



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

Alaska

I. Overview

Wetlands cover approximately 170 million acres of Alaska (about 43 percent), which is more than the existing acreage of wetlands in the rest of the United States. Most of the state's freshwater wetlands (around 100 million acres) are peatlands; however, the state also has marshes, bogs, fens, tundra, and meadows.¹ Coastal wetlands are found along Alaska's 44,000 miles of coastline. Alaska's population is relatively small and one-third of Alaskans live in Anchorage;² thus, many wetlands remain undisturbed. Alaska has lost about 200,000 acres of wetlands.³ Wetlands are owned and managed by various state, federal, and local agencies. The state relies on §401 water quality certification under the Clean Water Act for regulating wetlands statewide; however, the U.S. Army Corps of Engineers (Corps) plays the major role in regulating wetlands in the state. Additionally, several local governments regulate wetlands within their jurisdictions.

II. Regulatory Programs

Wetland definitions and delineation

The State of Alaska defines "waters" as:

[L]akes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, straits, passages, canals, the Pacific Ocean, the Gulf of Alaska, Bering Sea, and Arctic Ocean, in the territorial limits of the state, and all other bodies of surface or underground water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially in or bordering the state or under the jurisdiction of the state.⁴

The Alaska Department of Natural Resources (ADNR) defines freshwater wetlands in its regulations for the Coastal Management Program (CMP) as "environments characterized by rooted vegetation that is partially submerged either continuously or periodically by surface freshwater with less than 0.5 parts per thousand salt content and not exceeding three meters in depth."⁵ Saltwater wetlands are defined as "coastal areas along sheltered shorelines characterized by halophilic hydrophytes and macro algae extending from extreme low tide to an area above extreme high tide that is influenced by sea spray or tidally induced water table changes."⁶

In Alaska, the U.S. Army Corps of Engineers (Corps) may conduct delineations or will enter into contracts for delineations to be carried out by a Corps-approved consultant.⁷ In most cases,

¹ ASSOCIATION OF STATE WETLAND MANAGERS, STATE WETLAND PROGRAMS: ALASKA, *available at* <http://www.aswm.org/swp/ak9.pdf> (last visited June 25, 2007).

² U.S. ENVIRONMENTAL PROTECTION AGENCY, ALASKA WETLANDS INITIATIVE: SUMMARY REPORT, *available at* <http://www.epa.gov/owow/wetlands/facts/fact9.html> (last updated Feb. 22, 2006).

³ *Id.*

⁴ ALASKA STAT. § 46.03.900(37).

⁵ ALASKA ADMIN. CODE tit. 11, § 112.990(13).

⁶ ALASKA ADMIN. CODE tit. 11, § 112.990(25).

⁷ Personal communication with Jim Powell, Alaska Dep't of Conservation (Mar. 9, 2007).

however, the applicant contracts out the delineation. The 2006 regionalization of the Corps' 1987 *Wetlands Delineation Manual*⁸ in Alaska is the first in the country.⁹

Wetland-related statutes and regulations

Alaska uses §401 water quality certification as its primary mechanism to regulate wetlands at the state level.

§401 water quality certification. All federal activities, such as §404 dredge and fill permits, which will result in discharge into waters of the U.S. require a §401 water quality certification from the Alaska Department of Environmental Conservation (ADEC). The Corps' public notification for §404 permit applications includes a request for a §401 certification.¹⁰ This notice also serves as a joint public notice between the Corps, ADEC, and the CMP, which issues coastal consistency determinations for §404 permits for projects in the coastal zone.¹¹ Approximately 70 percent of all §401 certifications relate to wetlands.¹² In fiscal year (FY) 2006, the ADEC issued 183 certifications, waived 15 certifications, and did not deny any applications. The ADEC primarily uses qualitative assessment and best professional judgment when making certification decisions.¹³

