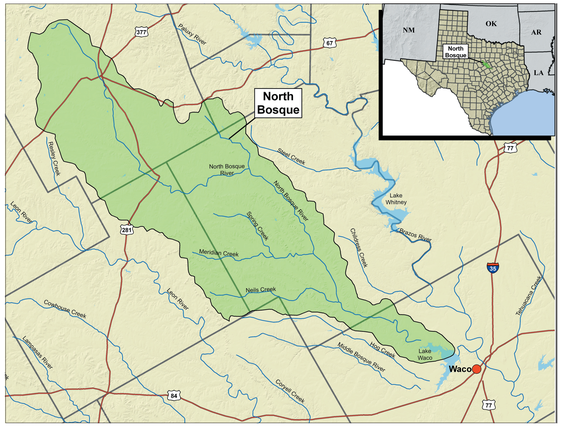
United States Department of Agriculture

Conservation Effects Assessment Project (CEAP)

North Bosque River Watershed, Texas: 2004-2006

An NRCS* Special Emphasis Watershed, one of 24 CEAP watershed projects.



CEAP Assessment

Evaluate the ability of conservation practices to reduce phosphorus flow to Lake Waco.

Watershed Description

- Drains into Lake Waco, which provides 75% of the drinking water for the city of Waco.
- 800,000 acres
- 41% pasture, 28% range, 20% forest, and 7% cropland
- Study area has the largest concentration of dairy animals in the state of Texas.
- A Total Maximum Daily Load (TMDL) has been established for phosphorus.

Issues: Quality of water entering Lake Waco, air quality and soil quality.

*Natural Resources Conservation Service

Approach

Water sampling: Phosphorus

Watershed model: APEX (Agricultural Policy/Environmental eXtender)

Assess practices: Compile data and model conservation practices as close to actual field scale as possible.

Communicating Results

Three annual progress reports planned. Also, reports on changes in phosphorus loading into Lake Waco; effects of conservation practices; and effectiveness of the Environmental Quality Incentives Program (EQIP).

Collaborators

- USDA, Farm Services Agency
- U.S. Geological Survey
- U.S. Environmental Protection Agency
- Local Conservation Districts
- Dairy Farmers
- City of Waco
- Texas State Soil and Water Conservation Board
- Texas Agricultural Experiment Station
- Texas Cooperative Extension
- Texas Commission on Environmental Quality
- Texas Water Resource Institute
- Texas Institute for Applied Environmental Research
- Texas Department of Agriculture

Contacts

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Stockpile of compost before application to land.

Liquid waste application by center pivot.

Composted dairy manure hauled from watershed for application to grassland.

Timeline

2003
Initial funding

2004
August CEAP bibliographies

2005
May Wetlands peer review
July Wildlife literature review (program-based)
October Cropland literature reviews
Wildlife literature review (practice-based)
Wildlife Work Plan
November Wetlands Work Plan
December Draft findings—Prairie Pothole region

2006
February Preliminary habitat quality models—Prairie Potholes wetland region
March Preliminary National Assessment Report

2007
Fall National Assessment Final Report
Special Emphasis Watershed reports

www.nrcs.usda.gov/technical/nri/ceap/