

Oklahoma State Wetland Program Summary



Photo Credit: Oklahoma Conservation Commission

*Click Here to Skip to
Oklahoma's Information about Wetland:*

[Regulation](#)
[Monitoring & Assessment](#)
[Water Quality Standards](#)
[Voluntary Restoration](#)
[Education and Outreach](#)
[Integration with Other Programs](#)

Section A. Quick View

Description of State's Wetlands

Palustrine wetlands constitute most of Oklahoma's wetland acreage. Palustrine wetlands in the State include forested wetlands such as bottom-land hardwood forests and mersed or floating plants in ponds, lakes, rivers, and sloughs; and sparsely vegetated wetlands such as small, intermittently flooded playa lakes. Most lacustrine wetlands in Oklahoma are in the larger playa lakes and in the shallows of the many reservoirs on rivers statewide. The State has extensive riverine wetlands.

State Definition of Wetlands

The State of Oklahoma does not have a regulatory definition for wetlands, but it is recommended in Oklahoma's Comprehensive Wetlands Conservation Plan that the EPA and the Corps' regulatory definition be adopted. Oklahoma had not adopted a statutory or regulatory definition of wetlands, though the federal definition of wetlands was adopted in the 2006-2013 State Wetland Program Plan.

Historic Wetland Loss/Gain

Original Wetland Acreage	Remaining Wetland Acreage	Acreage Lost	% Lost
2,842,600	949,700	1,892,900	67%

Primary State Wetlands Webpage

Oklahoma State Multi-Agency Wetland Website:
<http://www.ok.gov/wetlands/>

State Wetland Program Elements

*Icons will be Added Here Based on which Elements are Present
Link to Program Continuum at end of document*

State Wetland Program Plan

The state will be working to update the Oklahoma’s Wetland Program Plan (2006-2018) in the coming year: <http://water.epa.gov/type/wetlands/upload/ok-cc-wpp.pdf>

No Net Loss/Net Gain Goal

The goal stated in Oklahoma’s Comprehensive Wetlands Conservation Plan is as follows:
 “The goals of the State of Oklahoma are to conserve, enhance, and restore the quantity and biological diversity of all wetlands in the state.” An objective within Oklahoma’s Comprehensive Wetlands Conservation Plan states: “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.”

State Resources for Wetland Work

State Name	Core element #1: Regulation	Core Element #2: Monitoring and Assessment*	Core Element #3: Wetland Water Quality Standards	Core Element #4: Voluntary Wetland Restoration
Agency	OK DEQ	OK Conservation Commission	Water Resources Board	OK Conservation Commission
Sources	Information unavailable	Information unavailable	Information unavailable	Information unavailable
Amount	Funding for part of one staff person to conduct 401 Certification Program	Information unavailable	A large commitment to develop draft standards (employee time, multi-agency meetings)	403b funding for restoration in three watersheds; develop database with online mapping portal
Staffing	0.5 FTE	<0.10 FTE Staff + 0.50 PhD Student	Parts of 10 staff positions	0.5 FTE
Agency		OK Water Resources Board	OK Conservation Commission	Department of Wildlife
Sources		<0.5 FTE	Information unavailable	Information unavailable
Amount		Information unavailable	Information unavailable	Information unavailable
Staffing		Information unavailable	Participation in meetings etc.	1+ FTE (technical assistance with partner programs + restoration on management areas

*Monitoring and assessment work is also supported by multiple Oklahoma universities (1-2 FTE total)

State Permitting Fees

State Permitting Fee	State Name
Yes/No	YES
Amount (range)	\$100
Agency	OKDEQ

Innovative Features

Oklahoma has adopted a multi-institutional collaborative approach to wetland work in the state, which has included the development of a multi-stakeholders *Wetland Working Group*. The Group was established as part of the 1990 Legislative directive to develop a wetland management strategy for Oklahoma. The group serves as a forum for information and technology sharing between groups within the wetlands arena. This interagency working group, comprised of tribal, state, local and federal entities, continues to meet to coordinate efforts to conserve, enhance, and restore the quantity and biological diversity of Oklahoma's wetland resources by implementing the state plan. Group process has allowed for the incorporation of comments, development of a strong wetland program plan and consensus support for such initiatives as the state's currently proposed wetland water quality standards.

Models and Templates

For the state's most recent programs, models and templates, check out: <http://www.ok.gov/wetlands/>. New information will be posted as available for all core element projects and others.

Section B. Regulation

How are Wetlands Regulated in Oklahoma?

