

History of Wetland Losses and Gains: the role of agricultural policy

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Summary of Wetland Losses in the Lower 48

- Early 1600s - ~ 221 million acres
- Mid-1980s – 103 million acres
- More than 80 percent of losses attributed to agriculture



States with notable wetland loss, 1780s to mid-1980s.
From: Dahl, T.E. & Allord, G.J. 1997. *History of Wetlands in the Conterminous United States*. U.S. Geological Survey.

Colonial America

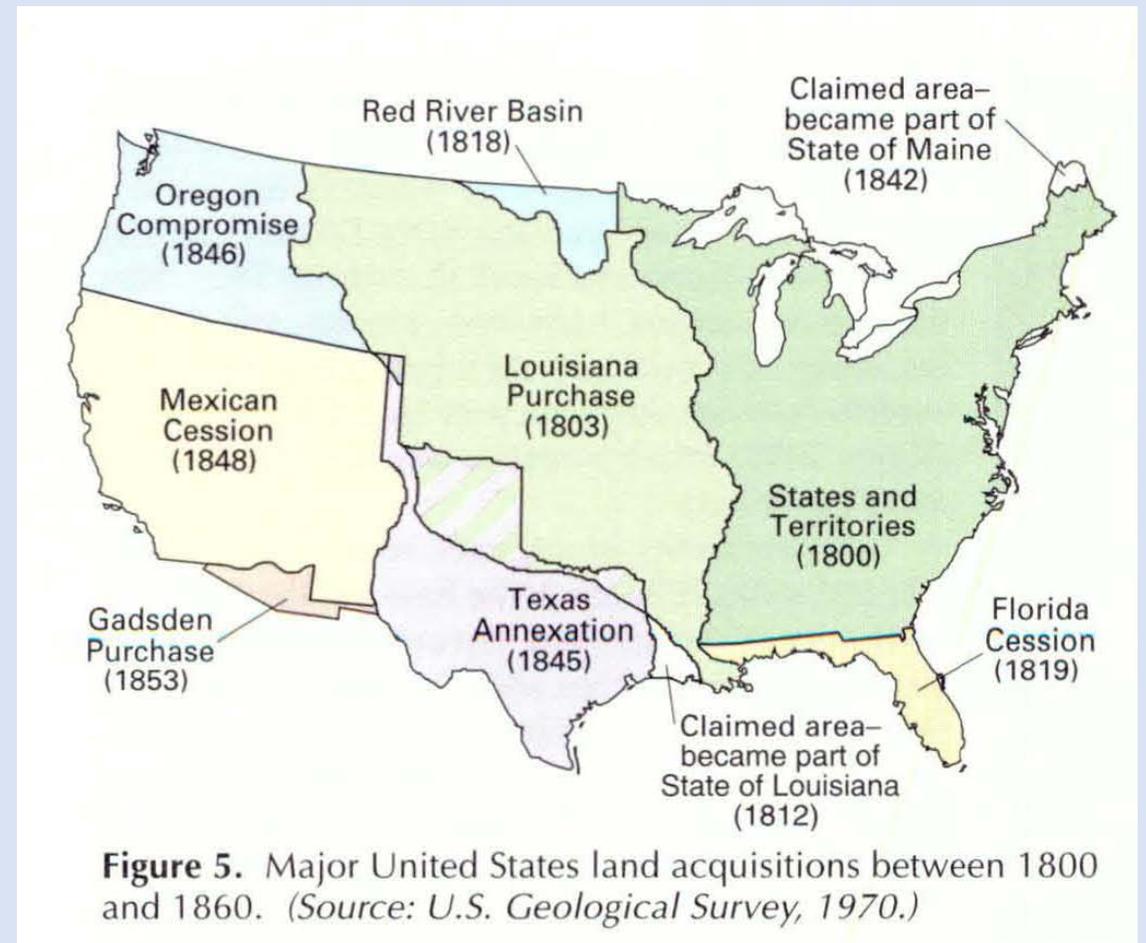
- “Swamps”
 - Disease-ridden wastelands
 - Impeded travel, farming
 - Reclamation for more productive purposes, mostly agriculture
 - Hand-dug drainage ditches



States with notable wetland loss, early 1600's to 1800.
From: Dahl, T.E. & Allord, G.J. 1997. *History of Wetlands in the Conterminous United States*. U.S. Geological Survey.

Westward Expansion

- Steam-powered equipment allowed faster conversion of wetlands to agriculture
- 1862 – Department of Agriculture established
- Swamp Land Acts



From: Dahl, T.E. & Allord, G.J. 1997. *History of Wetlands in the Conterminous United States*. U.S. Geological Survey.

