

WETLANDS IN OKLAHOMA PLAYERS, PROGRAMS, AND PROSPECTS

Oklahoma Clean Lakes and
Watersheds Association Conference

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Talking Points

- ▣ Wetlands program overview
- ▣ Players (and their role)
- ▣ Obstacles and Opportunities







Overview of Wetland Management in Oklahoma

- ▣ 1990 Oklahoma Legislature designated the Oklahoma Conservation Commission the state agency responsible for preparing Oklahoma's wetlands management strategy
- ▣ The Commission acts as the Chair of the Oklahoma Wetlands Working Group and the Oklahoma Wetlands Technical Working Group

OCC Authorities and Responsibilities

- ▣ *§27A-3-2-108. Wetlands Management Strategy - Exclusive jurisdiction - Contents - Submission to Legislature and other officials.*
- ▣ *A. The Commission is hereby given exclusive jurisdiction to prepare a Wetlands Management Strategy for the State of Oklahoma. The Strategy shall:*
 - ▣ *1. Define wetlands;*
 - ▣ *2. Enumerate their beneficial uses;*
 - ▣ *3. Identify and inventory wetlands within this state;*
 - ▣ *4. Recommend measures to mitigate losses of wetlands;*
 - ▣ *5. Provide measures to protect wetlands; and*

OCC Authorities and Responsibilities

- ▣ 6. *Define standards for critical wetlands and measures to ensure protection of property rights of landowners.*
- ▣ B. *Upon completion, the Conservation Commission is to forward the Wetlands Management Strategy for the State of Oklahoma and to submit said Strategy to the President Pro Tempore of the Oklahoma Senate, the Speaker of the Oklahoma House of Representatives, and to the Secretary of the Environment or successor secretary position.*
- ▣ *Added by Laws 1990, c. 243, § 1. Amended by Laws 1993, c. 145, § 214, eff. July 1, 1993. Renumbered from Title 82, § 1621 by Laws 1993, c. 145, § 359, eff. July 1, 1993.*

Oklahoma Wetlands Program

➤ Goals

- "The goals of the State of Oklahoma are to conserve, enhance, and restore the quantity and biological diversity of all wetlands in the state.

➤ Objective

- "To establish a net-gain wetlands policy for state-owned lands and a no-net-loss policy for state-funded projects to encourage the restoration, enhancement, and creation of wetlands."

Oklahoma Wetlands Technical Working Group

Oklahoma Conservation Commission (Chair)

Oklahoma Corporation Commission

Oklahoma Secretary of the Environment

Oklahoma Water Resources Board

Oklahoma Department of Wildlife Conservation

Oklahoma Department of Environmental Quality

Oklahoma Department of Agriculture, Food and Forestry

Oklahoma Department of Transportation

Oklahoma University

Oklahoma State University

Indian Nation Council of Government

Association of Central Oklahoma Governments

US Army Corps of Engineers

Natural Resource Conservation Service

US Fish and Wildlife Service

Environmental Protection Agency

Indian Tribes

Programmatic Needs

- ▣ The OWTWG and OWWG identified the following priorities during development of the WPP:
 - Develop tools to track wetlands gains/losses
 - Develop tools to track trends in wetland health
 - Develop an assessment tool for guiding and tracking wetland compensatory mitigation
 - Advance mitigation banking in the state
 - Promote voluntary wetland restoration, enhancement, creation, and protection
 - Integrate wetland RECP with watershed based approaches
 - Develop and propose wetland specific water quality standards for wetlands
 - Revise NWI maps to improve accuracy
 - Develop guidelines for creation/maintenance of stormwater detention and wastewater treatment wetlands
 - Promote Wetland Education

Principal Agencies

▣ State



- Conservation Commission



- Department of Wildlife Conservation



- Water Resources Board



- Department of Environmental Quality

▣ Federal



- U.S. Army Corps of Engineers



- Environmental Protection Agency



- U.S. Fish and Wildlife Service



- Natural Resources Conservation Service

Oklahoma Water Resources Board

- ▣ Water quality standards
- ▣ Assists in the development of monitoring and assessment methods
- ▣ Coordinates the National Flood Insurance Program
- ▣ Administers the water rights for both streams and groundwaters in Oklahoma

