



ENVIRONMENTAL
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State Wetland Protection

Status, Trends, & Model Approaches

*A 50-state study by the
Environmental Law Institute*

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Appendix: State Profiles

Arizona

I. Overview

Arizona is an arid state not generally associated with wetlands. It has, however, witnessed significant wetland loss over the last century, with losses estimated at one-third of the state's original wetland acreage.¹ Ephemeral and intermittent streams and discontinuous wetlands, some under the jurisdiction of the Clean Water Act (CWA), provide important functions to the unique bioregions of the state.²

Arizona does not have a wetlands regulatory program separate from the federal §404 permitting program under the CWA, but state law does outline water quality standards for both "waters of the state" and "navigable waters."³ The Arizona Department of Environmental Quality (AZDEQ) certifies federal permitting decisions for dredging and filling of wetlands under §401 of the CWA.

II. Regulatory Programs

Wetland definitions and delineation

Arizona's water quality control statute defines "waters of the state" as:

all waters within the jurisdiction of [the State of Arizona] including all perennial or intermittent streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, wells, aquifers, springs, irrigation systems, drainage systems, and other bodies or accumulations of surface, underground, natural, artificial, public or private water situated wholly or partly in or bordering on the state.⁴

"Navigable waters," those waters that are protected by state water quality rules and standards, are "the waters of the United States as defined by §502(7) of the CWA."⁵

The state's regulatory definitions echo the federal definitions of waters and wetlands.

'Surface water' means a water of the United States and includes... a water that is currently used, was used in the past, or may be susceptible to use in interstate or foreign commerce; an interstate water, including an interstate wetland; all other waters, such as an intrastate lake, reservoir, natural pond, river, stream (including an intermittent or ephemeral stream), creek, wash, draw, mudflat, sandflat, wetland, slough, backwater, prairie pothole, wet meadow, or playa lake that the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce...; an impoundment of a surface water [as defined here]; a tributary of a surface water [as defined here]; and a wetland adjacent to a surface water [as defined here].⁶

¹ ROBERTA H. YUHAS, LOSS OF WETLANDS IN THE SOUTHWESTERN UNITED STATES (U.S. Geological Survey 1996), available at <http://geochange.er.usgs.gov/sw/impacts/hydrology/wetlands/>.

² Tucson Audubon Society, *Tucson Audubon Society: Clean Water Act Letter*, at <http://www.tucsonaudubon.org/conservation/cwaletter.htm> (last visited July 10, 2007).

³ ARIZ. REV. STAT. ANN. § 49.

⁴ *Id.* § 49-201(41).

⁵ *Id.*

⁶ ARIZ. ADMIN. CODE §18-11-101(43).

“Wetlands” are defined as areas that are “inundated or saturated by surface or groundwater at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions. A wetland includes a swamp, marsh, bog, cienega, tinaja, and similar areas.”⁷ Wetland delineation criteria correspond to §404 of the CWA, relying on the U.S. Army Corps of Engineers’ 1987 *Wetlands Delineation Manual*.⁸

Organization of state agencies

Section 401 certification is the state’s main tool for regulating activities affecting wetlands. The CWA 401 Certification Program is administered by AZDEQ’s Surface Water Section. Funding for the CWA 401 Certification Program, approximately \$75,000 annually, comes from EPA grants with matches from the state’s general funds.⁹ One full-time equivalent works within the program, issuing §401 certifications and providing technical assistance to permit applicants on §401 certification procedures and guidelines. The program is based in the AZDEQ headquarters office in Phoenix.¹⁰

§401 certification program

Actions that require a federal permit, license, or approval that results in a discharge into certain waters of the state, including §404 dredge and fill permits and nationwide permits, require CWA §401 certification in Arizona. Section 401 certification is required solely for navigable waters, extending only to activities conducted within the ordinary high watermark of navigable waters.¹¹ Activities conducted in intermittent or ephemeral streams also require §401 water quality certification.

AZDEQ staff evaluate proposed projects to ensure compliance with the state’s surface water quality standards and for consistency with approved water quality planning and management programs. In general, applicants must show that they will take all possible steps to avoid or minimize potential impacts to wetlands and that they have provided compensatory mitigation for any remaining, unavoidable impacts.¹²

The AZDEQ is authorized to grant, deny, or waive §401 water quality certification and may take into account the following considerations:¹³

- State water quality statutes and regulations;¹⁴
- The Governor’s Executive Orders No. 91-6, dated February 14, 1991, which direct state agencies to recognize and consider the protection, maintenance and restoration of riparian areas; and¹⁵

⁷ ARIZ. ADMIN. CODE §18-11-101(49).

⁸ U.S. ARMY CORPS OF ENGINEERS, WETLANDS RESEARCH PROGRAM TECHNICAL REPORT Y-87-1, CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (1987), *available at* <http://www.mvn.usace.army.mil/ops/regulatory/wlman87.pdf>.

