to the woodpeckers, the species began slowly to disappear.

In 1970, under an earlier version of the ESA, the red-cockaded woodpecker was one of the first species to be designated as protected. Despite this listing, the woodpecker's population declined by 23% during the 1980's alone. The bird's preferred habitat, long-leaf pine forests, once covered 92 million acres. This habitat has now been reduced to less than four million acres.²⁰ The ground work for a Safe Harbor Agreement was laid in 1992 when the FWS and the US Army (concerned with activities at nearby Fort Bragg) hosted a meeting to develop an overall conservation strategy for the red-cockaded woodpecker. The meeting specifically addressed the needs of the woodpecker on private lands and the need for a coordinated multi-agency effort to protect this species.²¹ The overall goal of the program was



to find a way to conserve older longleaf pine trees which served as habitat for the woodpecker. This was a huge challenge because in North Carolina, only 7% of the pine population is over thirty years old.²² Less than 1% is over forty years old.²³ The harvest rotation of the timber products industry in North Carolina was too short to allow trees to become old enough to become woodpecker habitat²⁴. The suppression of fire allowed undergrowth incompatible to woodpecker habitat to take over forests.²⁵ Forests were also commonly fragmented by farming and the sprawl of urban development.²⁶

People feared incurring ESA liability. Reports of landowners clearing out habitat on their lands were increasing. Safe Harbor was introduced against this backdrop. It was clear that the program was an effort to harmonize environmental conservation with landowner prosperity.

This first Safe Harbor Program has been extremely successful. As of January, 1999, 27 landowners are managing 23,000 acres of red-cockaded woodpecker habitat and there are commitments from 15 landowners to sign up an additional 85,000 acres of woodpecker habitat.

¹Section 2(b) of the Endangered Species Act of 1973.

²"Take" is defined in section 3(18) of the Endangered Species Act of 1973.

³50 C.F.R. 17.3 (1990). This definition of harm was held to be reasonable and in accord with the broad purposes of the ESA in Babbitt v. Sweet Homes Chapter of Communities for a Greater Oregon, __ U.S. __, 115 S.Ct. 2407 (1995).

⁴Linda A. Malone, *Environmental Law*, The Professor Series at 176 (1st ed. Emanuel 1997).

⁵John A. Baden, *The Adverse Consequences of the ESA*, SEATTLE TIMES, Oct. 25, 1995 (reprinted on <http://www.gallatin.org/pub/GL.RW95.ESA2.html> visited on Jan, 25, 1999).

⁶*Id.*

⁷See George Radanovich, 78 Wines and Vines 54 (October 1997.)

⁸See Section 11 of the Endangered Species Act of 1973.

⁹*Key Issues Addressed by the Endangered Species Conservation and Management Act of 1995*, Outside Online: The News: Endangered Species Act Special Report, <<http://outside.starwave.com/news/specialreport/esa/pomboedit2.html>> (Statement by Rep. Richard Pombo=s office in support of passage of the Endangered Species Conservation and Management Act of 1995) (emphasis added).

¹⁰John A. Baden, *The Adverse Consequences of the ESA*, SEATTLE TIMES, Oct. 25, 1995 (reprinted on <http://www.gallatin.org/pub/GL.RW95.ESA2.html> visited on Jan, 25, 1999).

¹¹Michael J. Bean, *Incentive-Based Approaches to Conservation*, in The Species in Conservation 77.

¹² *Announcement of Draft Safe Harbor Policy*, 62 Fed. Reg. 32177, at 32178 (June 12, 1997); *Safe Harbor Agreements and Candidate Conservation Agreements*, 50 C.F.R. Parts 13 and 17, 62 Fed. Reg. 32189 (June 12, 1997).

¹³Taken from *Announcement of Draft Safe Harbor Policy*, 62 Fed. Reg. 32177, at 32179 (June 12, 1997).

¹⁴Although most other Safe Harbor Agreements to date have been issued an "incidental take" permit under Section 10(a)(1)(B), in the proposed federal regulations and Draft Safe Harbor Policy, FWS has determined that an "enhancement of survival" permit provides the best mechanism to carry out the Safe Harbor Policy. An Enhancement of Survival Permit may

be issued under the authority of Section 10(a)(1)(A) of the ESA.

¹⁵The previous information was largely compiled from the *Executive Summary* of the FWS on Safe Harbor Agreements; Michael J. Bean, *Incentive-Based Approaches to Conservation*, in *The Species in Conservation* 77; FWS= *Safe Harbor Agreements for Private Landowners: Questions and Answers*.

¹⁶This is based on figures obtained from “Statistics”, www.fws.gov, and are current through March 31, 1999.

¹⁷This is based on a survey of FWS personnel conducted by the U.S. General Accounting Office in 1994. The results of the survey were reprinted in David ‘ Wilcove, Michael J. Bean, Robert Bonnie, Margaret McMillan, *Rebuilding the Ark: Toward a More Effective Endangered Species Act for Private Land* (EDF)

¹⁸50 C.F.R. 17.3 (1990); *Babbitt v. Sweet Homes Chapter of Communities for a Greater Oregon*, __ U.S. __, 115 S.Ct. 2407 (1995).

¹⁹Michael J. Bean, *The Endangered Species Act and Private Land: Four Lessons Learned from the Past Quarter Century*, 28 *Envt=l L. Rep.* 10701 (Dec. 1998).

²⁰John F. Turner and Jason C. Rylander, *Conserving Endangered Species on Private Lands*, 32 *Land & Water L. Rev.* 571 (1997).

²¹FWS, *The North Carolina Sandhills Safe Harbor Program: A Case Study*.

²²John F. Turner and Jason C. Rylander, *Conserving Endangered Species on Private Lands*, 32 *Land & Water L. Rev.* 571 (1997).

²³*Id.*

²⁴*Id.*

Opinions on Safe Harbors

Even though the first Safe Harbor agreement was only implemented four years ago (1995), many organizations around the country have spoken out on this new ESA program. The groups range from government agencies to environmental groups to civic and homeowner organizations.

