

Appendix 1

Chronological Summary of Important Events in the Development of Colonial and Federal Policies Relating to Forest and Range Policy

This summary includes only the major features of the events listed. Items of particular interest from the standpoint of forest and range policy are treated at greater length in the text.

1609

First shipment of masts from the colonies was sent from Virginia to England.

1626

Plymouth Colony forbade the selling or transportation of timber out of the colony without the approval of the governor and council.

1631

First commercial sawmill in the colonies was probably established at Berwick, Maine. (Claim of a sawmill at York, Maine, in 1623 is poorly substantiated.)

1631

Massachusetts Bay Colony forbade the burning of any ground prior to March 1. Subsequent legislation in Massachusetts and other colonies forbade burning at other times and specifically recognized damage by fire not only to timber but also to young growth, soil, and domestic stock.

1651

First of the Navigation Acts attempting to limit English and colonial trade to ships of English registry and to channel raw materials from the colonies to England to pay for British manufactures was passed.

1668

Massachusetts reserved for the public all white pine trees fit for masts in certain parts of the town of Exeter.

1681

William Penn provided that for every 5 acres of forest cleared 1 acre should be kept in trees.

1691

William and Mary in a new charter creating the Province of Massachusetts Bay forbade the cutting, without permission of the British government, of all trees 24 inches or more in diameter at 12 inches from the ground growing on land not theretofore granted to a private person, under penalty of £100. This became known as the Broad Arrow policy because of the practice of marking trees reserved under it for the use of the Crown with the broad arrow of sovereignty.

1704

Bounties were offered for naval stores and masts shipped to England, and these items were put on the enumerated list under the Navigation Acts. The law also placed a penalty on injuring pitch pine through fire or cutting.

1705

The British Parliament prohibited the felling of all "Pitch Pine and Tar Trees" less than 12 inches in diameter and not growing on private property in the various colonies.

1708

New Hampshire enacted legislation embodying the British Broad Arrow policy of 1691.

1711

Broad Arrow policy was extended to include all white pine trees fit for masts 24 inches or more in diameter at 12 inches from the ground, and not private property, anywhere in New England, New York, and New Jersey. A penalty of £5 was provided for unlawfully marking any tree with the broad arrow.

1721

Broad Arrow policy was broadened to forbid the cutting of any white pine trees not growing within a township, from Nova Scotia to New Jersey, under penalties ranging from £5 to £50.

1729

Broad Arrow policy was reenacted with somewhat stricter provisions as to what constituted private land and with better machinery for enforcement and was extended to every part of America which belonged to Great Britain or should thereafter be acquired. It remained in effect in this form until the Revolution. The act also reduced somewhat the bounties on naval stores provided by the act of 1704.

1739

Massachusetts undertook to check the encroachment of sand dunes at Truro and on Plumb Island in Ipswich Bay by regulating timber cutting, grazing, and burning. Later acts applied to other parts of Cape Cod.

1743

New York authorized anyone to call for help in fighting forest fires in certain counties.

1744

Massachusetts authorized groups of five or more owners in the town of Ipswich to apply for the establishment of a common woods. If two-thirds of the proprietors within the proposed limits approved, all of the lands involved became subject to the joint control and management of the proprietors.

1752

Connecticut forbade appropriation by others than their owners of logs and other forest products being floated down the Connecticut River. This action was followed by similar legislation in other colonies and states, which led to abandonment of the English common law that only tidal streams are navigable and substitution therefore of the doctrine that any stream which will float a log or boat is navigable and consequently a public highway.

1772

New York forbade the bringing to Albany for fuel of more than six pieces of wood per load under 6 inches in diameter at the large end for pine and under 4 inches for other species.

1776

Continental Congress offered land bounties to deserters from the enemy army and to soldiers who should serve throughout the war.

1780

Continental Congress resolved that lands ceded to the United States should be used for the common benefit of all the states.

1781

New York ceded its western lands to the federal government. Virginia, Massachusetts, Connecticut, South Carolina, North Carolina, and Georgia presently followed suit, the last cession being made by Georgia in 1802. The 233 million acres included in these cessions started the public domain.

1783

Massachusetts passed an act substantially equivalent to the Broad Arrow policy of the British.

1785

Ordinance of May 20 provided for the rectangular system of survey of the public lands. After survey, the lands were to be sold at auction for cash to the highest bidder at not less than \$1 per acre. Sections 8, 11, 26, and 29 were reserved for later disposal by the government, and section 16 for common-school purposes. Reservation was also made of one-third of all gold, silver, lead, and copper mines to be sold or otherwise disposed of as Congress should direct.

1787

Ordinance of April 21 provided that one-third of the sale price of public lands should be paid immediately and the balance in three months.

1788

First patent to public land was issued by the government on March 4.

1789

Constitution provided (Art. 4, Sec. 3) that "the Congress shall have Power to dispose

of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States." This provision has been repeatedly interpreted by the Supreme Court (14 Peters 526, 13 Wallace 92, and other cases) as giving Congress complete control over the public domain.

1796

Congress provided for a Surveyor General and gave directions for applying the rectangular system of survey adopted in 1785. Sales were to be made at auction to the highest bidder, with a minimum price of \$2 per acre, payable in full within one year. All navigable streams within the territory covered by the act were declared to be public highways.

1799

Congress appropriated \$200,000 for the purchase of timber or of lands on which timber suitable for purposes of naval construction was growing and for the preservation of such timber for future uses.

1802-1803

Acts providing for organization of the state of Ohio granted section 16 in each township to the state for school purposes. Ohio was also granted 3 percent of the net proceeds from all sales of public lands within the state for the construction of roads, and 5 percent of the net proceeds was to be used by Congress for the construction of roads leading to and through the state. In return, Ohio agreed to exempt from taxation all land sold by the government for five years from the date of sale.

1803

Louisiana Purchase added 523 million acres to the public domain.

1804

Congress reduces the minimum area of public lands offered for sale to a quarter section (160 acres). The minimum price of \$2 per acre was retained, but no interest was to be charged on deferred payments unless they became delinquent. Section 16 in each township and all salt springs were reserved for educational purposes, but the other four sections near the center of each township previously reserved were now to be sold.

1807

Act of March 3 forbade anyone to settle on or occupy the public lands until authorized by law. The President was authorized to direct the marshal to remove trespassers and to take such other measures and to use such military force as necessary for the purpose.

Lead mines in Indiana Territory reserved for future disposal and authorized the President to lease such mines for terms not exceeding five years.

1811-1812

Acts admitting Louisiana to the Union granted the state 5 percent of the net proceeds from the sale of public lands for the construction of roads and levees. Lands sold by the government were to be exempt from taxation for five years, and lands belonging to nonresident citizens were never to be taxed higher than those belonging to residents.

1812

General Land Office established in the Treasury Department.

1816

Act of April 19 admitting Indiana to the Union, in addition to the usual provisions concerning school lands and exemption from taxation, reserved 5 percent of the net proceeds from the sale of public lands for the construction of public roads and canals; of this amount, three-fifths was to be spent by the state and two-fifths by Congress for the construction of roads leading to the state. An additional township, to be designated by the President, was reserved for a seminary of learning.

1817

Secretary of the Navy authorized to reserve from sale public lands containing live oak and red cedar for "the sole purpose of supplying timber for the navy of the United States." Administration of the reserves was under the Navy Department.

1819

Florida purchase adds 43 million acres to the public domain.

1820

Act of April 24 provided that public lands should thereafter be offered at public sale to the highest bidder in half-quarter sections (80 acres); reduced the minimum price to \$1.25 per acre; and required full payment at the time of sale. Private sale (at not less than the minimum price) of lands unsold at public auction was authorized.

1821

Attorney General ruled that under the act of 1807 timber trespassers on public lands could be removed by military force and subjected to fine and imprisonment.

1823

Ohio granted a right of way 120 feet wide, together with a strip of land 1 mile in width on each side, to aid in the construction of a wagon road from the lower rapids of the Miami River to the western boundary of the Connecticut Western Reserve. The road was to be completed in four years, and none of the land was to be sold for less than \$1.25 per acre.

1824

Army Corps of Engineers assigned responsibility for the handling of internal improvements, including improvement of rivers and harbors. The first act dealing only with rivers and harbors was passed in 1826.

1827

Illinois and Indiana granted land for canal construction equal to one-half of five sections in width on each side of proposed canals in the two states, reserving each alternate section to the United States. The canals were to be free public highways for the use of the United States.

President authorized to take proper measures to preserve the live oak timber growing on the lands of the United States and to reserve from sale public lands which contain timber valuable for naval purposes.

1828

Naval Appropriations Act appropriated not more than \$10,000 for the purchase of lands necessary to provide a supply of live oak and other timber for the Navy. This was for the Santa Rosa naval timber reserve and experiment station.

Henry M. Brackenridge, in a letter to Secretary Southard of the Navy Department, discussed the culture of live oak in one of the first American papers on silviculture.

Alabama granted 400,000 acres for improvement of navigation on the Tennessee River to be sold at the minimum price charged for public lands. Subsequent grants for river improvement were made to Wisconsin and Iowa in 1846.

1830

Preemption rights granted for one year to settlers on the public lands. Such settlers, on proof of settlement or improvement, might purchase not more than 160 acres on payment of the minimum price of \$1.25 per acre; but the act was not to delay the regular sale of any of the public lands, and preemption rights were not transferable. Temporary preemption laws were also enacted in 1832, 1833, 1838, and 1840. Numerous laws relating to preemption in restricted localities and for specified purposes had been passed prior to 1830.

1831

Fine imposed of not less than three times the value of the timber and imprisonment for not more than twelve months (1) on anyone who should unlawfully cut or remove any live oak, red cedar, or other timber from lands reserved or purchased for the use of the Navy and (2) on anyone who should cut or remove any live oak, red cedar, or

other timber from any other lands of the United States without written authorization or with intent to export it or use it for any other purpose than for the Navy of the United States.

1832

Minimum size of tracts offered at private sale reduced to 40 acres.

Hot springs in Arkansas reserved from entry, together with four sections of land surrounding them, for future disposal by the United States.

Last of the laws providing relief for settlers who had purchased lands under the credit system passed.

1835

From 1835 on, Congress frequently granted to railroads a free right of way through public lands. The privilege was made general in 1852.

1836

Specie Circular of July 11 required local land officials to accept only gold and silver in payment for public land, except for actual settlers buying not more than 320 acres.

