



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

Kansas

I. Overview

Kansas has a variety of wetland types—sandhill pools to playa lakes to fresh- and salt-water marshes—that cover approximately 425,000 acres of the state.¹ Over the past two centuries, Kansas has lost almost 50 percent of its wetlands to agriculture and development.² Because Kansas is part of the Central Flyway, its wetlands are critical to migrating water and shore birds, especially Cheyenne Bottoms Wildlife Area, which is the largest marsh in the U.S. interior.³

The state’s wetland regulatory efforts include §401 water quality certifications and the Kansas Department of Agriculture’s permits for fill and stream obstructions in floodplains. In addition, various state agencies play active non-regulatory roles in protecting and restoring wetlands.

II. Regulatory Programs

Wetlands definitions and delineation

Kansas statutes define “waters of the state” as “all streams and springs, and all bodies of surface and subsurface waters within the boundaries of the state”⁴ The Kansas Department of Health and the Environment (KDHE) defines “surface waters of the state” as “all surface waters occurring within the borders of the state of Kansas or forming a part of the border between Kansas and one of the adjoining states.”⁵ Regulations also state that surface waters encompass “wetlands, including water bodies meeting the technical definition for jurisdictional wetlands given in the ‘Corps of Engineers Wetlands Delineation Manual,’ as published in January 1987.”⁶

KDHE regulations also classify surface waters, including wetlands:

Classified wetlands shall be the following: (i) All wetlands owned by federal, state, county, or municipal authorities; (ii) all privately owned wetlands open to the general public for hunting, trapping, or other forms of secondary contact recreation; and (iii) all wetlands classified as outstanding national resource waters or exceptional state waters, or designated as special aquatic life use waters according to subsection (d) of this regulation. Wetlands created for the purpose of wastewater treatment shall not be considered classified wetlands.⁷

¹ U.S. Geological Survey, *National Water Summary on Wetland Resources*, at http://water.usgs.gov/nwsum/WSP2425/state_highlights_summary.html (last modified Mar. 7, 1997).

² U.S. Geological Survey, *National Water Summary on Wetland Resources*, at http://water.usgs.gov/nwsum/WSP2425/state_highlights_summary.html (last modified Mar. 7, 1997); Department of Health and the Environment – Bureau of Water, *Watershed Management Section*, at <http://www.kdheks.gov/nps/> (last visited Mar. 23, 2007).

³ Natural Kansas, *Wetlands and Wildlife*, at <http://www.naturalkansas.org/wetlands.htm> (last visited Mar. 23, 2007).

⁴ KAN. STAT. ANN. § 65-161(a).

⁵ KAN. ADMIN. REGS. § 28-16-28b(ggg).

⁶ *Id.* at § 28-16-28b(fff).

⁷ KAN. ADMIN. REGS. § 28-16-28d(a)(2)(B).

The KDHE relies on the U.S. Army Corps of Engineers (Corps) or consultants for delineations.⁸ The state's water quality standards (WQS) refer to the Corps' 1987 *Wetlands Delineation Manual* delineation criteria.⁹

Wetland-related statutes and regulations

§401 certification. Any actions requiring a federal permit, license, or approval that result in a discharge into waters of the state, including §404 dredge and fill permits and Nationwide Permits (NWP), require Clean Water Act (CWA) §401 certification. Proposed projects must comply with the terms and conditions of the state's WQS in order to receive a §401 certification.¹⁰ Once the Corps receives a §404 permit application, it issues a joint public notice with the KDHE. Public comments are gathered by both the Corps and KDHE. Upon completion of their record of decision and the §404 permit is ready to be issued, the Corps requests a §401 water quality certification from the KDHE. The KDHE reviews public comments received. Comments pertinent to the intent of the §401 certification (e.g., impacts on water quality, water supply, and aquatic life) are evaluated for the need to include a condition in the certification to address the public's concern. Additionally, any certified project located in an outstanding natural resource water, exceptional state water, or special aquatic life water, must prepare a project water quality protection plan and submit it to the KDHE Central Office in Topeka. These plans are filed in the central office and a notification of the project and plans received is sent to the appropriate KDHE District office.¹¹

The KDHE issues approximately 55 certifications a year. Because the Corps has pre-application meetings and ensures §404 applications meet specific minimum qualifications, no application for a §401 certification application has required a denial. No applications are waived, even for projects with minimal impacts due to the §401's "water quality awareness outreach potential."¹² Staff mainly uses qualitative assessment and best professional judgment when making decisions on §401 certification applications.