- Defenders of Wildlife:
“Most of our group believes that deleterious consequences to protected species from safe harbor initiatives will be infrequent and that safe harbors could prove to be an important inducement to overcoming landowner unwillingness to take actions beneficial to imperiled species.”
- J.B. Ruhl in the *Natural Resource & Environment* magazine of the ABA:
“...the assurances provided in the Candidate Conservation, **Safe Harbor**, and No Surprises policies indicate that FWS and NMFS have realized that economics do matter in the ESA and that economic interests are not necessarily the enemy of endangered species.”

- National Wildlife Federation:
“Safe Harbor agreements are a valid attempt to produce conservation benefits from private lands that otherwise might not be managed for the benefit of species. These new agreements, however, are still in the experimental stage and should be approached with caution.”
- National Association of Home Builders:
“NAHB would likely favor a program that would provide partial shield from ESA liability for any type of mitigation project.... However a program that included Section 404 [of the Clean Water Act] mitigation projects would be of much greater benefit to our members.”

Note: Safe Harbor agreements can be combined with a mitigation project so that the landowner will be protected from ESA liability once he/she has restored/created habitat.

Table 1. Government Programs for Species Protection

Recommendations for Baseline Requirements

Riparian Buffers

The most crucial component in the baseline of any aquatic Safe Harbor Agreement will be the presence of a minimum riparian buffer. A riparian buffer constitutes the various ecosystems adjacent to a stream or river. This includes the animal fauna and vegetative cover along that waterway. For our purposes, we are focusing on the vegetative cover within the buffer.

The word “buffer” is significant in that it defines what role the riparian zone plays in maintaining healthy aquatic habitat. It “buffers” against the adverse impacts of activities upland from the waterway. These can include agriculture practices, residential development, and runoff from impervious surfaces. The following are some of the most important benefits of maintaining a buffer:

- Trapping/removing sediment from runoff
- Stabilizing streambanks and reducing channel erosion
- Trapping/removing phosphorous, nitrogen, and other nutrients that can lead to eutrophication of aquatic ecosystems
- Trapping/removing other contaminants, such as pesticides
- Storing flood waters, thereby decreasing damage to property
- Maintaining habitat for fish and other aquatic organisms by moderating water temperatures and providing woody debris
- Providing habitat for terrestrial organisms
- Improving the aesthetics of stream corridors (which can increase property values)
- Offering recreational and educational opportunities

The benefits of maintaining a minimum riparian buffer will be discussed and then several recommendations will be provided regarding the minimum buffer for an aquatic Safe Harbor Baseline. It is important to recognize a riparian zone that consists primarily of grass is not considered an adequate buffer for the purposes of an aquatic Safe Harbor. It has been documented that

grass-covered surfaces can be considered an impervious surface. The ground can become saturated with water, which causes any additional rainfall to flow over the surface of the grass, carrying with it potential sources of water contamination. A riparian buffer with adequate tree and shrub cover can absorb large rainfall events by intercepting the rainfall within the canopy of the trees. This allows significantly more time for the ground to absorb the excess rainfall.

Sediment

Sediment, per volume of material, is the most significant pollutant to streams and rivers. Substantial inputs of sediment come from:

Construction sites - Areas undergoing massive development are more likely to contribute higher levels of sediment than similar sized areas in agricultural regions.

Mining - Gravel dredging is a common form of mining in many rivers. This gravel extraction can increase downstream turbidity and degrade aquatic habitat. This sort of disturbance is independent of the riparian zone, in that the mining occurs in the river itself. The movement of mining equipment through a stream or buffer can also have adverse affects on the water quality.

Agriculture - Cattle grazing and row crop agriculture are both significant contributors of sediment to Georgia waterways. Cattle contribute to sedimentation when they are permitted access to the stream, which is usually the cattle’s source of drinking water. The cattle traffic can contribute to streambank erosion.

Forestry - The impacts of logging are substantial. Logging roads that have not been stabilized contribute significant amounts of sediment into waterways each year.

Channel Erosion

In some instances, especially in urban areas, channel erosion can be the leading source of sedimentation in a river stretch. Channeling a river can lead to erosion by increasing the speed at which the water flows through the stretch of

the river. This increased river flow scours both the streamside and the streambed, all which contribute to the degradation of suitable fish habitat.

The goal of the riparian buffer in this situation is to stabilize the stream banks with the root system of that vegetation. The denser and more substantial the vegetation, the greater protection the buffer affords the waterways. The vegetation in the buffer should have deep, extensive root systems that can hold the soil along the waterway. Many of the native species provide the best roots for stabilizing the streambank.

Artificial methods of streambank stabilization such as riprap or the use of cement can prevent bank erosion, but they provide poor habitat and increase channel erosion downstream.

Phosphorous

Elevated levels of phosphorous can lead to the eutrophication of water bodies. Eutrophication of aquatic systems can lead to large algal blooms, which deplete the oxygen in the water. Fish communities require a narrow range of oxygen and these algal blooms can eliminate critical habitat for these fishes.

Specific Buffer Requirements

The FWS and the landowner may negotiate one of the following three buffer width options when developing a Safe Harbor Agreement. As with any program that targets private individuals, the recommendations should be flexible, with the caveat that aquatic systems are, in many circumstances, more fragile than their terrestrial counterparts. Any activity on a piece of property that can adversely affect the water quality in a stream usually impacts the water quality downstream of that property. It is critical that the FWS strive for a safe minimum standard to protect the water quality in these streams. The basis of any minimum standard should reflect current information regarding different sources of water degradation, e.g. the threat of impervious surfaces, storm water discharge pipes, cattle in the streams, and so forth.

These options are verbatim of the work of Seth Wenger and his extensive literature review of

riparian buffers and the role they play in maintaining water quality.

Option One

- Base width: 100 ft (30.5) plus 2 ft (0.61 m) per 1% of slope.
- Extend to edge of floodplain.
- Include adjacent wetlands. The buffer width is extended by the width of the wetlands, which guarantees that the entire wetland and an additional buffer are protected.
- Existing impervious surfaces in the riparian zone do not count toward buffer width (i.e., the width is extended by the width of the impervious surface, just as for wetlands).
- Slopes over 25% do not count toward the width.
- The buffer applies to all perennial, intermittent and ephemeral streams

Option Two

The same as Option One, except:

- Base width is 50 ft (15.2 m) plus 2 ft (0.61 m) per 1% of slope.
- Entire floodplain is not necessarily included in buffer, although potential sources of severe contamination are excluded from the floodplain.
- Ephemeral streams are not included; affected streams are those that appear on US Geological Survey 1:24,000 topographic quadrangles. Alternatively, the buffer can be applied to all perennial streams plus all intermittent streams of second order or larger.

