

Projects Impacting Federal Power

Tulsa District

Beau Biffle

13 June 2012



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Topics

- Interior Least Tern Operations and Habitat Creation
- Tulsa Vision 2025
- Dam Safety Issues
 - ▶ Keystone
 - ▶ Pine Creek
 - ▶ Tenkiller
- Lake Eufaula Advisory Committee
- Tenkiller Downstream Fishery Issues
- Broken Bow Seasonal Pool Update – Cultural Resources Impacts
- Arkansas River Navigation Improvement
- Oklahoma Comprehensive Water Plan Update



Interior Least Tern Operations and Habitat Creation

- **2011 Breeding Season Survey Results:**
 - **Arkansas River System:** 517 adults, 358 fledglings. Season totals exceeded compliance goals (as expressed in 2005 Biological Opinion). 5-year average exceeds compliance goals.
 - **Red River:** 743 adults, 224 fledglings. Season totals exceeded goal for adults and fledglings. 5-year average less than goals for both adults and fledglings.
- **Habitat:**
 - No new nesting habitat created prior to 2012 nesting season.
 - Vegetation control: Vegetation control efforts (aerial spraying by helicopter) conducted at start of 2012 growing season on constructed islands in Kerr & Webber's pools, new Haskell island on Arkansas River. Funding provided by SWPA.
- **Consultation: Re-initiated consultation with USFWS to obtain new Biological Opinion. Biological Assessment provided to USFWS in early 2012. New DRAFT Biological Opinion from USFWS anticipated early in 2012 nesting season (June timeframe).**



Interior Least Tern Operations and Habitat Creation

District POC:

Mr. Stephen L. Nolen
Chief, Environmental Analysis
and Compliance Branch
CESWT-PE-E
918-669-7660



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Tulsa Vision 2025 Update

- **Feasibility cost share agreement signed - 6 Oct 2010**
- **\$3,000,000 study with 3 year duration**
- **No Federal funds received to date**



Cherokee Nation Hydropower

- In 1986 the Cherokee were authorized to construction hydropower facilities adjacent to WD Mayo Lock and Dam.
- Currently conducting physical model studies to complete in FY2012.
- Study is funded with 100% contributed funds.



Tulsa Vision 2025 and Cherokee Nation Hydropower

- District POC:

Ms. Cynthia Kitchens
Project Manager
CESWT-PP-C
918-669-7042



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Dam Safety Issues

- **Keystone Lake**
- **Pine Creek Lake**
- **Tenkiller Ferry Lake**



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Tulsa District Dam Safety Issues

- District POC:

Mr. Mark Locke
Dam Safety Program Manager
CESWT-EC-S
918-669-7456



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Lake Eufaula Advisory Committee

- **Committee Objective:** To provide information and recommendations to the Corps for operation of Lake Eufaula to balance uses of the lake
 - Authorized by Section 3133 of WRDA 2007
- **Committee Composition:** Members will equally represent the project purposes for Lake Eufaula, which are: flood control, water supply, hydroelectric power, navigation, fish and wildlife and recreation
- Subject to appropriation of funds the Corps will conduct a reallocation study at federal expense
- Development of Interim Pool Management Plan
 - Subject to approval of reallocation study and funding availability
 - Considers recommendations of Lake Eufaula Advisory Committee
- **Current Status:** Final approval is being held at the Secretary of Defense level pending review of all Army Advisory Committees.



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Lake Eufaula Advisory Committee

- District POC:

Mr. Jeff Knack
Operations Project Manager
Eufaula Project Office
CESWT-OD-EE
918-484-5135



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Tenkiller Lake Downstream Fishery Issues

- Tenkiller authorized purposes are FC, HP and WS
- Year round “put and take” trout fishery below the dam
- No authorization or storage to support minimum flows for the trout fishery
- HP installed “baffles” to increase DO but decreases HP efficiency
- ARRA funds received to fix leaks in sluice gates but impacts to downstream flows is unknown at this time
- Short-term: Water and storage has been donated by state of OK and water supply customer, respectively to support trout fishery



Broken Bow Seasonal Pool Update

Cultural Resources Impacts

- **Study purpose is to provide for the reallocation of water supply for the Mountain Fork Trout Fishery; no expense to the State of Oklahoma.**
- **Study examined a range of Alternatives**
- **Pool rise of 3 feet; flood storage was identified as an alternative**
- **Current Hydropower outputs would be maintained**
- **Substantial impacts to cultural resources**
- **Mitigation of cultural resources remains unresolved**