1841

Act of September 4 covered three important points:

1. It granted 10 percent of the net proceeds from the sale of public lands in Ohio, Indiana, Illinois, Alabama, Missouri, Mississippi, Louisiana, Arkansas, and Michigan to the state concerned. The balance was to be distributed quarterly to the states, the District of Columbia, and the territories of Wisconsin, Iowa, and Florida for use as the legislatures might direct. Distribution was, however, to cease in case of war, if the minimum price of public lands was increased above \$1.25 per acre (except in alternate sections), or if the duties fixed by the act of March 2, 1833, were raised above 20 percent.

2. For purposes of internal improvement 500,000 acres were granted to each of the nine states named above and to such new states as might later be admitted to the Union. Grants already received from the federal government were to be deducted from this figure. The lands were to be disposed of by the states for not less than \$1.25 per acre and the proceeds used only for internal improvements.

3. The preemption privilege was made general by providing that every head of a family, widow, or single man over twenty-one years of age who was a citizen of the United States or had declared his intention to become a citizen could settle upon and purchase at the minimum price of \$1.25 per acre not more than 160 acres of surveyed, nonmineral, unoccupied, and unreserved public lands, subject to certain restrictions. Preemptors must inhabit and improve the land and must swear that the land was being taken up for their own exclusive use and benefit. Final proof of settlement and habitation had to be made within one year of the date of settlement, but preemption was not to delay the regular sale of any of the public lands of the United States.

1842

A forerunner of the Homestead Act offered to donate lands in Florida to actual settlers in lots of 160 acres up to a grand total of 200,000 acres.

Distribution to the states of proceeds from the sale of public lands was suspended and never resumed.

1843

The Senate asked the Secretary of the Navy for any evidence "that depredations of a most ruinous kind are being daily committed on the navy timber."

Reservations of live oak lands in Louisiana opened to settlement. The last disposal of these reservations was made in 1923.

1845

Joint Resolution of March 1 consented to the annexation of Texas, which had been an independent republic since 1836, with the provision that it should retain control of its public lands.

1846

Treaty of June 15 with Great Britain confirmed the claim of the United States to some 181 million acres of territory embracing the present states of Oregon, Washington, and Idaho, and parts of Montana and Wyoming and defined the northern boundary of the territory.

Public sale of reserved lead mines in Illinois, Arkansas, Wisconsin, and Iowa at not less than \$2.50 per acre authorized.

Commissioner of the General Land Office authorized to sell isolated or disconnected tracts of unoffered lands without the formality of a proclamation by the President.

Grant of public lands to Wisconsin for the construction of the Wisconsin-Fox River Canal, inaugurated the policy of charging the "double minimum" price of \$2.50 per acre for land in the alternate sections retained by the government.

1847

All states admitted to the Union prior to 1820 authorized to tax all public lands from and after the day of their sale, provided that lands belonging to citizens living outside the states were never to be taxed higher than those belonging to persons residing therein.

1847

Lake Superior district in Michigan and the Chippewa land district in Wisconsin established for purposes of mineral survey and authorized sale in quarter sections, after six months' notice, of lands containing copper, lead, or other valuable ores at a minimum price of \$5 per acre.

1848

Treaty with Mexico added 335 million acres to the public domain.

Beginning with the act establishing the territorial government of Oregon, sections 16 and 36 in each township were reserved for school purposes.

American Association for the Advancement of Science organized.

1849

Swampland Grant Act granted to Louisiana all of the swamp and overflowed lands in that state unfit for cultivation, with the proviso that the proceeds should be used exclusively, as far as necessary, for the construction of levees and drains.

Department of the Interior created. Secretary has responsibility for administering the public lands (except reservations administered by another department, such as the naval-timber reserves). The new department acquired the General Land Office, Indian Affairs, and the Patent Office (in which the government's agricultural services were then carried on) by transfer from the Treasury Department, War Department, and State Department, respectively.

1850

Seventy-nine million acres added to the public domain by purchase from Texas.

The first of the railroad land grants, granted to the states of Illinois, Alabama, and Mississippi, to aid in the construction of the Illinois Central Railroad (which was privately built): (1) a right of way not over 200 feet wide; (2) free use of construction material, such as earth, stone, and timber; and (3) every alternate section of land designated by even numbers of six sections in width on each side of the road, with the right to make lieu selections in place of alienated lands to a distance of not more than 15 miles from the road. The alternate sections retained by the government were to be sold at not less than \$2.50 per acre. Property and troops of the United States were at all time to be transported over the railroad free of charge, and the mails at such rates as Congress might fix.

1850

Alabama, Arkansas, California, Florida, Illinois, Indiana, Iowa, Michigan, Mississippi, Missouri, Ohio, and Wisconsin granted all of the swamp and overflowed lands in those states, under conditions similar to those contained in the grant to Louisiana.

Special agents were appointed, probably for the first time, to suppress timber trespass on the public lands generally.

1852

Railroads already chartered or to be chartered within ten years granted free right of way through public lands together with free use of timber and other construction materials.

1853

Sale of red cedar lands in Alabama that had been reserved for naval purposes in 1817 authorized.

Gadsden Purchase of December 30 added 19 million acres to the public domain.

1854

Graduation Act reduced the price of land according to the time it had been on the market, with a minimum of 12.5 cents per acre after thirty years. The act did not apply to alternate sections in grants made for internal improvements or to mineral lands held at more than \$1.25 per acre. Purchasers had to swear that they were acquiring the land for their own use and for the purpose of actual settlement and cultivation.

1855

Responsibility for prevention of timber trespass was transferred from special agents to the local land offices.

1860

Provisions of the swampland grants extended to Minnesota and Oregon.

1862

Department of Agriculture (not of cabinet rank), headed by a Commissioner of Agriculture, established.

1862

Homestead Act of authorized any person who was head of a family or over twenty-one years of age, and who was a citizen of the United States or had declared an intention

to become such, to enter upon not more than 160 acres of unappropriated land subject to preemption and sale at a minimum price of \$1.25 per acre, or not more than 80 acres subject to sale at a minimum price of \$2.50 per acre. Free patent could then be secured by the settler for his exclusive use and benefit on proof that he had resided upon or cultivated the land for five years, provided that if he should actually change his residence during that period or should abandon the land for more than six months at any one time, it was to revert to the government. Commutation, or purchase of the land at its regular price, was possible at any time after six months from the date of filing.

Preemption Act extended to unsurveyed lands in all the public land states and territories and repealed the Graduation Act of 1854.

Union Pacific and Central Pacific railroads granted alternate, odd-numbered sections of land for 10 miles on each side of the road. This distance was increased to 20 miles in 1864. Mineral lands were not included, but the amendments in 1864 excluded coal and iron land from this category. Government mails, troops, and supplies were to be transported at fair and reasonable rates. Three years after completion of the roads any lands remaining were to be subject to preemption by settlers and sold to them for not more than \$1.25 per acre. The price of the sections retained by the government was not increased.

Morrill Act granted to each state 30,000 acres of nonmineral public land (with minimum price of \$1.25 per acre) for each senator and representative to which it was entitled under the census of 1860. The proceeds were to be invested in a permanent fund and the interest used for the establishment of colleges of agriculture and the mechanic arts. States without public lands were given an equivalent amount of scrip, purchasers of which were not to take up more than a million acres in any one state.

1864

Man and Nature by George Perkins Marsh published.

Yosemite Valley and the Mariposa Big Tree Grove granted to California to be held forever "for public use, resort, and recreation."

Act of July 1 provided for the sale of coal lands in the public domain at auction at a minimum price of \$20 per acre.

Northern Pacific Railroad granted alternate, odd-numbered sections of nonmineral land for 40 miles on each side of the road in the territories traversed, and half that amount in the states. Lieu lands could be selected within 10 miles of the outer limit of the primary grant. The price of the alternate sections retained by the government

was raised to \$2.50 per acre. Five years after completion of the road, the railroad was required to sell all unmortgaged lands still in its possession for not more than \$2.50 per acre. Transportation of government mails, troops, and supplies was to be furnished under regulations imposed by Congress.

1866

All lands in Alabama, Mississippi, Louisiana, Arkansas, and Florida withdrawn from disposal except under the Homestead Act.

California and Oregon Railroad Company granted alternate, odd-numbered sections of nonmineral public land to a distance of 20 miles on each side of the road. Property and troops of the United States were to be transported without charge.

Congress declares that mineral lands of the public domain, both surveyed and unsurveyed, should be free and open to exploration and occupation by citizens of the United States or those who had declared their intention to become citizens. Lode mines could be purchased for \$5 per acre if the claimant had occupied them according to local mining rules and had expended as much as \$1000 in labor and improvements.

Right of way for the construction of ditches and canals across public lands granted to persons having rights to the use of water for mining, agricultural, manufacturing, or other purposes.

Grants made to the Atlantic and Pacific Railroad (now the Atchison, Topeka, and Santa Fe) and to the Southern Pacific Railroad similar in amount to the grant to the Northern Pacific Railroad.

1867

Alaska purchased from Russia, adding 365 million acres to the public domain.

1869

To aid in the construction of a military wagon road from Coos Bay to Roseburg, Oregon granted the odd-numbered sections of nonmineral land to 6 miles on each side of the road, which was to be a public highway for the free transportation of property, troops, and mails of the United States.

John Wesley Powell explores the Colorado River.

1870

Act provides for the sale of placer mines at \$2.50 per acre in tracts not exceeding 160 acres.

1871

Joint Resolution of February 9 authorized the President to appoint a civil officer of the government as Commissioner of Fish and Fisheries to study problems relating to the conservation of the food fishes of the coast and lakes of the United States. Deficiency Appropriations Act of May 18 appropriated \$3500 for the work.

\$5000 appropriated for the fiscal year 1872 for the protection of timberlands in naval timber reservations. The last appropriation for this purpose was for the fiscal year 1876.

The last railroad land grant, to the Texas Pacific Railroad Company, made March 3.

1872

Yellowstone National Park reserved "as a public park or pleasuring-ground for the benefit and enjoyment of the people."

Arbor Day was first celebrated in Nebraska on April 10 at the instance of J. Sterling Morton, later Secretary of Agriculture.

Mineral lands constituted as a distinct class and their survey and sale provided for at \$2.50 per acre for placer mines and at \$5 per acre for lode mines.

\$10,000 appropriated for the protection of public timberlands in general from trespass and fraud.

1873

Lands containing iron, coal, or any other minerals in Michigan, Wisconsin, and Minnesota excluded from the provisions of the Mineral Act of 1872 and opened them to exploration and purchase as before the passage of that act.

Timber Culture Act offered to donate 160 acres of public land to any person who would plant 40 acres to trees, not more than 12 feet apart each way (302 per acre), and keep them in a growing and healthy condition by cultivation for a period of ten years. Any homesteader who should, at the end of three years, submit satisfactory proof of having had under cultivation for two years 1 acre of trees for each 16 acres in his homestead claim was entitled to receive a patent at once, the planting and cultivation of the trees being accepted in lieu of the additional two years' residence required by the Homestead Act of 1862.

