

CHRONOLOGY OF UNITED STATES NATURAL RESOURCE AND ENVIRONMENTAL HISTORY, LAWS, AND AGENCIES, 2019

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- ~1000-1400 Vikings and English ships and sailors probably fish and land in northern “America” and “Canada” frequently {Bryson, Made in America, 1994}
- 1215* Magna Carta - issued by King John at Runnymede - ensured feudal rights, and king could not encroach on baronial privileges. Freedom of church and customs of towns; protection of rights of subjects and communities; and words later to be interpreted as the rights to trial by jury and habeas corpus (no imprisonment without cause or hearing)

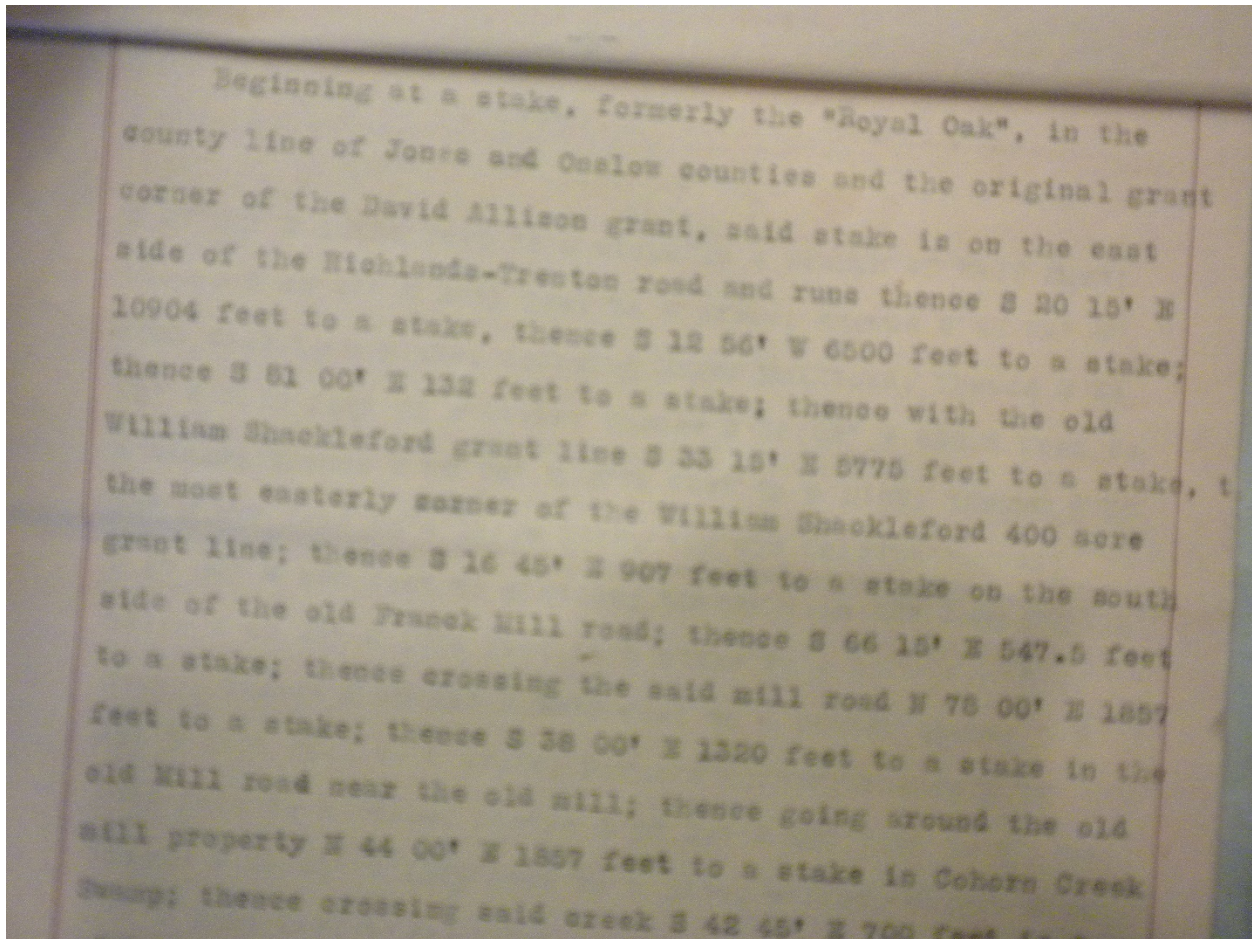
Era I: Colonial Settlement and Conservation; United States Expansion and Exploitation: 1492-1860

- 1492* Columbus lands in “Americas”, San Salvador Island, October 12
Neither he nor Amerigo (e.g., America namesake) Vespucci ever set foot on mainland; named after Amerigo, a low level Spanish sailor (w/Latin feminine a), by French college instructor. {Bryson, ibid, p. 10}
e.g., 1492; *Guns, Germs, and Steel*; 5 million → 237,000 native Americans
- 1495 John Cabot, lands in modern Newfoundland and Nova Scotia; first modern European on mainland; many British and French fish ships visit periodically {Bryson, 194, p. 10}
- 1558 Queen Elizabeth Tudor becomes Queen of England; leads Renaissance in England; defeats Spanish Armada
- 1578 British first refer to colonies as America {Bryson, p. 31} A nation had begun.
- 1584 Sir Walter Raleigh established colony at Roanoke Island, Virginia (now North Carolina). Became Lost Colony by ~1587.
- 1603 Queen Elizabeth dies after 45 years of rule; King James I (son of (executed) Mary Queen of Scots) becomes King

* key events or laws that form basis for modern natural resource policies and bear remembering

- 1607* Jamestown Colony, Virginia; first permanent settlement. Tough place; in winter 1609-1610, started with 500 colonists; ended with 60. Between 1606 and 1625, 7,289 immigrants arrived; 6,040 died. {Bryson, p. 28}
- 1620* Plymouth Colony founded, focus on religious community, e.g. Scarlett Letter. Termed themselves Saints, then Pilgrims moniker came 200 years later. 102 arrived; 54 survived after a few months, half of them children. No farm implements or fish lines at all brought on the Mayflower. However, a friendly Algonquin Indian named Tisquantum (Squanto), who spoke flawless English and some Spanish, helped (some) with farming and more, a la Thanksgiving. The New World was not so new {Bryson, p.5}
- 1620* Plymouth Colony Redux. At that time, perhaps 9 billion passenger pigeons—flocks up to 1 mile wide and 9 miles long. Slaughtered en masse for food, pigs, and sport. All gone by 1900; last one died at Cincinnati zoo in 1914 {Bryson 1994, p. 23}.
- 1626* Plymouth Colony forbids timber sale or export w/o permission
- 1653 Virginia colonists form first permanent colony in North Carolina
- 1668* Massachusetts Colony reserves for public all white pine trees in town of Exeter
- 1681* William Penn: 1 acre in trees for 5 acres cleared
- 1691* Broad Arrow Policy: Massachusetts Bay Charter reserved white pine trees 24" in diameter or more and not on private lands for the English Crown (marked with Broad Arrow of sovereignty)
- 1711 Broad Arrow policy extended for all lands in New England, New York, & New Jersey
- 1721 Broad Arrow extended from Nova Scotia to New Jersey
- 1739 Massachusetts law to stop dune encroachment regulated timber cutting, burning, and grazing
- 1752* Connecticut forbade stealing logs floating down Connecticut River, leading to doctrine that any stream that will float a log or boat is navigable and consequently a public highway
- 1760-1820* King George III ruled England, levied heavy taxes via Stamp Act (1765) and Townshend Act (1766), “lost” the Americas, and became progressively insane

