

# The Kuenzler Wildlife Habitat Preserve

## A Story of Farmland Protection and Wetland Restoration

### The Family

Ed and Jutta Kuenzler bought a 154 acre property in Orange County in 1965, shortly after they moved to Chapel Hill. The couple fell in love with the property immediately and it has been their home ever since. They built a house, raised their son and daughter on the land, and kept small herds of beef cattle. The mosaic of hayfields, pastures, and forests also served as an outdoor classroom for Ed's students. Ed was an environmental sciences and engineering professor at UNC-Chapel Hill and would often bring classes out to his homestead.

Like other farm families in North Carolina, the Kuenzlers value their rural lifestyle and love their land. As a biologist, Ed Kuenzler enjoyed studying his property's plants and animals. He identified more than 400 species on the farm before his death in 2001.

### A Vision for Preserving the Family Home

When the Kuenzler family began to consider the future of their land, they knew they wanted to preserve their farm for future generations to enjoy and love. They did not want it to be subdivided and converted into residential lots. Instead, they wanted their home to remain as farm and forest land.

The family also wanted to protect and enhance wildlife habitat on their property. For years, they dreamed of restoring a small degraded wetland near Collins Creek. The area had long ago been ditched and drained for agricultural use. The family envisioned a wetland wildlife refuge for migratory birds, amphibians, reptiles, and local flora.

*The Kuenzlers' dream is realized in 2002. This shallow pool is one component of the restored wetland.*



### Land Protection

The Kuenzlers negotiated with the Triangle Land Conservancy (TLC), a local non-profit land trust, to put the whole farm into a conservation easement. The easement specifies that future owners will be able to use the existing hayfields and pastures for agriculture, but will not be able to subdivide the property or build additional homes. The agreement encapsulates the Kuenzler's vision for the property and legally ensures their farm will be protected after they are gone.

The family donated the conservation easement to TLC. As a result, they are eligible for federal and state tax credits. The land also qualifies for lower property taxes.

### Wetland Restoration



*Upland Chorus Frogs (*Pseudacris triseriata*) breed in large numbers following restoration.*

To achieve their dream of a restored wetland, the Kuenzlers solicited the help of several government agencies: Natural Resource Conservation Service (NRCS), Orange County Soil and Water Conservation District, and U.S. Fish and Wildlife Service (USFWS). These agencies work together to help families across North Carolina protect and restore wildlife habitat.

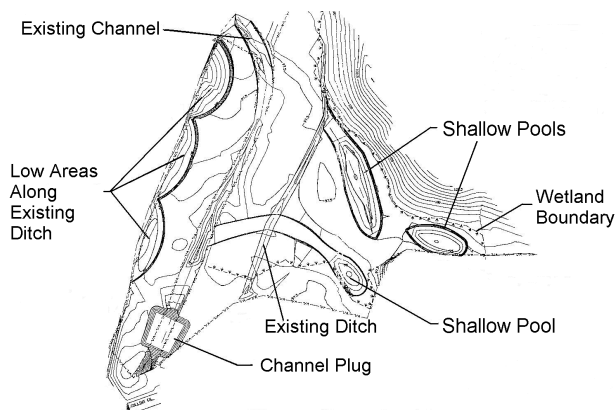
The project began with a planning process, as the Kuenzlers, the agencies, and TLC considered different ways to bring water and wetland dependent life back to 17 acres of the property. There were no records of how the land had looked before its conversion to farmland, so the team had to be creative. In particular, the Kuenzlers wanted a maintenance free system that would sustain wetland wildlife without the need for active management.

The team decided to slow the water flowing from an existing ditch and redirect a portion of this water into

a set of shallow pools and wet areas. The concept was to create a diverse set of forested wetland types: semi-permanent pools, ephemeral pools, saturated soil, and moist uplands.

The project consisted of five components:

- plugging the existing ditch to close the drainage outlet;
- sculpting crescent-shaped low areas along one field edge;
- excavating three shallow pools with very gentle slopes;
- creating a diversion to spread water over the floodplain through the pools;
- restoring native vegetation.



*Engineering drawing of the completed wetland restoration project.*

To restore a diverse set of native vegetation, the team partnered with Niche Gardens, a local native plants nursery. The nursery provided native shrub and tree seedlings. They also helped collect wildflower seeds from the site prior to the excavation work. These seeds were later used to replant the area. In addition, many native plants re-colonized once the weather warmed.

A variety of mechanisms funded the wetland restoration project. First, USFWS Partner's for Fish and Wildlife program provided \$4,000 in seed money to begin the restoration work. Second, NRCS enrolled the wetlands in a permanent Wetlands Reserve Program (WRP) easement. Since the Kuenzlers agreed to a permanent wetland easement, NRCS provided the family a land

payment and covered the remaining restoration costs. The total cost of restoration was approximately \$13,000.



*Restoration in progress. Excavation formed crescent-shaped low areas along the field edge in 2001.*

The WRP easement became effective at the same time as the TLC conservation easement in December 2001. The two conservation easements overlap one another and provide comprehensive protection for the habitat.



*In one year, native plants successfully colonized the low area shown above.*

The restoration work was completed in the fall of 2001. As of 2002, the wetland is providing habitat for diverse native riparian and aquatic plants, aquatic insects, clams, amphibians, and reptiles. In addition, deer, small mammals, migratory birds, and wading birds such as herons and egrets are already using the site. It is now a flourishing wetland.

The Kuenzler Wildlife Habitat Preserve is a wonderful example of how one North Carolina family is successfully using assistance of private conservation organizations and public programs to make sure their land will always stay the way they have come to know and love it.



*Fingernail clams found in a small pool with leafy debris. They filter water and provide a food source for fish, birds and mammals.*