

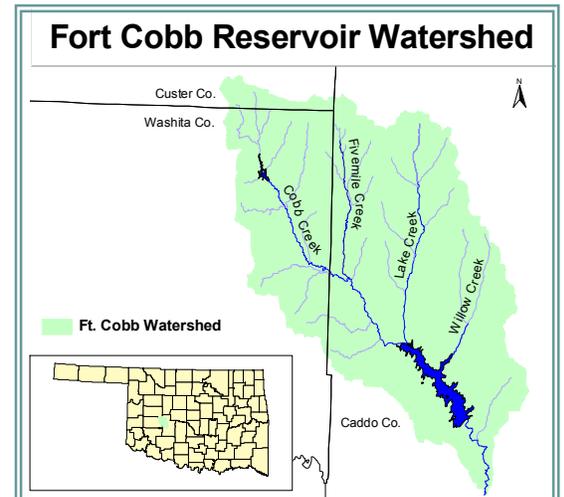
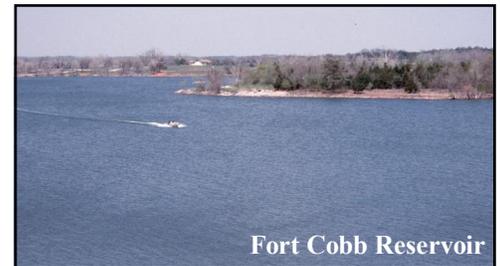
FORT COBB

Watershed Implementation Project

The Fort Cobb Watershed Implementation Project is a partnership between local landowners, conservation districts, the Oklahoma Conservation Commission (OCC), the USEPA, and the local NRCS. Fort Cobb Reservoir and several streams in the watershed possess water quality impairments, with sediment, nutrients, and bacteria being the primary pollutants. This project encourages the adoption of Best Management Practices (BMPs) on a voluntary, cost-share basis to reduce the amount of nonpoint source (NPS) pollution in the 314 square mile watershed area.

Background:

- 1981:** Oklahoma Department of Agriculture Food and Forestry detects **water quality problems related to pesticides and nutrients** in the Fort Cobb Reservoir watershed.
- 2000:** Fort Cobb Reservoir is **listed as a Nutrient Limited Watershed** due to high primary productivity. Fort Cobb Reservoir, Willow Creek, and Lake Creek are listed on the state's 303(d) list as **impaired by phosphorus, pathogens, low dissolved oxygen, turbidity, and unknown causes due to poor fish community.**
- 2001:** OCC begins a **319 project** in the watershed **to improve water quality through implementation of BMPs** including riparian buffer establishment, erosion control, pastureland management, human waste management, and no-till farming.
- 2005:** Oklahoma Department of Environmental Quality completes a TMDL study for Fort Cobb Reservoir **recommending a 78% phosphorus load reduction.** OCC expands earlier efforts to reduce phosphorus loading, **focusing specifically on implementing no-till farming.**



Project Planning:

- Objective:** To reduce phosphorus and sediment loading to streams and the reservoir by implementing BMPs.
- Funded** through EPA Clean Water Act Section 319 grants that require a 40% nonfederal match. The 2001 Fort Cobb Watershed project totaled **\$2,009,254**; the 2005 Fort Cobb Watershed project totaled **\$1,063,830**.
- Partnered** primarily with the Deer Creek, West Caddo, North Caddo, and Mountain View Conservation Districts and the local USDA Natural Resources Conservation Service (NRCS).



- Locally-led** effort: Hired local project staff to coordinate implementation. Based practices and cost-share rates on the advice of a "watershed advisory group" comprising of conservation district board members, local landowners, and local producers. An "education watershed advisory group" led by a local education coordinator helped focus outreach on local NPS pollution issues and concerns.

Project Implementation:

The continuous presence of project staff in the watershed since 2001 has strengthened the commitment of landowners to maintain BMPs and has encouraged others to install new practices.

Practices were targeted towards most significant sources or "hotspot" areas based on computer modeling by OSU. Practices (and cost-share rates) for the 2001 project include:



Grade stabilization structure

- Riparian Area Establishment / Management (80%)
- Buffer Zone / Filter Strip Establishment (80%)
- Cropland Erosion Control (80%)
- Pastureland Management (75%)
- Animal / Human Waste Management (70%).

The 2005 project focused on no-till practices exclusively. Participants were paid an incentive of \$15-\$19 per acre for no-till crops.

2001 Fort Cobb project (2001-2005)

128 cooperators

\$1,386,611 of practices installed, total:
 \$365,650 from State funds
 \$498,054 from Federal 319 funds
 \$522,907 from landowners (38%)

2005 Fort Cobb project (2005-2008):

60 cooperators

\$865,403 of practices implemented, total:
 \$502,556 from State funds
 \$290,250 from Federal 319 funds
 \$72,597 from landowners (8%)

Best Management Practices installed (2001-2008):

- 21,086 acres of no-till farming
- 32 grade stabilization structures
- 8 diversions, 7 grassed waterways, and 2 terraces
- 230 acres of riparian area exclusion fencing
- 1 stream crossing
- 10,767 acres of cropland converted to pasture
- 957 acres of grass planting for pasture improvement
- 35,030 linear ft of cross-fencing
- 4 wells
- 4 septic systems

Public Outreach and Education:

Education was a vital component of this project. **Hundreds of local citizens and producers were exposed to information on water quality and BMPs** as part of the Fort Cobb Watershed Implementation Project.



Farm tour

Highlights of the education program included:

- **Farm tours** to showcase installed BMPs in the watershed and allow discussion of BMP design and maintenance.
- **Workshops** to discuss BMP effectiveness, with presentations by researchers, industry professionals, and producers experienced with BMP implementation.
- **Newsletters / newspaper articles / radio broadcasts.**
- **Presentations and displays** at local farm supply outlets, county fairs, local electric cooperative meetings, AARP meetings, Ag Resource Coalition meetings, and Tribal Youth Camps.
- **Volunteer water quality monitoring trainings and groundwater screenings** through the Blue Thumb program.



No-till seminar



Youth watershed education event



For additional information, contact:

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