

# St. Francis & Lee County Larkin Creek Sediment Prevention Demonstration Project 08-800

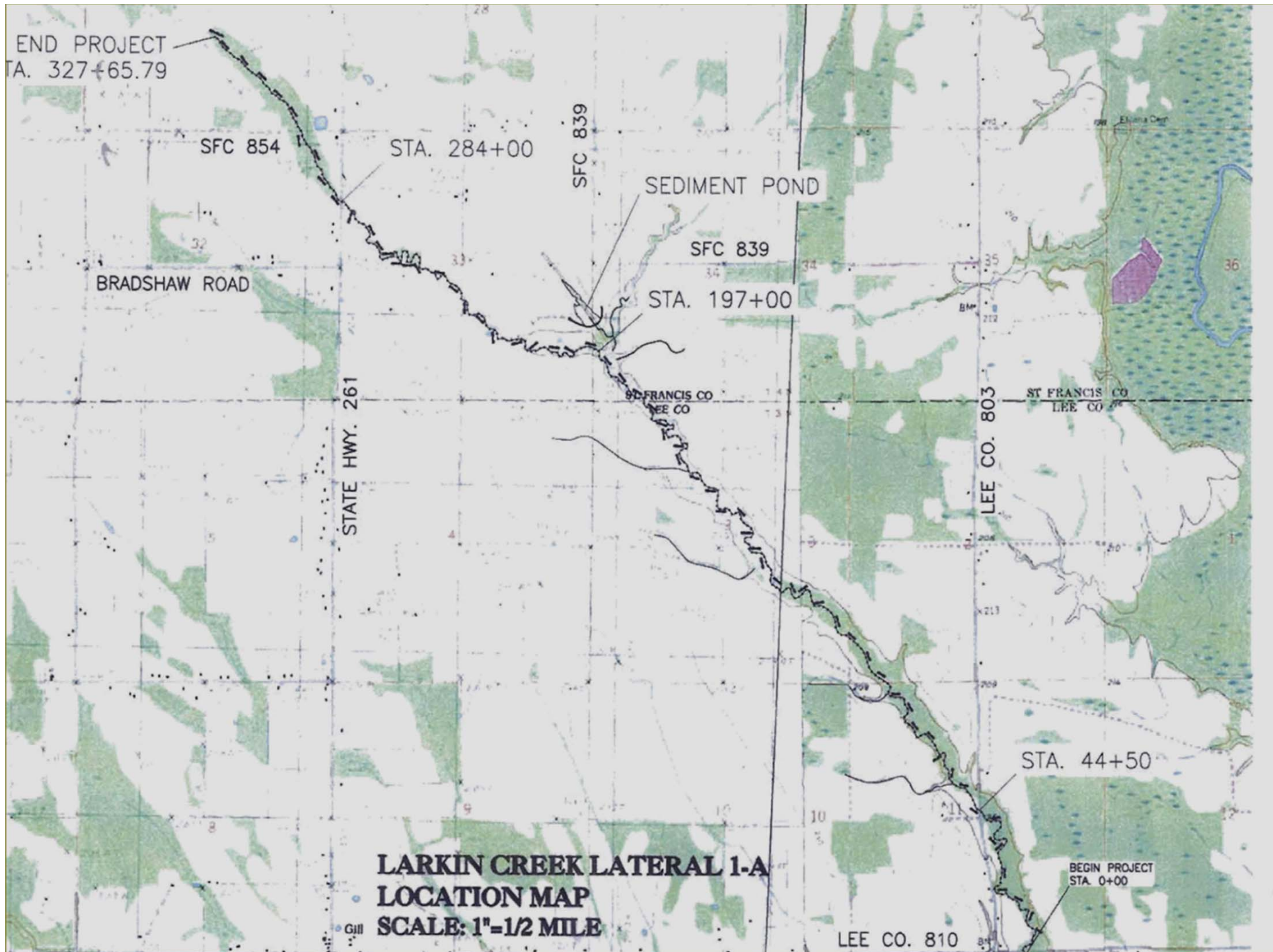
Patricia Perry, St. Francis County  
Conservation District