- 1773 Boston Tea Party – so named much after the fact
- 1774 First Continental Congress
- 1775* Second Continental Congress-first domestic governing group of colonies; Paul Revere's ride; American Revolution begins “The British are Coming”
- 1777* Articles of Confederation approved; ratified 1781. VERY weak—just 13 independent states. No taxes; Connecticut claimed 1/3 of Pennsylvania; PA demanded land access to Lake Erie to prevent taxes from NY; NY and Vermont argued; Rhode Island wanted to leave. {Bryson, p. 53}
- 1781 British defeated at Yorktown
- 1781-1802 Land cessions by original states; 237 million acres; 305 million acres in the original states
- 1783 War ends; American Independence; Note: No President, Congress, etc.
- 1783* Massachusetts passed law similar to British Broad Arrow policy
- 1785* Ordinance authorized rectangular survey of public lands, and sale of a section (640 acres) to highest bidder, at not less than \$1 per acre
e.g., chains, rods, acres, not metes and bounds – e.g. Hofmann deed ~25 pages



Versus Rectangular Survey:

<https://www.acrevalue.com/plat-map/IA/Dallas/?lat=41.686222&lng=-94.108399&zoom=13>
(Dallas County)

<http://lti.gmdsolutions.com/cherokee/cgi-bin/TMPL01001> (Alice Hoepfner estate)

<http://lti.gmdsolutions.com/cherokee/>

1787* Constitutional Convention. Begins May 25; adjourns September 17. (<4 months) No piece of cake either: delegates had no authority under Confederation, so had to amend Articles of Confederation first. Proportional representation would make PA and VA have one-third of power; DE 1/19. Slaves. Western border states could be huge; designed to take power away from states, carefully. RI and VT would not attend. But brilliant people did! Not a nation, or national in document; Federal system—fides—faith—relationship based on trust {Bryson, p. 54-55, 62}

1789	Constitution takes effect
1789-1797	George Washington, President
1796	Surveyor general to implement above; lands for sale at minimum of \$2 per acre
1797-1801	John Adams, President
1799	Congressional appropriation of \$200,000 for purchase of timber or lands for growing suitable naval timber
1801-1809	Thomas Jefferson – President
1800+	Immigration debates arise. Common belief that immigration was “...a wise and prescient thing in the case of one’s parent or grandparents, but should stop now.” {Bryson, p. 159}; Thomas Jefferson: “Shall we refuse the unhappy fugitives from distress that hospitality which the savages of the wilderness extended to our fathers arriving in this land?”...but immigrants with “..’unbounded licentiousness’ would turn the United States into a ‘heterogenous, incoherent, distracted mass.’”. {Bryson, p. 159}.
1801~1836	John Marshall, Supreme Court Chief Justice – key in defining federalism
1803*	Marbury vs. Madison established judicial review of constitutionality of congressional laws, Chief Justice John Marshall
1803*	Louisiana Purchase; 560 million acres; about 3 cents per acre.
1804*	Lewis and Clark set off with 32 persons for 2.5 years to explore the region, aided by teenaged Indian guide and interpreter Sacawagea, and her newborn baby, and two other Indian interpreters. Traveled ~8,000 miles. {Byson, p. 130-131}
1804	Land sale minimum reduced to 1/4 section (160 acres)
1809-1817	James Madison, President
1812*	General Land Office established in Treasury Department e.g. Land Office business, families and rugged frontier, Horace Greely
1812	War of 1812 with the British <i>e.g., Star Spangled Banner; bursting bombs</i>
1817-1825	James Monroe, President
1817*	Secretary of Navy authorized to reserve suitable live oak and red cedar lands from public land sales. Several established in Florida and Louisiana

1819	Florida Purchase from Spain; 46 million acres
1820	Land sales of ½ of 1/4 section (80 acres) authorized, minimum price reduced to \$1.25 per acre
1825-1829	John Quincy Adams, President
1827*	Attorney General ruled that under act of 1807 trespassers on public lands could be removed by military force and/or fined and imprisoned
1827*	President authorized to reserve valuable naval timber lands and to preserve live oak growing on lands of the U.S.
1829-1837	Andrew Jackson, President e.g., Indian fighter, with Cherokees; then caused Trail of Tears, 1938; John Ross
1832	Minimum sale tract size reduced to 40 acres
1836	Battle of the Alamo in February; Texans win war in April
1837-1841	Martin Van Buren, President
1841	William Henry Harrison, President
1841-1845	John Tyler, President
1843	Reservations of live oak in Louisiana opened to settlement. All were disposed of by 1927
1845-1849	James Polk, President
1846	Oregon Compromise; 183 million acres from England/Canada
1848*	Mexican Treaty; 339 million acres
1848*	American Association for the Advancement of Science organized
1849*	The Department of the Interior established out of Department of Treasury, Land Office and War Department Native American Affairs
1849-1850	Zachary Taylor, President
1850	Land purchase from Texas; 79 million acres; 170 million remained as Texas
1850-1853	Millard Fillmore, President

- 1853-1854 Gadsden Purchase from Mexico- New Mexico and Arizona; 19 million acres
- 1853-1857 Franklin Pierce, President
- 1857-1861 James Buchanan, President
- 1861-1865* Civil War
- 1861-1865 Abraham Lincoln, President

Era II: U.S. Conservation Beginnings: 1862-1899

- 1862 Homestead Act allowed settlers on public land of 160 (80) acres for price of \$1.25 (\$2.50) per acre and granted title if land lived on for 5 years
- 1862* Department of Agriculture established
- 1864* *Man and Nature* by George Perkins Marsh published
e.g., the pass in the movie “300” vs. modern battlefield is a flat plain;
NR destruction slides – Greece, Ephesus, USA
- 1865-1869 Andrew Johnson, President (from Raleigh, NC)
- 1867* Alaska Purchase; 375 million acres (“Seward’s Folly”)
- 1869-1877 Ulysses S. Grant, President e.g. Wilshire Hotel lobby
- 1869 John Wesley Powell (On the Boat) goes down the Green & Colorado Rivers
- 1870 American Fisheries Society founded
- 1871* The Nation's first Federal conservation agency, United States Commission of Fish and Fisheries, was formed for the protection, study, management, and restoration of fish (the Fish Commission). Later it was renamed the Bureau of Fisheries, and still later it became the Bureau of Commercial Fisheries, and now NOAA’s National Marine Fisheries Service (NMFS) or just NOAA Fisheries.
- 1871* Wisconsin Peshtigo fire kills 1200 people
- 1872* Yellowstone National Park reserved- world’s first national park

- 1872* The General Mining Law of 1872 allows U.S. citizens to claim land for mining purposes in units of 20 acres as long as \$100 per year is spent on the land
- 1875* American Forestry Association organized
- 1876* Franklin Hough hired by Commissioner of Agriculture to study and report on forest conditions
- 1877-1881 Rutherford B. Hayes, President
- 1878* Report on Arid Lands of the United States - John Wesley Powell, e.g., dams can make the desert bloom like a rose; Rango
- 1881 Hough's forestry work as separate division in Agriculture
- 1881-1885 Chester Arthur, President
- 1885-1889 Grover Cleveland, President
- 1886 Congressional recognition of forestry division; Bernard Fernow took charge
- 1886* USDA Bureau of Economic Entomology and Mammalogy
- 1887* Hatch Act - agricultural experiment stations
- 1887* Boone and Crockett Club formed - early conservationists/hunting club – Roosevelt, George Bird Grinnell, and more
- 1889-1893 Benjamin Harrison, President
- 1889* Johnstown (PA) Flood kills 2200 persons
- 1889* U.S. Department of Agriculture gets Cabinet rank
- 1890* Sherman Anti-Trust Act - opposition to the concentration of economic power in large corporations and in combinations of business concerns
- 1891* Creative Act or Forest Reserve Act - Section 24 of General Land Laws Act of Congress - allowed president to set aside public lands covered wholly or in part with timber or undergrowth as forest reserves (26 Stat. 1103, as amended, 16 U.S.C. 471 (replaced 1976). [438 U.S. 696, 706]
- 1892* Sierra Club founded by John Muir and others
www.sierraclub.org
- 1893-1897 Grover Cleveland, President

