

The Carolina Heelsplitter Conservation Bank (South Carolina)

I. OVERVIEW & BACKGROUND

Location:	Lancaster County, South Carolina
Date established:	December 2009
Size of bank:	811 acres
Species:	Carolina heelsplitter (<i>Lasmigona decorata</i>) The bank includes streams where the heelsplitter is currently present.
Number of acres of buffer areas:	389 acres of Riparian Buffers
Method of credit generation:	Preservation and management of riparian buffer areas and uplands to enhance in-stream water quality
Credits available / used:	834.8 credits (originally) / “not enough”
Interesting features:	Multi-state bank; county/local land-use ordinances are credit drivers; upland activities are controlled to protect aquatic areas

II. INTRODUCTION / SITE SELECTION

The Carolina Heelsplitter Conservation Bank was created by Environmental Banc & Exchange (EBX) through a conservation banking instrument as part of an integrated solution to balance the needs for economic development with the conservation needs of the federally-listed Carolina heelsplitter. The heelsplitter is a fresh-water mussel species currently found in approximately ten creek or headwater rivers watersheds of the Piedmont in North and South Carolina. This species was federally listed as endangered in June 1993, and the U.S. Fish & Wildlife Service (USFWS) designated its critical habitat in September 2002.

After discovery of a new population of heelsplitters in Lancaster County, South Carolina in 2006, USFWS-Charleston worked with Lancaster County to have a protective ordinance enacted for the heelsplitter. Specifically, Lancaster County Ordinance #963 (amended version of Lancaster County Resolution #601; see Appendix A) requires mitigation for projects within the Six Mile Creek watershed that create impervious surface and/or impacts to riparian buffers.

In 2007, EBX coordinated with USFWS-Charleston to begin the process of creating this multi-state bank, sited within the Flat Creek watershed. Because this was the first aquatic species conservation bank in the Southeast, the bank took almost two years to gain approval

through the Regional Solicitor's Office of the U.S. Department of Interior (Atlanta). In addition, USFWS-Charleston worked with USFWS-Asheville to allow a service area that included parts of both states.

In selecting the Flat Creek watershed as the site for the bank, EBX determined that it would be paramount to the ecological success of the bank to consider the following: the presence of a viable population of Carolina heelsplitters (EBX determined that the site of the bank housed the only viable remaining population in the area), the condition of the existing watershed (e.g., low percentage of impervious surface in watershed due to historic silviculture activities and location outside the zone of development), the focus area for other conservation activities (Flat Creek Natural Heritage Preserve already protected 3,000 acres), and the potential to protect enough of the watershed to truly have a positive impact on protecting water quality for the aquatic species. An example of the Carolina heelsplitter is shown in Figure 1.



Figure 1. The Carolina heelsplitter (*Lasmigona decorata*).

III. SERVICE AREA DETERMINATION

Although the bank has only sold credits for projects within Lancaster County (per Lancaster County Ordinance #963), the service area for this bank includes watersheds of North and South Carolina that house known populations of heelsplitters. Historically, the heelsplitters were found in the Catawba and Pee Dee River systems in North Carolina, and the Catawba, Pee Dee, Saluda, and Savannah River systems in South Carolina. Today, heelsplitters are found primarily in the Catawba River and Pee Dee River in North Carolina, streams in the Savannah River, the Catawba River on the state line of North and South Carolina, and the Saluda River basin in South Carolina. While there are extant populations in all of the historic basins, the numbers of individuals in many streams are very low and distribution is reduced and highly fragmented.

IV. CREDIT DETERMINATION / METHODOLOGY

Only recently formed in late 2009, the bank is currently active, and is set up in an umbrella system (meaning the bank will add and fund sites through the sale of credits). Although currently underperforming on the credits sales side, the bank provides a solution to a difficult issue faced by Lancaster County, USFWS, and local developers. EBX hopes to be sold out of the first few planned phases of the bank in the next seven to ten years.

The credit determinations and formula methodology were created in cooperation between EBX and USFWS-Charleston. Riparian buffers for the bank were calculated at a 1.3:1 ratio (1.3 credits per 1 acre of buffer area). Upland and timber development restrictions were calculated at a 0.78:1 ratio (0.78 credits per 1 acre of upland). A crucial part of the multi-state nature of this bank, USFWS-Ashville was supportive of USFWS-Charleston's partnership with EBX, and approved this credit methodology for North Carolina. Credit regulations for projects impacting the Six Mile Creek watershed in Lancaster, South Carolina are listed within Lancaster County Ordinance # 963(1)(B)(2)(f).