# Project Area

- L'Anguille River Watershed
- Lateral 1-A of Larkin Creek
- Western St. Francis & Lee Counties





# Problem: Sediment Loading





# Flooding & Loss of Crops



# Damage to Timber & Riparian Zone



# Flood of 2011





# Project Goals & Objectives

- Reduce Sediment Loading of Lateral 1-A
- Remove sediment from existing channel
- Restore channel to natural design
- Create protective riparian area
- Install filter strips along cropland areas

# Project Tasks

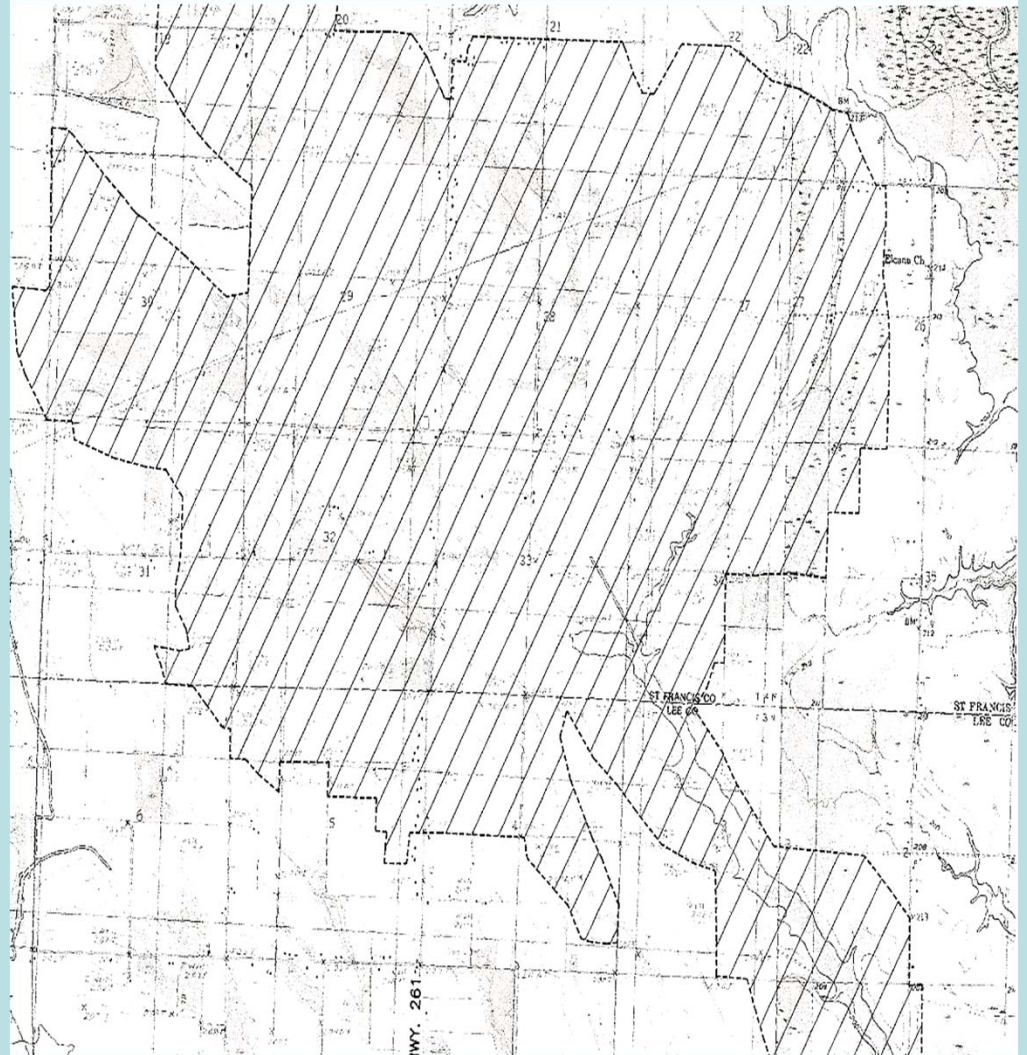
- Obtain Engineering Assistance
- Secure Easements from Landowners
- Acquire Corps of Engineers Permit
- Aggressive Beaver Control
- Remove Sediment & Restore Channel