- 1896 William McKinley - President
- 1896* Division of Biological Survey established in Department of Agriculture
- 1897* Appropriation bill rider authorizes established purposes for which forest reserves could be established: (a) to secure favorable conditions of water flow, and (b) furnish a continuous supply of timber (added in 1924). Provided for their protection and administration. Authorized Secretary of Interior (later Agriculture) to sell for not less than appraised value, dead, matured, or large growth trees found in forest reserves (national forests), after being individually marked. Termed the Organic Administration Act of 1897.
- 1897-1901 William McKinley, President (assassinated by an Anarchist)
- 1898 Gifford Pinchot succeeded Hough as chief of the Division of Forestry
- 1898 Hawaii; 4 million acres; Total U.S. Land Area = 2,316 million acres

Era III: The Conservation Movement and Federal Programs: 1900-1950

- 1900* Lacey Act –(18 U.S.C. 43-44) no import of foreign animal or interstate commerce in illegally taken wild animals or birds (amended 2008)
<http://ipl.unm.edu/cwl/fedbook/laceyact.html>
 e.g., birds, plumage for hats, Carolina Parakeet
- 1900 Society of American Foresters organized by Pinchot and others
- 1901-1909* Theodore Roosevelt, President
- 1901* T.R. sues Northern Securities (J.Pierpoint Morgan) to break up large trust to begin trust-busting campaign; first of 45 trust-busting lawsuits by T.R.; upheld by Supreme Court in 1904
- 1901 Forestry Division created in Department of the Interior
- 1902* Reclamation Act (Public Law 97-293) passed, leading to extensive system of dams in the West <http://www.usbr.gov/rra/>
- 1903* Department of Commerce and Labor formed Bureau of Fisheries
- 1903* President Roosevelt set aside Pelican Island, Florida as first wildlife refuge; eventually he created 51 wildlife reserves

- 1905 National Audubon Society organized
www.audubon.org
- 1905* Transfer Act moved forest reserves administration from Secretary of the Interior to the Secretary of Agriculture (Feb). Name of Bureau of Forestry changed to Forest Service (July). 63 million acres transferred.
Gifford Pinchot—first American born U.S. Forester—becomes first Chief of FS
http://www.fs.fed.us/global/wsnew/fs_history/issue15.pdf
- 1905 TR invites Harvard, Yale, Princeton Presidents to form ICAA→becomes NCAA
- 1906* Antiquities or National Monuments Act – enables president to protect sites and declare pristine places, such as historic landmarks and structures, areas of scientific interest, as national monuments without the approval of Congress
<http://www.nps.gov/history/history/hisnps/NPSHistory/antiq.htm>
- 1906 Charge made for first time for grazing on forest reserves
- 1906* Upton Sinclair publishes *The Jungle* – muckraking expose of U.S. meatpacking industry; leads to 1906 Meat Inspection Act
- 1906 Pure Food and Drugs Act “Wiley Act” (Public Law 59-384)
<http://www.fda.gov/opacom/laws/wileyact.htm>
- 1906 Meat Inspection Act
<http://www.fda.gov/opacom/laws/meat.htm>
- 1907* Reclamation Service established, Department of Interior
- 1907* Appropriations Act changed name of forest reserves to national forests, and forbade further creation or enlargement of forests w/o act of Congress. TR set aside 13 million more acres before signing; a net increase of 130 million acres during his term.
- 1908 By end of TR term, extended federal protection to 230 million acres of land
- 1908 First federal forest experiment station established at Fort Valley, near Flagstaff, Arizona
- 1909-1913 William Taft, President
- 1911* Weeks Law - Purchase of eastern national forests for watershed protection
http://www.foresthistory.org/Research/usfscoll/policy/Agency_Organization/NF_System/weeks_law/index.html

- 1912-1916* National Park System (NPS) created
- 1913 Woodrow Wilson - President
- 1913* Building of Hetch Hetchy Dam in Yosemite National Park to supply water and power to San Francisco was approved by Congress; completed in 1923
- 1913-1921 Woodrow Wilson, President
- 1914* Clayton Anti-Trust Act strengthens Sherman Act
- 1914* Federal Trade Commission set up to regulate business
- 1914 Assassination of Archduke of Austria Franz Ferdinand and Countess Sophie in Sarajevo by an Anarchist, triggering WWI
- 1916* National Park Service Organic Act
- 1916-1919* U.S. enters World War I
- 1918* Migratory Bird Treaty Act (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) protects selected waterfowl; e.g. from massive killing at “Duck” NC
<http://www.fws.gov/migratorybirds/intrnltr/treatlaw.html#mbta>
- 1919* Committee for the Application of Forestry to examine forest devastation
- 1920 Warren Harding - President; succeeded by Calvin Coolidge
- 1920-1927 Public health boards organized in most cities
- 1921-1923 Warren Harding, President
- 1920s Alice Hamilton of Harvard published Industrial Poisons in the U.S.
- 1922* *Pennsylvania Coal v. Mahon*- 260 U.S. 393 (1922) - Supreme Court / Chief Justice Oliver Wendell Holmes establish two part test for taking without compensation – diminution in property value, and insufficient public interest
<http://supreme.justia.com/us/260/393/case.html>
- 1923* Alaska North Shore declared Naval Petroleum Reserve
- 1923-1929 Calvin Coolidge, President
- 1924* Clarke-McNary Reforestation Act (ch. 348, 43 Stat. 653, enacted June 7, 1924): federal state cooperation in fire control, technical assistance, reforestation, and research; purchase of national forests for timber production

http://www.nps.gov/fire/download/fir_wil_history_ch2.pdf

- 1929-1933 Herbert Hoover, President
- 1928* McSweeney-McNary Act (Pub. Law 95-307) : forest experiment stations
<http://fia.fs.fed.us/documents/pdfs/Mandate%201-1978%20Research%20Act.pdf>
- 1929* Migratory Bird Conservation Act (16 U.S.C. §§ 715-715r, February 18, 1929, as amended 1935, 1961, 1962, 1966-1968, 1970, 1973, 1976, 1978, 1983, 1984, 1986, 1988 and 1989). <http://ipl.unm.edu/cwl/fedbook/mbca.html>
- 1929 Forest Service L-20 primitive area regulations
- 1929 Wall Street crash
- 1930s Great Depression
- 1930 Knutson-Vandenburg Act (K-V funds) – allow USFS to keep some timber receipts at the local level, prompting broader bases for timber sales.
- 1931 Animal Damage Control Act – Secretary of Interior can study and control mammalian predators, rodents, and birds. Transferred to Department of Agriculture in 1985.
- 1933-1945 Franklin Delano Roosevelt (FDR), President
- 1933* Civilian Conservation Corps established – public works projects across nation; employment for 25% of men in the country that were unemployed; e.g., Washington State CCC video
- 1933* Title X (Lumber Code) of National Recovery Act authorized federal regulation of private landowners. NRA codes declared unconstitutional by Supreme Court in 1935, as unlawful delegation of legislative power to the executive
- 1933* Soil Erosion (Conservation) Service founded in USDI as part of NRA; renamed SCS and functions transferred to USDA in 1935; renamed Natural Resources Conservation Service in 1990s
- 1934 Migratory Bird Hunting Stamp Act or Duck Stamp Act (16 U.S.C. 718-718j, 48 Stat. 452) <http://www.fws.gov/laws/lawsdigest/mighunt.html>. (Ding Darling)
- 1934 Fish and Wildlife Coordination Act (16 U.S.C. 661-667e; the Act of March 10, 1934; Ch. 55; 48 Stat. 401)
<http://www.fws.gov/habitatconservation/fwca.htm>
- 1934* Taylor Grazing Act (43 USC 315) - The Grazing Service established to manage