Oklahoma Department of Environmental Quality

- ▣ Permitting
- ▣ 401 water quality certification implemented through the 404 program.
 - Determine if discharge complies with Oklahoma Water Quality Standards
- ▣ IRT Member for USACE 404 Mitigation



Oklahoma Department of Wildlife Conservation

- ▣ Management, protection and enhancement of wildlife resources and habitat for scientific, recreational, aesthetic and economic benefits
 - Implements the North American Waterfowl Management Plan – Playa Lakes Joint Venture and Eastern Oklahoma Wetlands Plan
 - Wildlife Management Areas (WMAs)
 - Wetland Development Units (WDUs)
 - Promotes wetlands habitat development projects on other public and private lands



U.S. Army Corps of Engineers



- ▣ Regulatory agency in Oklahoma
 - Section 404 of the Clean Water Act
 - ▣ Permit program to regulate discharge of dredge and fill material into waters of the US
 - ▣ USACE – USACE administers the day-to-day program, including individual permit decisions and jurisdictional determinations; develops policy and guidance; and enforces Section 404 provisions.
 - ▣ Jurisdictional wetlands impacts need to be mitigated
 - Key to Section 404's impact on wetlands is the definition of “waters of the United States”
 - ▣ SWANCC v. USACE 2001 – migratory birds
 - ▣ Rapanos v. USACE 2006 – significant nexus
 - ▣ Current Proposed WOTUS Rule
 - Visit www.usace.army.mil/inet/functions/cw/cecwo/reg/ for additional information about the USACE Regulatory Program



Environmental Protection Agency

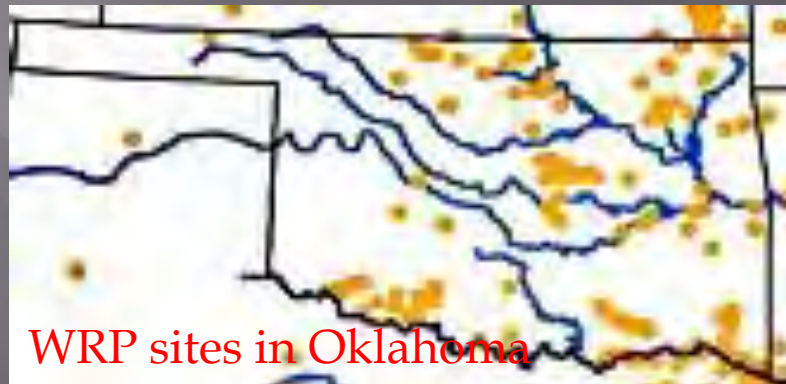


- ▣ Involved with wetlands protection through Clean Water Act
 - Section 404 – EPA develops and interprets environmental criteria used in evaluating permit applications, identifies activities that are exempt from permitting, reviews/comments on individual permit applications, enforces Section 404 provisions, and has authority to veto USACE permit decisions. (See www.epa.gov/owow/wetlands/pdf/reg_authority.pdf)
 - Section 401 – water quality standards and certification
 - Funding and oversight of state wetlands programs
 - ▣ 104(b)(3) Wetland program development grants
 - ▣ 106 Water pollution control program grants
- ▣ IRT member for USACE mitigation

Natural Resource Conservation Service



- ▣ 1985 Food Security Act (Farm Bill)
 - Wetland Conservation “Swampbuster” Program – goal was to discourage the conversion of wetlands to agriculture use by restricting certain USDA farm program benefits
- ▣ 1990 Farm Bill
 - Wetland Reserve Program
 - ▣ Goal of a 1 million acre reserve
 - ▣ Voluntary enrollment of 30-year or permanent easements
 - ▣ Over 2.3 million acres enrolled nationally, with 61,000 acres in Oklahoma in permanent or 30 year easements



Natural Resource Conservation Service

- ▣ Agricultural Conservation Easement Program (ACEP)
 - Wetland Reserve Easements replaced the Wetland Reserve Program with the provisions of the 2014 Farm Bill