American Association for the Advancement of Science passed a resolution favoring the creation of federal and state forestry commissions and appointed a committee with Franklin B. Hough as chairman to follow the matter up.

1874

Timber Culture Act amended by limiting it to heads of families or persons over twenty-one years of age who were citizens or had declared their intentions to become citizens and by reducing the period of cultivation to eight years. A person entering a quarter section had to plow 10 acres the first year, 10 acres the second year, and 20 acres the third year, and to plant 10 acres the second year, 10 acres the third year, and 20 acres the fourth year, with proportional acres for smaller claims.

Land grant railroads allowed to make lieu selections for land found to be in the possession of actual settlers.

President Grant in a special message to Congress called attention to the urgent need for forest protection and transmitted a draft of proposed legislation on the subject.

Report by William H. Brewer of Yale University, *The Woodlands and Forest Systems of the United States*, was published in the "Statistical Atlas of the Ninth Census."

1875

Railroads granted free rights of way through public lands and the use of timber and other materials for construction purposes.

1875

The American Forestry Association was organized.

1876

Timber Culture Act amended by extending for one year the period during which cultivation and planting must be accomplished for each year that the trees were destroyed by grasshoppers or other inevitable causes. Planting of seeds, nuts, and cuttings was declared to constitute compliance with the law.

A rider on the Appropriations Act of August 15 appropriated \$2000 for the employment by the Commissioner of Agriculture of an expert to study and report upon forest conditions. Franklin B. Hough was appointed.

A forest reserve bill was introduced by Representative Fort of Illinois but received no action.

Appalachian Mountain Club founded as major New England hiking and conservation group.

1877

Act provided that saline lands which had been reserved for granting to the states on their admission to the Union were to be examined and offered for sale at public auction at not less than \$1.25 per acre if found to be actually saline.

1877

Entomological Commission established in the Department of the Interior. It was transferred to the Department of Agriculture in 1881.

Desert Land Act provided for the sale in eleven Western states and territories of 640 acres of nontimber, nonmineral land unfit for cultivation without irrigation to any settler who would irrigate it within three years after filing. A payment of 25 cents per acre was to be made at the time of filing and \$1 per acre at time of final proof.

The system of special agents to check timber trespass on the public domain was revived and expanded under Carl Schurz, Secretary of the Interior, and J. A. Williamson, Commissioner of the General Land Office.

1878

John Wesley Powell's *Report on the Lands of the Arid Region of the United States* published.

Free Timber Act provided that residents of Colorado, Nevada, New Mexico, Arizona, Utah, Wyoming, Dakota, Idaho, or Montana might cut timber on public mineral lands for building, agricultural, mining, or other domestic purposes, subject to such regulations as the Secretary of the Interior might prescribe. This privilege was later extended in acts of 1891, 1893, and 1901.

Timber and Stone Act provided for the sale in Washington, Oregon, California, and Nevada of 160 acres of surveyed, nonmineral land, chiefly valuable for timber or stone and unfit for cultivation, which had not been offered at public sale, for not less than \$2.50 per acre. The purchaser had to swear that the land was being acquired solely for his own use and benefit. In 1892 the provisions of this act were extended to all the public land states. In the states concerned, the act also forbade the unlawful cutting or wanton destruction of timber on any public lands or its removal for export or other disposal; granted permission to miners and farmers to clear land and to use such timber as necessary for improvements; relieved trespassers who had not exported the timber from the United States from further prosecution on payment of \$2.50 per acre for the timber; and directed that all moneys collected should be covered into the Treasury of the United States.

Congress reduced the area to be planted under the Timber Culture Act to not less than one-sixteenth of the amount entered for areas of not less than 40 acres. The number of trees to be planted was increased to 2700 per acre, of which 675 had to be living at the time of final proof. An extension of one year in the cultivation and planting was allowed for each year the trees were destroyed by grasshoppers or drought.

1879

Sundry Civil Appropriations Act of March 3 created both the Geological Survey and the Public Land Commission. A preliminary report by the commission, submitted in 1880, offered a proposal for the classification of the public lands and recommended sale of timber without the land and formulated a number of concepts which continue to be the core of government conservation programs.

United States Circuit Court (5 Dillon 405) ruled that the trespass acts of 1831 and 1859 did not apply to Indian reservations, since these are not "lands of the United States."

1880

Timber trespassers on the public lands prior to March 1, 1879 relieved from both civil and criminal prosecution on payment of \$1.25 per acre.

1881

The forestry work started by Hough in 1876 was organized as a separate division under the Commissioner of Agriculture.

1882

American Forestry Congress met in Cincinnati in April, absorbed Dr. Warder's American Forestry Association in August, and in 1889 assumed that name.

F. B. Hough started the *American Journal of Forestry*, which ran from October, 1882, to September, 1883.

1884

Alaskan "Organic Act" established civil government, with schools and federal courts, for Alaska and provided that native land claims would be treated in subsequent legislation.

1885

Act of February 25 forbade fencing of the public domain and authorized the destruction of illegal enclosures.

Funds "for the promotion of economic ornithology" by the Entomological Division included in Agricultural Appropriations Act.

1886

Division of Economic Ornithology and Mammalogy in the Department of Agriculture established.

1886

Congress gave forestry statutory recognition as a distinct division of the Department of Agriculture. Bernhard E. Fernow took charge.

1887

Hatch Act provided for financial assistance to states in the establishment of agricultural experiment stations.

Boone and Crockett Club, major sports organization which included most early conservation leaders among its members, founded.

1888

At John Wesley Powell's urging, Congress provided for a survey of the public lands suitable for irrigation and directed that all lands selected as sites for reservoirs, canals, and ditches and all lands thereby made susceptible of irrigation should be withdrawn from entry. Powell was in charge.

1889

Act provided for the cession to the government of lands in the Chippewa Indian Reservation in Minnesota and for the sale of land and timber under government supervision, with the proceeds going into a permanent fund for the benefit of the tribe.

President authorized to permit Indians to cut and sell dead timber on Indian reservations, provided the timber had not been intentionally killed.

Department of Agriculture, headed by the Secretary of Agriculture, got cabinet rank.

President authorized to reserve the land containing the Casa Grande Ruin in Arizona, which thus became the first prehistoric site reservation.

1890

Powell went too far, and Congress repealed that part of the 1888 act relating to the withdrawal from entry of irrigable lands and of sites for canals and ditches, but permitted the continued withdrawal of sites for reservoirs. The act also forbade anyone to acquire title to a grand total of more than 320 acres of public land, thus cutting in half the amount previously available under the Desert Land Act of 1877.

Second Morrill Act provided for additional assistance to land-grant colleges out of proceeds from the sale of the public lands. An amendment in 1903 provided that in case these proceeds were insufficient to meet the amount appropriated, it should be paid from the Treasury.

1890

Big Tree National Park set apart as a public park, or pleasuring ground.

Act of Congress forfeited and restored to the public domain all land in grants adjacent to the uncompleted sections of railroads to which grants had been made.

Yosemite National Park and General Grant National Park set apart "as forest reservations."

1891

Act of Congress repealed the Timber Culture Act and the Preemption Act; put a stop to auction sales of public lands except isolated tracts and abandoned military and other reservations; tightened up the requirements for improvement and cultivation under the Desert Land Act of 1877, and extended it to include Colorado; did not allow commutation under the Homestead Act of 1862 until fourteen months after filing; limited the time within which suit to annul patent might be brought; restricted withdrawals for reservoir sites to the area actually needed for that purpose; authorized rights of way for irrigation canals and drainage ditches through public lands and reservations; provided that in any criminal or civil prosecution for trespass on the public lands in any of the Rocky Mountain states or territories except Arizona and New Mexico and in the district of Alaska, it should be a defense if the timber had been cut for use in such state or territory by a resident thereof for agricultural, mining, manufacturing, or domestic purposes and had not been transported out of the same, and authorized the Secretary of the Interior to make rules and regulations for the carrying out of this provision; and empowered the President to set aside as forest reserves public lands covered with timber or undergrowth, whether of commercial value or not. The last provision (Sec. 24) was added by the conference committee and is often referred to as the Forest Reserve Act.

President Harrison on March 30 proclaimed the Yellowstone Forest Reserve.

1892

The Timber and Stone Act extended to all of the public land states.

Sierra Club founded under leadership of John Muir to promote enjoyment and protection of Sierra Nevada Mountains.

1893

Free Timber Act as amended in 1891 extended to New Mexico and Arizona.

1894

Congress prohibited the hunting of birds or wild animals in Yellowstone National Park, but permitted fishing with hook and line. It also authorized the Secretary of the Interior to make rules and regulations for the management and care of the park, "especially for the preservation from injury or spoilation of all timber, mineral deposits, natural curiosities, or wonderful objects"; for the protection of birds and animals from capture or destruction; and for the control of fishing.

Cary Act authorized the donation to states having desert lands (or to their assigns) of not more than 1 million acres each which they should cause to be settled, irrigated, and in part cultivated within ten years. Not more than 160 acres was to be sold or disposed of to any one person. Subsequent amendments made it possible for the states to obtain a total of 14 million acres, of which only about 600,000 acres has actually been granted.

1895

Division of Agricultural Soils established in the Department of Agriculture. Research relating to soils had been authorized in 1894.

1896

At the request of Secretary of the Interior Hoke Smith, the National Academy of Sciences appointed a special committee to investigate the forest reserve situation and recommended a national forestry policy.

United States Supreme Court decision on March 2 in case of *Geer v. Connecticut* (161 U.S. 519) confirmed the right of the states to protect their wildlife.

Division of Biological Survey established in the Department of Agriculture.

1897

Appropriations bill rider specified the purposes for which forest reserves might be established and provided for their protection and administration. Commonly known as "Organic Act."

A Division of Geography and Forestry was established in the Geological Survey to handle surveying and mapping of the forest reserves and to collect data on their resources.

1898

Homestead laws extended to Alaska, with the proviso that no homestead should exceed 80 acres. It also authorized the Secretary of the Interior to sell timber on the public lands in Alaska for use in the district, and to grant free use of timber for specified purposes. Export of pulpwood and wood pulp was authorized in 1905 and of birch timber in 1920.

1898

First appropriation (\$75,000) for protection and administration of the forest reserves made July 1.

Gifford Pinchot succeeded Fernow as chief of the Division of Forestry.

1899

Secretary of the Interior authorized to lease ground near or adjacent to mineral, medicinal, or other springs in forest reserves for the erection of sanitariums or hotels, under such regulations as he might prescribe. All receipts were to be covered into a special fund to be expended in the care of public forest reservations.