Oklahoma protects wetland resources primarily through the efforts of four agencies: the Oklahoma Department of Wildlife Conservation (ODWC), the Oklahoma Department of Environmental Quality (ODEQ), the Oklahoma Water Resources Board (OWRB), and the Oklahoma Conservation Commission (OCC). The state also operates the *Oklahoma Wetlands Working Group*, which includes all of the state agencies involved in wetlands protection, as well as local, federal, and tribal authorities. The Working Group meets on a quarterly basis to coordinate efforts to conserve, enhance, and restore the quantity and biological diversity of Oklahoma's wetland resources. The group is guided by the state's Comprehensive Wetlands Conservation Plan, as is much of the wetlands work in Oklahoma.

The Oklahoma Department of Environmental Quality (DEQ) is responsible for a limited wetlands regulatory program that is implemented through 401 water quality certification. DEQ conducts Clean Water Act Section 401 Water Quality Certification reviews for projects requiring Clean Water Act Section 404 permits from the United States Army Corps of Engineers (USACE). Certification reviews determine whether a proposed discharge will comply with Oklahoma water quality standards. DEQ also conducts other permitting (FERC, etc.)

The Oklahoma Conservation Commission (OCC) is designated as the lead agency for wetlands planning and development of a wetlands strategy. OCC submits determinations for federal projects (e.g. sign-off on NEPA reviews) which are submitted to the Corps as part of the review process. OCC is also responsible for organizing the interagency "Oklahoma's Wetlands Workgroup". The goal of the Oklahoma Wetlands Program is to provide assistance with wetland related issues for Oklahomans.

Many state and federal agencies and tribal governments are involved in different aspects of wetland management, regulation and restoration.

The Oklahoma Water Resources Board (OWRB) is responsible for the state water quality standards, coordinating the National Flood Insurance Program, and the management and administration of water rights for both streams and groundwaters in Oklahoma.

Wetland Delineation

Delineation Guidance	Yes	No	Detail
Use State's Own Method		X	
Use Corps' 87 Manual and Regional Supplement	X		Although the Corps is responsible for all delineations, this method is described in the <i>Oklahoma Comprehensive Wetlands Conservation Plan</i>
Other (Please describe)		X	

Evaluation Methodology

Oklahoma does not currently have an evaluation methodology and defers to the Corps for evaluation.

Exempted Activities

Same as federal.

Special Provisions for Agriculture and Forestry

Same as federal.

Penalties and Enforcement

Done by the Corps through the Section 404.

Permit Tracking

The Corps tracks all permits in the state; however ODEQ does maintain an informal database of all 401 Certification applications and approvals by the state. The database is maintained in ACCESS.

State General Permit (statewide vs. regional coverage)

Permit Coverage	Yes	No	Detail (Type of Permit)
Regional General Permit		X	
Statewide General Permit		X	

Assumption of 404 Powers

Assumption Status	Yes	No	Detail
Assumed		X	
Working Toward Assumption		X	
Explored Assumption		X	

Joint permitting

Arizona has a joint public notice process with the Corps for individual 404 permit applications.

Special Area Management Plans and Advanced Identification Plans

None.

Buffer Protections

Although the state does not have a formal wetland buffer protections; the state does:

- Encourage voluntary participation in a program that encourages fencing off areas (this is not a wetland-specific program, but includes wetlands as appropriate).
- Encourages the inclusion of wetland buffers for 319 projects for non-regulatory sites
- Buffer protections are provided for “special waters” through the stormwater program, some of which may include wetlands.

Mitigation Policy

Oklahoma currently does not have a state wetland mitigation policy. All mitigation is managed by the Corps. However, the state has been involved in making recommendations for an update to the Corps’ mitigation policies, which are expected to be reviewed and approved in 2015.

Mitigation Database

The Corps utilizes the national RIBITS database.

Section C. Monitoring and Assessment

Agency Responsible for Wetland Monitoring and Assessment

In Oklahoma, there is currently no formal monitoring and assessment program for wetlands. However, the state has been actively working to better characterize the wetland resources throughout the state.

The Oklahoma Conservation Commission (OCC) is responsible for assessing, and evaluating waters of Oklahoma to determine the impacts of NPS pollution. To accomplish this goal, OCC conducts the Nonpoint Source Assessment Program to determine the overall aquatic health of streams across the State. In general, OCC assesses water quality, stream habitat and stream aquatic communities to evaluate beneficial use support and to identify impacts from nonpoint source pollution. OCC stream assessments are related to specific education or demonstration projects and occur under EPA approved Quality Assurance Project Plans.