All certifications are required to recognize related designated uses and WQS as well as water protection measures or best management practices (BMP) the applicant will need to implement to avoid a violation.¹³

State Water Resources Planning Act. The State Water Resources Planning Act authorizes the Kansas Water Office (KWO) to develop and update the Kansas Water Plan,¹⁴ which is

⁸ Personal Communication with Scott Satterthwaite, Kan. Dep't of Health and the Env't (Nov. 17, 2006).

⁹ U.S. ARMY CORPS OF ENG'RS, WETLANDS RESEARCH PROGRAM TECHNICAL REPORT Y-87-1, CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL (1987), *available at* <http://www.saj.usace.army.mil/permit/documents/87manual.pdf>.

¹⁰ KAN. ADMIN. REGS. § 28-16-28b(nnn).

¹¹ Personal Communication with Scott Satterthwaite, Kan. Dep't of Health and the Env't (Feb. 16, 2007).

¹² Personal Communication with Scott Satterthwaite, Kan. Dep't of Health and the Env't (Nov. 17, 2006).

¹³ *Id.*

¹⁴ The Kansas Water Plan serves to guide state agencies as to their roles over water resources including maintaining state surface waters water quality standards developed by the Kansas Department of Health and the Environment (KDHE). *See* KAN. STAT. ANN. § 82a-928(j).

approved by the Kansas Water Authority.¹⁵ Each of the 12 basin sections in the plan includes information on riparian and wetlands management issues. KWO staff members work with state agencies that receive funding from the State Water Fund¹⁶ to implement actions in the plan, such as those relating to wetlands management.

Organization of state agencies

Kansas Department of Health and the Environment. The KDHE is the primary wetlands regulatory agency in the state. Its Division of Environment, Bureau of Water is responsible for issuing §401 water quality certifications. Most wetland-related activities take place from the main office in Topeka; however, there are Watershed Field Coordinators in three district offices (Hayes, Wichita, and Lawrence) that conduct some wetland-related work, such as attending Corps sponsored §401 pre-application meetings on behalf of the Division.¹⁷ Most Bureau staff work on a variety of programs including storm water, TMDL, and U.S. Environmental Protection Agency (EPA) §319 grant programs. Staff also carries out promotion and education efforts that pertain to restoration, protection, and establishment of wetlands as water quality protection measures. For example, staff members provide educational materials, administer grants to the Kansas Alliance for Wetlands and Streams (KAWS), and encourage watershed groups to incorporate wetland-related activities into their watershed restoration and protection strategies (WRAPS).¹⁸

It is difficult to estimate the number of full-time equivalents (FTE) or the percent of the Bureau's budget dedicated to wetland-specific activities. However, the §401 program has .15 FTE for water quality certification and §404-related activities. Education activities utilize .35 FTE.¹⁹

The Bureau of Environmental Field Services, also within the Division of the Environment, is responsible for administering various monitoring programs, including the Lakes and Wetlands Monitoring Program. Program employees monitor lakes and wetlands and provide some technical support to the general public, state agencies, and schools that are carrying out local monitoring efforts. They also implement environmental education

¹⁵ KAN. STAT. ANN. § 82a-928(j). The Kansas Water Authority is part of the Kansas Water Office (KWO) and consists of members appointed by the Governor and legislative leaders. The Kansas Water Authority also submits funding recommendations to the Governor and the legislature based on priorities in the Water Plan. *See* Kansas Water Office, *Kansas Water Authority*, at <http://www.kwo.org/KWA/Kansas%20Water%20Authority.htm> (last updated Feb. 27, 2007).

¹⁶ The Governor and legislature use the Kansas Water Plan to guide allocation of the State Water Fund, which allocates approximately \$16 to \$18 million dollars a year to state agencies to implement actions in the plan. Funds are generated through a “combination of state general revenues, economic development initiative funds (lottery), and various water use fees on municipal, industrial and stock water uses, and fees on pesticide and fertilizer use. Pollution fines, penalties and sand royalties also contribute to the fund.” *See* Kansas Water Office, *About Us*, at <http://www.kwo.org/About%20Us.htm> (last updated Feb. 27, 2007).

¹⁷ Satterthwaite, *supra* note 12.

¹⁸ Satterthwaite, *supra* note 11.

