

Carbon Offset on Former Pasture

Description:

This carbon offset project converted over 70 acres of former cattle pasture in Coshocton County, Ohio to permanent woodland. In places this land is steep and it experienced significant erosion when grazed short and trampled by cattle. Additionally, part of the land included in this project is on a reclaimed strip mine, which compounded erosion and runoff issues.

The decision was made that it would be better for the local ecosystem, the environment in general, and for the landowner to convert this land into a permanent stand of hardwood trees. The site was prepared by removing debris and driftwood and controlling weeds. Subsequently, bareroot trees were planted across the entire plot area at approximately 680 trees per acre. For this project, all trees were planted by hand.

Project Summary		
Project/Subproject	Project Acreage	# of Trees
Reforestation of Former Pasture		
Section A	18.7	12700
Section B	10.3	7000
Totals	28.9	19700





Before/After Comparison

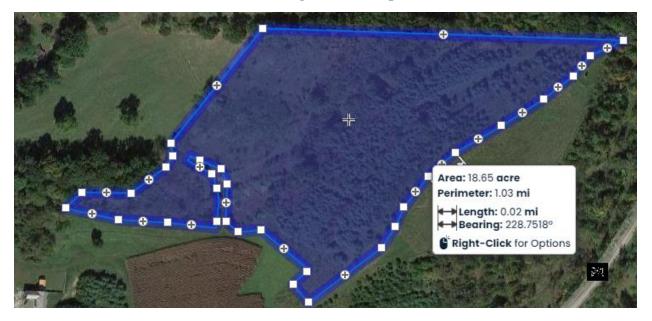
This planting project took place in 2002, and it is clearly visible from the photo below that the planted trees are growing very well. In the satellite image below, one can compare the pasture with areas that were not planted in trees at the time of the project.



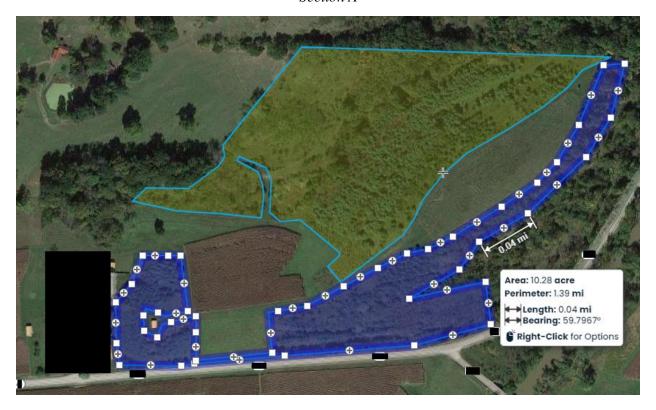
A comparison of former pasture that was planted in trees as part of the carbon offset project (bordered with a thin blue line, all trees in this image) and areas of the pasture that were not planted (red circles).



Planting Section Maps



Section A



Section B



Species Breakdown	
Tree Species	
Shumard Oak (Quercus shumardii)	
White Oak (Quercus alba)	
Austrian Pine (<i>Pinus nigra</i>)	
White Pine (<i>Pinus strobus</i>)	
Virginia Pine (Pinus virginiana)	
White Spruce (Picea glauca)	
Norway Spruce (Picea abies)	
White Ash (Fraxinus americana)	
Green Ash (Fraxinus pennsylvanica)	
Sugar Maple (Acer saccharum)	
Silky Dogwood (Cornus amomum)	
Bald Cypress (<i>Taxodium distichum</i>)	
Sycamore (Platanus occidentalis)	



Why did this Carbon Offset Project Happen?

Aside from the benefit to the environment gained through carbon sequestration (the capture of CO₂ from the atmosphere and storage in wood and other components of forest biomass), planting trees can provide the following benefits:

1) Reduce Erosion and Agricultural Runoff - Preserve Value and Protect the Ecosystem

Planting trees can prevent an immense amount of erosion. This protects the land as a resource, while also improving water quality. Trees and associated woodland plants capture and hold a large amount of any agricultural runoff such as topsoil, manure, nitrogenous fertilizers, chemicals, and more. This protects the local ecosystem and keeps nutrients on the land. For this project specifically, replacing corn and soybean fields that were in a floodplain prevented the application of tons of fertilizer, pesticides, and herbicides that sometimes were washed into adjacent waterways during episodes of heavy rain or flooding.

2) Improve Wildlife Habitat - Add Value Today

Allowing even small sections of the most marginal land to return to natural forest provides an excellent environment for natural wildlife. This project created over 70 acres of prime wildlife habitat. Aside from the moral benefit gained by being a good steward of the environment, this can add serious value to land. Leases of usage rights to those who love the great outdoors can be a large and untapped revenue stream for landowners and farmers. There are many individuals who love the great outdoors and lack access to quality land, and they are willing to pay a premium for exclusive access to land if there is sufficient natural habitat for wildlife.

3) Grow Healthy Stands of Timber - Add Long-Term Value

Even long-term reforestation projects for carbon capture do add timber value for the landowner. After a number of years (the time depends on growing conditions and tree species), selective harvesting of trees can be conducted when done in a way that allows the carbon to remain stored in the wood and biomass. In simple terms, carbon remains captured as long as forest products from harvest are not burned. For example, if one mature oak tree is harvested and the leaf litter and small branches are left in the forest to become litter, while flooring is made out of the oak trunk, then the carbon that was captured in the wood products and biomass on the forest floor remain captured. It is only if one would harvest trees and burn them that much of the captured carbon would be released.

If you are interested in getting trees planted on your land, please check out <u>Our Process</u> for details, then **Submit Your Information** and a representative will be in touch.

Visit <u>www.greenfutureforestry.com</u> to see our offset solutions for individuals, families, businesses, and landowners.