Fish Habitat Permits. The state requires the ADNR Office of Habitat Management and Permitting (OHMP) to identify "various rivers, lakes, and streams or parts of them that are important for the spawning, rearing, or migration of anadromous fish."¹⁴ The office maintains a record of these areas in its "Catalog of Waters Important for the Spawning Rearing or Migration of Anadromous Fishes."¹⁵ Any activity that may impact this anadromous fish habitat, such as a hydraulic project, diversion, or change to the flow or bed of the river, lake, or stream, must be approved and permitted by the department.¹⁶ Anadromous fish habitat may include some types of wetlands such as sloughs and backwater wetlands, and projects in these wetlands will require a Fish Habitat Permit.¹⁷ However, less than ten percent of issued permits relate to wetlands.¹⁸

Organization of state agencies

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 Powell, *supra* note 7.

¹⁰ Personal Communication with Mel Langdon, Alaska Dep't of Env'tl Conservation (Jan. 26, 2007).

¹¹ Coastal zone is defined as "the coastal water including land within and under that water, and adjacent shoreland, including the water within and under that shoreland, within the boundaries approved by the former Alaska Coastal Policy Council and by the United States Secretary of Commerce under 16 U.S.C. 1451 - 1465 (Coastal Zone Management Act of 1972, as amended); "coastal zone" includes areas added as a result of any boundary changes approved by the department and by the United States Secretary of Commerce under 16 U.S.C. 1451 - 1465..." See ALASKA STAT. § 46.40.210(4).

¹² Langdon, *supra* note 10.

¹³ *Id.*

¹⁴ ALASKA STAT. § 41.14.870(a).

¹⁵ Alaska Department of Natural Resources – Office of Habitat Management and Permitting, *Fish Habitat (Title 41) Permits*, at <http://www.dnr.state.ak.us/habitat/FHpermits.htm> (last updated June 26, 2007).

¹⁶ ALASKA STAT. § 41.14.870(b).

¹⁷ Personal Communication with Jackie Timothy, Alaska Dep't of Natural Res. (Jan. 23, 2007).

¹⁸ Personal Communication with Stewart Seaberg, Alaska Dep't of Natural Res. (Feb. 16, 2007).

Alaska Department of Environmental Conservation. The ADEC is responsible for regulating and managing the state's air quality, environmental health, oil spills, and water. The department's Division of Water is responsible for protecting the state's water quality, which includes issuing §401 water quality certifications and developing water quality standards (WQS), designated uses, and the antidegradation policy for the state's waters. ADEC offices are located in Anchorage, Juneau, Fairbanks, Kenai, Sitka, and Kodiak. Two staff members are dedicated to the §401 program and are located in the Juneau and Anchorage offices. These employees attend the Corps' pre-application meetings, review applications, and occasionally conduct site visits and inspections; however, they do not carry out enforcement activities. The program's annual budget is \$195,000, of which approximately 13 percent is derived from fees and the remainder from state general funds and U.S. Environmental Protection Agency (EPA) grants.¹⁹

Alaska Department of Natural Resources. The OHMP administers the Fish Habitat Permit Program. Staff biologists in the OHMP conduct research and surveys, work with permit applicants to ensure that project plans will not harm fish habitat,²⁰ conduct monitoring and enforcement for permitted projects, and provide technical assistance to land owners.²¹ Biologists also provide comments on wetland-related projects subject to review by the ADNDR's CMP for coastal consistency.²² Twenty-five staff members are dedicated to the Fish Habitat Permitting Program. However, it is difficult to estimate the percent of time staff spend on wetland-related activities, because less than 10 percent of Fish Habitat Permits relate to wetlands and employees work on numerous tasks. The OHMP's budget is approximately two million dollars of which over 50 percent is derived from state general funds, while the remainder comes from a variety of sources including federal funding.²³

The CMP is responsible for reviewing and concurring with or objecting to federal coastal consistency determinations²⁴ and coordinating permit review for projects located in the coastal zone.²⁵ It also oversees, reviews, and approves coastal resource district plans that govern use of coastal resources in coastal districts.²⁶ Plans include enforceable policies²⁷ for coastal

¹⁹ Langdon, *supra* note 10.