Mt. Rainier National Park established.

Persons connected with the administration and protection of forest reserves directed by Congress to assist so far as practicable in the enforcement of state fish and game laws.

Appalachian National Park Association was organized in North Carolina in November.

1900

Lacey Act prohibited the importation of any foreign wild animal or bird except under special permit from the Department of Agriculture and specifically prohibited the importation of the mongoose, fruit bat, English sparrow, starling, and such other birds or animals as the Secretary of Agriculture may declare injurious to the interest of agriculture or horticulture. It also prohibited the interstate transportation of wild animals or birds taken or possessed in violation of the laws of the state from which or to which they were shipped.

The sum of \$5000 appropriated for investigating forest conditions in the Appalachians with a view to purchasing land for forest reserves.

Sundry Civil Appropriations Act of June 6 limited lieu selections under the 1897 act to vacant, nonmineral, surveyed public lands subject to homestead entry.

Society of American Foresters organized.

1901

City of San Francisco applies for permit for reservoir in Hetch Hetchy Valley.

1901

Congress authorized the Secretary of the Interior to grant rights of way through forest reserves for canals and ditches, dams and reservoirs, electrical lines, and other purposes, revocable at the discretion of the Secretary.

Agricultural Appropriations Act of March 2 changed the Division of Forestry in the Department of Agriculture to the Bureau of Forestry.

Agricultural Appropriations Act of March 2 created the Bureau of Soils in place of the Division of Soils, which had been established in the Department of Agriculture in 1895.

Provisions of the Free Timber Act of 1878, as amended in 1891 and 1893 extended to California, Oregon, and Washington.

A Forestry Division was created in the General Land Office in the Department of the Interior under Filibert Roth.

1902

Newlands Act created the "reclamation fund" out of receipts from the sale and disposal of public lands in certain states west of the Mississippi River; authorized the Secretary of the Interior to construct irrigation works and to withdraw irrigable lands from entry; and provided for the homesteading of irrigated lands and their sale at a price estimated to return to the reclamation fund the cost of construction.

1903

Department of Commerce and Labor established incorporating the Commission of Fish and Fisheries, thereafter known as the Bureau of Fisheries.

Second Public Lands Commission appointed by President Roosevelt and submitted reports in 1904 and 1905. These reports made recommendations similar to the 1879 commission's, with a Pinchot/Roosevelt emphasis.

President Roosevelt set aside Pelican Island, Florida, as the first federal wildlife refuge.

1904

Kinkaid Act increased the size of homesteads in western Nebraska to 640 acres of nonirrigable land and required the construction of permanent improvements to the extent of not less than \$1.25 per acre.

1905

National Audubon Society organized.

1905

President authorized to set aside areas in the Wichita Forest Reserve, Oklahoma, for the protection of game animals and birds. The refuge was transferred to the Bureau of Biological Survey by presidential proclamation in 1936.

Transfer Act of February 1 (1) transferred the administration of the forest reserves from the Secretary of the Interior to the Secretary of Agriculture; (2) covered all receipts from the forest reserves for a period of five years into a special fund to be available, until expended, as the Secretary of Agriculture might direct, for the protection, administration, improvement, and extension of the reserves; (3) provided that forest supervisors and rangers should be selected, when practicable, from the states or territories in which the reserves were located; (4) authorized the export of pulpwood and wood pulp from Alaska; and (5) granted rights of way for dams, ditches, and flumes across the reserves for various purposes under regulations prescribed by the Secretary of the Interior and subject to state laws.

Any officer of the United States authorized to arrest without process, any person taken in the act of violating the regulations relating to forest reserves and national parks.

Agricultural Appropriations Act of March 3 permitted timber on forest reserves to be exported from the state or territory (including Alaska) in which cut except in the Black Hills (South Dakota) and Idaho. This provision was made general in 1913.

Name of the Bureau of Forestry changed to Forest Service, effective July 1. It also repeated the provisions of the act of February 6, 1905, authorizing forest and park officers to arrest without process any person taken in the act of violating the laws and regulations relating to forest reserves and national parks.

Lieu land provision of the Organic Act of 1897 repealed but the perfecting of valid selections already made was permitted.

1906

President Roosevelt began withdrawal of coal and oil lands for purposes of examination and classification.

Beginning January 1, a charge was made for the first time for grazing on the forest reserves.

Act authorized the Secretary of the Interior to lease for a period of not more than ten years any surplus power developed in connection with an irrigation project, giving preference to municipal purposes.

1906

Antiquities Act forbade anyone without proper authority to appropriate, excavate, injure, or destroy any historic or prehistoric ruin or monument or any object of antiquity on lands owned or controlled by the government of the United States. It also authorized the President to establish by proclamation national monuments for the preservation of features of historic, prehistoric, and scientific interest, under administration of the department already having jurisdiction over the land in question. The area reserved must be as small as compatible with the proper care and management of the objects to be preserved.

Forest Homestead Act authorized the Secretary of Agriculture to open for entry, through the Secretary of the Interior, forest reserve lands chiefly valuable for agriculture which were not needed for public purposes and which in his judgment might be occupied without injury to the forest. Each tract was to be surveyed by metes and bounds and must not exceed 160 acres in area or 1 mile in length. Commutation was not allowed.

Joint Resolution of June 11 accepted recession by California of the lands in the Yosemite Valley and the Mariposa Big Tree Grove granted to it in 1864 for use as a state park.

Agricultural Appropriations Act of June 30 provided that 10 percent of all money received from the forest reserves during any fiscal year, including 1906, was to be turned over to the states or territories for the benefit of the public schools and public roads of the counties in which the reserves were located, but not to the extent of more than 40 percent of their income from other sources. It also forbade unrestricted spending after June 30, 1908, from the special fund set up in 1905.

1906-1907

Senate and House of Representatives passed separate but similar resolutions requesting the Bureau of Corporations to investigate the lumber industry.

1907

Appropriations Act of March 4 changed "forest reserves" to "national forests"; permitted the export of national forest timber from the state or territory in which cut, except from the Black Hills National Forest, South Dakota; forbade the further creation or enlargement of national forests except by act of Congress in Washington, Oregon, Montana, Idaho, Wyoming, and Colorado; abolished the special fund established in 1905; increased Forest Service appropriations by \$1,000,000; required the Forest Service to submit to Congress annually a classified and detailed report of receipts and estimate of expenditures; and raised the Forester's salary from \$3500 to \$5000; appropriated \$25,000 for survey of lands in the Appalachian and White Mountains in connection with their proposed purchase for national forests.

1907

On March 14, President Roosevelt appointed the Inland Waterways Commission, with Representative Burton of Ohio as chairman.

Public Lands Convention at Denver in June gave occasion for much criticism of the Forest Service.

1908

Cooperative agreement of January 22 between the Secretary of the Interior and the Secretary of Agriculture gave the Forest Service supervision over the handling of timber on Indian reservations.

U.S. Supreme Court developed Winter's Doctrine, finding federal water reservations implicit in federal land reservations (*United States v. Winters*, 207 U.S. 564).

Joint Resolution of April 30 authorized the Attorney General to start proceedings looking to the forfeiture of the lands granted to aid in the construction of the Oregon and California Railroad and the Coos Bay Wagon Road.

First Conference of Governors, called by President Roosevelt, met May 13 to 15 in Washington, D.C. A National Conservation Commission was appointed, with Pinchot as chairman.

Agricultural Appropriations Act of May 23 increased payment to the states for benefit of county schools and roads increased to 25 percent of the gross receipts from national forests, eliminated the 40 percent limitation, and made the legislation permanent. It also directed such officials of the Forest Service as might be designated by the Secretary of Agriculture to aid in the enforcement of state laws relating to stock, forest fire control, and fish and game protection, and to aid other federal bureaus in the performance of their duties.

An area of 12,800 acres reserved (increased in 1909 to 20,000 acres) to establish a permanent National Bison Range in the Flathead Indian Reservation in Montana.

Minnesota National Forest created out of lands covered by the Morris Act of 1902, with appropriate compensation to the Indians. It also increased from 5 to 10 percent the amount of merchantable pine timber that must be reserved in future sales outside of the "ten sections," in which the forester was permitted to use such methods of cutting as he thought wise.

First federal forest experiment station was established at Fort Valley, near Flagstaff, Arizona.

1908

Regional organization of the Forest Service was put into effect on December 1.

1909

Western Forestry and Conservation Association was organized.

Treaty of January 11 between the United States and Great Britain established the International Joint Commission and provided for the utilization and development of the boundary waters between the United States and Canada.

Report of National Conservation Commission was transmitted to Congress by President Roosevelt on January 22, with a request for an appropriation of at least \$50,000 to meet the expenses of the commission, which Congress denied.

North American Conservation Conference, attended by official representatives of the United States, Canada, Newfoundland, and Mexico, was held on February 18 in Washington.

Enlarged Homestead Act made it possible to acquire homesteads of 320 acres in Arizona, Colorado, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. Idaho (1910), California (1912), North Dakota (1912), Kansas (1915), and South Dakota (1915) were later added to the list. The lands entered must be nonmineral, nonirrigable, and contain no merchantable timber. Commutation was not allowed.

Commissioner of Indian Affairs authorized to manage the timber on Indian reservations. It resulted on July 17, 1909, in termination of the 1908 agreement with the Forest Service, and in February, 1910, in the establishment in the Office of Indian Affairs of an Indian Forest Service (later Forestry Branch of the Indian Service) under Jay P. Kinney.

National Waterways Commission created, consisting of twelve members of Congress, to conduct investigations and to make recommendations pertaining to water transportation and the improvement of waterways.

Persons who in good faith had entered coal lands under the nonmineral laws authorized to obtain patent thereto subject to reservation of the coal to the United States.

Sundry Civil Appropriations Act of March 4 prohibited the use of any public money for compensation or expenses of any commission, council, board, or other similar body not authorized by law or the detail of personal services from any federal agency to such body.

First National Conservation Congress was held at Seattle, Washington, August 26 to 28.

1909

Organization of National Conservation Association, with Charles W. Eliot of Harvard University as president, was announced on September 15.

1910

Ballinger-Pinchot controversy led on January 7 to the dismissal of Gifford Pinchot as Forester and O. W. Price as Associate Forester. They were succeeded by H. S. Graves and A. F. Potter.

Bureau of Mines established in the Department of the Interior.

Act authorized entry of coal lands under the agricultural land laws but with retention of mineral rights by the government.

Pickett Act authorized the President to withdraw temporarily public lands from entry and reserve them for specified purposes, such withdrawals or reservations to remain in force until revoked by him or by Congress. It also provided that all withdrawn lands shall be open to exploration, occupation, and purchase for all minerals other than coal, oil, gas, and phosphates.