USDI lands

http://www.access.gpo.gov/uscode/title43/chapter8a_subchapteri_.html

- 1935 Wilderness Society founded by Bob Marshall and others
- 1935* Cooperative Wildlife Research Program founded by Darling, Leopold, and others; part of Fish and Wildlife Service, Department of Interior
- 1936* National Wildlife Federation founded by Darling and others; e.g. Jay Hair NCSU FW Co-op leader becomes CEO in 1980s.
- 1937 Bankhead-Jones Farm Tenant Act (7 USC 1000, 1006, 1010-1012; 50 Stat. 522) federal purchase or eroded farm lands
<http://www.fws.gov/laws/lawsdigest/bankjon.html>
- 1937* Federal Aid in Wildlife Restoration Act (Pittman-Robertson Act): excise tax on hunting equipment to be used for wildlife management programs with states
<http://ipl.unm.edu/cwl/fedbook/pract.html>
- 1937 The Wildlife Society organized
- 1939 Forest Service adopts U-regulations regarding wilderness, wild, and recreation areas on national forests
- 1940* Fish and Wildlife Service formed in Interior, from USDA Biological Survey and USDC Bureau of Fisheries
- 1941-1945 World War II
- 1941* Oregon state forest practices act: permits and forest regeneration required
- 1943* Revenue Act of 1943 - Timber Capital Gains, preferential income tax treatment
- 1944 FDR dies; Harry Truman becomes President
- 1945* Washington state forest practices act
- 1945* California state forest practices act
- 1945-1953 Harry Truman, President
- 1946* Bureau of Land Management (BLM) formed to manage non-disposed public lands
- 1946* The Nature Conservancy (TNC) organized – largest nongovernment land owner now. 2009: 37 million ac of private trusts; 12 million public (RPA)

- 1946* Administrative Procedures Act (5 U.S.C.A. §§ 501)– provides public oversight of federal agencies – public comment on proposed rules; rigorous process in federal register; agency response to comments; leads to final rules with reviewable record and science basis
http://www.law.cornell.edu/uscode/5/uscode_sup_01_5_10_I_30_5_40_II.html
- 1947 Gifford Pinchot’s Breaking New Ground published
- 1947 Federal Insecticide Fungicide and Rodenticide Act (FIFRA) provided modest federal authority for chemical use
- 1947* State v. Dexter – Supreme Court upholds Washington State Forest Practices Act.
- 1948* Donora, Pennsylvania thermal inversion sickens 6,000 (~1/2 town); kills 20
- 1948 Clean Water Act – first enacted, but no regulation (Ch. 758; P.L. 845)
- 1949* Aldo Leopold’s (the father of game/wildlife management) Sand County Almanac published, calling for a Land Ethic
- 1950 Cooperative Forest Management Act: federal-state technical forestry assistance (64 Stat. 473, as amended; U.S.C. 586c, 586d)
- 1950* Federal Aid in Fish Restoration Act (Dingell-Johnson Act): excise tax on fishing equipment for state fish management projects (16 U.S.C. §§ 777-777l)
- 1950s More focus on public health issues
- 1950-1953 Korean War

Era IV: 1950 – 1980: Environmentalism and Modern Environmental Movement

- 1953-1961 Dwight Eisenhower, President
- 1955 Air Pollution Control Act – resources to states, but no regulation
<http://www.epa.gov/apti/course422/apc1.html>
- 1955 Wilderness Bill introduced to Congress
- 1956* Soil Bank Act - plant productive lands in grass or trees
- 1958* National Outdoor Recreation Resources Review Commission (ORRRC) established by Congress

- 1960 Sikes Act - federal review of wildlife projects (16 USC 670a-670o, 74 Stat. 1052), amended, Public Law 86-797
http://www.fws.gov/habitatconservation/sikes_act.htm
- 1960 Multiple-Use Sustained-Yield Act (MUSY): for national forests—outdoor recreation, range, timber, water, wildlife and fish (74 Stat. 215; 16 U.S.C. 528-531),
<http://www.fs.fed.us/emc/nfma/includes/musya6o.pdf>
- 1958-1960* Alaska National Wildlife Refuge (ANWR) established on north slope with 8.9 million ac; expanded to 19.5 million ac by ANILCA in 1980; perhaps largest remaining oil prospect in U.S.
<http://www.anwr.org/backgrnd/potent.html>
- 1961-1963 John F. Kennedy (JFK), President
- 1962* McIntire-Stennis (M-S) Act: forestry research
- 1962* *Silent Spring* by Rachel Carson published; exposed hazards of pesticides in the environment. <http://www.rachelcarson.org/>
- 1963-1969 Lyndon B. Johnson (LBJ), President; Great Society Programs
- 1964* Wilderness Act, a process for permanently protecting some lands from development (16 U.S.C. 1131-1136, 78 Stat. 890) Public Law 88-577,
<http://www.fws.gov/laws/lawsdigest/wildrns.html>. 2009: 109 million ac
- 1964 Beatles on Ed Sullivan February 9
- ~1965-1973 Vietnam War – Changes public trust in government, but facilitates environmental protests and movement as well
e.g. 1968 Democratic Convention, Chicago; Country Joe and the Fish
<https://www.youtube.com/watch?v=tv0rI-5ycBU> Convention
<https://www.youtube.com/watch?v=gqaTIqpSNXE> Country Joe / Vietnam
- 1965* Land and Water Conservation Fund (LWCF) Act – federal funds for purchase of public conservation lands. Annual appropriations have ranged from a high of \$369 million in 1979 to none from 1996-1999. \$140 million in 2002; \$94 million in 2003; \$28 million in 2006. <http://www.fs.fed.us/land/staff/LWCF/>
- 1965 Sierra Club brings suit to protect New York's Storm King Mountain from a power project. The case established a precedent, allowing the Club standing for a non-economic interest in the case
- 1965 Solid Waste Disposal Act was enacted to improve solid waste disposal methods (P.L. 89-72; <http://homer.ornl.gov/sesa/environment/rcra.html>)
- 1966* National Wildlife Refuge System Administration Act (16 U.S.C. 668dd-668ee)

<http://www.fws.gov/refuges/policymakers/mandates/16USCSec668dd.html>

- 1966 Sierra Club publishes ads in NY Times and Washington Post against building a dam to flood the Grand Canyon
- 1968* National Trails System Act (16 U.S.C. 1241-1249) Public Law 90-543, approved October 2, 1968. 2009: 20,000 miles (RPA)
<http://www.nps.gov/nts/legislation.html>
- 1968 Grand Canyon dam killed
- 1968* Wild and Scenic Rivers Act <http://www.rivers.gov/> 2009: 12,500 miles (RPA)
- 1968 Edward Muskie loses runs for Democratic presidential nomination to Humphrey; returns to leadership on Senate Environmental and Public Works Committees
- 1968* Paul Ehrlich's Population Bomb published
- 1966-70 War protests and environmental movement helps reform U.S. politics
- 1969-1974 Richard Nixon, President
- 1969 Cuyahoga River Fire, Cleveland
- 1969* National Environmental Policy Act (NEPA) – Creates process for analysis of major federal actions significantly affecting the environment (Environmental Impact Statement - EIS). Categorical exclusion for small projects that do not require individual EIS. Environmental Assessment (EA) if agency does not know if its effects will be significant. EA may require EIS if actions are significant; finding of no significant impacts (FONSI) if not. Categorical Exclusions exempt some classes of activities. Authorizes public lawsuits
<http://www.nepa.gov/nepa/regs/nepa/nepaeqia.htm>
(Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, § 4(b), Sept. 13, 1982)
- 1969 Santa Barbara Oil Spill -oil from Union Oil's offshore wells fouled beaches in Southern California and aroused public anger against pollution.
- 1970 Youth Conservation Corps Act
- 1970* Clean Air Act amendments – greatly expands the Air Pollution Control Act
<http://www.epa.gov/history/topics/caa70/index.htm>. Limits on emission of pollutants from stationary ((industrial) and mobile (vehicles) sources. National Ambient Air Quality Standards (NAAQs) – 6 listed criteria pollutants; New Source Performance Standards (NSPS); State Implementation Plans (SIPS).

