

October 2010

by Jody Christiansen, USDA NRCS Public Affairs Specialist

Many of us think projects created through the Administration's America's Recovery and Reinvestment Act only target road construction, public safety, community centers, public schools and health care facilities, or other highly visible activities in our communities. However, some Recovery Act projects are less visible, but still play an important role – benefitting us economically and environmentally.



Dave Hiatt, NRCS Biologist, at one of the Clark County easements that, since stop being cropped, has begun the process of returning back to a floodplain.

One of those Recovery Act projects less visible in Illinois focuses on restoring our floodplains along important streams and rivers. These projects create recreational areas for activities such as bird watching. They may enhance communities with added flood protection; fewer taxes for repairing flood damaged roads, buildings and broken levees. The benefits are felt downstream too with less sediment and hazardous material being carried by concentrated flows of floodwaters.

The USDA Natural Resources Conservation Service (USDA-NRCS) used Recovery Act funding to offer landowners the Emergency Watershed Protection - Floodplain Easement Program (EWP-FPE). “We offered them a chance to take cropland in flood prone areas out of production,” said Bill Gradle, USDA-NRCS State Conservationist, “and restore the land back to the historical floodplains they once were.” To qualify, cropland must have been flooded at least twice in the past 10 years or once in the past 12 months. “Illinois saw an unprecedented amount of rainfall in 2008, which allowed many landowners to re-think planting crops on those wet areas again the next year,” said Gradle.

USDA-NRCS approved 11 sites in nine Illinois counties. Ultimately, these projects will bring more than \$5 million to the State in order to acquire and restore the floodplains. Easements were purchased from private landowners and land owned and managed by a county forest preserve district. The easements ranged in size from 27 to 331 acres and are located along streams and rivers that flow into the Illinois River and Mississippi River Watershed Basins.

“In the southeastern part of the state, we have several projects that are especially exciting,” said USDA-NRCS Biologist Dave Hiatt. “Three easements located along the Wabash River in Clark County join together with existing projects and will create five miles of restored floodplains. Another easement in Lawrence County is located with a contiguous area of 453 acres in the Embarras River floodplain.” When established, these contiguous wetlands will offer significant benefits for wildlife, provide flood prevention downstream, and protect water quality.

Importance of Floodplains

Over half of the floodplains in Illinois have been altered by levees, lock and dams, and stream channelization. The fertile soils make for good crop production, but more often they are flooded and no crop is harvested. It is expensive to replant or lose a crop for an entire growing year. The flood waters can also have a negative environmental effect by carrying debris and chemicals back into the streams and rivers and eventually into the Gulf of Mexico.

The Recovery Act funds benefit local contractors and nurseries by creating jobs and supporting local businesses. These funds have the potential to re-circulate throughout the community. “From a tax dollar perspective,” said Hiatt, “floodplain restoration can reduce crop disaster payments and save millions of dollars each year. The recurring expense of repairing levees and dredging streams will also be reduced.”



Clark County floodplain easement, one of three Recovery Act projects in the county, that will be part of the 5-mile stretch of restored floodplains.

Ecosystem benefits are just as important. Once restored, floodplains provide high quality habitat for many species of wildlife and plants, such as migratory birds, waterfowl and shorebirds, and other wetland-dependent wildlife species. We often take for granted the broader view of what floodplains give us and our communities when properly restored.

- **Flood Prevention and Water Quality**- When floodplains fill and hold water from heavy rains, it prevents floodwaters from flowing downstream and causing damage to roads, communities and agricultural lands. Floodplains filter the water of nutrients and impurities and processes organic wastes before re-entering the ground water or other water bodies.
- **Community Enhancement** - Floodplains provide open space, which can restore and enhance forest lands, create recreational opportunities, or offer simple enjoyment of their aesthetic beauty. Transforming flooded cropland into functional and scenic, value-added assets, communities can improve its quality of life. Chicago's lakefront, Peoria's riverfront, Naperville's Riverwalk, and Lockport's historic canal district are well-known examples.