Swamp Land Acts of 1849, 1850, and 1860

- First national inventory of wetlands
 - Identified lands “too wet for cultivation”
 - Conveyed those lands to States
 - States sponsored major drainage and reclamation projects

Table 1. Acreage granted to the States under the authority of the Swamp Land Acts of 1849, 1850, and 1860

YEAR	STATE	ACRES
1849	Louisiana	9,493,456
1850	Alabama	441,289
	Arkansas	7,686,575
	California	2,192,875
	Florida	20,325,013
	Illinois	1,460,164
	Indiana	1,259,231
	Iowa	1,196,392
	Michigan	5,680,310
	Mississippi	3,347,860
	Missouri	3,432,481
	Ohio	26,372
Wisconsin	3,360,786	
1860	Minnesota	4,706,503
	Oregon	286,108
TOTAL		64,895,415

From: Dahl, T.E. & Allord, G.J. 1997. *History of Wetlands in the Conterminous United States*. U.S. Geological Survey.

Early 20th Century

- **USDA Inventory of Swamp and Overflow Lands of 1906, 1922, 1940, and 1953**
 - Congress directed USDA to identify swamp lands and overflow lands “with the potential for conversion to agriculture”
- Period of massive drainage, flood control, and water storage and delivery projects
 - Central Valley Project
 - MS River lock-and-dam system
 - Central and Southern Florida Projects



Photo by USDA Soil Conservation Service

Soil Conservation and Domestic Allotment Act of 1935

- Established the Soil Conservation Service
- Created the Agricultural Conservation Program
- Offered technical and financial assistance to drain wetlands, channelize streams, stabilize streambanks



Photo by USDA Soil Conservation Service

1954: Watershed Protection and Flood Prevention Act (PL 566)

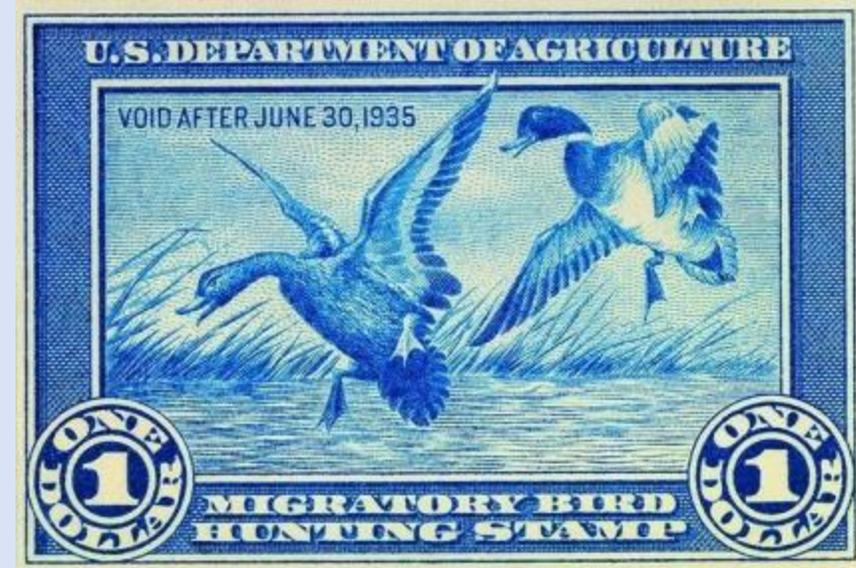
- Authorized Secretary of Agriculture to cooperate with States and local agencies in planning and carrying out flood prevention and water management projects in watersheds up to 250,000 acres
- Over 2000 projects nationwide
- Dams included in 1271 projects



Photo by Andrew J. Andresen,
USDA Soil Conservation Service

A few mid-20th-century precursors to change

- 1934 – Migratory Bird Hunting Stamp Act
 - Encouraged protection and restoration of wetlands
- 1949 – Aldo Leopold’s *A Sand County Almanac*
- 1951 – The Nature Conservancy established
- 1956 - U.S. Fish and Wildlife Service’s Circular 39
 - First wetland inventory designed to delineate the wildlife value of wetlands
- 1962 – Rachel Carson’s *Silent Spring*



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1960s and 1970s – two decades of change

- Ecology Movement
- Major Environmental Laws
 - National Environmental Policy Act
 - Clean Water Act
- National Wetlands Inventory (NWI)
- Executive Orders 11988 and 11990



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EO 11988 and EO 11990

Directed federal agencies to provide leadership and take action to...

