



U.S. Fish & Wildlife Service

National Wetlands Inventory Wetlands Status and Trends Reports

Wetlands Status and Trends reports provide science-based information on the status of America's wetlands through time.

Project Overview

Recognizing the importance of America's wetlands, Congress enacted the Emergency Wetlands Resources Act (Public Law 99-645) of 1986. It requires the U.S. Fish and Wildlife Service (Service) to map wetlands in the United States, as well as conduct national status and trends studies and report to Congress every decade. These mandates are carried out by the Service's National Wetlands Inventory

Program (NWI), which provides foundational data for wetland science, management, and policy actions, from the individual wetland to the national scale.

Five national Status and Trends reports and seven regional reports have been published to date (<https://www.fws.gov/wetlands/status-and-trends>). The earliest national report addressed the status of America's wetlands in the mid-1950s through mid-1970s, and the latest report covers the years 2004 through 2009. Regional reports build off national reports by focusing on areas within the United States that are experiencing relatively high rates of wetland loss. To date, two coastal watersheds, four state, and one

prairie pothole regional report have been produced. Currently, data are being collected to produce the sixth national report to Congress, covering the years 2009 through 2019. The report is due for publication in 2022.

Study Design

More than 5,000 randomly distributed four square mile sample plots are assessed to support the national report. For each sample plot, imagery is analyzed for the beginning and end of the study period to assess land use and land cover. Field verification is then completed for a portion of the plots to ensure the accuracy of findings. Any relevant changes in land use and land cover between the time periods are recorded, and a statistical estimate

Coastal wetland at St. Marks National Wildlife Refuge in Florida.



of wetland and deepwater areas and change is calculated for the study area.

The Status and Trends studies use a biological criterion for classification of wetlands (Cowardin et al. 1979), and collect data independent of land ownership. All major wetland types are examined in the study, including freshwater (palustrine) and saltwater (marine or estuarine) wetlands. Wetland types are further divided into nine subcategories, including freshwater forested, estuarine intertidal emergent, and marine intertidal. Data are also collected on lacustrine, marine, and estuarine deepwater habitats.

These studies have high standards for data quality, and incorporate the latest technologies to enhance efficiencies and decrease uncertainty. Improvements in the availability and spatial resolution of remotely sensed imagery, as well as other advancements, have enabled the Service to better monitor change. We subject our reports to expert peer review to ensure that the results meet the highest scientific standards.

Mapping Change

Wetlands Status and Trends studies track changes in wetland area and type at the local level, and use statistical analysis to summarize this information at the regional or national scale. In the example to the right, we found high levels of wetland loss due to development in an area that was once dominated by wetlands (93 percent of total area). Examination of imagery from 1998 and 2004 in this area found a loss of 668 acres of freshwater wetlands within this six-year study period. An additional 290 acres of wetlands were lost between 2004 and 2009.

These dramatic losses greatly reduce the important benefits that wetlands provide, such as water filtration and storage during floods, as well as habitat for fish, wildlife, and plants.

Conservation Results

Wetlands Status and Trends reports have generated tremendous interest in wetland conservation and restoration. They have catalyzed policy actions that substantially slowed wetland loss. For example, the Swampbuster provision in the 1985 Farm Bill and the 1989 U.S. federal policy of “No Net Loss” of wetlands were greatly influenced by the 1984 Status and Trends report, which found that



Approximately 93 percent of this 4-square-mile area was once vegetated wetland. This image indicates cumulative wetland losses due to development between 1998 and 2009.

between the mid-1950s and 1970s there was a national net loss of wetland area equal to about twice the size of New Jersey. These U.S. federal wetland policy changes were partially responsible for the substantial decline in net wetland loss since the mid-1900s. The Status and Trends reports continue to influence wetland policy and management today by driving collaboration and cooperative planning between federal, state, and local partners.

Informing Future Conservation

Accurate, up-to-date information on wetland area and change is an invaluable conservation asset, supporting the adaptive management of wetlands and the benefits they provide the Nation, including those related to public health, safety, and recreation benefits.

Within the Service, Wetlands Status and Trends reports are used to guide wetland restoration and enhancement projects, species habitat availability assessments, strategic habitat

conservation planning, and ecosystem management activities. Recently, these data have been used in Species Status Assessments, helping to inform species listing decisions under the Endangered Species Act. The upcoming sixth national report will provide information on wetland gains and losses from 2009 to 2019, further supporting America’s knowledge of, engagement in and informed decision-making around wetlands, wildlife, and natural resource management.

Visit <https://www.fws.gov/wetlands/status-and-trends> to learn more and access Status and Trends reports. For general questions, email wetlands_team@fws.gov.

**U. S. Fish and Wildlife Service
Ecological Services
5275 Leesburg Pike
Falls Church, VA 22041
703-358-2171
www.fws.gov/ecological-services**

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