Video at: <https://www.youtube.com/watch?v=yk8NN4nNgs4>

- 1970* April 22 - Earth Day celebrated
- 1970* Environmental Protection Agency (EPA) established, January 1, 1970
- 1970* Occupational Health and Safety Act (OSHA) of 1970 (Public Law 91-596)
Creates the OSHA agency and regulations to protect workers from hazards in employment.
http://www.osha.gov/pls/oshaweb/owasrch.search_form?p_doc_type=OSHA
- 1970 Resources Recovery Act of 1970. Resource recovery and waste disposal systems and financing for state and local agencies (P.L. 91-512);
<http://homer.ornl.gov/sesa/environment/rcra.html>
- 1971 RARE I - to identify potential wilderness areas (Roadless Area Review I)
- 1971 Airborne Hunting Act (16 U.S.C. 742j-1)
<http://www.fws.gov/laws/lawsdigest/airborn.html>
- 1971* NC Governor Bob Scott sent environmental policy package to NC legislature, seeking laws for major environmental issues, including water and air resources management, pollution control, preservation of scenic rivers, coastal and estuarine resources management, oil spills, pesticides, sedimentation, surface mining control, and protection of scenic beauty.
- 1972* Limits to Growth published - Donella Meadows et al.
- 1972* Federal Environmental Pesticide Control Act (FEPCA) amends 1947 FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) Authorizes registration, regulation, and banning of pesticides and herbicides.
<http://www.epa.gov/oecaerth/civil/fifra/fifraenfstareq.html>
- 1972 DDT banned in the US
- 1972* Federal Water Pollution Control Act (FWPCA)- passes over Nixon veto-includes both process and regulations. Amendments amend prior federal water law; Section 208—nonpoint (led to BMPs; supplanted by Section 319 now); Section 319--nonpoint source pollution planning (~prompt NC Sediment Pollution Control Act/Forest Practice Guidelines); Section 404--wetland dredge and fill permits; Section 402--NPDES Permits; Section 303 & 305—List of waters not meeting intended purpose; Total Maximum Daily Loads (TMDLs): maximum pollutant allowed without violating water quality standards; sewage treatment, etc.; (33 U.S.C. 1251 - 1376; Chapter 758; P.L. 845, June 30, 1948; 62 Stat. 1155) <http://www.fws.gov/laws/lawsdigest/FWATRPO.HTML>
Video at: <https://www.youtube.com/watch?v=ZEQcUngxLI>

- 1972* Marine Protection Act of 1972 (P.L. 92-532). The MMPA prohibits, with certain exceptions, the “take” of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S.; Some marine mammal species or stocks may be in danger of extinction or depletion as a result of human activities; These species or stocks must not be permitted to fall below their optimum sustainable population level (depleted); measures should be taken to replenish these species or stocks.
<http://www.nmfs.noaa.gov/pr/laws/mmpa/>
- 1972* Coastal Zone Management Act, as amended in 1990 (Public Law 92-583, 16 U.S.C. 1451-1456). Authorizes federal support and funds for states to plan to protect coastal areas
http://www.nps.gov/history/local-law/FHPL_CstlZoneMngmt.pdf
- 1972* Izaak Walton League v. Butz - Monongahela NF Clearcutting case begins
- 1972 The famous Blue Marble photograph of the Earth taken on 7 December 1972 by the crew of the *Apollo 17* spacecraft at a distance of about 29,000 kilometers or about 18,000 statute mile- the image was seen by many as a depiction of Earth's frailty, vulnerability, and isolation and spurred environmental awareness
- 1973 OPEC oil embargo
- 1973 Trans-Alaska Pipeline completed
- 1973* Endangered Species Act (ESA); (16 U.S.C. 1531-1544, 87 Stat. 884), as amended) protect T&E species; 1855 listing as of 2005; 1290 in U.S. US FWS and US NMFS administer and list species. Sets a process for listing; strict regulations to protect species. Section 7 – federal agencies actively protect; section 9 – private landowners avoid taking; animals protected everywhere; plants only on public lands. As of August 14, 2013, 2103 species are listed; 1246 animals, 857 plants. 1482 in the U.S.; 621 foreign species.
Box Score: (<http://ecos.fws.gov/ecp0/reports/box-score-report>)
- 1973* NC Sediment and Pollution Control Act (SPCA). Permits required for any land disturbance actions greater than one acre; forest harvesting exempt if harvesting meets NC forest practice guidelines.
<http://www.dlr.enr.state.nc.us/pages/sedimentpollutioncontrol.html>
- 1974* NC Coastal Area Management Act (CAMA) (NC Code, Article 7, Section 113A-100 – 113A-134.2) NC coastal zone planning; prevent hardened structures, requires permits for construction and temporary hard structures.
<http://dcm2.enr.state.nc.us/Rules/cama.htm>

- 1974* Forest and Rangeland Renewable Resources Planning Act (RPA) (88 Stat. 476; 16 U.S.C. 1601-1610) – provides for national assessment and planning for forest lands, focused on public and national forest lands
<http://www.fs.fed.us/emc/nfma/includes/range74.pdf>
- 1974 Safe Drinking Water Act of 1974 (P.L. 93-523). Authorized federal standards to safeguard public drinking water supplies and to regulate state programs to protect underground water sources.
- 1974 Chemists Rowland and Molina publish findings that chlorofluorocarbons (CFCs) can destroy ozone molecules and may threaten to erode the Earth's protective ozone layer
- 1974 Nuclear Regulatory Commission formed out of Atomic Energy Commission in order to regulate nuclear materials.
- 1974-1977 Gerald Ford, President
- 1975* Monongahela decision stops clearcutting on national forest in SE/Central
- 1975 Law professor Plater files first petition under the Endangered Species Act, to list the snail darter, a small fish that lives in the Little Tennessee River below the Tellico Dam site, as an endangered species
- 1975* Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) placed into effect after agreement among member countries
<http://www.cites.org/eng/disc/what.shtml>
- 1976* National Forest Management Act (NFMA) – provides new management authority for national forests, including protection of biodiversity, justification of clearcutting, compliance with environmental impacts procedures, harvest at culmination of mean annual increment, Committee of Scientists to determine NFMA regulations
<http://www.fs.fed.us/emc/nfma/includes/NFMA1976.pdf>
- 1976* Federal Land Policy and Management Act (FLPMA) (Public Law 94-579)
<http://www.blm.gov/flpma/>. Organic Act that authorizes management of Bureau of Land Management, Department of Interior lands
- 1976* Magnuson-Stevens Fishery Conservation and Management Act. Sets goals for protecting ocean fishes and eventually means for establishing quotas to protect fisheries. <http://www.nmfs.noaa.gov/msa2005/> (16 U.S.C. 1801-1891- current)
- 1976* Resource Conservation and Recovery Act (RCRA) – Hazardous Waste Control established a system for managing non-hazardous and hazardous solid wastes in an environmentally sound manner. Specifically, it provides for the management of

hazardous wastes from the point of origin to the point of final disposal (i.e., "cradle to grave"). RCRA also promotes resource recovery and waste minimization(RCRA, (P.L. 94-580; <http://www.epa.gov/rcraonline/>)

