



United States Department of Agriculture

Natural Resources Conservation Service



Watershed Program

(Seeking Ideas & Opportunities)



Natural
Resources
Conservation
Service

nrcs.usda.gov/

Infrastructure and Investment Jobs Act of 2021

-Congressional Appropriations-

- **\$300M Emergency Watershed Protection Program**
(in addition to disaster-specific appropriations, Hurricane Ida, CA fires)
- **\$118M Watershed Rehabilitation Program**
(in addition to \$10M annually through normal appropriations)
- **\$500M Watershed and Flood Prevention Operations Program**
(in addition to \$175M annually through normal appropriations since 2017)





Natural
Resources
Conservation
Service

nrcs.usda.gov/



Coon Creek Watershed Work Plan signed in 1958

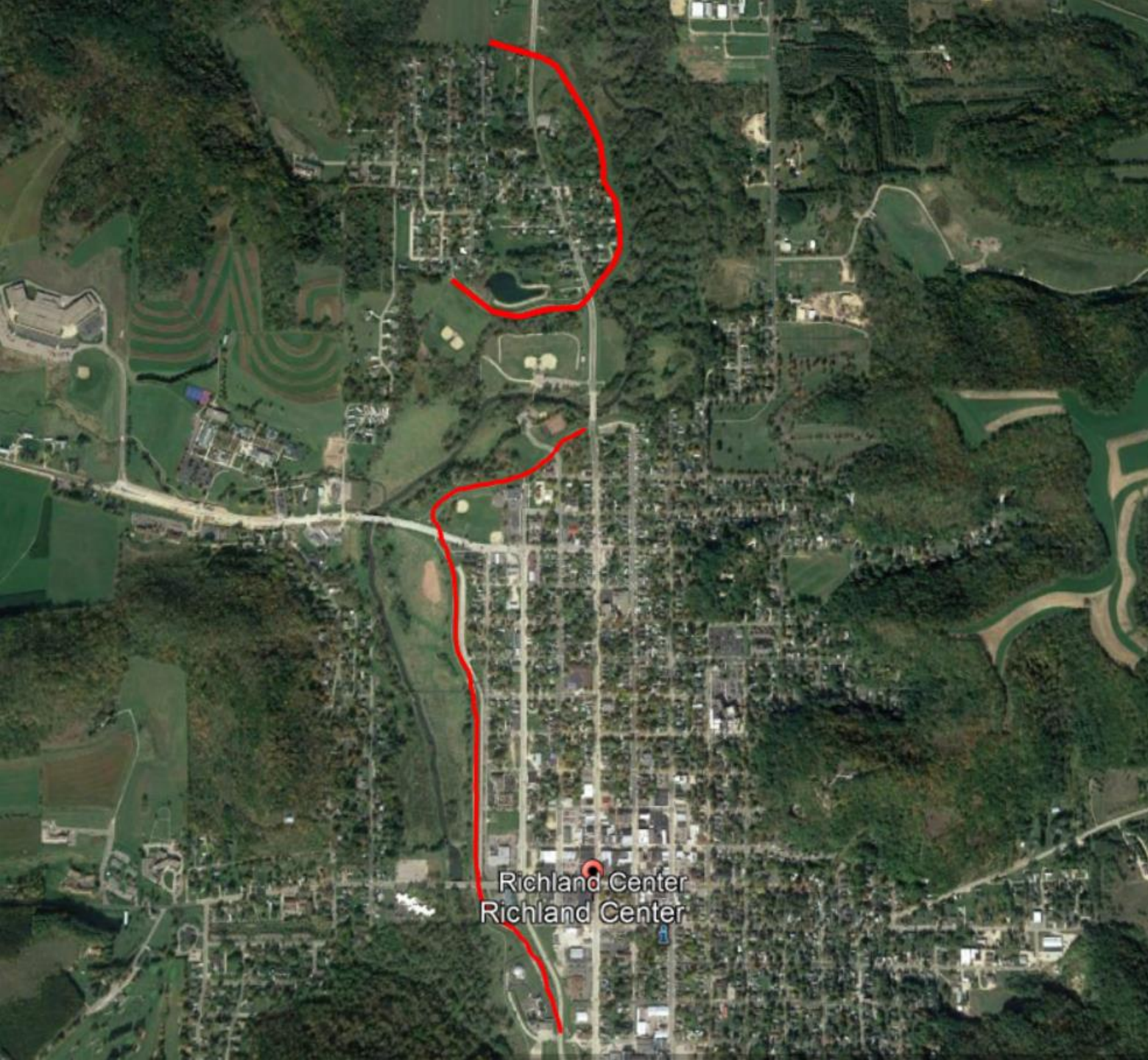
Traditional use of the program for flood control