²⁰ Alaska Department of Natural Resources – Office of Habitat Management and Permitting, *About the Office of Habitat Management and Permitting*, at <http://www.dnr.state.ak.us/habitat/overview.htm> (last updated June 26, 2007).

²¹ Seaberg, *supra* note 18.

²² Timothy, *supra* note 17.

²³ Seaberg, *supra* note 18.

²⁴ ALASKA ADMIN. CODE tit. 11, §§ 110.300, 110.400.

²⁵ Personal Communication with Gina Shirey-Potts, Alaska Dep't of Natural Res. (Feb. 7, 2007).

²⁶ To ensure coastal resources were protected, the state divided the coast into "coastal resource districts." If a city or borough includes coastline, then that municipality is considered a district. If coastline did not fall within a municipality, then a coastal resource district was established. Personal Communication with Jim Powell, Alaska Dep't of Env'tl. Conservation, (Feb. 7, 2007). However, there are areas of coastline outside of a municipality or coastal resource district, such as in Southeast Alaska. Personal Communication with Gina Shirey-Potts, Alaska Dep't of Natural Res., (Mar. 1, 2007). *See also* ALASKA ADMIN. CODE tit. 11 § 110.990(10).

²⁷ Under recently revised state laws, it is unlikely that any amended plan will have enforceable policies related to wetlands, because the state already outlines regulations regarding wetlands mitigation and local plans can not redefine standards already written in state law. Personal communication with Gina Shirey-Potts, Alaska Dep't of Natural Res (Apr. 9, 2007).

resources, including wetlands²⁸ and special area management plans,²⁹ such as for wetlands.³⁰ Approximately 13 CMP staff work on coastal consistency determinations in the Juneau and Anchorage offices and five staff work on coastal resource district plan-related issues. The CMP budget is derived from federal funding through the Coastal Zone Management Act and matching state funds.³¹

Nationwide permits

ADEC and CMP staff review nationwide permits (NWP) approximately every five years. No NWP have been denied by the ADEC; however, the department has issued conditions for all NWP.³² During the pre-application process for NWP, the ADEC also can request further conditions for the permits. The CMP reviews whether or not a NWP is being accurately applied during their consistency reviews.³³ In 2007, the Corps reissued the NWP. The ADEC issued a Certificate of Reasonable Assurance in accordance with §401 of the CWA,³⁴ and the CMP issued its consistency response – concurrence.^{35,36}

Additionally, the Corps has delegated administrative authority to several municipalities with wetlands management plans, such as Juneau and Anchorage, after issuing Regional General Permits for specific classified wetlands in each plan.³⁷

Mitigation

When issuing coastal consistency determinations, ADNRC regulations require that an avoidance, minimization, and mitigation sequence be followed for projects that impact coastal resources, which include coastal wetlands.³⁸ However, the department may not require “no net loss” of wetlands or “monetary compensation” unless required by the federal agency issuing the permit

²⁸ ALASKA STAT. § 46.30.300; Personal Communication with Jim Powell, Alaska Dep’t of Env’tl. Conservation (Feb. 7, 2007).

²⁹ ALASKA ADMIN. CODE tit. 11 § 114.400.

³⁰ Most Wetland Area Management plans are not being approved under recently revised laws because plans do not meet the new criteria, such as specific mapping requirements. Personal communication with Gina Shirey-Potts, Alaska Dep’t of Natural Res. (Apr. 9, 2007). Existing Wetlands Management Plans will continue to be in effect until they sunset or until a coastal resource district has its new coastal resource management plan approved. Personal communication with Gina Shirey-Potts, Alaska Dep’t of Natural Res. (Feb. 7, 2007).

³¹ Shirey-Potts, *supra* note 25.

³² Because each NWP has extensive conditions, they are not listed here. See U.S. Army Corps of Engineers Alaska District, *Current Nationwide Permits*, at <http://www.poa.usace.army.mil/reg/currentNWPs.htm> (last visited Mar. 22, 2007).