Broken Bow Seasonal Pool Update Cultural Resources Impacts

District POC:

Edwin J. Rossman, PhD
Chief, Planning Branch
CESWT-PE-P
918-669-4921



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Arkansas River Navigation Improvement

- **WD Mayo Weir Repair:** In Progress
 - Repairing all damaged Weirs
- **Motor Control Center Replacement:** In Progress
 - WD Mayo, Robert S Kerr, Webbers Falls, and Choteau.
- **Spillway Repair:**
 - Repair Spillway Bridge bearing pads, Chouteau.
 - Repaint Spillway Control Structure and equipment, Newt Graham
- **Tainter Valve Rehab:**
 - Robert S Kerr, Webbers Falls
- **Hydraulic System Upgrade:** In Progress
 - Replace Hydraulic Systems at WD Mayo, Chouteau, Newt Graham



Arkansas River Navigation Improvement

- **Study Completed 2005:** Examined 3 elements
 - System Flow Management
 - Navigation Channel Maintenance
 - Channel Depth

- **Each Element Examined:** Beneficial and adverse impacts in terms of flood control, water supply, hydropower, navigation, fish, wildlife, and recreation.

- **Selected Plans:**
 - Add new dredged material disposal sites in Oklahoma
 - Replacing existing flow management plan with new flow management plan
 - Increase depth of the Navigation Channel from 9 feet to 12 feet



Arkansas River Navigation Improvement

District POC:

Edwin J. Rossman, PhD
Chief, Planning Branch
CESWT-PE-P
918-669-4921



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Oklahoma Comprehensive Water Plan

Tulsa District is providing technical expertise, cost-shared funding, and input to assist the Oklahoma Water Resources Board with update of the Oklahoma Comprehensive Water Plan (OCWP). It includes a system approach to collaboratively develop existing, forecasted, and strategic information that will be integrated into the OCWP. It is being conducted in two parallel but inter-related paths of public/policy coordination and technical studies. The Oklahoma Water Resource Board has cost-share funding in place for this study.

Three separate authorities are currently being leveraged to complete this multi-year study.

Projects : Planning Assistance to States (PAS); Washita River Basin, OK; and Southeast, OK