Bad Axe Dam No. 11, Springville Branch of Bad Axe River, Vernon Co. near Newton, WI

Resources
Conservation
Service

nrcs.usda.gov/



Flood Control Levee along Pine River Richland Center, WI

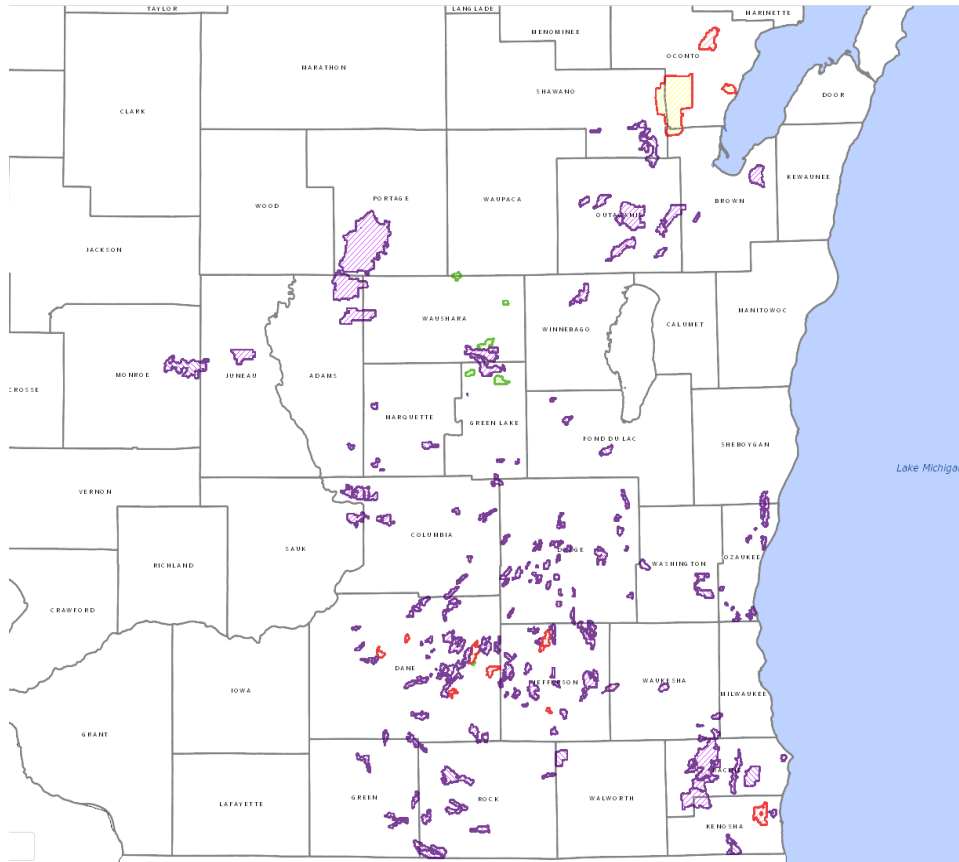
Natural
Resources
Conservation
Service

nrcs.usda.gov/



Glen Hills Dam No. 10, St. Croix Co. near Glenwood City

Program Applicability to Drainage Districts



- 190 active drainage districts in 27 out of 72 counties
- There are also private drainage associations.



Drainage Districts



- NRCS has spent a lot of resources demonstrating why drainage adversely impact wetland resources.
- Very little resources have been spent helping producers incorporate conservation objectives into agricultural drainage systems for increased production and environmental stewardship.
- Agricultural drainage is responsible for significant food production in this country.



Authorized Purposes of Watershed Program

- which could be applied to drainage districts

- Flood Prevention (flood damage reduction)
- Agricultural Water Management
- Water Quality
- Public Fish & Wildlife



Flood Prevention (flood damage reduction)

- ✓ Improve drainage system capacity to reduce flooding, soil saturation levels, drown out, and crop suppression

Applicable Practices: Open Channel and Stream Crossing improvements, Obstruction Removal



Agricultural Water Management

- ✓ Improve upland treatment to reduce sediment deposition & ditch maintenance
 - Applicable Practices: Cover Crops, Residue and Reduced Till, Conservation Crop Rotation, Contour Farming, Contour Buffer Strips, Saturated/Riparian Buffer, Filter Strips, Grassed Waterways, Water & Sediment Control Basins, Terraces. (10-year land treatment contracts)
- ✓ Increase ditch capacity to lower saturation levels and ensure a free outlet for drainage tile to improve crop production
 - Applicable Practices: Open Channel improvements
- ✓ Improve ditch crossings to improve hydraulic capacity
 - Applicable Practices: Obstruction Removal and Stream Crossings
- ✓ Improve the stability of ditch bed & banks to protect cropland and reduce maintenance costs
 - Applicable Practices: Grade Stabilization Structures, Channel Bed Stabilization, Streambank Protection
- ✓ Improve sediment transport capacity to reduce maintenance costs
 - some ditches were dug too wide or too flat.
 - Applicable Practices: Open Channel improvements (i.e. increase ditch grades)