³³ Personal Communication with Gina Shirey-Potts, Alaska Dep’t of Natural Res. (Mar. 1, 2007).

³⁴ Letter from James Rypkna, Alaska Dep’t of Env’tl. Conservation, State of Alaska, Dep’t of Env’tl. Conservation, Certificate of Reasonable Assurance (March 29, 2007), *available at* <http://www.poa.usace.army.mil/reg/NWPs/dec.pdf>.

³⁵ Letter from Joe Donohue, ACMP Project Specialist, Dep’t of Natural Res., Alaska Coastal Mgmt. Program to David Casey, US Army Eng’r Dist., Alaska, Nationwide Permits Re-Issue (March 27, 2007), *available at* http://www.poa.usace.army.mil/reg/NWPs/Final_Response.pdf.

³⁶ Regional and general conditions for the newly issued NWP can be found online. See U.S. Army Corps of Engineers, *Nationwide Permits*, at <http://www.poa.usace.army.mil/reg/NWPs.htm> (last updated May 25, 2007).

³⁷ Personal Communication with Mel Langdon, Alaska Dep’t of Env’tl. Conservation (Jan. 26, 2007); Personal Communication with Jim Powell, Alaska Dep’t of Env’tl. Conservation (Feb. 7, 2007); U.S. Army Corps of Engineers, Alaska District, *Alaska District General Permits*, <http://www.poa.usace.army.mil/reg/gps.htm> (last updated May 14, 2007).

³⁸ ALASKA ADMIN. CODE tit. 11 § 112.300(b)(3).

for the project. The ADNDR also must consult with the federal permitting agency to determine if that agency's mitigation requirements satisfy the state's requirements. If they do not, then the ADNDR may impose further mitigation requirements.³⁹ The ADNDR does not have standards for stream mitigation; however, permit conditions often include mitigation. For actions that have a larger impact, the department often requires more mitigation such as wetland creation or culvert replacements. The ADNDR works to reach consensus with all stakeholders on appropriate mitigation for activities that impact wetlands and streams.⁴⁰

The ADEC has not adopted legislation, regulations, or policies on avoidance and minimization procedures, compensatory mitigation, mitigation banks, or in-lieu fee programs.⁴¹

The state has one mitigation bank, Natzuhinni Wetland Mitigation Bank, which was established by Sealaska Corporation. The bank provides credits for wetlands impacted under Corps permits.⁴² Juneau is in the process of establishing a mitigation bank. The restoration site is complete, and it hopes to have the bank open in the next six to 12 months.⁴³ There also are four wetland and stream in-lieu fee programs run by local land trusts.⁴⁴

A Mitigation Banking Review Team (MRBT) operates in the state, and the ADEC is a member.⁴⁵

Tracking systems

The ADEC has a formal system for tracking §401 certifications; however, it is not available online. The state does not track mitigation.⁴⁶

Compliance and enforcement

Enforcement actions under the state's water quality laws apply but are not specific to wetlands. Violations of state water quality laws may result in civil penalties of no less than \$500 and no more than \$100,000 for the initial violation and no more than \$5,000 per day the violation continues.⁴⁷ Alaska's superior court may issue injunctions.⁴⁸ Any person in violation of water quality laws also will be responsible for any damages to fish, wildlife, and vegetation.⁴⁹ Finally, criminal penalties may be issued for violating these laws.⁵⁰

³⁹ ALASKA ADMIN. CODE tit. 11 § 112.900.

⁴⁰ Personal communication with Jackie Timothy, Alaska Dep't of Natural Res. (Feb. 21, 2007).

⁴¹ Langdon, *supra* note 10.

⁴² NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION – NATIONAL MARINE FISHERIES SERVICE, ACCOMPLISHMENTS OF THE ALASKA REGION'S HABITAT CONSERVATION DIVISION IN FISCAL YEAR '06 at 4, available at <http://www.fakr.noaa.gov/habitat/hcd2006.pdf> (last visited June 25, 2007).