¹⁹ *Id.*

efforts.²⁰ The Lake and Wetlands Monitoring Program has two employees. The program is funded primarily through state general funds.²¹

Department of Agriculture. The Kansas Department of Agriculture's Division of Water Resources (DWR) issues permits for any type of fill, one or more feet high, placed in floodplains; stream obstructions; dams; and modifications to stream channels. Although wetlands are not explicitly included in the state's Levee Law that regulates the permitting in floodplains,²² the DWR will issue permits for fill in wetlands in floodplains. Staff members work in the headquarters in Topeka and three of DWR's field offices, but they all coordinate on permitting activities. Most employees are engineers and spend the majority of their time reviewing permit applications and drawings. Only a small number of permits relate to wetlands and if they do, they are often for constructed wetlands. As such, staff spend no more than five percent of their time on wetland-related permits (this includes permits for constructed wetlands). The budget for the DWR's permitting program for all floodplain fills and stream obstructions is approximately \$500,000 and is derived primarily from state general funds, although approximately 20 percent of the total is from an application fee fund.²³

State Conservation Commission. The State Conservation Commission (SCC) has statutory authority to assist local conservation and watershed districts and state agencies to conserve the state's natural resources. The SCC also establishes state policy for administering ten programs, one of which is the Riparian and Wetland Protection Program. Through this program, the SCC administers a cost-share program for riparian or wetland projects (more information in *Section V. Restoration*).²⁴ Of the SCC's 13 employees, one staff person is dedicated to the Riparian and Wetlands Protection Program. This program receives approximately 200,000 cost-share dollars a year from the State Water Fund.²⁵

Nationwide permits

The KDHE meets with state and federal agencies to prepare for collaborating with Corps to draft Kansas Regional Conditions. The department reviews the proposed NWP action and issue a "blanket" §401 for all NWPs.²⁶ For the NWPs issued in 2002, the state applied eleven conditions—some for specific NWPs²⁷ and some applicable to all NWPs.²⁸ No

²⁰ Kansas Department of Health and the Environment – Bureau of Environmental Services, *Technical Services Section*, at http://www.kdheks.gov/befs/tech_svcs_section.html (last visited June 28, 2007).

²¹ Personal Communication with Edward Carney, Kan. Dep't of Health and Env't (Dec. 14, 2006).

²² KAN. STAT. ANN. § 24-126.

²³ Personal Communication with Matt Scherer, Kan. Dep't of Agric. (Nov. 13, 2006).

²⁴ Personal Communication with Rob Reschke, State Conservation Comm'n (Jan. 19, 2007).

²⁵ *Id.*

²⁶ Satterthwaite, *supra* note 11.

²⁷ NWP# 3 – Maintenance, NWP # 12 – Utility Activities, NWP # 23 – Approved Categorical Exclusions, NWP# 27 – Stream and Wetland Restoration Activities, NWP# 43 – Stormwater Management Facilities, and NWP# 44 – Mining Activities. See U.S. ARMY CORPS OF ENGINEERS, KANSAS CITY DISTRICT, NATIONWIDE PERMIT (NWP) REGIONAL CONDITIONS- KANSAS, available at http://www.nwk.usace.army.mil/regulatory/nwp_information/ks_nwp_2002_reg_conditions.htm .

²⁸ Please see the following source for specific conditions as they are extensive. U.S. ARMY CORPS OF ENG'RS, KAN. CITY DIST., NATIONWIDE PERMIT (NWP) REGIONAL CONDITIONS- KANSAS, available at http://www.nwk.usace.army.mil/regulatory/nwp_information/ks_nwp_2002_reg_conditions.htm.

NWPs were denied.²⁹ In March 2007, the KDHE issued its blanket §401 certification and conditions for the reissued NWPs.³⁰

Mitigation

The state has not adopted mitigation requirements for §401 certifications. The KDHE does recognize that some wetlands mitigation required by the Corps will enhance water quality restoration and protection. The KDHE also may provide recommendations to the Corps for mitigation to replace a natural water quality protection land feature, such as an oxbow adjacent to cropland that has natural pollutant removal characteristics.³¹ A Stream Mitigation Task Force³² is developing stream mitigation guidelines for use by the state and the Corps.³³ The DWR may require project applicants to modify their projects to reduce impacts.³⁴

The state has several mitigation banks, but they are under the Corps' jurisdiction. KDHE does not play a role in establishing the banks; however, it ensures that banks are consistent with WQS and principles and practices of the Kansas Non-point Source Pollution Management Plan (December 2000). The KDHE also is on the Mitigation Banking Review Team for Kansas.³⁵