- 1976* Toxic Substances Control Act of 1976 – regulate toxic chemicals and mixtures that present an “unreasonable risk of injury to health or the environment.” EPA implements, not states. Manufacturers provide information to EPA; EPA regulates manufacture, use, and distribution; EPA must balance economic and social benefits and costs (P.L. 94-469). Amendments in 1986, Asbestos Hazard Emergency Response Act (P.L. 99-519); 1988, Radon Program Development Act (P.L. 100-551); 1990, Radon Measurement (P.L. 101-508 sec. 10202); 1990, Asbestos School Hazard Reauthorization Act (P/L. 101-637); 1992, Residential lead-Based Paint Hazard Act of 1992 (P.L. 102-550).
- 1977* Clean Water Act Amendments (CWA) (33 U.S.C. 1288- 1344 (1977)) (Public Law 95-217). Sewage treatment components.
- 1977 Clean Air Act Amendments. New standards for prevention of significant deterioration (PSD) in clean air areas.
- 1977 Surface Mining and Control Reclamation Act of 1977 (P.L. 95-87). Environmental controls on strip mining, limits on locations, required restoration to original contours.
- 1977 RARE II Roadless Area Review
- 1977-1981 Jimmy Carter, President
- 1978 Love Canal homes evacuated
- 1978 ESA Amendment – Endangered Species Act Committee – God Squad
- 1978* First Committee of Scientists recommendations for regulations for NFMA e.g., Art Cooper, Head, NCSU Dept Forestry
- 1979 Three Mile Island nuclear power plant almost has a meltdown, damaging the nuclear power industry’s PR
- 1980 Mt. St. Helens erupts in Washington state
- 1980* Alaska National Interest Lands Conservation Act (ANILCA) – protected 102 million acres in Alaska as national parks, wildlife refuges, and wilderness areas (Public Law 96-487) <http://alaska.fws.gov/asm/nilca/toc.html>
- 1980* Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act

(SARA) of 1986 - locate and clean up abandoned hazardous waste sites; provide liability for those responsible; establish trust fund for cleanup lacking responsible party. <http://www.epa.gov/superfund/policy/cercla.htm>

1980* Reforestation Tax Incentives/Recreational Boating Act
http://www.fs.fed.us/im/directives/fsm/1000/1011-1012_zero_code.txt

**Era V: 1981 – present:
Environmental Law Implementation; International Accords;
Green Drift; Regulatory Rollback**

1981-1989 Ronald Reagan, President

1981 AIDS virus first detected, undermining development efforts in many countries, esp. in Africa

1982 Nuclear Waste Policy Act of 1982 (P.L. 97-425). Established a national plan for disposal of nuclear wastes.

1982 Committee of Scientists regulations for NFs updated; stand until 2000

1984 Bhopal disaster in India, methyl isocyanate leakage

1985* Food Security Act (Farm Bill)—Conservation Reserve Program (payments to withdraw erodible lands from production), Swampbuster, Sodbuster, Cross Compliance

1986 Chernobyl power plant explodes in Ukraine – considered worst nuclear disaster to date

1986 Emergency Planning and Community Right-to-Know Act of 1986 – hazardous chemical inventory report and toxic release inventory report (US Code- Title 42, Chapter 116)
<http://www.epa.gov/oecaerth/civil/epcra/index.html>

1986* SARA – Superfund Amendments and reauthorization Act. Amended and strengthened CERCLA. New enforcement authorities; increased state involvement; more focus on human health problems; greater citizen participation; increased trust fund to \$8.5 billion. (US Code- Title 42)
<http://www.epa.gov/superfund/policy/sara.htm>

1986 Safe Drinking Water Act of 1986 (P.L. 99-339). Reauthorized 1974 law; advanced EPA schedule for standards for 83 toxic pollutants.

1987 Clean Water Act Amendments (33 U.S.C. 1267-1375 (1987)) (Public Law 100-4)
<http://www.fws.gov/laws/lawsdigest/FWATRPO.HTML>

- 1987* Montreal Protocol to halve emissions of CFCs—revised in 1990, 1992, 1995, 1997, 1999
- 1987* Brundtland Report on Sustainable Development – provide for the needs of the present generation without compromising the ability of future generations to meet their needs.
<http://www.worldinbalance.net/pdf/1987-brundtland.pdf>
- 1988 Ocean Dumping Ban Act (Public Law 100-688) Ended dumping of sewage sludge and industrial waste; dumping fees and permits for other waste. Passed after medical waste (vials of blood, syringes) washed up on the shores of New Jersey and Long Island during the summer of 1988
<http://www.epa.gov/history/topics/mprsa/02.htm>
- 1989-1993 George Bush, President
- 1989* Exxon Valdez oil tanker accident in Alaska's Prince William Sound
- ~1990 Desert Storm, Iraq
- 1990* Clean Air Act Amendments (42 U.S.C. 85), including control SO_x and NO_x, to control Acid Rain via tradable permits (cap and trade); deadlines for parts of country out of compliance; phasing out CFCs that cause ozone; hazardous air: required regulation to set emission limits for all major sources of toxic hazardous air pollutants and listed 189 to be regulated; use best available control technology (BACT); stricter standards for motor vehicles. <http://www.epa.gov/air/caa/>
- 1990* Wildlife Habitat Incentives Program- cost-share assistance to private landowners to help them enhance wildlife habitat areas on their lands.
- 1990* No Net Loss of Wetlands becomes official U.S. policy, requiring mitigation of any activities that destroy wetlands
<http://www.fws.gov/news/historic/1990/19900719.pdf>
- 1990 Oil Pollution Act of 1990 (P.L. 101-380). Increased liability for spills, required double hull tankers by 2015, better planning, increased states' rights to control.
- 1992* Division of Biological Survey formed in USDI, later folded into US Geological Survey (Fish and Wildlife Cooperative Research Units)
- 1992* U.N. Earth Summit In Rio de Janeiro, Brazil—Framework Conventions on Climate Change, Biological Diversity, Statement of Forest Principles, 144 countries
<http://www.un.org/geninfo/bp/enviro.html>

- 1993-2001 Bill Clinton, President
- 1993* U.N. committee on temperate and boreal forests meets in Montreal and develops "Montreal Process" for criteria to achieve sustainable forest management (SFM) http://64.233.167.104/search?q=cache:eVkTdJjd_kAJ:www.fs.fed.us/sustained/1300-sustainable-forestry. E.g., videos
- 1993 Forest Stewardship Council (FSC) started by environmental nongovernment organizations (ENGOs), social and worker groups, some forest industry; first market based / industry voluntary environmental programs (VEPs)
- 1993-4 Clinton leads federal efforts to protect spotted owl in the Pacific Northwest, reducing timber harvest by up to 80%.
- 1994 Everglades Forever Act- restore and Protect Florida Everglades http://www.dep.state.fl.us/secretary/news/2003/april/428_amend.htm
- 1995* Babbitt vs. Sweet Home Chapter of Communities for Greater Oregon, U.S. Supreme Court (515 U.S. 687 (1995)— holds that prohibited “harm” under the ESA “may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing the essential behavioral patterns, including breeding, feeding, or sheltering.” <http://caselaw.lp.findlaw.com/scripts/getcase.pl?court=US&vol=515&invol=687>
- 1995 Santiago, Chile U.N. meeting—develops Santiago Declaration of 7 criteria and 67 indicators for the conservation and sustainable management of temperate and boreal forests
- 1995 Sustainable Forestry Initiative (SFI) forest certification program started by American Forests and Paper Association, a forest industry trade association, as a response to FSC.
- 1996* Sustainable Fisheries Act of 1996 (Public Law 104-297 104th Congress) amends the Magnuson-Stevens Act Fishery Conservation and Management Act – specific stocking objectives, measurable criteria, and management measures to end overfishing <http://www.nmfs.noaa.gov/sfa/>
- 1996 Food Quality Protection Act of 1996 (P.L. 104-70). Overhauled policy regarding pesticides on foods, especially for children and chemicals with estrogenic effects
- 1997* Rio Revisited--Earth Summit + 5 at Kyoto, Japan: agreements on binding actions to limit Global Climate Change
- 1997* Kyoto Protocol developed to reduce Greenhouse Gas (GHG, e.g., CO₂) emissions by 2050; 174 signatories, except U.S., by 2007. Developing countries exempt. <http://unfccc.int/resource/docs/convkp/kpeng.pdf>

