

Wetland Conservation in Alaska

Each May we celebrate National Wetlands Month. Wetlands are the cornerstone of many important ecosystems, providing numerous ecological and economic benefits for fish, wildlife and people. Wetlands improve water quality, absorb and store water, help reduce flooding, and provide important habitat for wildlife. There are more wetlands in Alaska than all the other U.S. states combined.

The U.S. Fish and Wildlife Service National Wetlands Inventory (NWI) program in Alaska has been mapping wetlands statewide for many years. Effective conservation of Alaska's wetland resources requires consistent, reliable information about their location, characteristics, and values. Guided by a national strategy, the Alaska NWI team conducts strategic mapping of high priority wetland habitats, carries out status and trend analyses of wetlands and other aquatic habitats, and identifies and assesses threats to aquatic habitats at risk.

Alaska encompasses an area of 403 million acres and contains approximately 34,000 miles of coastline, nearly 38% of the total U.S. coastline. The U.S. Fish and Wildlife Service National Wetlands program estimates some 43% of Alaska or approximately 175 million acres are wetlands (Hall et al. 1994). In contrast, the lower 48 states 2009 estimates indicated 110.1 million acres occupied by wetlands (Dahl 2009). As much as 88% of Alaska's wetlands are believed to occur on public lands.

Emerging conservation issues related to global climate change assessment and monitoring (including sea-level rise, storm flooding, and drought) and domestic energy development have heightened the need for current wetlands data. Recent applications of NWI data include: 1) coastal change impact assessment (predicting the impacts of flooding events), 2) planning for energy independence (oil and gas exploration, hydropower and wind power projects), 3) analyzing carbon sequestration in wetlands, 4) landscape-level or watershed-based wetland characterizations and functional assessments, 5) planning and management for National Wildlife Refuges and other federal lands, 6) planning, modeling, research, and monitoring for Strategic Habitat Conservation work by the Service, and 7) recovery planning for endangered species, (fish, migratory birds, marine mammals, and other imperiled species).

Currently 43% of Alaska has wetland mapping available and 36% of the state is available in digital form. NWI mapping priorities in Alaska include [National Wildlife Refuges, Fisheries and Ecological Services](#) priority areas and focal areas in five [Alaska Landscape Conservation Cooperatives](#). Currently, wetlands projects are underway on the Yukon Delta NWR, coastal Seward Peninsula, Bristol Bay, and Arctic foothills.

Recent mapping on Alaska's North Slope, has completed a wetland baseline for the entire coastal plain of Alaska in support of research efforts of the [Arctic LCC](#) and partners with specific management responsibilities in this eco-region. This information supports further research into coastal change analysis, wetland gains/losses and migratory bird habitat changes related to environmental change. Additionally, interior Alaska mapping has been used by the USFWS and its partners for energy-related project reviews along Alaska's latest proposed gas line corridors, and for watershed evaluation in proposed mining areas.

For more information about the National Wetlands Inventory Program in Alaska, special wetland mapping projects, and to view the wetlands map, visit <http://alaska.fws.gov/fisheries/nwi/index.htm>