One of the state’s primary assessment programs is the Rotating Basin Monitoring Program. The OCC relies on the assistance of several federal and state partners to review and supplement monitoring efforts. These partners are essential to the overall success of the state's NPS Assessment Program as they monitor the larger streams and rivers, lakes and groundwater. The results of assessments are used in planning the focus of the Nonpoint Source Program, and are also used to draft the Nonpoint Source

Assessment Report. OCC assessments follow peer and EPA approved Standard Operating Procedures. Collected data are stored on the national water quality STORET database at EPA.

Additionally, Oklahoma Water Resources Board administers a Beneficial Use Monitoring Program (BUMP). Monitoring Section staff direct Oklahoma's Beneficial Use Monitoring Program. BUMP, created in 1998, is the state's first truly comprehensive water quality monitoring effort. Data provided by the program plays an essential role in the state's water quality management decision-making process by helping to identify waters experiencing impairments as well as the cause of declining water quality. The project specifically is designed to look at long-term trends. For more information about BUMP, go to: <http://www.owrb.ok.gov/quality/monitoring/monitoring.php>

Mapping/Inventory

A major initiative in the state has been the remapping of the state's wetlands. The U.S. Fish and Wildlife Service (FWS) has completed its National Wetlands Inventory mapping program for the state, classified by Cowardin et al., 1979. However, the state's NWI maps have been determined to be highly inaccurate due to both mapping during the dry season and a range of areas that are hard to map (e.g. bottomland flatwoods). Wetlands are now being remapped on a watershed-by-watershed basis. The new maps will be posted on the Oklahmo wetland website and are being incorporated into the NWI website as well. All maps have processed through the QA/QC process required by NWI. These new maps are part of a larger initiative designed to prioritize restoration and other activities based on need.

In addition to the NWI maps, several educational components have also been developed. These are special project maps for the Ames Closed Depression, the Arcadia Lake Riparian Area, Cloud Creek Riparian Area, the High Plains Playa, Little River National Wildlife Refuge (forested), Little River National Wildlife Refuge (swamp/marsh), Okmulgee Wildlife Management Area (oxbow) and Okmulgee Wildlife Management Area (riparian).

Finally, the USDA Natural Resources Conservation Service (NRCS) has also completed its wetlands mapping project in response to the Farm Bill wetlands provisions, these maps are housed in the local conservation district offices

State Wetland Mapping Public Portal

In 2015, Oklahoma will be placing its new maps on its multi-agency website: <http://www.ok.gov/wetlands>. Currently, the Oklahoma Water Resource Board provides public access to Oklahoma's NWI maps via the following website: <http://www.owrb.ok.gov/learn/wetlands/NWImaps.php>.

Overall Wetland Gain/Loss Tracking System

The state does not currently have a tracking system for wetland gain/loss. However, the state is hoping to develop this capacity in the coming year. At this time, the state does not have the data to conduct a comparative analysis of gains and losses.

Wetland Classification and Assessment

The state does not currently have a formal wetland classification and assessment system. However, the state is in the process of completing the development of the Oklahoma Rapid Assessment Method

(OKRAM). The state also has a hydrogeomorphic (HGM) classification system and HGM based wetland inventories have been developed for wetlands based on system hydrology and geomorphology for the Cross Timbers and Central Great Plains Ecoregions of Oklahoma (Brinson 1993, Dvoretz et al. 2012). The state is in the process of developing additional tools to assess wetlands in the state. OCC is the lead agency for the completion of these actions. HGM studies have been completed for approximately 75% of the state.

Statewide Wetland Monitoring Plan

Oklahoma is in the process of developing a monitoring and assessment program and plans. Details of this ongoing process can be found in the state’s wetland program plan under monitoring and assessment goals (<http://water.epa.gov/type/wetlands/upload/ok-cc-wpp.pdf>). The state’s goal is to look at wetland gain, loss and condition using a probabilistic design with field validation. However, the state must first develop a method that works across the state.

Wetland Monitoring and Assessment Characteristics

Level	None	Level 1	Level 2	Level 3
<i>Oklahoma</i>		Under development	Under development	Stalled in development

Type	None	IBI	Condition	Functional
<i>Oklahoma</i>		X Floristic Quality Index	Under development	X Well-developed

Frequency	None	Project Specific	Ongoing
<i>Oklahoma</i>		X	

Participation in National Wetland Condition Assessment

NWCA Study Type	Yes	No
National Study	X	
State Intensification Study		X

Note: Oklahoma is hoping to participate in an intensification study during the 2016 NWCA.