Although EBX would like to see similar protective heelsplitter ordinances enacted for other counties in both North and South Carolina, the Lancaster County Ordinance is currently the only credit driver for the bank (and the only credit driver EBX foresees having for the bank in the future). Accordingly, for projects outside of the Six Mile Creek watershed, the bank must get approval by state and local regulatory agencies for the use of credits outside the zone of protection in the Lancaster County Ordinance (the Lancaster County Heelsplitter Overlay District). Because the heelsplitter is an *aquatic* species, it is very hard for USFWS to get Endangered Species Act (ESA) Section 7 jurisdiction for projects that potentially impact the heelsplitter since most impacts are to uplands and therefore indirect at best. Compounding this problem, EBX reports that USFWS has faced obstacles in obtaining ESA Section 7 jurisdiction as the general opinion seems to be that it does not have the right or obligation to do so for indirect and/or cumulative impacts that result from activities in areas in which they do not regulate (e.g. creation of impervious surface in upland areas which could cause water quality issues when combined with a multitude of other similar projects).

V. FINANCIAL ASSURANCES

The bank is wholly financed by EBX (and EBX also owns 100 percent of the bank through a wholly-owned affiliate). Short-term management activities are covered by a letter of credit. Long-term management activities are covered by an endowment funded out of credit sales.

VI. MANAGEMENT (CURRENT AND LONG-TERM)

Preservation is the management technique employed by the bank to protect upland and riparian buffer areas as a means of managing the in-stream water quality for the heelsplitter. No active land management is planned. Land use restrictions are employed for upland areas. Specific management practices include restrictions on creating any impervious surface,

requirements to maintain roads and trails to prevent excessive sedimentation, and limitations on timber harvestings activities which include a minimum basal area requirement of 50 square feet/acre (as a timber-harvesting control), maximum clear-cut area restriction of 2 acres, and a restriction against re-planting (only natural re-growth is permitted).

To ensure long-term management of the bank, a conservation easement is held by the Katawba Valley Land Trust, which is tasked with enforcing the easement restrictions. Water quality monitoring is conducted on a quarterly basis, while easement enforcement is reviewed annually. The landowner has the obligation to maintain roads and trails, as well as stay within the restrictions of the easement.

VII. LESSONS LEARNED

This bank is a product of multi-state coordination among USFWS offices, the U.S. Army Corps of Engineers, and state and local government regulators. The bank illustrates how USFWS can work proactively with local governments to come up with solutions (such as a protective County Ordinance) that work for all parties (local developers, environmentalists, and regulators at various levels of government). The idea of this multi-state conservation bank stresses that decision-makers, no matter what level (federal, state, county, city, township), should focus on what is best for the species, rather than defaulting to making sure that impacts are offset in their specific “area” or jurisdiction. Note, however, that the North Carolina Wildlife Resources Commission and Department of Environment and Natural Resources have not signed off on out-of-state mitigation. Coordination with state agencies for any multi-state bank is paramount. Although federally listed species are under the jurisdiction of USFWS, most are also state listed, so the state agencies also have a stake and will play an important role.

One of the most significant challenges facing the bank is the task of attempting to protect an *aquatic* species. EBX stresses that location/site selection is key if a conservation bank is going to have a material impact on an aquatic species. The problem with aquatic species banking is that the impacts to aquatic species are usually indirect or secondary effects, which makes it difficult to assert ESA jurisdiction. Further, inconsistencies often exist between various levels of government, and even between different offices of the same regulatory agency in how to manage an endangered, aquatic species. For example, after the new population of heelsplitters was discovered in South Carolina, USFWS-Charleston took aggressive measures to have Lancaster County enact the protective ordinance for the heelsplitter, which covered all development in the County. In contrast, across the border into North Carolina, and only two miles upstream in the same watershed, there is no obligation to offset creation of impervious surface, and no pressure to create an offset mechanism for developers. Not surprisingly, EBX is having trouble selling credits to developers in North Carolina.

As related by EBX, the defining factor in determining this bank’s financial (and overall) success or failure is how well USFWS regulators perform in creating a market for the heelsplitter credits. Regardless of how vigorously the bank advertises or promotes itself, if USFWS regulators do not take an active role in developing and enforcing the ESA, development entities will have no incentive to engage in credit purchases from the bank. In a multi-state bank

scenario, federal regulators from regional offices must work together to formulate a comprehensive and uniform strategy to ensure the conservation bank will have a market of buyers who are in need of conservation credits. Further affecting this bank is that certain key agency personnel (who, for example, worked with local governments to enact more protective ordinances) have transferred to other positions outside the region. As a result of these challenges, as well as the economic downturn, the bank reports underperforming credit sales and is taking things “one day at a time.”

VIII. APPENDIX

Appendix

Lancaster County Ordinance #963 and Lancaster County Resolution #601A