Option Three:

- Fixed buffer width of 100 ft.
- The buffer applies to all streams that appear on US Geological Survey 1:24,000 topographic quadrangles, alternatively, all perennial streams plus all intermittent streams of second order or larger (as for Option Two).

One other option available for determining the appropriate riparian buffer width is to use twice the height of the tallest tree that naturally occurs in any given area. If a Long-leaf pine is the tallest occurring tree in a given area, and it grows to 60 feet, then the buffer width should be 120 feet. Fallen trees provide fish habitat when the crowns of trees land in the streambed. If the riparian buffer is too thin, the trunk of the tree might be the only part of the tree that lands in the streambed, thereby denying critical spawning and protective habitat for many fishes. This wider width also provides substantial protection, in the case of storm events, which can blow down trees in the riparian zone.

The following activities will be prohibited within the stream:

1. Cattle drinking
2. Storm water pipes discharging near the stream and riparian buffer
3. Sand and gravel extraction
4. Dam construction

5. Waste dumping

The following activities will be prohibited within the riparian buffer:

1. Construction of any kind
2. Land disturbance
3. No impervious surface in the buffer area
4. Clearing of understory vegetation

The following activities may be limited on the land surrounding the riparian buffer:

1. Impervious surface on property; no impervious surface in riparian zone
2. Commercial development
3. Industrial development
4. Agricultural development
5. Logging; only low-impact, selective logging allowed on property

Conservation Easements

Unlike a terrestrial system, where land disturbance activities can be isolated to individual plots of land, what affects one segment of a stream or river will probably have some adverse effects to downstream habitats. Larger plots of private land are more vulnerable to development than smaller plots. When the FWS approaches a private landowner who owns more than 1000 yards of land adjacent to a river, then a conservation easement, along with the Safe Harbor agreement, should be offered as an option to the landowner. Due to the fragile nature of aquatic systems, the conservation easement will act as a safety net for land uses that are not covered in the baseline of the Safe Harbor.

Conservation easements have been used for almost a century. The major efforts in the applications of easements have been by federal and state agencies to preserve historic sites and wilderness areas. In the 1950's, conservation easements were used to target ecologically significant habitats. The U.S. Fish and Wildlife Service has placed nearly 1.3 million acres of land under easements to prevent the draining and filling of wetlands. More recently, land trusts have taken a prominent role in using easements to further preserve historic, open space, and wilderness areas. As of 1991, 899 land trust organizations have protected nearly 2.7 million acres of private land through conservation easements. Conservation easements can be effective tools to conserve private land.

The selling points of an easement are the tax incentives derived from entering into the agreement. Some landowners may be interested in entering into an easement solely for preservation purposes, which certainly makes the FWS job easier. With the enticement of financial incentives offered by a conservation easement, along with the legal protections afforded by the Safe Harbor Agreement, the program might appeal to a larger portion of the population.

What is an easement?

A conservation easement is a legally binding agreement between a governmental agency or land trust organization and a private landowner.

There are numerous variations in the law between states, but the basic tenets of the easement are the same. The ultimate purpose of this legal agreement is to prohibit certain land practices that may adversely impact the environment, while preserving other agreed upon rights to use that land. This is similar to the "bundle of sticks" concept, in that each landowner has certain rights that accompany ownership of private land. The conservation agreement limits certain rights. These 'rights' may include commercial development of the land, silviculture, road construction and mineral rights to name just a few. The purpose of many conservation easements is the preservation of natural areas and agricultural lands. The conservation easement can mitigate the disproportionate rise in estate and property taxes that accompany elevated real estate values occurring near developing areas.

Essentially, an easement is transference of rights from the "grantor" (landowner) to the "grantee" (conservation organization called a "land trust"/governmental group). With the transfer of rights, the grantee is responsible for monitoring land based on the predetermined conditions established in the easement agreement. One example is when a landowner transfers the right to develop the land for commercial or industrial purposes, but retains the right to farm or log. An easement may also reference to include recreational activities, for example, fishing, snowmobiling, camping, and so forth. Individual land trusts might require their own conditions before they enter into any agreement. Some land trusts will not enter into an agreement unless the property is a minimum size. The Minnesota Land Trust, for example, will generally only enter agreements on tracts of land ten acres or larger.

Financial benefits of entering into an agreement

The financial benefits available to a landowner entering in an agreement will vary both from state to state and from agreement to agreement. The financial benefits can be tax-based incentives, a lump sum of cash, or both. In cases

where the landowner seeks federal income tax deductions, they must enter into the agreement in perpetuity. The agreement is binding on all prospective owners of the land. The property can be sold, but the new owner must assume the same responsibilities as the previous owner who entered into the easement.

The basis of any financial incentive is determined by the value of the land. A formal appraiser will determine the value of the land at current market prices and then reappraise the land based on the restrictions that have been placed on the property. To be eligible for the federal income tax breaks, the purpose of the agreement must be for preservation purposes, that is, preserving natural habitat, historic sites, unique scenic landscapes, wildlife corridors, and other comparable landscapes.

Example of Calculating Tax Benefits

The Jones family would like to create an easement on the 50-acre parcel of land that they currently own. The Jones' are farmers and will to continue farming after they enter into the agreement. Their land is currently appraised at \$2,000 per acre.

$$50 \text{ acres} \times \$2,000 = \$100,000$$

Now let us assume that with easement in place the land is reduced in value to \$1,000 per acre. The market value of the land now under the easement would be:

$$50 \text{ acres} \times \$1,000 = \$50,000$$

The value of the easement would be the difference between the before and after values of the land:

$$\$100,000 - \$50,000 = \$50,000$$

Federal Income Tax Benefits

An easement qualifies as a charitable donation that can be deducted at an amount up to 30 percent of the donor's adjusted gross income in the year of the gift. If the easement's value

exceeds the 30 percent of the donor's income, then it can be deducted the following year, for a total of five years.