Floodplain Management

- Reduce the risk of flood loss
- Minimize the impact of floods on human safety, health and welfare
- Restore and preserve the natural and beneficial values served by floodplains

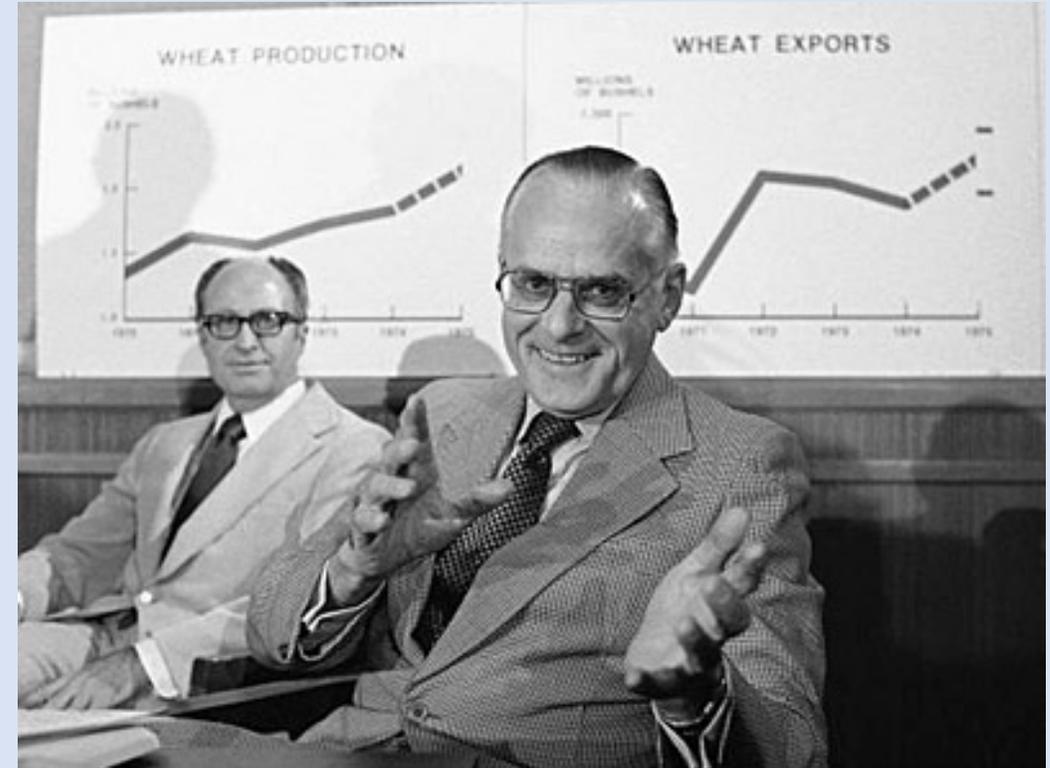
Protection of Wetlands

- Prevent the destruction loss or degradation of wetlands
- Preserve and enhance the natural and beneficial values of wetlands

...whenever there is a practicable alternative.

1970s Farm Boom

- Russian drought, crop failures
- Commodity prices soared
- Rampant inflation
- Maximum production encouraged
 - “Plant fence row to fence row!”
 - Set-aside acres decreased
- Farmers took on debt
 - “Get big or get out!”



Earl Butz was Secretary of Agriculture for Presidents Nixon and Ford and advocated planting “fence row to fence row” to meet increased global demand in the 70s. Source: AP.

1980s Farm Bust

- Surplus commodity production
- Crop prices fell
- Land prices fell
- Interest rates increased
- Farmers couldn't pay loans or property taxes
- Banks failed
- Farmers lost farms



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Food Security Act of 1985

Remove incentives for those desiring to produce agricultural commodities on Highly Erodible Land or Converted Wetland in order to:

1. Reduce Soil Erosion
2. Protect Nation's long term capability to produce food and fiber
3. Reduce sedimentation and improve water quality
4. Assist in preserving the values, acreage and functions of the Nation's wetlands



Wetland Conservation (WC) Provisions

- Persons who plant an agricultural commodity on wetlands converted after December 23, 1985 will be ineligible for USDA program benefits that year
- Applies to USDA program participants
- Eligibility for most USDA program benefits is linked to compliance with the WC provisions



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The Food, Agriculture, Conservation, and Trade Act of 1990

- Unless an exemption applies...
- Persons who plant an agricultural commodity on wetlands converted between December 23, 1985, and November 28, 1990, will be ineligible for program benefits that year.
- Persons who convert a wetland making production of an agricultural commodity possible after November 28, 1990, will be ineligible for program benefits until the functions and values of the wetland that was converted are mitigated.