⁹ Personal communication with Chris Varga, Ariz. Dep’t of Env’tl. Quality (Aug. 17, 2004).

¹⁰ Personal communication with Andrew Travers-Cajero, Ariz. Dep’t of Env’tl. Quality (May 12, 2004).

¹¹ ARIZ. REV. STAT. ANN. § 49-202(C).

¹² Arizona Department of Environmental Quality, *Permits: Dredge and Fill Program*, at <http://www.adeq.state.az.us/environ/water/permits/dredge.html> (last revised July 27, 2006).

¹³ ARIZ. DEP’T ENVTL. QUALITY, ADEQ/WQD FORM 404-015, CWA SECTION 401 CERTIFICATION APPLICATION FORM (Feb. 2007), *available at* <http://www.azdeq.gov/environ/water/permits/download/401app2.pdf>.

¹⁴ ARIZ. REV. STAT. ANN. § 49; ARIZ. ADMIN. CODE §18-11.

- The AZDEQ's Policy for Protecting Water Quality During Facility Construction, adopted December 12, 1994, which outlines specific procedures for protecting water quality during facility construction.¹⁶

The number of certifications issued annually by the state varies, ranging from 30 to 100 certifications in any given year.¹⁷ Once AZDEQ receives an application and supporting materials, the application is reviewed and conditions are developed for the course of the project. AZDEQ staff rely mostly on best professional judgment in these decisions, with some qualitative assessment where deemed necessary.¹⁸

Arizona statutes also grant automatic §401 certification for several types of applications:

- Quarrying, crushing, and screening of nonmetallic minerals in ephemeral waters if certain best management practices¹⁹ are followed within the ordinary high watermark of jurisdictional waters; and
- Corrective actions taken pursuant to Arizona laws and regulations; Comprehensive Environmental Response, Compensation, and Liability Act; Resource Conservation Recovery Act; or other applicable federal laws.²⁰

The statute requires that the department adopt rules specifying what information an applicant would be required to submit in order to make the certification.²¹ AZDEQ has not yet developed those rules and so is limited with respect to the information it may request of applicants.²² Certifications are tracked in a database that includes basic information such as project name, location, and status.²³

Nationwide permits

Nationwide permits (NWP) are reviewed by AZDEQ as they are revised by the U.S. Army Corps of Engineers – generally every five years. During the review, a determination is made regarding the conditional certification of U.S. Army Corps of Engineers NWP.²⁴ For the April

¹⁵ OFFICE OF THE ARIZ. GOVERNOR, EXECUTIVE ORDER NO. 91-6: PROTECTION OF RIPARIAN AREAS (1991), available at <http://www.adeq.state.az.us/environ/water/permits/download/91-6.pdf>.

¹⁶ Arizona Department of Environmental Quality, *supra* note 12.

¹⁷ The large majority of §401 water quality certifications issued in any given year involve ephemeral wetlands and streams.

¹⁸ Travers-Cajero, *supra* note 10.

¹⁹ Automatic §401 certification is granted for quarrying, crushing, and screening of nonmetallic minerals in ephemeral waters if the following practices are followed within the ordinary high watermark of jurisdictional waters: (1) there is no disposal of construction and demolition wastes and contaminated wastewater; (2) water for dust suppression, if used, does not contain contaminants that could violate water quality standards; (3) pollution from the operation of equipment in the mining area is removed and properly disposed; (4) stockpiles of processed materials containing ten per cent or more of particles of silt are placed or stabilized to minimize loss or erosion during flow events; (5) measures are implemented to minimize upstream and downstream scour during flood events to protect the integrity of buried pipelines; (6) on completion of quarrying operations in an area, areas denuded of shrubs and woody vegetation are revegetated to the maximum extent practicable.

²⁰ ARIZ. REV. STAT. ANN. § 49-202.

²¹ *Id.* § 49-202(G).

²² Personal Communication with Linda Taunt, Ariz. Dep't of Env'tl. Quality (Nov. 1, 2004).

²³ Travers-Cajero, *supra* note 10.