U.S. Fish and Wildlife Service



- ❑ Except for National Wildlife Refuges, the Service has no direct regulatory authority of wetlands
- ❑ USFWS acts as a primary advisor in the activities of other Federal agencies
- ❑ Produces detailed maps and reporting on the status and trend of the nation's wetlands (NWI)
- ❑ North American Wetlands Conservation Act – 1989 – N.A. Waterfowl Management Plan



Obstacles to Wetland Management

- ▣ Diverse agency interest
 - Protection
 - Development
 - Mitigation
 - Restoration
 - Monitoring
 - Permitting
- ▣ Diverse “users”
 - Private property rights
 - Industry rights
 - Developer rights
 - Mitigation needs

Obstacles to Wetland Management

- ▣ Distrust
- ▣ “Fear” of government control
- ▣ Lack of understanding – see distrust and “fear” of government control

Obstacles to Wetland Management

- Diverse landscape = Diverse wetlands
 - 12 level III ecoregions (Woods and others, 2005)
 - Rainfall gradient- Average Annual 17" to 56"
 - Elevation- 287' to 4,973'



Wetland Vegetation Variability

Marsh- Palustrine



Swamp- Forested



Wetland Functional Variability

Fringe

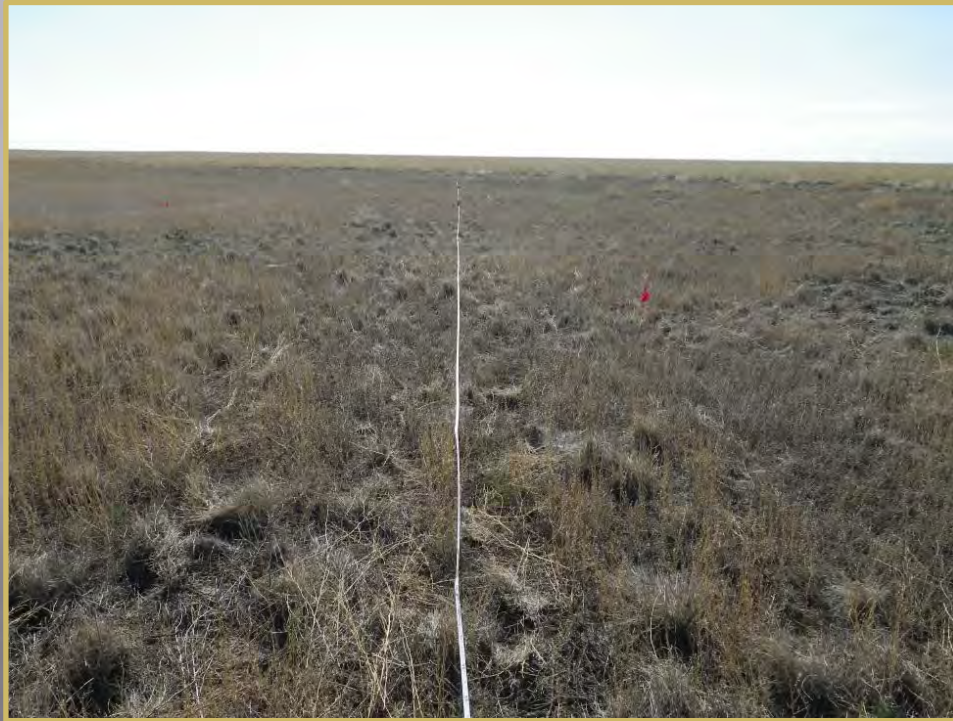


Depressions



Wetland Spatial Variability

Cimarron County



McCurtain County



Wetland Temporal Variability

Okfuskee County: Spring

Okfuskee County: Summer



Wetland Definition

- ▣ Definition in Oklahoma Wetlands Program Plan = Federal Definition and is generally accepted (except following WOTUS)

“Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.”
(Federal Register 1980, 1982)

OKRAM

- ▣ Oklahoma Rapid Assessment Method for Wetlands
 - Joint project with OSU, Conservation Commission, and Water Resources Board
 - ▣ Dr. Craig Davis – Academic Oversight/Principle Investigator
 - ▣ Daniel Dvoretz (PHD Candidate) – Principle Investigator
 - Refinement and validation currently ongoing in interdunal depressions and riverine wetlands

Background: Wetland Assessment

- ▣ Use of metrics to measure state of an endpoint consistently and objectively.