⁴³ Personal Communication with Teri Camery, City and Borough of Juneau, Alaska (Feb. 27, 2007).

⁴⁴ The four land trusts with in-lieu fee programs include Alaska Great Land Trust Program, Alaska Kachemak Heritage Land Trust, Alaska Southeast Alaska Land Trust, and Alaska Conservation Fund. See Environmental Law Institute, *Status Report on Compensatory Mitigation in the United States*, (2005) (on file at ELI offices).

⁴⁵ Langdon, *supra* note 10.

⁴⁶ *Id.*

⁴⁷ ALASKA STAT. § 46.03.760(a).

⁴⁸ ALASKA STAT. § 46.03.765.

⁴⁹ ALASKA STAT. § 46.03.780(a).

⁵⁰ ALASKA STAT. § 46.03.790(a).

III. Water Quality Standards

Alaska's antidegradation policy, WQS, and designated uses are not specific to wetlands. If a water body is considered an "outstanding natural resource" such as water in a wildlife refuge or has high ecological importance, then that water body must be protected and maintained.⁵¹ Designated uses apply to all waters of the state and include uses that relate to wetlands such as propagation of fish and drinking water.⁵² WQS are narrative, biological, and chemical.⁵³

IV. Monitoring and Assessment

Alaska developed a hydrogeomorphic (HGM) functional assessment methodology to evaluate wetlands across the state. The effort to develop this methodology began in 1996, when the ADEC initiated field research and identification of reference sites in coordination with 11 state and federal agencies.⁵⁴ In 2000, these agencies signed a Memorandum of Understanding (MOU) to use this research and data to develop the HGM functional assessment methodology and associated guidebooks.⁵⁵ Currently, HGM guidebooks have been developed for three areas: flat wetlands on precipitation driven and discontinuous permafrost in Interior Alaska, flat/slope wetland complexes in the Cook Inlet Basin ecoregion, and riverine and river proximal wetlands in coastal southeast and south central Alaska.⁵⁶ This was one of the first HGM functional assessments developed in the U.S.⁵⁷ The HGM approach is primarily used in the state for assessing and classifying wetlands, mitigation, and restoration efforts.⁵⁸ The Corps and consultants also use the guidebooks in conjunction with §404 permitting.⁵⁹

The ADEC has no formal monitoring program for wetlands or streams, but has a monitoring strategy for surface water quality.⁶⁰ All monitoring, data collection, and water sampling occur on an informal basis,⁶¹ and the data collected during these efforts are used to develop §303(d)

⁵¹ ALASKA ADMIN. CODE tit. 18 § 70.015(a)(3).

⁵² Langdon, *supra* note 10.

⁵³ *Id.*

⁵⁴ Agencies include: Alaska Departments of Environmental Conservation, Fish and Game, Natural Resources, Transportation and Public Facilities; U.S. Department of Interior, U.S. Fish and Wildlife Service; U.S. Geological Survey; U.S. Army Corps of Engineers, Alaska District; U.S. Environmental Protection Agency; U.S. Department of Agriculture, Natural Resource Conservation Service; and U.S. Forest Service, Alaska Region; and U.S. Department of Transportation, Federal Highways Administration.

⁵⁵ Personal Communication with Jim Powell, Alaska Dep't of Env'tl. Conservation (Jan. 29, 2007); JIM POWELL, ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WETLAND FUNCTIONAL ASSESSMENT GUIDEBOOKS USING THE HYDROGEO MORPHIC APPROACH APPLICATION -WETLAND MITIGATION BANKING, RESTORATION, AND LARGE DEVELOPMENT PROJECTS (2006), available at http://www.awra.org/state/alaska/ameetings/2006am/papers/Powell_Jim.pdf.

⁵⁶ JIM POWELL, ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION, WETLAND FUNCTIONAL ASSESSMENT GUIDEBOOKS USING THE HYDROGEO MORPHIC APPROACH APPLICATION -WETLAND MITIGATION BANKING, RESTORATION, AND LARGE DEVELOPMENT PROJECTS (2006), available at http://www.awra.org/state/alaska/ameetings/2006am/papers/Powell_Jim.pdf.