Wetlands Reserve Program

- Wetlands Reserve Program (WRP) authorized by 1990 Farm Bill
 - Piloted in 9 States in 1992
 - Offered nationwide in 1995
- Offered landowners the opportunity to restore, enhance, and protect wetlands on their property
- Targeted to wetlands previously converted to agricultural use
- Three enrollment options
 - Permanent easement
 - 30-year easement on private land, 30-year contract on tribal lands
 - 10-year restoration agreement

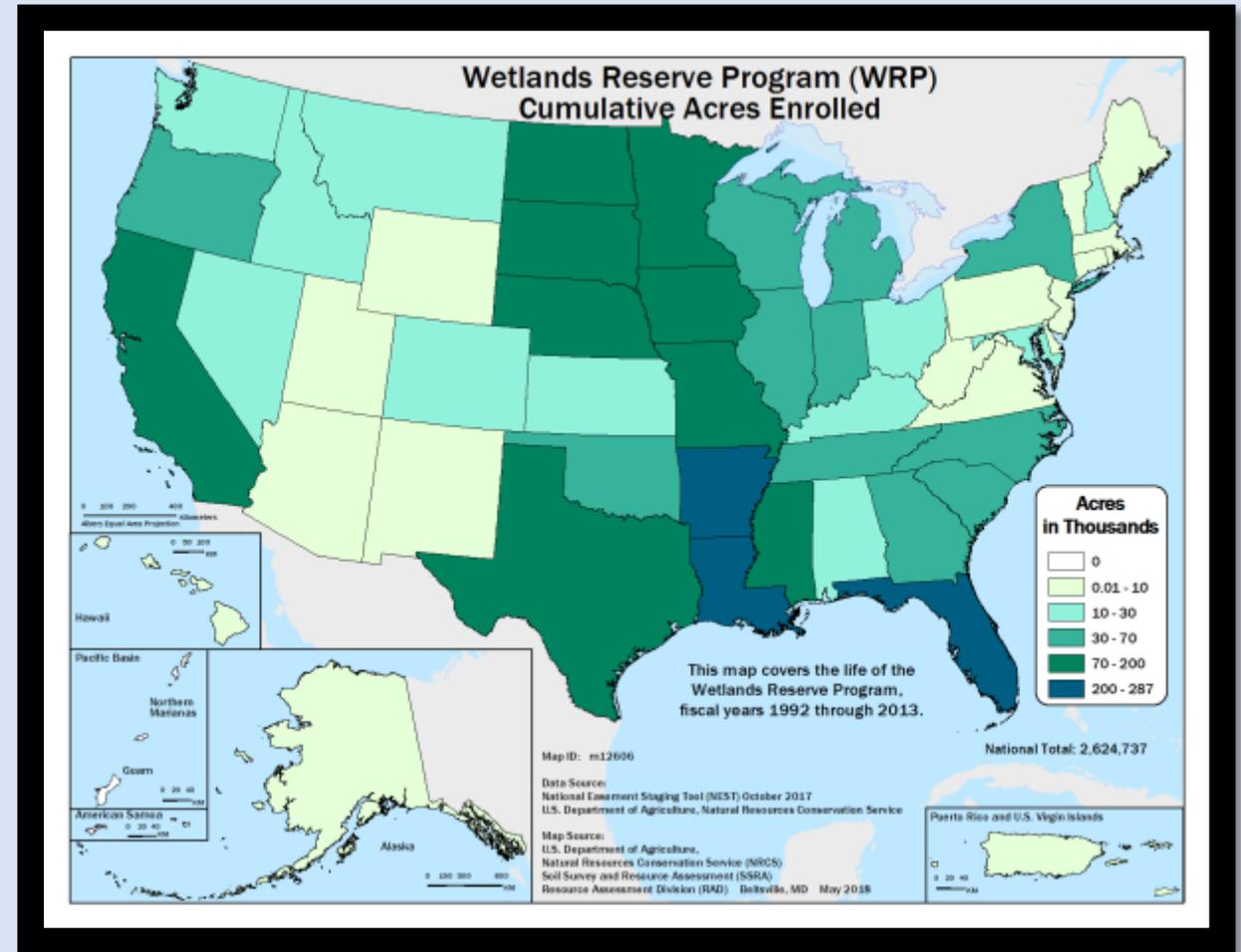


The Agricultural Act of 2014

- WRP consolidated into the Agricultural Conservation Easement Program (ACEP) with two other easement programs.
- Wetlands Reserve Easement (WRE) became a component of ACEP
- Eliminated 10-year Restoration Agreement option
- Added option for Term Easements for the maximum duration allowed by State law

WRP/WRE Results

- 2.7 million acres enrolled
- 14,500 easements and agreements
- \$4.3 billion invested
- Louisiana black bear and Oregon chub delisted
- Essential to wood stork recovery plan
- and many other wildlife habitat accomplishments...



Wetlands Still at Risk Today

- Conversion to perennial crops
- Renewed public interest in flood protection and water storage projects
- Increase in anti-regulatory sentiment