Estate Tax Benefits

If the landowner chooses to pass on the land to his/her relatives, then the estate tax would be reduced by the predetermined amount described above (\$50,000). This helps relatives maintain the land without having to pay enormous estate taxes, which lead many people to sell their land outright.

Property Tax Benefits

Depending on the type of zoning that a certain parcel of land is under, the easement can serve as a vehicle to lower property taxes, since the total value of the land has been reduced. This will vary with the location of each easement due to the different local and state laws in a particular area.

Land Trust

Another potential justification for using an easement is that it allows other administrative bodies an opportunity to monitor lands enrolled in the program. As more private landowners enroll in the Safe Harbor program, the FWS will find it increasingly difficult to allocate funds for monitoring an ever-increasing land base. Land trusts are required within the conservation easement to monitor the lands under their authority. This could alleviate the FWS administrative responsibilities while assessing compliance within each Safe Harbors agreement.

Some private landowners might also be more comfortable having a member of a land trust monitoring their land on a yearly basis than they would personnel of the FWS. The FWS would have to empower the land trust with the authority to monitor the lands with regards to the baseline in the Safe Harbor.

Model Conservation Easement

STATE OF GEORGIA
COUNTY OF _____

DEED OF CONSERVATION EASEMENT

THIS CONSERVATION EASEMENT (hereinafter "Conservation Easement") is made this ___th day of _____, 1999, by and between _____, whose address is _____, Ga. 3____ (hereinafter "Grantor") and _____ LAND TRUST, INC., a Georgia nonprofit corporation, whose address is _____, Ga. _____ (hereinafter "Grantee")

RECITALS

A. Grantee is a nonprofit corporation established for the purpose of promoting the preservation of environmentally valuable and sensitive lands, recreation lands, agricultural lands, lands of historic or cultural importance and open space in the Etowah River Watershed and other watersheds within the State of Georgia for charitable, scientific, educational and aesthetic purposes. (MAKE SURE THIS IS PURPOSE OF THE SPECIFIC LAND TRUST WHO IS ACCEPTING THE EASEMENT)

B. Grantor owns in fee simple certain real property in _____ County. This real property is _____ acres, more or less. It is more particularly shown and described in Exhibit A (attached). hereinafter "Property," consisting of Tract 1, _____ acres together with Tract 2, _____ acres, hereinafter "Secondary Conservation Area," and Tract 3, _____ acres together with Tract 4, a strip of land running to the center of the Etowah River, hereinafter "Primary conservation Area." This is all as shown and described in Exhibit B (attached). (ADJUST TRACTS, ACREAGE AND DESCRIPTION TO THIS SPECIFIC PROPERTY).

C. Grantor is willing to grant a perpetual conservation Easement over the Property, thereby restricting and limiting the use of the land and contiguous water areas of the Property, on the terms and conditions and for the purposes set forth herein. Grantee is willing to accept this Conservation Easement.

D. Grantor and Grantee recognize the conservation value of the Property in its present state, being adjacent to the Etowah River and its tributaries (NAME THE TRIBUTARY IF NAMED), as a significant natural area which provides a "relatively natural habitat for fish, wildlife or plants or similar ecosystems" as that phrase is used in Section 170(h)(4)(A)(ii) of the Internal Revenue Code, including habitat for the Federally endangered Etowah Darter, Amber Darter, Upland Combshell mussel, Southern Acornshell mussel, Coosa Moccasinshell, mussel, Southern Clubshell mussel, Southern Pigtoe mussel, Warrior Pigtoe mussel, Ovate Clubshell mussel, and Triangular Kidneyshell mussel. The area also provides habitat for the federally threatened Blue Shiner, Cherokee Darter, Fine-lined Pocketbook mussel, Orange-nacre Mucket mussel, and Alabama Moccasinshell mussel. The area also provides habitat for the following State endangered or threatened species, Freckled Darter, Coldwater Darter, and Frecklebelly Madtom. The area also provides habitat for deer, bear, squirrel, rabbit, raccoon, quail, doves, turkey, grouse, as well as several non-game animals and birds.

E. Due in part to its location adjacent to the Etowah River, one of the last free-flowing rivers, unimpounded and unchanneled, in the eastern Piedmont, Grantor and Grantee recognize the conservation and open space values of the property in its present state, the preservation of which (1) is pursuant to federal, state and local government policy as evidenced by:

(a) the designation of land adjacent to the Etowah River as a National Forest (Chattahoochee) and as a State Park (Amicalola Falls) and as a City Park (Boling in Canton, Georgia).

(b) the designation of land adjacent to the Etowah River as Wildlife Management Areas (Dawson Forest and Pine Log Mountain).

(c) the designation by the national group, American Rivers, of the Etowah River as one of the four most endangered rivers in the country in 1997 and in 1999.

(d) the creation of the Upper Etowah River Alliance, a government-approved body which addresses river protection on a regional basis.

(e) resolutions passed by the Cherokee Commission and the Canton City Council to create a Greenway along the River in Canton, Georgia.

(f) the designation of the Etowah River by the Department of Natural Resources as a Significant Natural Area under the Preservation 2000 Acquisition Program.

(g) the designation of the Etowah River and its tributaries, as Regionally Important Resources pursuant to the Georgia Planning Act of 1989, at O.C.G.A. 50-8-3 et. seq.

(h) the requirement that an Etowah River corridor management plan be developed pursuant to O.C.G.A. 12-2-8(g) for the purpose of protecting the corridor, public water supply, groundwater discharge areas, and wetlands.

and (2) the preservation of which will provide for the scenic enjoyment by the general public, as evidenced by:

(a) the large number of canoeists and rafters who float the Etowah River to enjoy the scenery and wildlife.

(b) the fact that development of the Property adjacent to the river would impair the natural scenic character enjoyed by the public. (CHECK TO SEE IF THE DNR OR ANY OTHER GOVERNMENTAL BODY HAS PURCHASED PROPERTY NEARBY THAT WOULD BE AFFECTED BY DEVELOPMENT OF THE TRACT.)

and (3) the preservation of which will yield other significant public benefits including:

(a) preservation of the water quality of the Etowah River through control of point and non-point source discharges; which an EPA study has determined are contributing to the degradation of Lake Allatoona.

