

THE CONSERVATION FUND – RESTORING A LEGACY AT RED RIVER NATIONAL WILDLIFE REFUGE

CLIMATE, COMMUNITY, & BIODIVERSITY ALLIANCE SUMMARY OF MONITORING ACTIVITIES

The Conservation Fund has worked with the U.S. Fish & Wildlife Service to restore bottomland hardwood forests on the Red River National Wildlife Refuge in areas that had been converted to agricultural use¹. This restoration initiative is benefiting fish and wildlife, enhancing water quality along the Red River and surrounding waterways, creating new areas for public recreation, and trapping carbon dioxide².

On behalf of the U.S. Fish & Wildlife Service, the nonprofit Conservation Fund purchased 1,173 acres of private, marginal agricultural land within the boundary of the Red River National Wildlife Refuge located in Natchitoches Parish in northern Louisiana. Using donor funds, the Fund restored these lands to native bottomland hardwood forest by planting native tree species selected specifically for the project. This effort was designed to decrease the effects of climate change via carbon sequestration, restore Louisiana's bottomland hardwood forest and wetland ecosystem, and create long-term community benefits in the form of hunting, fishing, wildlife photography, wildlife observation, environmental education, and environmental interpretation.

This conservation effort was validated in May 2009 at the Gold Level to the standards of the Climate, Community & Biodiversity Alliance, which require periodic reporting on the project related to carbon sequestration, biodiversity, and community benefits. This report summarizes the results of project monitoring as of March 1, 2019.³

Carbon Sequestration

The Red River restoration project was successfully completed in two phases. The first parcel, which consisted of 922 acres, was purchased by the Fund in October 2008 and restored with native seedlings in January 2009. The acquisition of the remaining 251 acres was completed in Fall 2009 and was planted to native bottomland hardwood seedlings in February 2010. Both parcels were conveyed to the U.S. Fish & Wildlife Service for inclusion in the Red River National Wildlife Refuge in 2010.

Planted trees are now generally 9 to 10 years old. In February of 2009, US FWS staff and Conservation Fund staff established 15 permanent monitoring plots across the planted area. The restored area is estimated to sequester 67.74 metric tons (MT) CO₂e/acre within the standing live trees, dead trees, litter, and soil. Over the 1,173-acre project, that totals 79,461 MT CO₂e. As the trees grow, the project will continue to sequester more carbon.

Bird Use

¹ <https://www.vcsprojectdatabase.org/#/ccb-all-project-details/CCB1594>

² https://www.conservationfund.org/carbon-and-climate/legacy-of-go-zero/index.php?option=com_content&view=article&id=235&Itemid=387

³ Document updated 3/8/2019

In 2012, point counts were conducted by the US Fish and Wildlife Service on the Lower Cane River Unit reforestation tracts to document changes in bird species presence and abundance as plant succession occurs. A total of 73 individuals and 8 species were detected on 8 points. Averages of 2.25 species/point and 7.88 individuals/point were documented. The main two species utilizing the young reforested tracts are dickcissels and red-winged blackbirds. This is expected given that the trees were only three years old in 2012, and conditions still resemble the open fields that these two birds prefer. As the trees grow, bird species diversity will increase to include early successional species such as buntings, grosbeaks, and chats.

Point counts were again conducted in 2017 on the Lower Cane River Unit reforestation tracts to document changes in bird species presence and abundance as plant succession occurs. A total of 84 individuals and 13 species were detected on 8 points. Averages of 6.88 species/point and 10.5 individuals/point were recorded. The two most frequent and abundant species are still dickcissels and red-winged blackbirds; however, unlike in 2012, a higher species diversity is present. The third most abundant species recorded was yellow-breasted chat. Also present in good numbers were blue grosbeak, painted bunting and indigo bunting.

Community Use

Refuge staff monitor public use of the Red River NWR and pass by the reforestation tracts on regular, random schedules. To date, public use of the reforestation tracts has included observations of hunters and additional uses, including nature observation, wildlife photography, and environmental education, are expected to increase as the planted stock grow into larger trees and forest conditions develop.