- Biota- IBI
 - ▣ % Intolerant Taxa



VIBI
Species Richness

- Function- HGM
 - ▣ Nutrient Cycling



- Condition- RAM
 - ▣ Buffer Condition



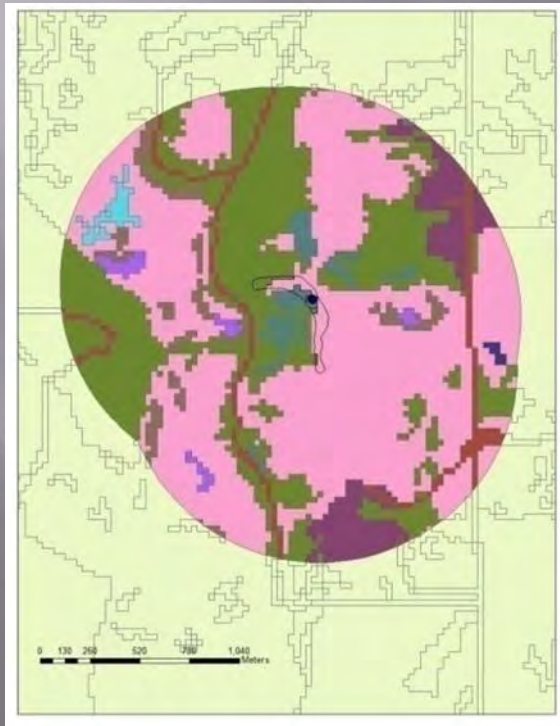
Background: Condition

- ▣ Ability of a wetland to support and maintain biotic communities, physico-chemical characteristics and functional processes compared to a reference standard of a wetland un-impacted by human activities and alterations.



Background: 3-Tiered Assessment Framework

- ▣ Level 1: Landscape Assessment
- ▣ **Level 2: Rapid Wetland Assessment**
- ▣ Level 3: Intensive Site Assessment



Background: RAM Applications

- ▣ Ambient Monitoring
- ▣ Identify Impaired Systems
- ▣ Develop Restoration Plans and Track Success



http://en.wikipedia.org/wiki/File:Wetland_restoration_in_Australia.jpg

OKRAM: Development

- ▣ Rapid: <1 day combined field and office
- ▣ Intuitive: easy to understand and apply
- ▣ Meaningful: ecological relevance of metrics



OKRAM: Ongoing Work

- ▣ Validation and Refinement
 - Validate with Level 3 Data (plants, invertebrates, soil chemistry, hydrologic modeling)
 - Range and Representativeness (distribution of scores)
 - Redundancy (test if metrics are measuring the same elements)
- ▣ Scoring
 - Continuous vs. discrete

OKRAM: Next Steps

▣ Additional Wetland Types



Partnerships

- ▣ Continued strong partnership with NRCS – all programs
- ▣ Continued strong partnerships with Conservation Districts
- ▣ Continue shared responsibilities with OCC, OWRB, and ODEQ
- ▣ Strengthen partnerships with ODOT – especially with assistance in mitigation efforts
- ▣ Integrate strengths of both state and federal agencies, such as the USFWS and ODWC
- ▣ Integrate goals and resources of the state with tribal partners

Summary

- ▣ Oklahoma is home to a diverse assemblage of wetland ecosystems.
- ▣ In order to comply with federal regulations and meet the Wetland Program's goals the state needs:
 - Monitoring and assessment tools
 - Water quality standards
 - Prioritization methods for restoration sites
- ▣ The Wetland Program is a multi-agency partnership that works through the OWTWG and OWWG to ensure technical soundness of methods.
 - Each agency involved is responsible for specific components of the Wetland Program but is able to provide technical input on all projects.

THANKS

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