- 1997* National Wildlife Refuge System Improvement Act (NWRRIA) of 1997. Required ecological assessment of the landscapes, for use in management plans.
- 2000 Clinton's Committee of Scientists II and NFMA regulations released for national Forest Management Act
- 2000* Clinton/Forest Service protect more than 58 million acres of national forest from road building and most timber harvests; Ecosystem Management required in revised national forest planning regulations
- 2000* The Land, Conservation, Preservation and Infrastructure Improvement Fund – provides \$12 billion in dedicated funding over a six year period for the Land and Water Conservation Fund (LWCF) and other open space, wildlife habitat, wildlands, coastal and marine areas, and recreation programs (CARA Lite).
- 2000-2001* Clinton sets aside 6 million acres of public lands from development under the 1906 Antiquities Act powers
- 2001-2009 George W. Bush, President
- 2001* SWANNC vs. U.S. Army COE (531 U.S. 159 (2001)) – case limits isolated potholes as federal wetlands
<http://www.epa.gov/owow/wetlands/guidance/SWANCC/2001supremecourt.pdf>
- 2001 September 11 – New York and Washington terrorist attacks
- 2001* UN Agreement for the Conservation and Management of Straddling and Highly Migratory Fish Stocks enters into force, laying the ground rules for fisheries in international waters
http://www.un.org/Depts/los/convention_agreements/convention_overview_fish_stocks.htm
- 2002 UNCED II: Johannesburg – Earth Summit- population, developed nations should provide aid to developing ones
- 2002* Farm Bill (Public Law 107-17) reauthorized, with crop payments and conservation components: (1) Environmental Quality Incentives Programs (EQIP); (2) Conservation reserve Program (CRP); (3) Conservation Security Program (CSP); (4) Wetlands Reserve Program (WRP); (5) Farmland Protection Program (FPP); (6) Wildlife Habitat Incentives Program (WHIP); (7) Forest Land Enhancement Program (FLEP); (8) Community and Private Lands Fire Assistance Program (CPLFA). <http://www.usda.gov/farmbill2002/>
- 2002* Small Business Liability Relief and Brownfields Revitalization Act of 2002 (Public Law 107-118). Provided business some relief from CERCLA, and

provided assistance for brownfields reauthorization.
<http://www.epa.gov/brownfields/sblbra.htm>

- 2003-2010 War in Iraq
- 2003* US Navy proposes building an Outlying Landing Field five miles from the Pocosin Lakes National Wildlife Refuge in eastern North Carolina, an overwintering and annual habitat for large numbers of migrating birds
- 2003* Healthy Forest Restoration Act of 2003 (H.R. 1904) – reduce wildfires and develop high priority forest health projects; reduce complexity of environmental analyses; more effective (early) appeals process; guidance for court action against forest health projects; creates a new Categorical Exclusion from the National Environmental Policy Act on all Department of Interior and Forest Service lands by authorizing an unlimited number of projects (up to 1,000 acres each) for all lands that the agencies claim are at risk of infestation by certain insects
<http://www.whitehouse.gov/infocus/healthyforests/>
- 2003 Three Gorges Dam are shut and China's Yangtze River starts filling the reservoir-flooding towns, farmlands, and archaeological sites, and forcing the relocation of 2 million people
- 2004 National Report on Sustainable Forests – 2003 (U.S. Montreal Process report)
- 2004* American Jobs Creation Act of 2004 (H.R. 4520) changes reforestation tax incentives - \$10,000 per year deduction; excess expenses over \$10,000 amortized over 8 tax years. <http://www.govtrack.us/congress/bill.xpd?bill=h108-4520>
- 2005* New National Forest Management Regulations January 5, 2005 – repeals 2000 and 1982 NFMA regulations; makes forest plans strategic, not prescriptive; reduces role of science from best available to a factor of consideration; requires use of ISO 14000 environmental management systems; provides for categorical exclusions of EIS for forest management plans; focuses on ecosystems, not species, and removes species viability requirements.
<http://www.fs.fed.us/emc/nfma/index2.html>
- 2005 On May 13, 2005, the Bush Administration repeals the Clinton Roadless Area Conservation Rule replacing with a voluntary state petition process
<http://roadless.fs.fed.us/documents/m-05/fr-05132005-state-petition.html?WAISdocID=989013494036+121+0+0&WAISaction>
- 2005* Kyoto Protocol to control climate change ratified by enough countries to become effective; U.S perhaps only developed country not to sign eventually
- 2005 Hurricane Katrina, Rita, and Wilma cause destruction and environmental harm to coastal communities in the US Gulf Coast region

- 2005* Energy Policy Act (Pub. L. 109-058 (2005)) – focus on oil exploration and tax incentives and loan guarantees for energy production of various types. Exempts oil and gas projects on public lands and national forests from certain provisions of the Clean Water Act, the Safe Drinking Water Act, and the National Environmental Policy Act
http://www.epa.gov/oust/fedlaws/publ_109-058.pdf
- 2006* Rapanos v. United States (547 U.S. 715 (2006)) & Carabell v. US Army Corps of Engineers (consolidated cases). Supreme Court limits expansive definition of wetlands used by Corps of Engineers / EPA
http://www.epa.gov/owow/wetlands/pdf/Rapanos_SupremeCourt.pdf
<http://www.usdoj.gov/osg/briefs/2005/3mer/2mer/2004-1384.mer.aa.html>
- 2006 World population reaches 6.5 billion
- 2006* Al Gore releases *An Inconvenient Truth*, a documentary on global warming.
- 2006 British Petroleum Alaska oil pipeline spill and rusting pipeline scandal
- 2006* The California Legislature reached an agreement with Governor Arnold Schwarzenegger to reduce the state's greenhouse-gas emissions, which rank at 12th-largest in the world, by 25% by the year 2020. This resulted in the Global Warming Solutions Act, putting California in line with the Kyoto limitations, but at a date later than the 2008-2012 Kyoto commitment period.
- 2006* Magnuson-Stevens Fishery Conservation and Management Act reauthorized. The eight national Oceanic and Atmospheric Administration (NOAA) regional fishery councils must set catch limits; follow advice of their scientific committees; and prevent continued overfishing within 2 years after a species is determined to be overfished. This act also calls for increased international cooperation.
<http://www.nmfs.noa>
http://www.nmfs.noaa.gov/msa2005/docs/MSA_amended_msa%20_20070112_FINAL.pdf (full text of Magnuson Act)
- 2006* June 2006- Bush uses the Antiquities Act (16 USC 431-433) to create the Northwestern Hawaii Islands Marine National Monument, the world's largest marine protected area
<http://www.nps.gov/history/local-law/anti1906.htm>
- 2006 Federal District Court in California orders reinstatement of the Clinton era roadless rule covering 50 million acres of wild national forests and grasslands; except does not apply to Tongass National Forest in Alaska.
- 2007* Eight Northeastern US states are involved in the Regional Greenhouse Gas Initiative (RGGI) which is a state level emissions capping and trading program.