(b) preservation of the scenic and natural landscape which attracts tourism and commerce to (SPECIFY) County.

(c) continuation of the traditional use of the non-resident portion of the Property for hiking, nature study and other passive recreational uses.

F. Grantee is a tax exempt public charity under Section 501(c)(3) and 509(a)(2) of the Internal Revenue code, is authorized by the laws of the State of Georgia to accept, hold and administer Conservation Easements under the terms and conditions hereinafter described, and is a "qualified organization" and an "eligible donee" within the meaning of Section 170(h)(3) of the Internal Revenue code and regulations promulgated thereunder.

THEREFORE, as an absolute gift of no monetary consideration but in consideration of the mutual covenants, terms, conditions and restrictions hereinafter set forth, Grantor hereby unconditionally and irrevocably grants and conveys unto Grantee, its successors and assigns, forever and in perpetuity a Conservation Easement of the nature and character and to the extent herein set forth, over the Property more particularly described in Exhibit A, together with the

right to preserve and protect the conservation values of the Property.

The purposes of this Conservation Easement are to preserve and protect the conservation values of the Property and to maintain permanently the dominant woodland, scenic, open and natural character of the Property, including land and water resources; to protect plants and animals and plant and animal communities on or affected by the property's management; and to prevent any use of the Property that will significantly impair or interfere with the conservation values or interests of the property. The following conditions and restrictions are set forth to achieve these purposes:

**ARTICLE ONE
DURATION OF EASEMENT**

This Conservation Easement shall be perpetual. It is an easement in gross, runs with the land and is enforceable by Grantee against Grantor, his personal representatives, heirs, successors and assigns, lessees, agents and licensees.

**ARTICLE TWO
RIGHTS OF GRANTEE**

To accomplish the purposes of this Easement, the following rights are conveyed to Grantee by this easement:

- A. To preserve and protect the conservation values of the Property.
- B. To enter upon the Property at reasonable times to monitor compliance with and otherwise enforce the terms of this Easement in accordance with Article _____. This is provided that, except in cases where Grantee determines that immediate entry is required to prevent, terminate or mitigate a violation of this Easement, such entry shall be upon prior reasonable notice to Grantor. Grantee shall not in any case unreasonably interfere with Grantor's use and quiet enjoyment of the Property; and
- C. To prevent any activity on, or use of, the Property that is inconsistent with the purposes of this conservation Easement and to require the restoration of such areas or features of the Property that may be damaged by any inconsistent activity or use, pursuant to remedies set forth in Article _____.

**ARTICLE THREE
PROHIBITED AND RESTRICTED ACTIVITIES**

Any activity on, or use of, the Property inconsistent with the purposes of this conservation Easement is prohibited. Development that would significantly impair or interfere with the conservation values of the Property is prohibited.

A. Restrictions on the Property. The following activities and uses are expressly prohibited.

- 1. Industrial Use.** Industrial activities are prohibited.
- 2. Construction, Residential and Institutional Use.** Construction, Residential and Institutional Use is prohibited except within the Secondary Conservation Area of the property.
- 3. Dumping.** Disposal of soil, trash, ashes, garbage, waste, abandoned vehicles, appliances, machinery or other materials on the Property is prohibited.
- 4. Mineral Use, Excavation, Dredging.** There shall be no filling, excavation, dredging, mining or drilling; no removal of topsoil, sand, gravel, rock peat, minerals or other materials; and no change in the topog-

raphy or the land in any manner, except that incidental to the construction allowed herein. This includes any water bodies located on or run through the land.

5. Water Quality and Drainage Pattern. There shall be no pollution, alteration, depletion or extraction of surface water, natural watercourses, subsurface water or any other water bodies except for the withdrawal of well water. Further, there shall be no activities conducted on the Property or on adjacent property, if owned by Grantor, which would be detrimental to water purity or which would alter natural water levels, drainage, sedimentation and/or flow in or over the Property or to the Oconee River, or cause soil degradation or erosion.

Disruption of natural drainage patterns and creation of artificial drainage patterns including, but not limited to, storm water discharge pipes, construction of check dams and other impoundments is prohibited.

6. Cattle Drinking

There shall be no cattle drinking permitted in or near streams or rivers located on the property

B. Additional Restrictions On the Primary Conservation Area. The Primary conservation Area shall be maintained in its natural, scenic and open condition. The following activities and uses, in addition to those set forth in Section A above, are expressly prohibited within the Primary Conservation Area.

1. Industrial, Commercial and Agricultural Use. Industrial and commercial activities, including, but not limited to, commercial agricultural and horticultural use and livestock production, are prohibited.

2. Disturbance of Natural Features. Any change, disturbance, alteration or impairment of the natural, scenic, and aesthetic features is prohibited.

3. Building, Road, Fence and Path Construction. The construction of buildings, fences and roads are prohibited except for the construction of firebreaks and fire roads built by the Georgia Forestry commission or the U.S. Forest Service in an emergency situation.

Dirt foot paths may be constructed for hiking purposes.

4. Silvicultural, Agricultural and Horticultural Use. Silvicultural, agricultural and horticultural use shall be limited to best management practices.

**ARTICLE FOUR
RESERVED RIGHTS**

Grantor reserves to himself, and to his personal representatives, heirs, successors, and assigns, all rights accruing from his ownership of the Property, including the right to engage in, or permit or invite others to engage in, all uses of the Property that are not expressly prohibited and are not inconsistent with the purposes of this Easement.

**ARTICLE FIVE
MEDIATION**

A. Mediation. If a dispute should arise between the parties concerning the consistency of any proposed use or activity with the purpose of this Easement, an Grantor agrees not to proceed with the use or activity pending resolution of the dispute, either party may refer the dispute to mediation with a request made in writing to the other party.

Within ten (10) days of the receipt of such a request, the parties shall select a single trained and impartial mediator. If the parties are unable to agree on the selection of a single mediator then the parties shall, within fifteen (15) days of receipt of the initial request, jointly apply to a proper court for the appointment of a trained and impartial mediator.