# Milestones Accomplished

- Topographical Survey Completed
- Corps of Engineers Nationwide Permit #27 Approved
- Drainage District Formation Complete
- Design for Channel Restoration Completed
- Easements from Landowners Secured
- Filter Strips Marked - Complete
- Beaver Eradication Complete
- Taxation of Land for Maintenance Complete
- Storm Water Pollution Prevention Plan Complete
- Short Term Activity Authorization Complete
- Advertisement for Bids for Sediment Removal from Channel
- Site Showing for Prospective Bidders
- Contract Awarded
- Excavation Approximately 60% Complete

# Topographical Survey

- Identify drainage acres
- Approximately 8000 acres
- Elevations from beginning to end of project
- Identify landowners for easements & taxation



# Restoration Design



# Corps of Engineers Permit

- Nationwide Permit #27 – Aquatic Habitat Restoration
- Sediment removed from channel placed outside wetland areas
- A few spoil piles allowed to remain in wet area
- Damaged timber and wetland areas along channel reforested to bottomland hardwoods
- Sharp meanders planted to silt fences

# Landowner Easements

- Landowners Along Channel Grant Easements
- Easement for Construction & Maintenance
- Easement Includes 180' Filter Strip
- Filter Strips Remain in Place Permanently



# Project Costs & Time Frame

- Phase I
- Federal 319(h) Program Dollars - \$800,000
- Local Match - \$488,825
- Total Cost - \$1,288,825

Project Period: October 1, 2008 – June 30, 2013



# Award of Bid

- Currently Being Advertised
- Bid Review and Contract Award
- Amphibious Excavator Required
- 5 Months to Complete Sediment Removal



June 3, 2011 – 1<sup>st</sup> Shovel of Dirt



# And the Work Begins. . . . .

- Area required specialized equipment
- Environmentally Sensitive
- Big Machine – Light Footprint



# From This to . . . This



From This. . . . . To THIS!!



# Phase II

- Remove Spoil & Spread on Buffer Areas
- Tree Planting in Wetland Zone
- Demonstrations and Tours of the Project Area

# Final Product

- Functional Drain for 8000 acres of cropland (6 linear miles)
- Forested Riparian area to stabilize banks, and provide wildlife habitat (315 ac)
- Permanent filter strips along cropland areas to diffuse runoff & filter out sediment (220 ac)

# Long Term Maintenance

- Drainage District Taxation for Maintenance
- Annual Inspections
- Beaver Control
- Maintain Drainage Structures



# Partners

- Landowners
- St. Francis County Conservation District
- Lee County Conservation District
- Lateral 1-A of Larkin Creek Drainage District
- Arkansas Natural Resources Commission & EPA 319 Program
- Ducks Unlimited
- Arkansas Game & Fish Commission
- Corp of Engineers

# Positives

- Strong Initiative by Local Landowners
- Builds Trust & Cooperation With Landowners
- Provides Landowners a Sense Ownership in the Project
- Behavioral Change
- The Success of Partnerships Between Federal, State, Local Agencies and Landowners
- Building New Partnerships

# Problems Encountered

- Complexity of the Drainage System
- Time to Complete Tasks
- Landowner Issues
- Rising Costs

# Results

- Protect Approximately 8,000 Acres of Cropland From Erosion & Flooding
- Restore Damaged Timber
- Protect Roads From Flooding
- Demonstrate Successful Conservation Practices
- Exemplify the Success of Partnerships & Secure Trust of Landowners

# New Project Spawned

- Mississippi River Basin Initiative
- 12 Digit Watershed Request for Proposals
- Outlet Larkin Creek Watershed Project Selected
- Incentives for Cover Crops & Mulch Till
- 75% Cost Share for Erosion Control Practices
- \$224,000 Allotted for 1<sup>st</sup> Year
- Applications Exceeded \$550,000
- Additional Funding Requested
- Funded \$400,000 in Applications 1<sup>st</sup> Year
- Continues for 5 Years

# Questions



Thank You to Tony and his staff  
and the Arkansas Natural  
Resources Commission for  
making these types of  
opportunities possible!