Compliance and enforcement

Kansas has not adopted specific compliance or enforcement laws or regulations for wetlands. Wetlands enforcement actions come under the purview of water quality standard violations. The state is authorized to issue abatement or corrective action orders,³⁶ injunctions,³⁷ and civil penalties of not more than \$10,000 per violation each day the water quality violation occurs.³⁸ Violations for §404/§401 permits fall under the jurisdiction of the Corps; however, the Corps can request that the KDHE take enforcement actions.³⁹

Tracking systems

The KDHE uses an informal database for tracking §401 permits. The Corps also sends the KDHE quarterly summaries of the NWPs and §404 permits it has issued. The KDHE also is beginning to utilize GIS to assess impacts from projects on a watershed scale.

²⁹ Satterthwaite, *supra* note 12.

³⁰ See U.S. ARMY CORPS OF ENG'RS, KAN. CITY DIST., KANSAS WATER QUALITY CERTIFICATION SECTION 404 NATIONWIDE PERMITS (MARCH 14, 2007), *available at* <http://www.nwk.usace.army.mil/regulatory/2007nwps/Initial%20PN%20KS.pdf>.

³¹ Personal Communication with Scott Satterthwaite, Kan. Dep't of Health and the Env't (Feb. 20, 2007).

³² Task force is comprised of the Army Corps of Engineers and other federal agencies; state agencies including but not limited to the Kansas Department of Health and the Environment, the Department of Agriculture's Division of Water Resources, the Kansas Water Office, the Kansas Department of Wildlife and Parks, and Kansas Department of Transportation; and county and local land trusts. Satterthwaite, *supra* note 12.

Id.

³⁴ Scherer, *supra* note 23.

³⁵ Satterthwaite, *supra* note 12.

³⁶ KAN. STAT. ANN. §65-171d; KAN. ADMIN. REGS. § 28-1628f(g).

³⁷ KAN. STAT. ANN. § 65-171e.

³⁸ KAN. STAT. ANN. § 65-171d.

³⁹ Satterthwaite, *supra* note 12.

Specifically, staff uses the GIS tool to identify what §401 certifications have been issued and what watershed protection projects are in place in a particular area.⁴⁰

III. Water Quality Standards

Kansas has not developed WQS or an anti-degradation policy specific to wetlands; however, the standards and policy refer to all surface waters of the state, which encompass wetlands. The state has developed designated uses that apply to classified surface waters of the state, including wetlands.⁴¹ Designated uses, along with surface water classifications and outstanding national resource waters and exceptional state waters, are recorded in the Kansas Surface Water Register.⁴² Any designated uses not in the register are determined on a case-by-case basis using attainment analyses.⁴³

Surface WQS are both narrative and numeric. They are used for the KDHE's monitoring programs, and they provide information for 305(b) reports. Designated uses and WQS relate to fish and wildlife habitat, water quality/ pollution control, and minimum stream flows. Groundwater recharge and aquatic life support uses relate specifically to wetlands. Additionally, other uses such as secondary contact recreation may relate to wetlands in some cases.⁴⁴

IV. Monitoring and Assessment

Kansas operates a formal monitoring program for publicly-owned wetlands through the KDHE, Bureau of Environmental Field Services' Lake and Wetland Monitoring Program.⁴⁵ The monitoring network includes 122 lakes and wetlands, of which five are wetland sites. Lakes and wetlands are visited on a three to five year rotation.⁴⁶ Approximately 45 physicochemical parameters are measured, including: major cations and anions, heavy metals, turbidity related parameters, nutrients, about 40 to 50 pesticides and polychlorinated biphenyl (PCB), and several biological measures (phytoplankton and macrophytes). Dissolved oxygen content and temperature are tested in wetlands' surface waters.⁴⁷ As a part of a grant received from the U.S. Environmental Protection Agency (EPA) in the 1990's, the Lake and Wetland Monitoring Program also examined approximately 36 public wetlands.^{48,49} The program's database includes approximately

⁴⁰ *Id.*

⁴¹ KAN. ADMIN. REGS. § 28-16-28d(d)(1).

⁴² KAN. ADMIN. REGS. § 28-16-28g.

⁴³ KAN. ADMIN. REGS. § 28-16-28d(d)(3).

⁴⁴ Satterthwaite, *supra* note 12.

⁴⁵ The Bureau received an U.S. Environmental Protection Agency (EPA) grant in the 1990's to evaluate factors of an assessment methodology. The Bureau altered the assessment to look at wetland function and services. This assessment methodology was part of a one-time project and is not used repeatedly. Carney, *supra* note 21.