²⁴ *Id.*

19, 2002 NWP, Arizona had conditionally certified or waived all applicable NWPs according to Table One below. Where an NWP is conditionally certified, the conditions are established at the time of certification and published as part of the Corps' final approval process.²⁵

Table One. NWP Certifications in Arizona.²⁶

NWP#	In Unique Waters	All Other Waters	NWP#	In Unique Waters	All Other Waters
1	N/A	N/A	23	Individual	Conditionally Certified
2	N/A	N/A	24	N/A	N/A
3	Individual	Conditionally Certified	25	Individual	Conditionally Certified
4	Individual	Conditionally Certified	26	N/A	N/A
5	Individual	Conditionally Certified	27	Individual	Conditionally Certified
6	Individual	Conditionally Certified	28	Conditionally Certified	Conditionally Certified
7	Individual	Conditionally Certified	29	Individual	Conditionally Certified
8	N/A	N/A	30	Conditionally Certified	Conditionally Certified
9	N/A	N/A	31	Individual	Conditionally Certified
10	N/A	N/A	32	Conditionally Certified	Conditionally Certified
11	N/A	N/A	33	Individual	Conditionally Certified
12	Individual	Conditionally Certified	34	Individual	Conditionally Certified
13	Individual	Conditionally Certified	35	N/A	N/A
14	Individual	Conditionally Certified	36	Individual	Conditionally Certified
15	Individual	Conditionally Certified	37	Individual	Individual
16	Individual	Conditionally Certified	38	Individual	Individual
17	Individual	Individual	39	Individual	Conditionally Certified
18	Individual	Conditionally Certified	40	Individual	Conditionally Certified
19	Individual	Conditionally Certified	41	Individual	Conditionally Certified
20	Conditionally Certified	Conditionally Certified	42	Individual	Conditionally Certified
21	Individual	Individual	43	Individual	Conditionally Certified
22	Conditionally Certified	Conditionally Certified	44	Individual	Individual

Arizona's action on the 2007 NWPs could not be reviewed within the reporting period.

Mitigation

The State of Arizona has not adopted guidelines, policies, or legislation (beyond CWA §404 requirements) pertaining to compensatory mitigation for permitted impacts to wetlands or streams, including banking and in-lieu-fee operations. In addition, the state does not participate on a Mitigation Banking Review Team.

Compliance and enforcement

The Arizona Revised Statutes outline enforcement provisions²⁷ for violations to state water quality standards. The AZDEQ may pursue violations to the state's water quality standards,

²⁵ U.S. Army Corps of Engineers Los Angeles District – Arizona Section, *Special Public Notice: Nationwide Permits for Arizona*, at http://www.spl.usace.army.mil/regulatory/AZNWP_2002.doc (Apr. 19, 2002).

²⁶ *Id.*

²⁷ A compliance order specifies the nature of the violation, sets the time period for compliance to be reached (if applicable), and states the right of the offending individual to a hearing. A compliance order becomes final and enforceable within 30 days of receipt of the order, unless the individual requests a hearing. If the individual requests a hearing, the order becomes final when a judge issues a final decision on appeal. If a violation is viewed as an endangerment to public health and welfare, a county attorney or attorney general may request a temporary restraining order, a preliminary injunction, or a permanent injunction. Violators are also subject to civil penalties of up to \$25,000 per day per violation to the state's water quality standards, aquifer protections, or Arizona Pollutant

aquifer protections, or AZPDES permits using compliance orders, injunctions, civil penalties, and criminal penalties and/or prosecution.²⁸

III. Water Quality Standards

Arizona's water quality standards (WQS) do not identify criteria specific to wetlands. The state WQS, provided for in the Arizona Revised Statutes and outlined in the Arizona Administrative Code, are both narrative and numeric in nature and include chemical and biological criteria for water quality.²⁹ The regulations do not identify designated uses or antidegradation standards for wetlands, defaulting to designated uses and antidegradation provisions for surface waters.³⁰ It should also be noted that, in the absence of wetland-specific WQS, AZPDES permit and §401 certification decisions rely on surface water criteria and standards.³¹

IV. Monitoring and Assessment

Neither an assessment methodology nor a monitoring program has been developed specifically for wetlands in Arizona. However, state law does mandate water quality monitoring for surface waters, which includes the state's wetlands and streams. The statute also requires the maintenance of a statewide database of groundwater and soil samples.³² Methodologies for other waters have been developed for regulatory purposes—for water quality standards and development of 303(d) lists and 305(b) reports, as well as for support of the state's NPDES program.³³ Arizona's several surface water monitoring and assessment programs are operated under the AZDEQ. These include the Lakes Monitoring Program, the Watershed Monitoring Program, the AZDEQ/U.S. Geological Survey Cooperative Monitoring Program, and the Bioassessment Program.³⁴

V. Restoration

AZDEQ has no programs, activities, or funding directed toward wetland restoration initiatives. However, the AZDEQ's Water Quality Improvement Grant Program administers funds from the U.S. Environmental Protection Agency (EPA) for implementation of nonpoint source

Discharge Elimination System. Finally, criminal penalties and prosecution are also available for violators who act with "criminal negligence," knowing performance, or "extreme indifference" in discharging without a permit, failing to monitor and report discharges, or violating discharge limitations or water quality standards. Depending on the seriousness of the violation, the intent of the violator, and the degree of negligence, the attorney general of the state may seek conviction of a class 2 misdemeanor or a class 2, class 5, or class 6 felony, as well as the obtainment of criminal fines.