Act extended to Indian reservations the penalties provided by the act of February 24, 1897, for failing to extinguish fires built in or near any forest, timber, or other inflammable material upon the public domain. It also provided for the sale and management of timber on Indian reservations (except in Minnesota and Wisconsin) and on certain Indian allotments, for the benefit of the Indians, under regulations prescribed by the Secretary of the Interior.

Forest Products Laboratory was established at Madison, Wisconsin, in cooperation with the University of Wisconsin.

1911

Treaty of February 7 between the United States and Great Britain provided for the protection and preservation of fur seals, including the prohibition of pelagic sealing.

Sale of surplus water from an irrigation project for use on lands outside the project authorized.

Weeks Law (1) authorized the enactment of interstate compacts for the conservation of forests and the water supply; (2) appropriated \$200,000 to enable the Secretary of Agriculture to cooperate with any state which had provided by law for a system of forest fire protection; and (3) appropriated \$1 million for the fiscal year 1910 and \$2 million for each succeeding fiscal year until June 30, 1915, for use in the examination, survey, and acquisition by the government of lands located on the headwaters of

navigable streams. It also created a National Forest Reservation Commission to pass upon lands approved for purchase and to fix the price at which purchases shall be made and provided for the protection and administration of acquired lands.

The head of the department having jurisdiction over public lands, national forests, and reservations of the United States authorized to grant rights of way for transmission, telephone, and telegraph lines for a period not exceeding fifty years.

U.S. Supreme Court held that Congress has the constitutional right (1) to reserve portions of the public domain as national forests; (2) to delegate to the Secretary of Agriculture administrative authority to make rules and regulations for their occupancy and use; and (3) to prescribe penalties for the violation of such regulations. It also confirmed the right of the Secretary of Agriculture to charge fees for grazing permits and ruled that state fencing laws gave no right willfully to drive one's stock upon the land of another (*United States v. Grimaud*).

1911-1914

Bureau of Corporations submitted a comprehensive report on the lumber industry in four parts.

1912

Commissioner of the General Land Office authorized to sell on application of adjoining landowners at public auction at not less than \$1.25 per acre tracts containing not more than 160 acres of public land which is mountainous or too rough for cultivation, whether isolated or not.

Coal lands opened for selection by the states and for sale as isolated tracts, with reservation to the United States of the coal in such lands.

Congress reduced to three years the length of residence necessary to obtain patent under the Homestead Act and set up certain minimum cultivation requirements. Commutation was allowed after fourteen months of actual residence.

Agricultural Appropriations Act of August 10 (1) directed the Secretary of Agriculture to select, classify, and segregate all lands that may be opened to settlement and entry under the homestead laws applicable to national forests; (2) authorized and directed the Secretary to sell timber at actual cost to homestead settlers and farmers for their domestic use; and (3) made 10 percent of the gross receipts from national forests available for expenditure by the Secretary of Agriculture for the construction of roads and trails within national forests. The latter provision was made permanent in 1913.

1912

Settlement of suit authorized against forty-six defendants who had bought Oregon and California Railroad grant lands by forfeiture of the lands to the government with privilege of repurchase by the defendants at \$2.50 per acre. All of these cases were settled by 1919.

Act of August 24 provided that all lands withdrawn by the President under the Pickett Act of 1910 should at all times be open to exploration, discovery, occupation, and purchase under the mining laws of the United States, so far as these applied to metalliferous minerals. It also added California to the list of states within which national forests cannot be created or enlarged except by act of Congress.

1913

Agricultural Appropriations Act of March 4 permitted timber cut on any national forest to be exported from the state or territory in which cut.

Weeks-McLean Act declared all migratory game and insectivorous birds to be within the custody and protection of the government of the United States and forbade their destruction or capture contrary to regulations prescribed by the Secretary of Agriculture. This provision was declared unconstitutional and was superseded in 1918 by the Migratory Bird Treaty Act.

National Forest Reservation Commission authorized to acquire lands subject to rights of way, easements, and reservations which the Secretary of Agriculture believes will not interfere with the use of the lands so encumbered.

Act of March 4 authorized the Secretary of the Interior to sell any timber on public lands outside of national forests which had been killed or seriously damaged by fire prior to passage of the act.

Act of September 30 authorized the President to prescribe the methods of opening to entry public lands thereafter excluded from national forests or released from withdrawals.

San Francisco granted the authority to construct a reservoir in the Hetch Hetchy Valley in the Yosemite National Park to supply the city with water.

1914

Smith-Lever Act provided for cooperative agricultural extension work between the U.S. Department of Agriculture and the land grant colleges.

Agricultural Appropriations Act of June 30 increased from 5 to 25 percent the payment of states of the gross receipts from lands acquired under the Weeks Act of 1911.

1914

Congress stopped the sale of coal lands in Alaska previously authorized; directed the reservation of certain lands; and provided for the leasing of unreserved coal lands.

1915

Branch of Research was established in the U.S. Forest Service.

Agricultural Appropriations Act of March 4 authorized the Secretary of Agriculture to grant permits for summer homes, hotels, stores, or other structures needed for recreation or public convenience in national forests in tracts of not more than 5 acres and for periods of not more than thirty years.

U.S. Supreme Court, in *United States v. Midwest Oil Co.*, affirmed the right of the President to withdraw public lands from entry without specific authorization from Congress.

U.S. Supreme Court reversed on technical grounds a 1913 decision of the Federal District Court for Oregon forfeiting to the government the Oregon and California Railroad grant lands, but enjoined their further disposal by the railroad pending action by Congress (*Oregon and California Railroad Co. v. U.S.*).

1916

Chamberlain-Ferris Act reverted in the United States title to the unsold lands in the grant to the Oregon and California Railroad Company (Southern Pacific) and provided for their classification and disposition.

A sum of \$11 million a year appropriated for ten years for the construction of roads and trails within or partly within national forests when necessary for the use and development of their resources. Additional appropriations of \$3 million a year for the same purpose were made for the fiscal years 1919, 1920, and 1921.

Agricultural Appropriations Act of August 11 authorized the Secretary of Agriculture to require purchasers of national forest stumpage to make deposits adequate to cover the cost of disposing of brush and other debris resulting from cutting operations. The proviso authorizing return to the purchaser of any deposit in excess of the amount actually required for the work was repealed in 1950. The act also authorized the Secretary, under general regulations prescribed by him to permit the prospecting, development, and utilization of the mineral resources of lands acquired under the Weeks Act of 1911.

President authorized to establish refuges for the protection of game animals, birds, or fish on any lands purchased under the Weeks Act of 1911.

1916

Convention of August 16 between the United States and Great Britain provided for the protection by the United States and Canada of migratory game birds, migratory insectivorous birds, and certain other migratory nongame birds.

National Park Service created in the Department of Interior, defined the purposes for which national parks may be established, and authorized the Secretary of the Interior to make such rules and regulations as he may deem necessary for their proper use and management. Grazing was authorized when in the judgment of the Secretary it will not be detrimental to the primary purpose for which the park, monument, or other reservation was established.

Stockraising Homestead Act authorized the Secretary of the Interior to open for entry under the homestead laws not more than 640 acres per person of public lands the surface of which is chiefly valuable for grazing and raising forage crops, which do not contain merchantable timber, are not susceptible of irrigation from any known source of water supply, and are of such a character that 640 acres are reasonably required for the support of a family. Instead of cultivation, the entryman must make permanent improvements to the extent of \$1.25 per acre. Commutation was not allowed. All of the coal and other minerals were reserved to the United States and made subject to disposal under the coal and mineral land laws. Lands containing water holes and other bodies of water needed or used by the public for watering purposes were not to be designated, but might be reserved under the act of 1910 and held open for public use. The Secretary of the Interior could also withdraw from entry lands needed to ensure access by the public to watering places and needed for use in the movement of stock to summer and winter ranges or to shipping points.

1917

United States Supreme Court upheld the constitutionality of the act of June 9, 1916, reverting in the United States title to the lands granted to the Oregon and California Railroad (*Oregon and California Railroad Co. v. U.S.*).

1918

Secretary of the Interior authorized to exchange reverted Oregon and California Railroad lands for lands of equal value in private ownership within or contiguous to the former limits of the grant.

Migratory Bird Treaty Act of July 3 effectuated the convention of August 16, 1916, with Great Britain and authorized the Secretary of Agriculture, subject to the approval of the President, to promulgate regulations for the protection of the migratory birds covered by the convention.

1919

A movement was started by H.S. Graves, Chief of the Forest Service and by F. E. Olmsted as president and Gifford Pinchot as chairman of a Committee for the Application of Forestry of the Society of American Foresters, to bring about public control of cutting on private forest lands.

Suit against the Southern Oregon Company settled by statute providing for reconveyance to the United States of the remaining lands in the 1869 grant to aid in the construction of the Coos Bay Wagon Road, with payment by the government of delinquent taxes and of \$232,463.07 to the company. The reconveyed lands were to be classified and disposed of as provided in the act of June 9, 1916, relating to revested O. and C. lands. After reimbursement of the government for these items, 25 percent of the gross receipts from the reconveyed lands was to be paid to the counties for schools and permanent improvements.

National Parks and Conservation Association founded to support newly formed National Park Service.

1920

Mineral Leasing Act of 1920 provided for the leasing of deposits of coal, phosphate, sodium, oil, oil shale, or gas, and authorized the Secretary of the Interior to reserve the right to sell, lease, or otherwise dispose of the surface of lands embraced in such leases if not necessary for the use of the lessee. Lessees pay both an annual rental and a royalty per unit of the mineral removed. Of the amount received, 52 1/2 percent was allocated to the reclamation fund, 37 1/2 percent to the states for the construction of roads or the support of education, and 10 percent to the Treasury of the United States. The act applied to national forests created from the original public domain, but not to national forests acquired under the Weeks Act of 1911, to national parks, to game refuges, or to military or naval reservations.

United States Supreme Court, in *Missouri v. Holland* confirmed the constitutionality of the Migratory Bird Treaty Act of July 3, 1918.

Capper report on timber depletion, lumber prices, lumber exports, and concentration of timber ownership was transmitted to the Senate on June 1 in response to Senate Resolution 311.

Secretary of the Interior authorized to sell timber on revested Oregon and California Railroad lands and on reconveyed Coos Bay Wagon Road lands classified as power sites, and to exchange reconveyed Coos Bay Wagon Road lands for lands in private ownership.

Federal Power Commission consisting of the Secretary of War, Secretary of the Interior, and Secretary of Agriculture created with authority to issue licenses for a period

not exceeding fifty years "for the development and improvement of navigation, and for the development, transmission, and utilization of power across, along, from or in any part of the navigable waters of the United States, or upon any part of the public lands and reservations of the United States (including the territories), or for the purpose of utilizing the surplus water or water power from any Government dam."