⁴⁶ Kansas Department of Health and the Environment – Bureau of Environmental Services, *supra* note 20.

⁴⁷ Carney, *supra* note 21.

⁴⁸ Satterthwaite, *supra* note 12.

⁴⁹ Carney, *supra* note 21.

250,000 analytical records that encompass about 300 water bodies and over 100 analytical parameters.⁵⁰

The Bureau also operates various other monitoring programs including Stream Chemistry and Biological Monitoring Programs. Monitoring data is compared to both numeric and narrative WQS to determine compliance with the standards.⁵¹ Monitoring data also are used for developing 303(b) lists, Total Maximum Daily Loads (TMDL), and 305(b) reports. Additionally, data are used to characterize wetlands throughout the state. Because monitoring data is available online for the public, it also could be used for planning mitigation efforts.⁵²

The Bureau does not operate a volunteer monitoring program.⁵³

V. Restoration and Partnerships

Kansas has no formal, statewide wetlands restoration program; however, various agencies play a role in wetlands restoration. KDHE's Bureau of Watershed Management is responsible for administering most of the department's grants, such as EPA §319 grants, to various entities and organizations for wetlands restoration activities. The KDHE administers §319 grants through the Watershed and Restoration Strategy (WRAPS) Program.⁵⁴ WRAPS is a planning and management framework to protect watersheds, including wetlands. The KDHE also may provide technical advice on project design plans⁵⁵ and has been involved in developing constructed wetlands.⁵⁶

The SCC allocates cost-share funds to county conservation districts through its Riparian and Wetlands Program. The conservation districts administer the grants to landowners to implement best management practices on their lands to protect and improve water quality. Funded projects include wetland enhancement, restoration, and creation projects.⁵⁷

The Kansas Department of Wildlife and Parks (KDWP) does not have a formal wetlands restoration program; however, its Environmental Services Division participates and/or pursues wetlands restoration in conjunction with water fowl and threatened and endangered species activities on public lands. For example, the KDWP restored wetlands

⁵⁰ Kansas Department of Health and the Environment, Bureau of Environmental Services, *supra* note 20.

⁵¹ Carney, *supra* note 21.

⁵² *Id.*

⁵³ *Id.*

⁵⁴ The Watershed and Restoration Strategy is meant to engage stakeholders by watershed to "identify watershed restoration and protection needs, [e]stablish watershed management goals, create a cost effective action plan to achieve goals, [and] implement the action plan." The KDHE administers funding for the implementation of the action plans. The department also participates with other state and federal agencies on the WRAPS Work Group to facilitate coordination between state, federal, local, and private interests. Kansas Natural Resource Sub-Cabinet, *Watershed Restoration and Protection Strategy- WRAPS*, at http://www.kdheks.gov/nps/wraps/wraps_brochure.pdf (last visited June 28, 2007).

⁵⁵ Satterthwaite, *supra* note 12.

⁵⁶ *Id.*

⁵⁷ Reschke, *supra* note 24.

in the McPherson Valley Wetlands, where it worked with Ducks Unlimited using North American Waterfowl Conservation Act grants. Much of its work also has involved restoring and/or reclaiming agricultural lands. The Fish and Wildlife Division has been involved in the Playa Lakes Joint Venture⁵⁸ to restore playa lakes.⁵⁹

The KWO completed the *Kansas Wetlands and Riparian Areas Protection and Restoration Implementation Plan* in 2003 with funding from the EPA. The plan was developed in coordination with federal, state, and local agencies, tribes, private sectors, agricultural sectors, and non-governmental organizations. Recommendations for conserving and restoring the state's priority wetlands are included in the plan.⁶⁰

The Kansas Alliance for Wetlands and Streams (KAWS)⁶¹ is a non-profit organization that plays a significant role in wetlands restoration and education in the state. It partners with and receives funding from state agencies such as the KDHE, SCC, and KDWP, as well as federal agencies such as the U.S. Fish and Wildlife Service (FWS).⁶² Its primary restoration and education efforts are carried out through demonstration projects. In 2004, KAWS completed 125 projects, spending approximately \$621,000 in grant funding.⁶³

VI. Education and Outreach

Although there are no formal, state wetland education programs, several agencies provide education on wetlands. The KDWP conducts outreach on all of its projects, which can include wetland-related information.⁶⁴ The KWO education program has no wetland-specific activities; however, wetlands information is integrated into much of its education work, such as its basin planning program.⁶⁵ In addition to state agency programs, KAWS is a major provider of wetlands education in the state through its numerous demonstration programs.⁶⁶