Water Quality



- ✓ Reduce upland sheet & rill erosion to reduce sediment delivery

Applicable Practices: Cover Crops, Residue and Reduced Till, Crop Rotation, Contour Farming, Contour Buffer Strips, Saturated/Riparian Buffers, Filter Strips

- ✓ Reduce ephemeral & classic gully erosion to reduce sediment delivery

Applicable Practices: Grassed Waterways, Water & Sediment Control Basins, Terraces, Grade Stabilization Structures

- ✓ Control of subsurface saturation level for denitrification and phosphorous reduction

Applicable Practices: Structures for Water Control, Drainage Water Management, Denitrifying Bioreactor, Saturated/Riparian Buffers, Phosphorous Removal System

- ✓ Improve ditch stability to reduce bed and bank erosion

Applicable Practices: Channel Bed Stabilization, Streambank Protection, Open Channel - two-stage ditch construction or channel restoration.



Public Fish & Wildlife



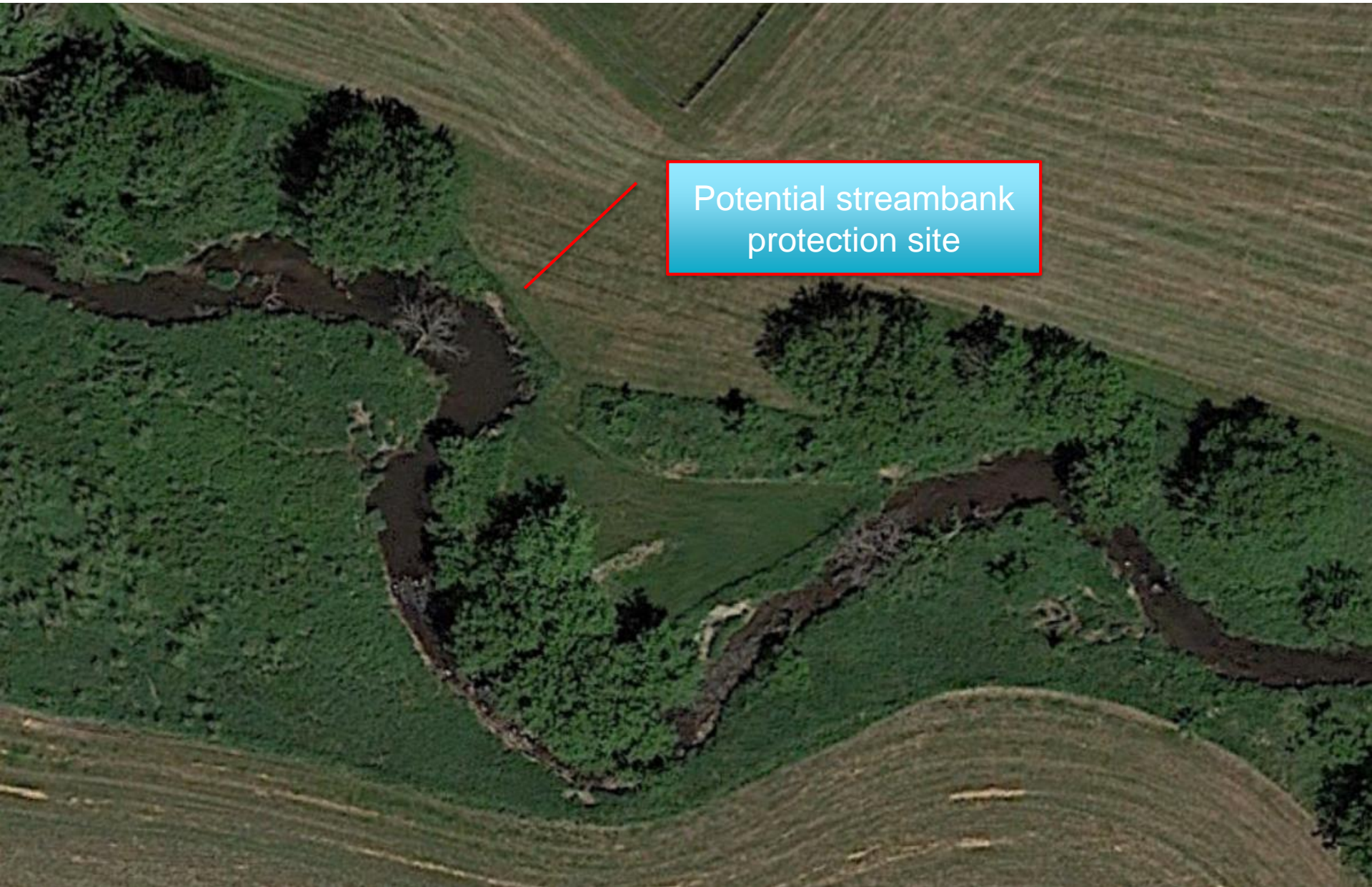
- Restore the functions and values of natural streams, particularly those that were straightened and used concurrently as drainage ditches