1921

Congress prohibited the issuance of permits, licenses, or leases for the development of water in existing national parks or national monuments without specific authority of Congress and repealed that part of the Federal Power Act of 1920 authorizing the issuance of such licenses by the Federal Power Commission. Act of August 26, 1935 redefined "reservations" so as to exclude national parks and national monuments, made congressional approval necessary for parks and monuments created after as well as before 1921.

Colorado River Compact approved. Congress authorized Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming to enter into a compact for the disposition and apportionment of the waters of the Colorado River.

Federal Highway Act started the practice of appropriating funds specifically for the construction of "forest-development roads" and "forest highways." Cooperation with states was authorized but not required.

Establishment of eastern forest experiment stations began.

1922

General Exchange Act authorized the Secretary of Agriculture (through the Secretary of the Interior) to exchange surveyed, nonmineral land or timber in national forests established from the public domain for privately owned or state land of equal value within national forests in the same state.

Agricultural Appropriations Act of May 11 made the first appropriation (\$10,000) for the improvement of public campgrounds in national forests, with special reference to protection of the public health and prevention of forest fires.

Colorado River Compact allocating waters of Colorado River signed by all concerned states except Arizona.

1923

Last of the naval timber reserves restored (about 3000 acres in Louisiana) to the public domain.

Convention of March 2 between the United States and Great Britain prohibited fishing for halibut in the North Pacific Ocean between November 16 and February 15 and

established an International Fisheries Commission consisting of two representatives of each government to conduct studies and make recommendations for the preservation and development of the halibut fishery.

Provisions of the Enlarged Homestead Act of 1909 extended to homestead entries in national forests under certain conditions.

1924

President Coolidge convened a National Conference on Outdoor Recreation.

Rachford report, prepared by the Forest Service as a result of a four-year study of the grazing situation, recommended substantial increases in national forest grazing fees.

First national forest wilderness area designated on Gila National Forest at urging of Aldo Leopold.

Secretary of the Interior authorized to reserve fishing areas in any of the waters of Alaska over which the United States has jurisdiction, and within such areas to establish closed seasons during which fishing can be limited or prohibited as he may prescribe.

Clarke-McNary Act authorized appropriations to enable the Secretary of Agriculture to cooperate in forest fire control with states meeting prescribed standards, in the growing and distribution of planting stock to farmers, and in promoting the efficient management of farm woodlots and shelterbelts; authorized the purchase of lands anywhere on the watersheds of navigable streams and for timber production as well as stream flow protection; authorized acceptance of gifts to be added to the national forests; authorized the Secretary of Agriculture to report to Congress such unreserved public timberlands as in his judgment should be added to the national forests; and authorized the creation of military and naval reserves as national forests, without interference with their use for military and naval purposes.

A National Conference on Utilization of Forest Products, called by the Secretary of Agriculture, was held in Washington, November 19 to 20.

1925

A system of ten-year permits for grazing on western national forests was put into effect by the Forest Service on January 1.

Alaska Game Law created the Alaska Game Commission of five members and authorized the Secretary of Agriculture, upon consultation with or recommendation from the commission, to adopt regulations governing the taking of animals and the issuance of hunting and trapping licenses.

1925

General Exchange Act of 1922 amended to permit either party to an exchange to make reservations of timber, minerals, or easements, the values of which shall be considered in determining the values of the exchanged lands, provided that such reservations shall be subject to the tax laws of the states concerned.

Act of March 3 included watersheds from which water is secured for domestic use and irrigation among the lands on which the federal government can cooperate with state in control of forest fires under section 2 of the Clarke-McNary Act of 1924.

Act of March 3 authorized the exchange of land or timber for land within the exterior boundaries of national forests acquired under the Weeks Act of 1911 or the Clarke-McNary Act of 1924, on an equal-value basis.

1926

Export of timber lawfully cut on any national forest, or on the public lands in Alaska authorized if the supply of timber for local use will not be endangered thereby.

Secretary of Agriculture authorized to cooperate with the territories and other possessions in studies of forest taxation and forest insurance and in reforestation and woodlot management, under the Clarke-McNary Act of 1924, on the same terms as with the states.

First World Forestry Congress was held in Rome, Italy, April 29 to May 5.

Period for repayment of construction charges in irrigation projects increased to forty years (from ten years in 1902 and twenty years in 1914); provided that repayment contracts on new projects should be made only with water users' organizations; and limited to 160 irrigable acres the area in single ownership that might receive water in an irrigation project.

Recreation and Public Purposes Act passed. Secretary of the Interior authorized to make available to states, counties, or municipalities, by exchange, sale, or lease, unreserved, nonmineral public lands classified by him as chiefly valuable for recreational purposes.

Creation of or additions to national forests in Arizona and New Mexico except by act of Congress forbidden.

Provision made for paying to the counties containing revested Oregon and California Railroad lands the equivalent of the taxes that would have been paid from 1915 to 1926 inclusive, if the lands had remained privately owned and taxable. Taxes were to be

computed on the basis of 1915 assessed values and the rate of taxation prevailing in each of the counties involved. After 1926, payments were to be continued on the same basis until all charges against the "Oregon and California land-grant fund" (including back and current payments in lieu of taxes) had been liquidated and the fund showed a credit balance available for distribution under the 1916 act.

1927

States permitted to acquire title to school sections that are mineral in character, subject to certain restrictions and reservations.

Secretary of the Interior authorized to lease public lands containing salts of potassium (potash) under the general provisions of the Mineral Leasing Act of 1920 and repealed the prior act of October 2, 1917.

Secretary of the Interior authorized to establish grazing districts on unreserved public lands in Alaska and to promulgate rules and regulations for their administration. Net receipts from leases, which may run up to twenty years, are paid to the territory for public education and roads.

A Conference on Commercial Forestry was held at Chicago, Illinois, November 16 to 17, under the sponsorship of the Chamber of Commerce of the United States.

1928

McNary-Woodruff Act authorized appropriation of \$2 million in 1928-1929, of \$3 million in 1929-1930, and of \$3 million in 1930-1931 for the purchase of land under the Weeks Act of 1911 and the Clarke-McNary Act of 1924. Not more than 1 million acres of land was to be purchased in any one state primarily for timber production.

Act of June 9, 1916, amended to require the cutting and removal of any timber sold on revested Oregon and California Railroad lands under such rules and regulations as might be prescribed by the Secretary of the Interior.

McSweeney-McNary Act authorized a comprehensive ten-year program of research in all phases of forestry and range management, including a timber survey, with an annual appropriation amounting to \$3,625,000 by the end of the period, and thereafter such amounts as needed to carry out the provisions of the act.

Society of American Foresters appointed a committee on forest policy to review the regulation situation and make recommendations to the society.

Boulder Canyon Project Act called for the construction of works for the protection and development of the Colorado River Basin and authorized the states concerned to enter into supplemental contracts for the development of the Colorado River.

1929

Forest Service adopted L-20 regulations which provide for the designation and protection of "primitive" areas. This is the first agency-wide wilderness program.

Migratory Bird Conservation Act (Norbeck-Andersen Act) established the Migratory Bird Conservation Commission and authorized a continuing program for the acquisition of migratory bird reservations, subject to the consent of the state concerned.

1930

Appropriation of \$50,000 authorized to enable the President to appoint a commission to study and report on the conservation and administration of the public domain.

On April 15 the Forestry Branch of the Bureau of Indian Affairs was given responsibility for the handling of grazing on rangelands in Indian reservations. A grazing policy was put into effect on July 1, 1931.

Convention of May 26 between the United States and Canada for the protection and promotion of the sockeye salmon fishery of the Fraser River system established an International Pacific Salmon Fisheries Commission to conduct investigations and to promulgate regulations governing the taking of sockeye salmon in certain specified waters.

Knutson-Vandenberg Act of June 9 authorized appropriation not to exceed \$400,000 a year by the fiscal year 1934 for reforestation activities on the national forests and provided that additional charges could be made in timber sales to provide a special fund for reforestation or silvicultural improvement of the cutover area included in the timber sale.

Shipstead-Nolan Act withdrew from entry all public land north of Township 60 North in Cook and Lake counties, Minnesota; required the Forest Service to conserve for recreational use the natural beauty of all lakes and streams within this region (chiefly in the Superior National Forest); and provided that there should be no further alteration of the natural water level of any lake or stream within the region without further act of Congress.

President Hoover on December 6 appointed a Timber Conservation Board to study the economic problem of overproduction in the forest industries. The board made a thorough study of the situation, with special reference to overproduction in the lumber industry, but issued no comprehensive report.

A nationwide forest survey was initiated under authority of the McSweeney-McNary Act of 1928.

1931

Society of American Foresters Committee on Forest Policy submitted a comprehensive report, including endorsement of the principle of public control of cutting on private lands. The report was adopted by the society by a large majority in a referendum vote. The majority favored state rather than federal control.

On January 16 the Committee on the Conservation and Administration of the Public Domain (appointed by President Hoover in 1930) submitted a report recommending that all portions of the unreserved and unappropriated public domain be placed under responsible administration for the conservation of its natural resources; that areas which are chiefly valuable for the production of forage and which can be effectively conserved and administered by the states containing them be granted to the states which will accept them; and that the President be authorized to consolidate the executive agencies dealing with the administration and disposition of the public domain, the administration of national reservations, and the conservation of natural resources.

Joint Resolution of February 20 authorized the Secretary of Agriculture to cooperate with the territories in forest fire protection under the Clarke-McNary Act of 1924 on the same terms as with the states.

Multilateral international convention of September 24 prohibited the taking or killing of right whales; required full utilization of the carcasses of baleens or whalebone whales; and provided for the communication of statistical information regarding all whaling operations to the International Bureau for Whaling Statistics at Oslo, Norway.

A National Conference on Land Utilization was held in Chicago, Illinois, November 19 to 21, at the call of the Secretary of Agriculture and the Association of Land-Grant Colleges and Universities.

1932

Federation of Western Outdoor Clubs organized.

1933

A National Plan for American Forestry, known as the Copeland report, was submitted to the Senate on March 27 by the Secretary of Agriculture. It made two main recommendations: a large extension of public ownership and more intensive management of all publicly owned lands.

Executive order of April 5 established the Office of Emergency Conservation Work as an independent agency for the dual purpose of relieving unemployment and promoting conservation of natural resources. It was popularly known as the Civilian Conservation Corps.

1933

Agricultural Adjustment Act provided in detail for relieving the acute economic emergency in agriculture.