Helping people Help the Land

- Diverse Habitat - Floodplains are home for a variety of species which may not - or cannot - exist in any other habitat. Many federal and state listed endangered and threatened species live in these locations, such as the Indiana bat, Blanding's Turtle, Osprey, and Copperbelly water snake. Many invertebrates and insects found in floodplains provide food for migrating birds and mammals living there year round.



Restoration Takes Time, But Is Worthwhile

Restoring a floodplain is not a quick process. It requires a plan for restoration work and time for new management and practices to influence and change the land. To fully see results, it can take many years. "In fact, if trees are planted, it can take at least five years to get them established, weather permitting," said Hiatt.

Sometimes natural regeneration can take place. Other times projects require creating an outlet or building a small structure. Replanting native species that once grew naturally, such as pecan, burr oak, and sycamore trees and/or grasses, may be part of the plan. For long-term and true success, the entire ecosystem and all its intricate and inter-connected pieces must be evaluated into the plan before work can start.

A Recovery Act floodplain easement purchase in Lawrence County.

Floodplains in Urban Areas

Kendall County, a neighbor to suburban Chicago, was one of the fastest developing counties in the nation during 2000 to 2008. With the increased population and construction, future options for open spaces and natural areas were threatened. The Kendall County Forest Preserve District has made strides in protecting many of these natural areas. The Recovery Act project will assist the District in their mission.

The District was formed in 1964, but became most active in the mid-90s. Jason Pettit, Director of the Kendall County Forest Preserve District said, "The District owns 2,400 acres scattered throughout the county. The District purchases land that is generally located along creeks and rivers." Restoration of these areas will provide quality habitat for many species and reduces erosion and sediment downstream. Native plants in some locations have had time to rejuvenate and wildlife populations are on the increase.

The Forest Preserve's Recovery Act project includes 27 acres out of 300 acres at Millbrook North Forest Preserve. The floodplain runs along the Fox River and floods most springs. "I came out earlier to look over the area and an osprey flew by," said Pettit. "You will see eagles following the river and other birds. This area is located in a major flyway for migrating birds."

The area will be planted this fall with prairie grasses and forbs to include: 1) native grasses - Big Bluestem, Fox Sedge, and Bristly cattail Sedge; and 2) native forbs - New England Aster, Prairie Blazing star, and black-eyed Susan. The project funding will be used to purchase seeds and a local contractor will do the planting.

The Forest Preserve District is able to reestablish areas like these when funding is available. "We do what we can, but the Recovery Act funding has helped us do it quicker," said Pettit.

"Our staff of 12 is spread around the county and is sometimes stretched beyond their expertise. NRCS and the Soil and Water Conservation District (SWCD) have been good partners. They have the expertise in helping us do our part."

Since the recession began, Kendall County growth has slowed down. Megan Andrews, Resource Conservationist for the Kendall County SWCD, said the slowdown may be a good thing for the county resources.

"I think it gives communities the opportunity to take a closer look and start planning for future needs. When residents see these natural areas, they are energized. They begin to realize the importance of preserving those areas, not only for wildlife, but because it offers them a place to go and enjoy the outdoors."



Megan Andrews, Resource Conservationist Kendall County SWCD, and Jason Pettit, Director of Kendall County Forest Preserve District, review restoration plans for the Recovery Act project.

USDA-NRCS also administers the Wetland Reserve Program, or WRP, year round. WRP is voluntary and allows landowners to establish long-term conservation and wildlife practices and protection. Landowners not accepted into the Recovery Act may qualify for WRP and should contact their local USDA Service Center and visit with the USDA-NRCS or Soil and Water Conservation District staff to learn more.

What a restored wetland might look like

The photos below are imagery enhanced to show the restoration process. The top photo is the original site. The second shows where the prairie plants will be located and how it could look in five years. The third photo has added trees to demonstrate the variety of species planted in a floodplain.



Floodplain easement in Greene County.



Floodplain easement with prairie plants (foreground) established in approximately five years.



Floodplain easement with prairie plants and tree plantings established in approximately five years.