VII. Coordination between State and Federal Agencies

⁵⁸ The Playa Lakes Joint Venture is one of 13 Habitat Joint Ventures. Its goal is to restore playa lakes and other wetland areas to benefit birds, wildlife and people. It works in six states (Colorado, Kansas, Nebraska, New Mexico, Oklahoma and Texas) through a partnership of state and federal agencies and public and private entities. See Playa Joint Lakes Venture, *Our Mission*, at <http://www.pljv.org/cms/mission> (last visited June 28, 2007).

⁵⁹ Personal Communication with James Hays, Kan. Dep't of Wildlife and Parks (Nov. 14, 2006).

⁶⁰ KANSAS WATER OFFICE, KANSAS WETLANDS AND RIPARIAN AREAS PROTECTION AND RESTORATION IMPLEMENTATION PLAN (Sept. 2003), available at <http://www.kaws.org/PDF/Implementation%20Plan%20Doc%20Final.pdf>.

⁶¹ The Kansas Alliance for Streams and Wetlands (KAWS) began in 1996 to encourage protection, and restoration of wetlands and streams in the state working with local partners, government agencies, and individuals. See Kansas Alliance for Wetlands and Streams, at <http://www.kaws.org> (last visited June 28, 2007).

⁶² Personal Communication with Tim Christian, Kan. Alliance for Streams and Wetlands (Nov. 15, 2006).

⁶³ KAN. ALLIANCE FOR WETLANDS AND STREAMS, ANNUAL REPORT (2004), available at <http://www.kaws.org/PDF/2004%20Annual%20Report.pdf>.

⁶⁴ Hays, *supra* note 59.

⁶⁵ Personal Communication with Kerry Wedel, Kan. Water Office (Jan. 12, 2007).

⁶⁶ Christian, *supra* note 62.

Various state agencies work together on wetland-related activities. The KDHE and the DWR coordinate when §401 certifications are issued for projects that also require a DWR permit. The KWO coordinates and works on wetland-related issues with the KDHE, SCC, and the KDWP.⁶⁷ Specifically, KWO staff members work with state agencies that receive funding from the State Water Plan Fund to implement actions in the plan, such as those relating to wetlands management. Several state agencies, represented on the Governor's Natural Resources Sub-Cabinet including the KDHE, KDWP, SCC, KWO, and the Department of Agriculture, coordinate to implement the Kansas WRAPS program through a Memorandum of Agreement (MOA).

State and federal agencies also coordinate on wetland-related permits and activities. The KDHE works closely with the Corps and occasionally with the FWS on §401 water quality certifications. The KDHE also works with the Natural Resources Conservation Service (NRCS) and serves on the NRCS state technical committee.⁶⁸ The KDWP Public Lands Department also works with the NRCS on its Wetland Reserve Program.⁶⁹ The KDWP reviews all §404/§401 permits and DWR permits and provides input and recommendations in regards to wetland-related issues where applicable.⁷⁰ Additionally, through its Landowner Incentive Program, the KDWP joined with the U.S. Department of Agriculture to protect the Great Plains playa lakes.⁷¹ Finally, the DWR coordinates with the Corps when §404 permits are for activities taking place in a floodplain or stream which require a DWR permit.⁷²

VIII. Acronyms & Abbreviations

CWA – Clean Water Act

DWR – Division of Water Resources (Kansas Department of Agriculture)

EPA – U. S. Environmental Protection Agency

FTE – Full-time Equivalent

FWS – U.S. Fish and Wildlife Service

KAWS – Kansas Alliance for Wetland and Streams.

KDHE – Kansas Department of Health and the Environment

KDWP – Kansas Department of Wildlife and Parks

KWO – Kansas Water Office

NRCS – Natural Resources and Conservation Service

PCB – Polychlorinated biphenyl

TMDL – Total Maximum Daily Load

WRAPS – Watershed Restoration and Protection Strategy

⁶⁷ Wedel, *supra* note 65.

⁶⁸ Satterthwaite, *supra* note 12.

⁶⁹ Hays, *supra* note 59.

⁷⁰ *Id.*

⁷¹ Personal Communication with Steve Adams, Kan. Dep't of Wildlife of Recreation and Parks (Nov.13, 2006.)

⁷² Scherer, *supra* note 23.