Applicable Practices: Open Channel-two stage ditch construction and stream restoration, Channel Bed Stabilization, Streambank Protection, Stream Habitat Improvement & Management, Stream Crossing

- Improve culvert crossings for aquatic organism passage

Applicable Practices: Stream Crossing, Aquatic Organism Passage





Potential streambank
protection site



Potential streambank
protection site

Incidental benefits of a Watershed Project

Under current Wis. statute (Chpt 88) and code, (ATCP Chpt 48), every district was required to develop ditch specifications by Dec. 2000 for DATCP approval. Only 93/190 district specifications have been submitted.

Districts with approved specifications benefit from regulatory relief, including exemptions from some DNR permitting and local floodplain zoning except as necessary to maintain eligibility in the National Flood Insurance Program.



Watershed Program



- **Projects that can be done under other NRCS programs, e.g. as an individual or group EQIP project, should be done by them.**

Farm Bill practices fall under a programmatic EA (NEPA) which substantially simplifies the time and effort to plan and implement conservation projects.

- **Watershed projects can extend beyond individual properties.**

Collaboration is necessary with local gov't, and Federal/state cooperating agencies, and Tribes.

- **Watershed projects require a Watershed Project Plan with an EA/EIS**

Watershed project plans typically run \$800K - \$2M

- **Watershed projects must demonstrate economic benefit to the public.**

Projects must be proven economically, environmentally, and socially defensible and technically sound. Benefit / Cost Ratio > 1



Watershed Program



Statutory Requirements:

1. Project must have an eligible Sponsor:
 - Subdivision of state government, power of eminent domain, taxation authority
 - Ability to act as a fiduciary and administer engineering/construction contracts
2. NRCS funding share < \$25 M
3. Agriculture (or rural communities) > 20% of the total benefits
4. Watershed area < 250,000 acres (390 sq.mi.)



Process



Continuous sign-up with periodic batching & ranking

Initial determination that project idea is compatible with the program
(request to District Conservationist)

1. Preliminary Investigation Feasibility Report (application for funding)
2. Watershed Project Plan - EA/EIS (application for funding)
3. Design (application for funding)
4. Construction (application for funding)



Target Timelines for Each Phase

- | | |
|---|----------------|
| 1. Preliminary Investigation Feasibility Report | 6 months |
| 2. Watershed Project Plan – EA/EIS | 18 - 24 months |
| 3. Design | 18 - 24 months |
| 4. Construction (Watershed/Rehab) | 12 - 24 months |



Watershed Operations Program Cost Share

Watershed Operations Program Federal Cost-Sharing by Purpose	Engineering / Technical Assistance	Installation / Construction	Real Property Rights
Flood Prevention (Flood Damage Reduction)	100%	100%	0
• Works of Improvement			
Watershed Protection	100%	Variable	0
• Flood Control			
• Erosion and Sedimentation Reduction			
• Water Quality			
• Water Conservation			
• Wildlife Habitat			
• Woodland			
• Energy			
• Recreation Resources			
Public Recreation	100%	No more than 50%	No more than 50%
• Works of Improvement			
• Recreation Minimum Basic Facilities			
Public Fish and Wildlife	100%	No more than 50%	No more than 50%
• Works of Improvement			
Agricultural Water Management	Up to 100%	Up to 75%	0
• Drainage			
• Irrigation			
• Ground Water Recharge			
• Agricultural Water Supply Structure			
• Water Conservation			
• Water Quality			
• Rural Water Supply			
Municipal and Industrial Water Supply	0	No more than 50%	0
• Reservoir Structure			
Water Quality Management	Up to 100%	To be determined	0
• Reservoir Structure			

Source: National Watershed Program Manual, 500.3 – Eligible Purposes and Figure 500-E2

Federal Cost-Sharing Percentage Provisions for Conservation Easements and Mitigation of Fish and Wildlife Habitat Losses	Engineering	Engineering / Technical Assistance
Conservation Easements Wetland or Floodplain	Not less than 50%	Not less than 50%
Mitigation of Fish and Wildlife Habitat Losses	Not more than 50%	Not more than 50%

Source: National Watershed Program Manual, Figure 500-E1
The above provisions apply to acquisition of real property rights by purchase or easements