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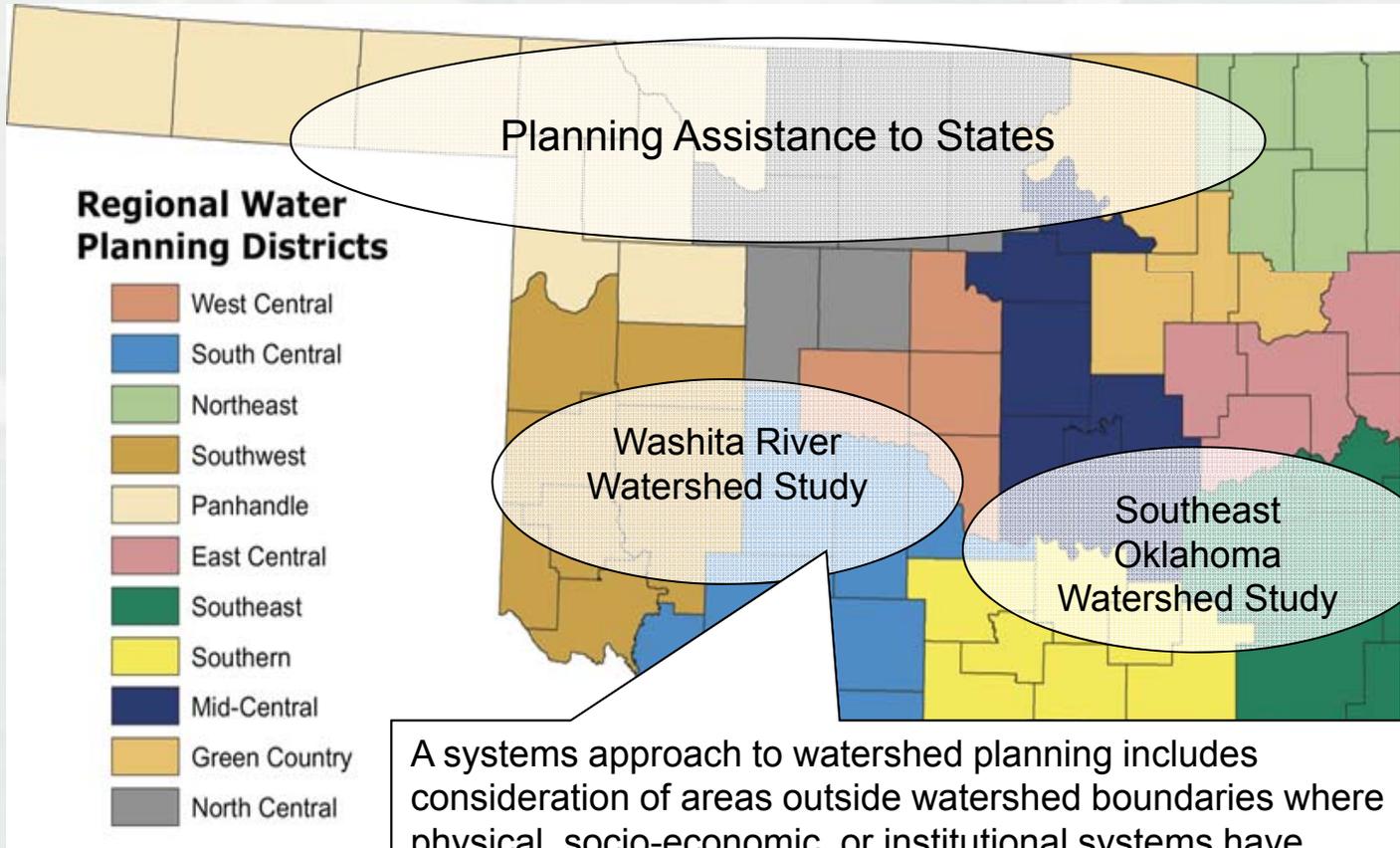
Oklahoma Comprehensive Water Plan

Option 1 Multiple Authorizations

Projects - PAS; Washita River Basin, OK; Southeast, OK

- PAS:** This study is a part of a major update on the State's comprehensive water plan. It is being conducted in two parallel but inter-related paths of public/policy coordination and technical studies.
Amount that could be used in FY 13: \$500,000. Budget for FY 12: \$300,000.
- Washita River Basin, OK:** Federal interest was identified for Feasibility level studies to solve the water resource problems within the study area, including a systems approach to collaboratively develop a Washita River Watershed Management Plan.
Amount that could be used in FY 13: \$500,000. Budget for FY 12: 0.
- Southeast, OK:** The project covers a 29 county area in southeast Oklahoma. The output will be the Southeast Oklahoma Watershed Management Plan.
Amount that could be used in FY 13: \$500,000. Budget for FY 12: 0.





A systems approach to watershed planning includes consideration of areas outside watershed boundaries where physical, socio-economic, or institutional systems have potential to interact with that watershed. Therefore, 3 study authorities will contribute comprehensive existing, forecasted, and strategic information for the development of the OCWP.



Oklahoma Comprehensive Water Plan

Option 2 Statewide OCWP WRDA 2007 Authorization

The study received authorization in WRDA 2007 Section 5119. Allows for allocations up to \$6.5M for technical assistance and for the development of updates to the Oklahoma Comprehensive Water Plan. The non-Federal sponsor is the Oklahoma Water Resources Board.

Budget for FY 12: \$ 0



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Technical Studies in 4 Major Phases

2007 - 2009

- Foundational elements

Demands, supply availability, & shortages

2009 - 2010

- Analysis

Water allocation modeling

What-if analyses; supply/demand uncertainties

Management & administration

2011

- Supply Planning

Regional needs and potential solutions

Watershed Planning Region Reports

Detailed provider-level assessments

- OCWP Completed (Documentation)



FY 11 Accomplishments

Activity

Contract Award (assess climate change impacts, develop GIS tool, construct models for Pilot Study, develop/evaluate supply alternatives, project coordination, draft OCWP completion)

Schedule

September 2011



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Oklahoma Comprehensive Water Plan

District POC:

Bryan Taylor, PhD
Project Manager
CESWT-PP-C
918-669-4950



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