- 2007* Massachusetts v. Environmental Protection Agency (2007). The 5-4 majority report stated that the Clean Air Act does give the EPA the authority to regulate tailpipe emissions of greenhouse gases, and the EPA's current rationale for not regulating was found to be inadequate, and a scientific basis is now required, if EPA holds that greenhouse gases do not contribute to global warming. The court commented that "'greenhouse gases fit well within the Clean Air Act's capacious definition of air pollutant."
- 2007* Framework Convention on Climate Change meeting in Bali. (1) Recognizes that "deep cuts – 25% to 40% -- on global emissions of greenhouse gases needed to prevent dangerous human interference in the climate. Negotiators should seek binding reductions of GHG for industrialized countries; developing countries should consider ways to limit emissions; richer countries should transfer climate-friendly technology and help poor countries adjust. Focus on reducing emissions from deforestation – focus on "REDD" – reduced emissions from deforestation and forest degradation. http://unfccc.int/meetings/cop_13/items/4049.php
- 2007 Court rules (*Citizens for Better Forestry v. U.S. Dep't of Agric.*, F. Supp.2d, 2007 WL 966985 (N.D. Cal. Mar. 30, 2007)) against 2005 FS NFMA regulations, stating that they violate (1) NEPA by not analyzing environmental impacts and categorically excluding the regulations from NEPA; (2) the ESA for failure to consult with fish and wildlife agencies; and (3) the Administrative procedures Act, for failure to provide sufficient public notice and input. <http://www.martenlaw.com/news/?20070425-forest-planning-rules>
- 2007* Gore awarded the Nobel Peace Prize (jointly with the Intergovernmental Panel for Climate Change) for *An Inconvenient Truth* and related climate change efforts http://nobelprize.org/nobel_prizes/peace/laureates/2007/
- 2009-2017 Barack Obama, President
- 2008 January 22, 2008, US Navy senior leaders announce all the sites previously studied, including the NC Pocosin site, were no longer under consideration for its landing field. Navy narrowed its focus for new locations to three sites in Virginia and two in North Carolina. http://nc.audubon.org/Issues_OLF.html
- 2008 May 15: Polar Bear is listed as Threatened under the Endangered Species Act, the first animal to be listed under the ESA primarily because of global warming. The interior department also issued special rules designed to exempt from the law offshore oil and gas drilling in prime polar bear habitat off Alaska's north coast. Opposed by Governor Sarah Palin. http://alaska.fws.gov/fisheries/mmm/polarbear/pdf/Polar_Bear_Final_Rule.pdf
- 2008* Farm Bill passed, or Food, Conservation, and Energy Act of 2008. (1770 pages) Program with a host of farm, forestry, wildlife, conservation, tax, and energy

provision. Largest single conservation program affecting private lands in the U.S
<http://www.usda.gov/wps/portal/farmbill2008?navid=FARMBILL2008>

Lacey Act Amendment – prevents import or purchase of plants, timber in violation of international or national laws. E.g., Gibson guitar prosecution. Conservation Programs (Title II) authorize many ongoing programs

- 2008* Wildlife Use Value Assessment – North Carolina passes law allowing reduced use value assessment for wildlife conservation purposes, in addition to agricultural and timber purposes.
- 2010 April 20. BP Deepwater Horizon oil well explodes, catches fire, and sinks in the Gulf of Mexico, killing 11 and damaging much wildlife and Gulf beaches.
- 2010 UN Cancun Climate Change Meeting – All countries, including U.S., agreed that on rich countries to help poor, REDD, process to set GHG emission standards.
- 2013* U.S Supreme Court rules that forest roads are not point sources of pollution.
- 2014* U.S Supreme Court rules that EPA has authority to regulate CO2 emissions under the Air Quality Act, as a pollutant that is changing climate
- 2015* Paris Agreement (COP 21), on 12 December 2015. Parties to the UNFCCC reached a landmark agreement to combat climate change and to actions and investments needed for a sustainable low carbon future. The Paris Agreement builds upon the Climate Convention and brings all nations into a common cause to combat climate change and adapt to its effects, with enhanced support to assist developing countries to do so. Supported by U.S. (<https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement>)
- 2015* Obama, President of the United States (POTUS) and EPA release the Clean Power Plan to address climate change, help implement Paris Accord, and respond to Supreme Court climate / air pollution decisions. Opposed by many court cases.
- 2015* EPA releases Waters of the United States (WOTUS) / Clean Water Rules to clarify wetlands and streams and extent of federal jurisdiction. Also immediately opposed in many court cases, which will be consolidated, perhaps for SCOTUS.
- 2016-2018* Trump Elected President—president and administration terminate WOTUS implementation, and initiates new clean water rule making process; terminates Clean Power Plan; withdraws U.S. from Paris Climate Accord participation; eases rules on energy company operations that release methane; cancels more rigorous rules for energy efficient cars and trucks; expedites leasing of federal USDI and USA lands; rolls back environmental rules: extensive but probably partial list at: <https://news.nationalgeographic.com/2017/03/how-trump-is-changing-science-environment/>. Business prospers; stock markets reach record highs; unemployment reaches modern low level.

- 2017 Hurricane Harvey dumps up to 50 inches of rain on Houston; Hurricane Maria devastates Puerto Rico, leading to ~2900 deaths
- 2018 9 August: New Affordable Clean Energy (ACE) Plan rules released, replacing Clean Power Plan, encouraging burning of coal via less regulations; ~10 September—administration eases rules preventing methane release for energy companies
- 2018 13-15 September: Hurricane Florence pummels the Carolinas, whose severity presumably stems from warm waters and climate change; destroys beaches, forests, causes extensive flooding.

Table 13-1. Summary of Major Federal Environmental Laws and Amendments, 1969-2015

Legislation	Year(s) Enacted & Amended	Current Implementing Agency	Focus
Administrative Procedures Act (APA)	1946	All federal agencies	Rigorous process for federal rule making, public comment, science basis, lawsuits
National Environmental Policy Act (NEPA) PL 91-190	1969	All federal agencies	Requires environmental assessments and impact analyses for “major” federal projects
Resources Recovery Act PL 91-512	1970	EPA	Solid waste management / disposal
Clean Air Act (CAA) PL 91-604	1970 1977 1990	EPA	Point source and vehicle air quality standard and emission limits; state implementation plans; later added more listed pollutants and cap-and-trade to control acid rain
Clean Water Act (CWA) PL 92-500	1972 1977 1987	EPA	Water quality goals and standards, control of point and nonpoint source pollution, wetlands protection, state planning and assistance
Federal Environmental Pesticide Act (FEPCA) PL 92-516	1972 1996	EPA	Registration of all pesticides, licensed applicators, reasonable risk standards
Marine Mammal Protection Act PL 92-532	1972	EPA	Regulated dumping of wastes into ocean and coastal waters
Coastal Zone Management Act PL 92-583	1972	Department of Commerce	Federal guidelines and grants to states for planning
Endangered Species Act (ESA) PL 93-205	1973	FWS, Interior/ NMFS, Commerce	Identification, protection and recovery of threatened and endangered species
Safe Drinking Water Act PL 93-523	1974 1986 1996	EPA	Drinking water standards; state programs to protect underground water supplies

Magnuson-Stevens Fishery Conservation and Management Act PL 94-265	1976 1996 2006	Department of Commerce	Goals for protecting ocean fishes, quotas to protect fisheries, advisory councils, scientific committees
Toxic Substances Control Act (TSCA); PL 94-469	1976	EPA	Testing and ban of dangerous chemicals, prohibited PCBs
Resource Conservation and Recovery Act (RCRA); PL 94-580	1976 1984	EPA	Hazardous waste treatment, storage, transportation, recycling
Surface Mining and Control Act PL 95-87	1977	Department of the Interior	Environmental controls on strip mining, land reclamation
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); PL 96-510	1980 1986 1990	EPA	Hazardous waste, dump site clean-up, "Superfund", cleanup liability
Nuclear Waste Policy Act PL 100-203	1982 1987	Department of Energy	Plans for permanent disposal of high-level nuclear waste
Global Climate Protection Act PL 100-204	1988	State Department	Federal strategy for responding to climate change threats
Ocean Dumping Act PL 100-688	1988	EPA	Control of ocean dumping sources and permit requirements
Oil Pollution Act of 1990 PL 101-380	1990	Departments of Transportation & Commerce	Oil spill cleanup and costs
Energy Policy Act PL 102-486	1992 2005 2007	Department of Energy	Domestic, nuclear, and renewable energy, subsidies, environmental regulation exemptions
Omnibus Water Act PL 102-575	1992	Department of the Interior	Western water projects, allocation, and rights, wildlife protection
Small Business Liability Relief and Brownfields Revitalization Act PL 107-118	2002	EPA	Amended CERCLA for revitalization of old industrial sites

Source: Cabbage et al. 2017; Vig and Kraft 2002

Sources: Adapted and updated from Dana and Fairfax (1980): Forest and Range Policy; Cabbage et al. (1993): Forest Resource Policy; Miller (1997): Living in the Environment; Klyza and Sousa (2008); Vig and Kraft 2003; and current events and reports; Bryon, Bill. 1994. Made in America: an informal history of the English language in the United States. William Morrow.

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