Mediation shall then proceed in accordance with the following guidelines:

- 1. Purpose.** The purpose of the mediation is to (a) promote discussion between the parties; (b) assist the parties to develop and exchange pertinent information concerning the issues in dispute; and (c) assist the parties to develop proposals which will enable them to arrive at a mutually acceptable resolution of the controversy. The mediation is not intended to result in any express or *de facto* modification or amendment of the terms, conditions or restrictions of this Easement.
- 2. Participation.** The mediator may meet with the parties and their counsel jointly or *ex parte*. The parties agree that they will participate in the mediation process in good faith and expeditiously, attending all sessions scheduled by the mediator. Representatives of the parties with settlement authority will attend mediation sessions as requested by the mediator.
- 3. Confidentiality.** All information presented to the mediator shall be deemed confidential and shall be disclosed by the mediator only with the consent of the parties or their respective counsel. The mediator shall not be subject to subpoena by either party. No statements made or documents prepared for mediation session shall be disclosed in any subsequent proceeding or construed as an admission by either party.
- 4. Time Period.** Neither party shall be obligated to continue the mediation process beyond a period of ninety (90) days from the date of receipt of the initial request or if the mediator concludes that there is no reasonable likelihood that continuing mediation will result in a mutually agreeable resolution of the dispute.
- 5. Costs.** The costs of the mediator shall be borne equally by Grantor and Grantee. The parties shall bear their own mediation expenses, including attorneys' fees individually.

ARTICLE SIX GRANTEE'S REMEDIES

- A. Notice of violation; Corrective Action.** If Grantee determines that a violation of the terms of this Easement has occurred or is threatened, Grantee shall give written notice to Grantor of such violation and demand corrective action sufficient to cure the violation and, where the violation involves injury to the Property resulting from any use or activity inconsistent with the purpose of this Easement, that Grantor restore the portion of the Property so injured to its prior condition in accordance with a plan approved by Grantee.
- B. Injunctive Relief.** If Grantor fails to cure the violation within thirty (30) days after receipt of notice of the violation from Grantee, or under circumstances where the violation cannot reasonably be cured within a thirty (30) day period, fails to begin curing such violation within the (30) day period, or fails to continue to cure such violation until finally cured, Grantee may bring an action at law or in equity, in a court of competent jurisdiction, to enforce the terms of this Easement, to enjoin the violation, *ex parte* as necessary, by temporary or permanent injunction, and to require the restoration of the Property to the condition that existed prior to any such injury.
- C. Damages.** Grantee shall be entitled to recover damages for violation of the terms of this Easement or for injury to any conservation values protected by this Easement, including, but not limited to, damages for the loss of scenic, aesthetic, or environmental values. Without limiting Grantor's liability therefor, Grantee, in its sole discretion, may apply any damages recovered to the cost of undertaking any corrective action on the property.
- D. Emergency Enforcement.** If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate significant damage to the conservation values of the Property, Grantee may pursue its remedies under this Article without prior notice to Grantor or without waiting for the period provided for cure to expire.

E. Scope of Relief. Grantee's rights under this Article apply equally in the event of either actual or threatened violations of the terms of this Easement.

Grantor agrees that Grantee's remedies at law for any violation of the terms of this Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in paragraph 6 B, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of the terms of this Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies.

Grantee's remedies described in this Article shall be cumulative and shall be in addition to all remedies now or here existing at law or in equity.

F. Costs of Enforcement. All reasonable costs incurred by Grantee in enforcing the terms of this Easement against Grantor, including, but not limited to, costs and expenses of suit and reasonable attorneys' fees, and any costs of restoration necessitated by Grantor's violation of the terms of this Easement shall be borne by Grantor.

However, if Grantor ultimately prevails in a judicial enforcement action, each party shall bear all its own costs.

G. Forbearance. Forbearance by Grantee to exercise its rights under this Easement in the event of any breach of any term of this Easement by Grantor shall not be deemed or construed to be a waiver by Grantee of such term, or a waiver of any of Grantee's rights under this Easement in the case of any subsequent breach of the same or any other term of this Easement.

H. Waiver of Certain Defenses. Grantor waives any defense of laches, estoppel, or prescription. Grantor waives no other defenses.

I. Acts Beyond Grantor's Control. Nothing contained in this Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to, or change in, the Property resulting from causes beyond Grantor's control, including, but not limited to, fire, flood, storm, and earth movement, or from any prudent action, taken by Grantor under emergency conditions, to prevent, abate, or mitigate significant injury to the property resulting from such causes.

ARTICLE SEVEN PUBLIC ACCESS

The granting of this Conservation Easement does not convey to the public the right to enter the Property for any purposes whatsoever. However, the public does have the right of scenic enjoyment of the property from the Etowah River.

ARTICLE EIGHT EXHIBITS, DOCUMENTATION AND TITLE

A. Legal Description. Exhibit A, Legal Description of the Property, and Exhibit B, Survey of the Property, are attached and made a part of this document by reference.

B. Easement Documentation Report. The parties acknowledge that the _____ Property Conservation Planning Data Sheet dated _____, 1999, a copy of which is on file at the office of the Grantee, accurately establishes the uses, structures, conservation values and conditions of the Property as of the date of the signing of this document.

C. Title. The Grantors covenant and represent that the Grantor is the sole owner and is seized of the Property in fee simple and has good right to grant and convey the aforesaid Conservation Easement; that the Property is free and clear of any and all encumbrances; and Grantor covenants that the Grantee shall have the use of and enjoyment of all of the benefits derived from and arising out of the aforesaid Conservation Easement.

**ARTICLE NINE
COSTS, LIABILITIES AND
ENVIRONMENTAL COMPLIANCE**

A. Costs, Legal Requirements, and Liabilities. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property, Grantor remains solely responsible for attaining any applicable government permits and approvals for any construction or other activity or use shall be undertaken in accordance with all applicable federal, state, and local laws, regulations, and requirements, Grantor shall keep the Property free of any liens arising out of any work performed for, materials furnished to, or obligations incurred by Grantor.