Federal Emergency Relief Act and subsequent amendments provided funds for the relief of unemployment which were used in part for forestry and other conservations activities.

Tennessee Valley Authority, which includes many phases of conservation in its activities, created.

President Roosevelt by executive order, under authority of the Reorganization Act of March 3, 1933, placed all national monuments, the National Capital parks, and national military parks under the administration of the Interior Department.

National Industrial Recovery Act (NIRA) attempted to promote economic recovery by a wide variety of measures, including codes of fair competition, an extensive public works program, and subsistence homesteads. The Code of Fair Competition for the Lumber and Timber Products Industries, approved August 21, led to the adoption (March 23, 1934) of a Forest Conservation Code which required the various divisions of the industry to formulate and enforce rules of forest practice.

On July 20, the Administrator of Public Works appointed the National Planning Board.

Soil Erosion Service was established in the Department of the Interior on August 25 under authority of National Industrial Recovery Act.

1934

Shelterbelt Project (Prairie States Forestry Project) was started with emergency funds administered by the Forest Service.

President authorized, upon recommendation of the Secretary of Agriculture and the Secretary of Commerce and with the approval of legislatures of the states concerned, to establish fish and game sanctuaries or refuges in national forests.

Coordination Act authorized the Secretary of Agriculture and the Secretary of Commerce to cooperate with federal, state, and other agencies in developing a nationwide program of wildlife conservation and rehabilitation; to study the effect of water pollution on wildlife and to recommend remedial measures; and to prepare plans for the maintenance of an adequate supply of wildlife on public lands, Indian reservations, and unallotted Indian lands. It also provided for use for wildlife purposes of water im-

pounded by the Bureau of Reclamation or otherwise and for facilitating the migration of fish in connection with the construction of any future dam by the federal government or under federal permit.

Migratory Bird Hunting Stamp Act of March 16 required takers of migratory waterfowl to buy a \$1 federal hunting stamp, good for one year, and made the proceeds available for the acquisition and management of migratory waterfowl refuges and for the conduct of research.

Taylor Grazing Act authorized the Secretary of the Interior to establish not more than 80 million acres of grazing districts in the unreserved public domain (exclusive of Alaska) and to make rules and regulations for their occupancy and use. The act contained specific provisions with respect to mineral resources, hunting and fishing, homestead entry, and the lease of isolated tracts to owners of contiguous lands. Receipts were allocated as follows: 25 percent, when appropriated by Congress, for the construction, purchase, or maintenance of range improvements; 50 percent to the counties in which the districts are located; and 25 percent to the United States Treasury. The act also increased to 760 acres the size of isolated tracts that could be offered for sale and authorized the Secretary of the Interior to sell not more than 160 acres of land that is mountainous or too rough for cultivation, whether isolated or not, to adjoining owners.

President Roosevelt moved to implement Taylor Grazing Act by withdrawing all land in twelve Western States from homestead entry. The withdrawal was extended to all lower forty-eight states in 1935.

Executive order of June 30 created the Quetico-Superior Committee to advise with federal and other agencies concerning the wilderness sanctuary in the Rainy Lake and Pigeon River watersheds in Minnesota.

1935

Soil Conservation Act of April 27 declared it to be the policy of Congress to provide permanently for the control and prevention of soil erosion, delegated activities relating to soil erosion to the Secretary of Agriculture, and established the Soil Conservation Service in the Department of Agriculture. The latter succeeded the Soil Erosion Service which had been set up in the Department of the Interior in 1933 under the National Industrial Recovery Act and transferred to the Department of Agriculture by executive order in March, 1935.

Resettlement Administration was established by executive order of April 30. In 1936, it was transferred to the Department of Agriculture, and in 1937, it was changed to the Farm Security Administration.

1935

U.S. Supreme Court invalidated the National Industrial Recovery Act on grounds that it involved an unconstitutional delegation of legislative power, exceeded the power of Congress to regulate interstate commerce, and invaded the powers reserved exclusively to the states. The Court's action automatically nullified the lumber industry code and the rules of forest practice adopted thereunder (*Schechter Poultry Corp. v. United States*).

Act of June 15 authorized the addition to wildlife refuges of land acquired by exchange of (1) land, timber, or other materials in wildlife refuges or (2) of unreserved nonmineral public lands, in both cases on an equal-value basis. It also authorized payment to the counties, for the benefit of schools and roads, of 25 percent of the gross receipts from wildlife refuges.

Bankhead-Jones Act authorized an annual appropriation increasing from \$1 to \$5 million for conduct by the Secretary of Agriculture and by the agricultural experiment stations of research into laws and principles underlying basic problems of agriculture in its broadest aspects. The act also authorized appropriations for the further development of cooperative agricultural extension work and the more complete endowment and support of land grant colleges.

A Forest Service report entitled *National Pulp and Paper Requirements in Relation to Forest Conservation* (Hale report) was transmitted to the Senate on July 12 in response to Senate Resolution 205.

Antiquities Act authorized the Secretary of the Interior to acquire and administer historic sites and buildings and established an Advisory Board on National Parks, Historic Sites, Buildings, and Monuments.

Appropriation of receipts from the Uinta and Wasatch National Forests in Utah for the purchase of lands therein was authorized. Similar provisions were enacted with respect to the Cache National Forest in Utah, the San Bernardino and Cleveland National Forest in California, the Nevada and Toiyabe National Forests in Nevada, the Ozark and Ouachita National Forests in Arkansas, the Angeles National Forest in California, and the Sequoia National Forest in California.

The Wilderness Society organized.

Fulmer Act authorized an appropriation of \$5 million for the purchase by the federal government of lands to be administered as state forests under plans of management satisfactory to the Secretary of Agriculture. Congress has never appropriated funds to put the act into operation.

1936

U.S. Supreme Court (297 U.S. 1) declared unconstitutional the agricultural adjustments parts of the Agricultural Adjustment Act of 1935, dealing chiefly with acreage allotments, benefit payments, and processing taxes, on the ground that they invaded powers reserved to the states (*United States v. Butler*).

Convention of February 7 between the United States and Mexico provided for the protection by the United States and Mexico of migratory game and nongame birds and for the control of transportation between the two countries of migratory birds and game mammals, dead or alive.

Soil Conservation and Domestic Allotment Act attempted to attain the objectives of the Agricultural Adjustment Act of 1933 by authorizing the Secretary of Agriculture to make benefit payments to farmers as a soil conservation measure. "Parity payments" were also authorized in order to make the purchasing power of the farmer comparable to that existing in 1909 to 1914.

A comprehensive report by the Forest Service entitled *The Western Range* was transmitted to the Senate on April 28 in response to Senate Resolution 199. The document was highly critical of the Department of the Interior.

Whaling Treaty Act provided for effectuation of the multilateral convention of 1931 for the regulation of whaling, including authorization of the Secretary of the Treasury and the Secretary of Commerce to make the necessary regulations for the control of whaling.

McSweeney-McNary Act of 1928 amended to authorize the establishment of the Great Plains Forest Experiment Station.

On June 16 the Division of Forestry and Grazing in the Bureau of Indian Affairs was given charge of all matters relating to wildlife management on Indian reservations.

Flood Control Act of 1936 recognized the fact that flood control on navigable waters or their tributaries is a proper activity of the federal government, in cooperation with the states and their political subdivisions. It provided that thereafter federal investigations and improvements of rivers and other waterways for flood control and allied purposes should be under the jurisdiction of the War Department, and federal investigations of watersheds and measures for runoff and water flow retardation and soil erosion prevention on watersheds under the jurisdiction of the Department of Agriculture. The act authorized interstate flood control compacts and authorized a long list of projects for prosecution by the Army Engineers. Amendments in 1937 and 1938 authorized additional surveys and examinations at specific localities and directed the Secretary of Agriculture to make runoff and erosion surveys on all watersheds specified

for flood control surveys by the Secretary of War. The 1937 act also authorized the Secretary of Agriculture to impose such conditions as he might deem necessary in prosecuting measures for retarding runoff and preventing erosion on nonfederal lands.

The Park, Parkways and Recreation Act authorized Park Service to make a comprehensive study, other than on lands under the jurisdiction of the Department of Agriculture, of the public park, parkway, and recreational area programs of the United States and of the several states and political subdivisions thereof, and of the lands chiefly valuable as such areas, and to cooperate with the states and their political subdivisions in planning such areas. It also authorized the states to enter into interstate compacts for the establishment and development of park, parkway, and recreational areas, subject to the approval of the state legislatures and of Congress.

Taylor Grazing Act amendments increased the maximum allowable area of grazing districts to 142 million acres. Exchange of lands with states was authorized on either an equal-value or equal-area basis. The President was authorized, with the advice and consent of the Senate, to select a Director of Grazing; and the Secretary of the Interior was authorized to appoint such assistant directors and other employees as necessary to administer the act, provided that every appointee must have been for one year a bona fide citizen or resident of the state in which he is to serve.

Second World Forestry Congress was held in Budapest, Hungary, September 10 to 14.

An "upstream engineering" conference called by President Roosevelt was held in Washington, September 22 to 23, to emphasize the importance of this phase of flood and erosion control.

Presidential proclamation of November 27 abolished the Wichita National Forest in Oklahoma and placed the Wichita Mountains Wildlife Refuge under the administration of the Bureau of Biological Survey.

National Wildlife Federation organized.

1937

Disaster Loan Corporation created to make such loans as it may determine to be necessary because of floods or other catastrophes. Funds were provided by the corporation in connection with the Northeastern timber-salvage work of the Forest Service. It was dissolved and its functions transferred to the Reconstruction Finance Corporation in 1945.

Cooperative Farm Forestry Act (Norris-Doxey Act) of May 18 authorized an annual appropriation of \$2,500,000 for the promotion of farm forestry in cooperation with the states. The first appropriation (\$300,000) was for the fiscal year 1940.

1937

Civilian Conservation Corps officially established as the official successor to the Emergency Conservation Work; provided in detail for its administration; authorized the use of ten hours a week for educational and vocational training on a voluntary basis; and extended its life to June 30, 1940. In 1939 the C.C.C. was continued through June 30, 1943. Subsequent acts extended its life through June 30, 1944.

Bankhead-Jones Farm Tenant Act of July 22 provided for loans to farm tenants, for rehabilitation loans, and for the retirement and rehabilitation of submarginal agricultural lands. Acquired lands could be sold, exchanged, leased, or otherwise disposed of, under specified conditions, one of which was the reservation of an undivided three-fourths interest in all coal, oil, gas, and other minerals. The Secretary was also authorized to cooperate with federal, state, and other public agencies in developing plans for a program of land conservation and land utilization.

Water Facilities Act provided for the development by the Secretary of Agriculture of facilities for water storage and utilization in the arid and semiarid regions.