Section D. Water Quality Standards

Wetland and Water Quality Standards

Type	None	Use Existing WQ Standards	In Process	Adopted	Future Direction
<i>Wetland-specific Designated Uses</i>		X	X		

<i>Narrative criteria in the standards to protect designated wetland uses</i>		X	X		
<i>Numeric criteria in the standards based on wetland type and location to protect the designated uses</i>		X	X		
<i>Anti-degradation policy includes wetlands</i>		X	X		

Description: Currently, water quality standards for wetlands default to warm water aquatic community standards. However, the Oklahoma Water Resources Board (OWRB) and the Oklahoma Wetlands Technical Work Group are working to develop water quality standards designed specifically for wetlands.

Section E. Voluntary Wetland Restoration

Types of Wetland Restoration Work Funded by the State:

Type of Work	YES	NO	Description
Fund Wetland Restoration (may include easement agreements)	X		Project cost-share arrangements through ODWC's Wildlife Habitat Improvement Program 319 funding for wetland restoration projects
Private Land Restoration	X		Oklahoma's Comprehensive Wetlands Conservation Plan
Public Land Restoration	X		Oklahoma's Comprehensive Wetlands Conservation Plan
Technical Assistance	X		Oklahoma's Comprehensive Wetlands Conservation Plan
Tax Incentives		X	
Other			

Detail: Oklahoma does not have a formal state voluntary wetland restoration program or established coordination between activities at the state level. Several state and federal agencies as well as NGOs have active restoration and protection programs in Oklahoma. To date, a major source of wetland acquisition, protection and restoration in the state has been through the USFWS refuge acquisition program and through ODWC wetland development units and wildlife management areas. ODWC's Wildlife Habitat Improvement Program helps private landowners develop, preserve, restore, and manage wildlife habitat on private land with up to 50 percent cost share. Wetland restoration and protection can also be improved in the state by integrating these programs with CWA §319 non-point source management programs.

Voluntary Wetland Restoration Program Components

Wetland Restoration Efforts	Nothing in	Planning	In Progress	Mature/

	the Works			Complete
Program has a set of restoration goals	N/A			
Coordinate with relevant agencies that outline restoration/protection goals and strategies and timeframes	N/A			
Developed multi-agency body to coordinate restoration/protection efforts	N/A			
Set restoration goals based on agency objectives and available information	N/A			

Goals for Restoration Projects

Goal	Yes	No	Description
No Net Loss	X		
Reverse Loss/Net Gain	X		Net-gain wetlands policy for state-owned lands; no-net loss policy for state-funded projects to encourage the restoration, enhancement, and creation of wetlands.
Nonpoint Source Pollution (NPS)/WQ			
Total Maximum Daily Load (TMDLs)			
Habitat			
Coastal Protection			
Floodwater Protection			
Groundwater			
Other (Biodiversity)	X		

Detail: There are no overall acreage goals for wetland restoration in the state, but the goal stated in *Oklahoma's Comprehensive Wetlands Conservation Plan* is as follows: "The goals of the State of Oklahoma are to conserve, enhance, and restore the quantity and biological diversity of all wetlands in the state." An objective within Oklahoma's Comprehensive Wetlands Conservation Plan states: "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."

Landowner Guides and Handbooks to Assist with Voluntary Wetland Restoration Efforts

The Oklahoma Conservation Commission (OCC) maintains *Oklahoma's Wetland Registry*, a database that connects landowners with potentially restorable wetland locations, with parties that desire to restore wetlands. The registry works by providing a voluntary listing of public and private lands available for wetland restoration, which can be queried by location or site characteristics. In this way landowners are able to advertise their land as restorable, and those in need of restoration can find a

potential site to meet needs. Additionally, Commission is in the process of developing a database of potentially restorable wetland sites that can be restored to improve the water quality of downstream lakes and streams in high priority watersheds. For more information, go to:

<https://www.ok.gov/wetlands/Assistance/Restoration/>

Section F. Innovative and/or Highly Effective Education and Outreach

Information not available.

Section G. Climate Change and Wetlands

Information not available.

Section H. Integration

Entity/Program Area	Yes/No	Description of the Connection
NPDES/NPS/Stormwater	Information unavailable	
303(d)	Information unavailable	
305(b) reporting on wetlands	Information unavailable	
Total Maximum Daily Load (TMDLs)	Information unavailable	
Climate Change/ Resiliency	Information unavailable	
Land Use /Watershed planning	Information unavailable	
Flood/Hazard Mitigation	Information unavailable	
Coastal Work	Information unavailable	
Wildlife Action Plan	Information unavailable	
Statewide Comprehensive Outdoor Recreation Plan (SCORP)	Information unavailable	
Other – Transportation	Information unavailable	