B. Representations and Warrantees. Grantor represents and warrants that, after reasonable investigation and the best of his knowledge:

1. No substance defined, listed, or otherwise classified pursuant to any federal, state, or local law, regulation, or requirement as hazardous, toxic, polluting, or otherwise contaminating to the air, water, or soil, or in any way harmful or threatening to human health or the environment exists or has been released, generated, treated, stored, used, disposed of, deposited, abandoned, or transported in, on, from, or across the Property.
2. There are not now any underground storage tanks located on the Property, whether presently in service or closed, abandoned, or decommissioned, and no underground storage tanks have been removed from the Property in a manner not in compliance with applicable federal, state, and local laws, regulations, and requirements.
3. Grantor and the Property are in compliance with all federal, state and local laws, regulations, and requirements applicable to the Property and its use.
4. There is no pending or threatened litigation in any way affecting, involving, or relating to the Property; and
5. No civil or criminal proceedings or investigations have been initiated at any time or are now pending, and no notices, claims, demands, or orders have been received, arising out of any violation or alleged violation of, or failure to comply with, any federal, state or local law, regulation, or requirement applicable to the Property or its use, nor do there exist any facts or circumstances that Grantor might reasonably expect to form the basis for any such proceedings, investigations, notices, claims, demands, or orders.

C. Remediation. If, at any time, there occurs, or has occurred, a release in, on or about the Property of any substance now or later defined, listed or otherwise classified pursuant to any federal, state, or local law, regulation, or requirement as hazardous, toxic, polluting, or otherwise contaminating to the air, water, ore soil, or in any way harmful or threatening to human health or the environment, Grantor agrees to take all steps necessary to assure its containment and remediation, including any cleanup that may be required, unless the release was caused by Grantee, in which case Grantee shall be responsible for cleanup and remediation.

D. Control. Nothing in this Easement shall be construed as giving rise, in the absence of a judicial decree, to any right or ability in Grantee to exercise physical or managerial control over the day-to-day operation of the Property, or any of Grantor's activities on the Property, or otherwise to become an operator with respect to the Property within the meaning of the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (CERCLA) and Georgia's hazardous waste statutes.

**ARTICLE TEN
TAXES**

Grantor shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority (collectively “taxes”), including an taxes imposed upon, or incurred as a result of, this easement, and shall furnish Grantee with satisfactory evidence of payment upon request.

**ARTICLE ELEVEN
INDEMNIFICATION**

Grantor hereby releases and agrees to hold harmless, indemnify, and defend Grantee and its members, directors, officers, employees, agents, and contractors and the heirs, personal representatives, successors, and assigns of each of them (collectively “Indemnified Parties”) from and against any and all liabilities, penalties, fines, charges, costs, losses, damages, expenses, causes of action, claims, demands, orders, judgments, or administrative actions, including, but not limited to, reasonable attorneys’ fees arising from or in any way connected with:

- (1) injury to or the death of any person, or physical damage to any property, resulting from any act, omission condition, or other matter related to or occurring on or about the Property, regardless of cause, unless due solely to the negligence of any of the Indemnified Parties;
- (2) the violation or alleged violation of, or other failure to comply with any state, federal or local law, regulation, or requirement, including, but not limited to CERCLA and state hazardous waste statutes, by any person other than any of the Indemnified parties, in any way affecting, involving or relating to the Property;
- (3) the presence or release in, on, from, or about the Property, at any time, of any substance now or hereafter defined, listed, or otherwise classified pursuant to any federal, state, or local law, regulation, or requirement as hazardous, toxic, polluting, or otherwise contaminating to the air, water, or soil, or in any way harmful or threatening to human health or the environment, unless caused solely by any of the Indemnified Parties, and
- (4) the obligations, covenants, representations, and warranties of Article Nine and Article Ten.

**ARTICLE TWELVE
EXTINGUISHMENT AND CONDEMNATION**

A. Extinguishment. If circumstances arise in the future that render the purpose of this Easement impossible to accomplish, this Easement can only be terminated or extinguished, whether in whole or in part, by judicial proceedings in a court of competent jurisdiction. The amount of the proceeds to which Grantee shall be entitled, after the satisfaction or prior claims, from any sale, exchange, or involuntary conversion of all or any portion of the Property subsequent to such termination or extinguishment, shall be the stipulated fair market value of the Easement, or proportionate part thereof, as determined in accordance with paragraph 12B.

B. Valuation. This Easement constitutes a real property interest immediately vested in Grantee which, for the purposes of paragraph 12 A, the parties stipulate to have a fair market value determined by multiplying (1) the fair market value of the Property unencumbered by the Easement (minus any increase in value after the date of this grant attributable to improvements) by (2) the ratio of the value of the Easement at the time of this grant to the value of the Property, without deduction for the value of the Easement at the time of this grant to the value of the Property.

C. Condemnation. If all or any part of the Property is taken by exercise of the power of eminent domain or acquired by purchase in lieu of condemnation, whether by public, corporate, or other authority, so as to terminate this Easement, in whole or in part, Grantor and Grantee shall act jointly to recover the full value of the interests in the Property subject to the taking or in lieu of purchase and all direct or incidental damages resulting therefrom. All expenses reasonable incurred by Grantor and Grantee in connection with the taking or in lieu of purchase shall be paid out of the amount recovered. Grantee’s share of the balance of the amount recovered shall be determined by multiplying that balance by the equation set forth in paragraph 12 B.

D. Application of Proceeds. Grantee shall use any proceeds received under the circumstances described in this Article in a manner consistent with its conservation purposes which are exemplified by this grant.

**ARTICLE THIRTEEN
ASSIGNMENT**

This easement is transferable, but Grantee may assign its rights and obligations under this Easement only to an organization that a qualified organization at the time of transfer under Section 170(h) of the Internal revenue Code (or any successor provision then applicable), and authorized to acquire and hold conservation easements under Georgia's Uniform Conservation Easement Act (or any successor provision then applicable) or the laws of the United States. As a condition of such transfer, Grantee shall require that the conservation purpose that this grant is intended to advance continue to be carried out.

