

FARM of the FUTURE

Working lands for ecosystem services

The **Farm of the Future** project profiles working farms, forests, and ranches that are currently participating in environmental markets or receiving payments for ecosystem services. Through case study and illustration, the project documents how five landowners in the United States changed existing land management practices to provide water quality, wetlands, wildlife habitat, and carbon benefits – creating multi-functional working lands that bring in new, ecosystem services revenue as a supplement to traditional income. The project highlights lessons learned from these early experiences and some of the challenges and rewards of market-based conservation.

Sacramento River Ranch sells wetland and habitat mitigation credits to local developers in addition to its food production on 3600 acres of cropland and orchards | **Central Valley CA**

FARM OF THE FUTURE **Buck Island Ranch**

In a pilot project where Florida ranchers are paid to retain water on their pastures, wetlands and native areas, the Florida Ranchlands Environmental Services Project (FRES) is laying the groundwork for a Payment for Ecosystem Services (PES) program that would yield critical water and nutrient retention services while

FARM OF THE FUTURE **Mudford Farm**

Keeping core farmland in production while addressing pollution problems in the Bay, the Biophilia Foundation buys degraded farm properties and implements conservation measures with Chesapeake Wildlife Heritage to increase the ecological and economic value of the land

Chesapeake Bay

Mudford Farm is located within the Chesapeake Bay region on Maryland's Eastern Shore. The Chesapeake Bay is the largest estuary and one of the biologically richest areas in the United States. Historically an important fishing and seafood production region, it has been adversely impacted by nutrient runoff causing algal blooms and the creation of a dead zone in the Chesapeake. Non point source agricultural runoff from fertilizer and manure comprise a significant portion of excess nutrients in the Bay.

Before

Crop Areas with Poorly Drained Soil

Emergent Wetland 30 acres, established through Conservation Reserve Enhancement Program

Crop Fields 80 acres Corn/Wheat/soybean rotation

Wooded Wetland 10 acres, established through Maryland Department of the Environment mitigation easement

After

Filter Strips 25 acres warm season grasses, established through Conservation Reserve Enhancement Program

Ditch Plug Wetland restoration technique

Field Borders 15 acres habitat for grassland birds, established through Conservation Reserve Enhancement Program

Temperate Woodland 112 acres, naturally occurring

Through local partnerships and federal programs, the Biophilia Foundation is restoring 30 acres of wetland, creating 40 acres of warm season grass meadow, and restoring 10 acres of wooded wetland on Mudford Farm.

These conservation practices set up a natural filter for agricultural runoff, and create a habitat for waterfowl, shorebirds, turtles, frogs, and song birds, thus increasing the ecological value of the land.

The Biophilia Foundation is negotiating an easement sale through CREP to permanently protect the nutrient reduction credits (restored wetlands and buffers) plus an additional 80 acres of woodlands.

Once the protection of the property is complete, it will be resold and the buyer will continue to produce crops on the 80 acres of land with the most productive soils. Revenue from the wetland mitigation easement and nutrient reduction credits will be reinvested in similar projects.

Farm Income Sources, 2009

Source	% of Income	Customer
Corn, soy and wheat revenue	45%	Poultry companies
CREP rental payment	33%	The State of MD
Wildlife Hunting leases	20%	Sportsmen

Watson Partners Farm receives payments for planting a cover crop with its sugar beets as a part of a phosphorus trading program - cover cropping sequesters phosphorus and helps to offset discharge from a nearby wastewater treatment facility | **Minnesota River Basin**

Buck Island Ranch is one of eight ranches in the Lake Okeechobee watershed supplementing its cattle sales with payments for water retention as part of a pilot project | **Northern Everglades FL**

Mudford Farm maintains corn, soybean, and wheat production on its most productive soils after restoring wetlands and wildlife habitat on marginal agricultural land, generating returns from a wetland mitigation bank, hunting permits, and water quality enhancement **Chesapeake Bay MD**

Big River and Salmon Creek Forests demonstrate a new approach to sustainable forest management that involves a “light-touch” harvest regime, wildlife habitat and water quality protection, the sale of carbon offsets, and new local, rural jobs | **North Coast CA**

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