²⁸ ARIZ. REV. STAT. ANN. § 49-261 to 263.

²⁹ ARIZ. ADMIN. CODE § 18-11-101 *et seq.*

³⁰ *Id.*

³¹ Travers-Cajero, *supra* note 10; Varga, *supra* note 9.

³² ARIZ. REV. STAT. ANN. 49-225(B).

³³ Personal Communication with Linda Taunt, Ariz. Dep't of Env'tl. Quality (June 21, 2004).

³⁴ Personal communication with Robert Scalamera, Surface Water Section Ariz.DEQ (Mar. 13, 2007).

management projects.³⁵ The distribution of grant funds from EPA is provided pursuant to CWA §319(h). These federal funds are granted to individuals, as well as public and private entities for implementing on-the-ground water quality improvement projects that reduce nonpoint source pollutant loadings to surface or ground water in Arizona. Wetland restoration activities may be eligible for this type of funding.

VI. Public-Private Partnerships

In recent years, AZDEQ has been working increasingly with citizen monitoring groups. Municipal concerns about water quality have led to an increase in requests to the state for assistance in developing water quality monitoring programs. The state has provided water quality sampling curriculums for numerous groups and may use the collected data for regulatory purposes on some occasions.³⁶

AZDEQ partnered with the University of Arizona to write watershed-based plans for three of Arizona's Watersheds: Bill Williams Watershed, Verde Watershed, and Upper Gila Watershed.³⁷ These watershed-based plans include many of the same elements of a Total Daily Maximum Load (TMDL) implementation plan but are written for a much larger area. The University will also include some implementation recommendations that will help streamline AZDEQ's work to focus on potential problems.³⁸ Plans: characterize the watershed and identify management measures to protect or restore/improve water quality.³⁹ These watershed-based plans will allow the Water Quality Improvement Grant Program⁴⁰ to identify and fund a wide variety of projects to control nonpoint source pollution.⁴¹

VII. Education and Outreach

Arizona does not operate wetland-specific education and outreach; however, the AZDEQ Water Quality Grant and Outreach program manages two education and outreach programs, funded by EPA, relating to water quality and watershed conservation.⁴²

Master Watershed Steward Program. The mission of the Master Watershed Steward Program (MWS)⁴³ is to educate and train citizens across the State of Arizona to serve as volunteers in the

³⁵ Personal communication with Jean Rodine, Water Quality Section Ariz. DEQ (Apr. 25, 2007).

³⁶ Taunt, *supra* note 33.

³⁷ Rodine, *supra* note 42; AZDEQ, *Arizona Watersheds*, at <http://www.azdeq.gov/environ/water/images/watershed.gif> (last visited July 10, 2007).

³⁸ Rodine, *supra* note 35.

³⁹ *Id.*

⁴⁰ AZDEQ Water Quality Improvement Grant, at <http://www.azdeq.gov/environ/water/watershed/fin.html> (last revised June 27, 2007).

⁴¹ Rodine, *supra* note 35.

⁴² *Id.*

⁴³ University of Arizona Cooperative Extension, *Master Watershed Steward Program*, at <http://cals.arizona.edu/watershedsteward/> (last revised June 20, 2007).

monitoring, restoration, conservation and protection of their water and watersheds. The MWS program is a partnership of the University of Arizona Cooperative Extension and the AZDEQ.

Arizona NEMO. AZDEQ developed the Nonpoint Source Education for Municipal Officials (NEMO) project to increase their knowledge of the watershed and more effectively fund grant projects that result in tangible water quality improvements.⁴⁴

VIII. Coordination with State and Federal Agencies

AZDEQ staff working in the §401 Certification Program occasionally work with other federal and state agencies with responsibilities for water and land management, such as the Arizona Game and Fish Department and the U.S. Army Corps of Engineers. Coordination largely revolves around individual certification applications and project reviews.⁴⁵ AZDEQ also works closely with the EPA, which provides grants for CWA pollution programs including the §401 Certification and Nonpoint Source Programs.⁴⁶

IX. Acronyms and Abbreviations

AAC – Arizona Administrative Code

ARS – Arizona Revised Statutes

AZDEQ – Arizona Department of Environmental Quality

AZPDES – Arizona Pollutant Discharge Elimination System

CWA – Clean Water Act

EPA – U.S. Environmental Protection Agency

MWS – Master Watershed Steward

NEMO – Nonpoint Source Education for Municipal Officials

NWPs – Nationwide Permits

USGS – U.S. Geological Survey

WQS – Water Quality Standards

⁴⁴ Arizona NEMO, at <http://www.srn.arizona.edu/nemo/> (last visited July 10, 2007).

⁴⁵ Travers-Cajero, *supra* note 10.

⁴⁶ Rodine, *supra* note 35.