Grantee agrees to give written notice to Grantor of an assignment at least twenty (20) days prior to such assignment. The failure of Grantee to give such notice shall not affect the validity of such assignment nor shall it impair the validity of this Easement or limit its enforceability in any way.

**ARTICLE FOURTEEN
SUBSEQUENT TRANSFERS AND ZONING
APPLICATIONS**

A. Subsequent Transfers. Grantor agrees to incorporate the terms of this Easement by reference in any deed or other legal instrument by which he divests himself of any interest in all or a portion of the Property, including, but not limited to, a leasehold interest. Grantor further agrees to give written notice to Grantee of the transfer of any interest at least twenty (20) days prior to the date of such transfer.

B. Notice of Zoning Applications and Building Permits. Grantor, for himself, his heirs, successors and assigns, further agrees to notify Grantee in writing of any request to obtain a building permit or to amend the zoning of the property as east twenty (20) days prior to the filing of such a request with the appropriate _____ County agencies. The failure of Grantor to perform any act required by this paragraph shall not impair the validity of this Easement or limit its enforceability in any way.

**ARTICLE FIFTEEN
RECORDATION**

Grantee shall record this instrument in timely fashion in the official records of _____ County, Georgia and may re-record it at any time as may be required to preserve its rights in this easement.

**ARTICLE SIXTEEN
GENERAL PROVISIONS**

A. Controlling Law. The interpretation and performance of this Easement shall be governed by the laws of the State of Georgia.

B. Liberal Construction. Any general rule of construction to the contrary notwithstanding, this Easement shall be liberally construed in favor of the grant to effect the purpose of this Easement and the policy and purpose of the Uniform Conservation Easement Act. If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purpose of this Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

C. Severability. If any provisions of this Easement, or the application thereof to any person or circumstance, is found to be invalid, the remainder of the provisions of this Easement, or the application of such provision to persons or circumstances other than those as to which it is found to be invalid, as the case may be, shall not be affected thereby.

D. Entire Agreement. This instrument sets forth the entire agreement of the parties with respect to the Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Easement, all of which are merged herein.

E. No Forfeiture. Nothing contained in this agreement will result in a forfeiture or reversion of Grantor's title in any respect.

F. Joint Obligation. The obligations imposed by his Easement upon Grantor and his heirs, successors and assigns, shall be joint and several.

G. Successors. The covenants, terms, conditions, and restrictions of this Easement shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors and assigns and shall continue as a servitude running in perpetuity with the Property.

The Terms "Grantor" and "Grantee," wherever used herein, and any pronouns used in place thereof, shall include, respectively, the above-named Grantor and his personal representatives, heirs, successors, and assigns, and the above-named Grantee and its successors and assigns.

H. Termination of Rights and Obligations. A party's rights and obligations under this Easement terminate upon transfer of the party's interest in the Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

I. Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument. They shall have no effect upon construction or interpretation of this instrument.

J. Counterparts. The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties. Each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

TO HAVE AND TO HOLD unto the _____ Land Trust, Inc., its successors and assigns forever. The covenants agreed to and the terms, conditions, restrictions and purposes imposed as aforesaid shall be binding upon Grantor, his personal representatives, heirs, successors and assigns, and shall continue as a servitude running in perpetuity with the Property.

IN WITNESS OF THIS, the parties hereto have set their hands and seals and caused these presents to be executed in their respective names by authority duly given, and their corporate seal affixed, the day and year written above.

TO BE EFFECTIVE upon the date of recordation in the official records of _____ County.

GRANTOR

(GRANTOR NAME HERE)

Witnesses:

NOTARY PUBLIC

GRANTEE:

_____ LAND TRUST

BY: _____
(OFFICER NAME AND TITLE)

Witnesses:

NOTARY PUBLIC

ATTEST: _____
(OFFICER NAME AND TITLE)

Witnesses:

NOTARY PUBLIC

This instrument prepared by:
Laurie Fowler, Esq.
The Georgia Land Trust Service Center
A Project of the Georgia Environmental Policy Institute
380 Meigs St.
Athens, Georgia 30601
(706) 546-7507

**(ATTACH EXHIBITS ON
LATER PAGES)**

Contacts

For more information regarding the information contained in this Manual, please contact:

For general information on the Safe Harbor Program:

U.S. Fish & Wildlife Service
Robin Goodloe
380 Meigs Street
Athens, Georgia 30601
706.613.9493
Robin_Goodloe@fws.gov

U.S. Fish & Wildlife Service
Regional Office
Rick Gooch
1875 Century Boulevard
Atlanta, Georgia 30345
404.679.7100

National Wildlife Federation
www.nationalwildlife.org/nwf/endangered/hcp/hcpharb.html

Environmental Defense Fund
www.edf.org

For information on local land trusts in the Etowah Watershed:

Chattowah Open Land Trust
Dr. Chip Reed, President
135 North Christopher's Run
Alpharetta, Georgia 30201
770.664.0650
Chattowah@aol.com

Mountain Conservation Trust of Georgia
Barbara Decker, Executive Director
104 North Main Street
Suite 3
Jasper, Georgia 30143
706.692.4077

Other contacts:

Laurie Fowler
Professor, Institute of Ecology
Athens, Georgia 30602
706.542.5188
lfowler@arches.uga.edu

Douglas Parsons
Graduate student, Institute of Ecology
288 Gran Ellen Dr.
Athens, Georgia 30606
iguana26@arches.uga.edu

Amanda Baxter
Law student, School of Law
acbaxter@arches.uga.edu

Alison Van Lear
Law student, School of Law
avanlear@arches.uga.edu

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The objectives of the Etowah Initiative are (1) to provide an educational environment where students can apply skill learned in the traditional classroom to pressing community concerns and problems; (2) to provide an opportunity for students and faculty to work with other disciplines in integrated decisionmaking and problem-solving, thus improving their ability to understand, communicate with and influence other disciplines; and (3) increase awareness of the importance of addressing environmental issues proactively within the University and the broader community.

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AN AQUATIC SAFE HARBOR PROGRAM
FOR THE
UPPER ETOWAH RIVER

Amanda Baxter
Douglas Parsons
Alison Van Lear

for the

The Etowah Initiative

School of Law • Institute of Ecology • School of Environmental Design

Spring 1999