⁵⁷ Personal Communication with Jim Powell, Alaska Dep't of Env'tl. Conservation (Feb. 7, 2007).

⁵⁸ Personal Communication with Jim Powell, Alaska Dep't of Env'tl Conservation (Jan. 29, 2007).

⁵⁹ Langdon, *supra* note 10.

⁶⁰ *Id.*

⁶¹ Powell, *supra* note 58.

lists and 305(b) reports and to ensure compliance with WQS.⁶² To date, the state has not initiated or supported volunteer monitoring networks for wetlands or streams.⁶³

V. Restoration and Partnerships

Alaska has no formal, statewide wetlands restoration program; however, there are various wetlands restoration efforts taking place in Juneau, Anchorage, and Fairbanks through community watershed partnerships. These partnerships usually involve federal, state, and local agencies; non-profits; and citizens. The ADEC may provide some technical support to private landowners for mitigation and restoration, but this takes place infrequently.⁶⁴ The HGM functional assessment guidebooks are a major tool guiding restoration in the state.

VI. Education and Outreach

The state has not initiated wetland-specific education and outreach programs. However, ADEC does respond to the public's questions on permitting issues and the wetland HGM functional assessment.⁶⁵ The ADNOR-OHMP provides technical assistance to landowners and has produced some restoration guidance materials. However, these efforts also are not specifically targeted towards wetlands education.⁶⁶

VII. Coordination with State and Federal Agencies

The MOU to develop Alaska's HGM functional assessment guidebooks for assessing wetlands represents the largest and most significant state and federal coordination effort on wetlands in the state. The 11 agencies that signed the MOU also agreed to use the HGM functional assessment where regional guidebooks are developed and "where appropriate." The ADEC also coordinated with the Corps to regionalize its *1987 Wetland Delineation Manual*.⁶⁷ Through §401/404 pre-application meetings, the ADEC also works closely with the Corps as well as the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration.⁶⁸

At the state level, a recent revision of the state's coastal management statutes have made ADEC water quality standards the same as the CMP's land and water quality standards. Thus, policy-makers decided that any ADEC permit issued under its own rules would, by default, be consistent with the CMP rules.⁶⁹ The ADNOR-OHMP reviews and makes recommendations to the Corps on all proposed activities requiring a Corps permit that will impact wetlands and

⁶² Langdon, *supra* note 10.

⁶³ Powell, *supra* note 58.

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ Seaberg, *supra* note 18.

⁶⁷ Powell, *supra* note 58.

⁶⁸ Langdon, *supra* note 10.

⁶⁹ Timothy, *supra* note 40.

anadromous fish.⁷⁰ ADEC staff also have trained Alaska's Department of Transportation employees on the HGM functional assessment.⁷¹

Alaska has not developed a State Wetland Conservation Plan; however, several municipalities have Wetland Management Plans in conjunction with their coastal resource district plans.⁷²

VIII. Acronyms

ADEC – Alaska Department of Environmental Conservation

ADNR – Alaska Department of Natural Resources

Corps – U.S. Army Corps of Engineers

EPA – U.S. Environmental Protection Agency

FTE – Full-time Equivalent

FY – Fiscal Year

HGM – Hydro-geomorphic

MBRT – Mitigation Banking Review Team

MOU – Memorandum of Understanding

NWP – Nationwide Permit

OHMP – Office of Habitat Management and Permitting

OPMP – Office of Project Management and Permitting

WQS – Water Quality Standards

⁷⁰ *Id.*

⁷¹ Powell, *supra* note 58.

⁷² Personal communication with Mel Langdon, Alaska Dep't of Env'tl. Conservation (Jan. 26, 2007). These Wetlands Management Plans will be sunseting when revised plans are in effect or September 1, 2007, whichever is earlier. Personal communication with Gina Shirey-Potts (Mar. 1, 2007).