State Wetland Program Contact and Other Relevant Contacts

Dr. Elena Jigoulina

Water Quality Division

Oklahoma Department of Environmental Quality

P.O. Box 1677

Oklahoma City, OK 73101-1677

(405) 702-8200

Elena.jigoulina@deq.ok.gov

Brooks Trammel

Oklahoma Conservation Commission
Water Quality Monitoring Coordinator
4545 N. Lincoln Blvd. Suite 11A
Oklahoma City, OK 73105
(405) 522-6908
Brooks.trammel@conservation.ok.gov

State Wetland Program Development Continuum

Continuum Stage		Core Element 1: Regulation	Core Element 2: Monitoring & Assessment	Core Element 3: Wetland Water Quality Standards	Core Element 4: Voluntary Restoration
Mature Stage	High	401 Certification Only			X
Initial Implementation Stage	↑				
Development Stage			X	X	
Early Stage	Low				

Section J. Useful Websites

State Government Programs

1. Oklahoma Conservation Commission
 - a) Water Quality Division
 - i. Wetlands Program
http://www.ok.gov/conservation/Agency_Divisions/Water_Quality_Division/Wetlands_Program/
 - i. Wetland Program Plan
http://www.okstatechamber.com/additional/ceo/pdf/Oklahoma_WPP_draft_revised_draft4_5_13.pdf
 - ii. Wetlands Registry
http://www.ok.gov/conservation/Agency_Divisions/Water_Quality_Division/Wetlands_Program/Wetlands_Registry.html
 - iii. Wetlands Working Group

- http://www.ok.gov/conservation/Agency_Divisions/Water_Quality_Division/Wetlands_Program/Wetlands_Working_Group.html
- iv. Water Quality Monitoring
http://www.ok.gov/conservation/Agency_Divisions/Water_Quality_Division/WQ_Monitoring/
 - b) Conservation Programs Division
http://www.ok.gov/conservation/Agency_Divisions/Conservation_Programs_Division/index.html
 - c) Conservation Districts
http://www.ok.gov/conservation/Conservation_Districts/index.html
2. Department of Wildlife Conservation
- a) Biodiversity Plan
<http://www.wildlifedepartment.com/wildlifemgmt/biodiversity.htm>
3. Water Resources Board
<http://www.owrb.ok.gov/>
- a) Water Quality Standards
<http://www.owrb.ok.gov/quality/index.php>
 - b) Technical Studies
<http://www.owrb.ok.gov/studies/index.php>
 - c) Hazard Mitigation
<http://www.owrb.ok.gov/hazard/index.php>
4. Department of Environmental Quality
- a) Water Quality Division
The primary function of WQD is to maintain clean water for Oklahoma by regulating facilities that produce and distribute public drinking water and that treat, transport, store, and discharge wastewater. WQD is also responsible -- in cooperation with other state agencies -- for maintaining water quality standards in Oklahoma's lakes, rivers, and streams
<http://www.deq.state.ok.us/wqdnew/index.htm>
 - i. Groundwater Monitoring
<http://www.deq.state.ok.us/wqdnew/groundwater/index.html>
 - ii. Integrated Water Quality Assessment
http://www.deq.state.ok.us/wqdnew/305b_303d/index.html
 - iii. Source Water Protection
<http://www.deq.state.ok.us/wqdnew/sourcewater/index.html>
 - iv. Storm Water Program
<http://www.deq.state.ok.us/wqdnew/stormwater/index.html>
 - v. TMDLs & Water Quality Modeling
<http://www.deq.state.ok.us/wqdnew/tmdl/index.html>
 - vi. Toxicity & Biomonitoring
<http://www.deq.state.ok.us/wqdnew/toxicity/index.html>
 - vii. 401/404 State Water Quality Review

- http://www.deq.state.ok.us/wqdnew/401_404/index.htm
- viii. Water Quality Management Plan
<http://www.deq.state.ok.us/wqdnew/208/index.html>

Federal Government Programs

1. USDA Natural Resources Conservation Service
 - a) Conservation Programs
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/ok/programs/>
 - b) Wetlands Reserve Program
http://www.nrcs.usda.gov/wps/portal/nrcs/detail/ok/programs/?cid=nrcs142p2_000503

Tribal Wetland Programs

1. Kaw Nation
 - a) Beaver Creek Wetland
http://kawnation.com/?page_id=918
 - b) Water Quality Program
http://kawnation.com/?page_id=912

Other Organization Wetland Programs

1. Ducks Unlimited
<http://www.ducks.org/oklahoma/oklahoma-projects/wetlands-reserve-program-oklahoma>
2. Friends of Hackberry Flat
<http://hackberryflat.home.mindspring.com/>