Act provided for reclassification of the lands of the revested Oregon and California Railroad and the reconveyed Coos Bay Wagon Road grants and for sustained-yield management by the Secretary of Interior of those classified as timberlands. The Secretary was authorized to establish sustained-yield forest units for the support of dependent communities and local industries and to make cooperative agreements with other federal agencies, with state agencies, and with private forest owners to secure coordinated administration. Lands chiefly valuable for agriculture could be opened to homestead entry or sale under the terms of the Taylor Grazing Act of 1934. Receipts from O. and C. lands were to be distributed as follows: 50 percent to the counties immediately concerned, an additional 25 percent to the counties permanently after satisfying reimbursable federal charges against the lands, and 25 percent for administration in such amounts as appropriated by Congress.

Wildlife Restoration Act (Pittman-Robertson Act) authorized the setting apart of the tax on firearms, shells, and cartridges in the "federal aid to wildlife restoration fund" to be used for cooperation with the states in approved wildlife restoration projects up to 75 percent of the total cost of the projects. Each cooperating state must pass legislation for the conservation of wildlife, including a prohibition against the diversion of license fees paid by hunters for any other purpose than the administration of its fish and game department.

The Wildlife Society organized.

1938

Agricultural Adjustment Act provided in great detail for benefit and parity payments to farmers, stressed the idea of the "ever-normal granary," and inaugurated federal

crop insurance for wheat through the creation of the Federal Crop Insurance Corporation under control of the Secretary of Agriculture. The act also provided for the establishment by the Department of Agriculture of four regional laboratories for the conduct of investigations relating to the industrial use of farm products. These were located at Philadelphia, Pennsylvania, Peoria, Illinois, New Orleans, Louisiana, and Albany, California.

Secretary of Commerce authorized to establish salmon-cultural stations in the Columbia River Basin; to conduct investigations; and to install devices for improving feeding and spawning conditions in order to protect migratory fish from irrigation projects.

Congress authorized the Secretary of the Interior to sell or lease not more than 5 acres of certain public lands, outside of Alaska, which he may classify as chiefly valuable as home, cabin, health, convalescent, recreational, or business sites, subject to a reservation to the United States of all oil, gas, and other mineral deposits. Regulations under the act provide for leases of not more than five years.

Concurrent Resolution of June 14 created a Joint Congressional Committee on Forestry to study the present and prospective situation with respect to the forest land of the United States and to make a report and recommendations by April 1, 1939. The time limit was later extended to April 1, 1941. The report was presented March 24, 1941.

Secretary of the Interior authorized to lease at rates determined by him any state, county, or private land chiefly valuable for grazing within the exterior boundaries of a grazing district. Such leases are to run for not more than ten years, and the fees paid for grazing privileges on the leased lands shall not be less than the rental paid by the United States for them. All moneys received in the administration of leased lands are made available, when appropriated by Congress, for the leasing of lands under this act, and shall not be distributed to the states as are other receipts.

Olympic National Park established and President is authorized, after eight months, to add national forest or other lands to the park, provided the total area of the park shall not exceed 898,292 acres.

1939

Forest Service adopts U-regulations defining wilderness, wild, and recreation areas on the national forests.

Reorganization Plan No. I of April 25 approved by Congress on June 7 to take effect July 1, established the National Resources Planning Board in the Executive Office of the President by transfer and consolidation of the National Resources Committee and the Federal Employment Stabilization Office in the Department of Commerce.

1939

Reorganization Plan No. II of May 9 transferred the Bureau of Fisheries from the Department of Commerce, and the Bureau of Biological Survey from the Department of Agriculture, to the Department of the Interior, and made the Secretary of the Interior chairman of the Migratory Bird Conservation Commission.

Department of the Interior Appropriations Act of May 10 made the first appropriation (\$37,500) for the prevention and suppression of fires on the public domain in Alaska.

Congress provides for payments to Coos County and Douglas County, Oregon, in lieu of taxes on reconveyed Coos Bay Wagon Road lands on the basis of the appraised value of the lands and the current rate of taxation, provided that payments during any ten-year period shall not exceed 75 percent of the receipts from the reconveyed lands. Not more than 25 percent of the receipts was made available, when appropriated by Congress, for administration of the lands.

Taylor Grazing Act amendments provided for the establishment within each grazing district of an advisory board of five to twelve local stock operators elected by the users of the range but appointed by the Secretary of the Interior, who may also on his own initiative appoint on wildlife member on each board. Each advisory board shall offer advice on application for grazing permits and on all other matters affecting the administration of the Taylor Grazing Act. Except in an emergency the Secretary of the Interior shall request the advice of the advisory board prior to the promulgation of any rules and regulations affecting the district.

Act of July 20 restored to the President authority to establish national forests in Montana.

Act of July 31 authorized the Secretary of the Interior to exchange revested Oregon and California Railroad lands and reconveyed Coos Bay Wagon Road lands for lands of equal value in private, state, or county ownership within or contiguous to the former limits of the grants; and repealed the previous acts relating to such exchanges.

Reclamation Project Act effected various reforms in existing reclamation legislation; authorized the sale of electric power or lease of power privileges for periods of not more than forty years, at such rates as would cover an appropriate share of the cost of operation and maintenance as well as the construction investment, with preference to municipalities and other public corporations or agencies; and specified the basis of payment for the various kinds of benefits provided by multipurpose reclamation projects.

Office of Director of Forestry was established in the Department of the Interior to coordinate the forestry work of the department.

1940

Forest Outings, a comprehensive report on forest recreation, was published by the Forest Service.

Reorganization Plan No. III of April 2 consolidated the Bureau of Fisheries and the Bureau of Biological Survey into the Fish and Wildlife Service.

Lea Act provided for federal cooperation in the protection of forest lands from white pine blister rust, irrespective of ownership, provided that on state or private lands federal expenditures must be at least matched by state or local authorities or by individuals or organizations.

Act of May 28 authorized the President, on the basis of a cooperative agreement between the Secretary of Agriculture and the municipality concerned, to withdraw national forest lands from which a municipality obtains its water supply from all forms of location, entry, or appropriation. The Secretary of Agriculture may prescribe such rules and regulations as he considers necessary for adequate protection of the watershed.

Convention between the United States and other American republics committed the signatory powers to take appropriate steps for the protection of nature and the preservation of wildlife in their respective countries.

U.S. Supreme Court, in *United States v. Appalachian Electric Power Company* (311 U.S. 377), held that a waterway constitutes "navigable water of the United States" if it can be made available for navigation by the construction of improvements, whether such improvements have actually been made or even authorized; and that a navigable waterway of the United States does not lose its character because its use for interstate commerce has lessened or ceased. The Court also stated that navigation is only a part of interstate commerce and that "flood protection, watershed development, recovery of the cost of improvements through utilization of power are likewise parts of commerce control."

1941

Forest Lands of the United States, report of the Joint Committee on Forestry established in 1938, was submitted to Congress on March 24.

U.S. Supreme Court, in *Oklahoma v. Atkinson Company*, stated that "it is clear that Congress may exercise its control over the non-navigable stretches of a river in order to preserve or promote commerce on the navigable portions" and added that "the power of flood control extends to the tributaries of navigable streams."

Congress extended to all lands owned by, leased by, or under the jurisdiction of the United States, including Indian lands and lands in process of acquisition, the penalties

(somewhat modified) for setting and for failing to extinguish fires in or near any timber, underbrush, grass, or other inflammable material.

1942

Executive order of April 12 delegated to the Secretary of the Interior authority to make withdrawals and restorations of public lands.

1942-1943

A series of bills required liquidation of the C.C.C. as quickly as possible but not later than June 30, 1944. Liquidation of most of the personnel was accomplished by August 15, 1942.

1943

Forest Products Research Society was organized on January 3.

National Resources Planning Board abolished effective August 31, except for such administrative action as required to wind up its affairs by January 1, 1944.

The American Forestry Association undertook a Forest Resources Appraisal, a three-year inventory of the nation's forest resources.

1944

Treaty of February 3 between the United States and Mexico established the International Boundary and Water Commission and provided for the allocation of the flow of the Rio Grande River and the Colorado River, the construction of dams, and other purposes.

Sustained-Yield Forest Management Act of March 29 authorized the Secretary of Agriculture and/or the Secretary of the Interior to establish cooperative sustained-yield units consisting of federal forest land and private forest land or federal sustained-yield units consisting only of federal forest land, when in their judgment the maintenance of stable communities is primarily dependent upon federal stumpage and when such maintenance cannot be secured through usual timber sale procedures. Provision is made for the sale of federal stumpage to cooperating landowners or to responsible purchasers within communities dependent on federal stumpage, without competitive bidding at prices not less than the appraised value of the timber.

Clarke-McNary Act of 1924 amended to authorize annual increases in the appropriation for cooperative forest fire protection with the states and for studies of tax laws and forest fire insurance up to a maximum of \$9 million for the fiscal year 1948 and thereafter.

1944

Annual appropriation of \$750,000 authorized to complete the initial survey of forest resources inaugurated by the McSweeney-McNary Act of 1928, with the stipulation that total appropriations for this purpose should not exceed \$6,500,000. An additional appropriation of \$250,000 annually was authorized to keep the survey current.

Department of Agriculture Organic Act of September 21, among many other administrative provisions, authorized the Secretary of Agriculture to pay rewards for information leading to arrest and conviction for violating laws and regulations relating to fires in or near national forests or for the unlawful taking of, or injury to, government property. It also authorized an annual expenditure during the existing emergency of not more than \$1 million for cooperative forest fire protection under the Clarke-McNary Act of 1924 without requiring an equal expenditure by state and private owners.

Act of September 27 authorized the Secretary of the Interior to dispose of sand, stone, gravel, vegetation, and timber or other forest products on unreserved public lands during the period of hostilities. This authority terminated on December 31, 1946, but was restored by the permanent and more comprehensive act of July 31, 1947.

Flood Control Act provided that thereafter federal investigations and improvements of rivers and waterways for flood control and allied purposes should be under the jurisdiction the War Department, and that federal investigations of watersheds and measures for runoff and water flow retardation and soil erosion prevention on watersheds should be under the jurisdiction of the Secretary of Agriculture.

1945

Presidential proclamation of September 28 stated that the United States regards the natural resources in the continental shelf as subject to its jurisdiction and control without thereby affecting the free and unimpeded navigation of the high seas above the continental shelf.

The Soil Conservation Society of America organized.

Presidential proclamation of September 28 stated that the United States regards it as proper, without affecting the freedom of navigation, to establish conservation zones in part of the high seas contiguous to its coasts, in which fishing activities shall be subject to the regulation and control of the United States, either alone or in cooperation with other nations.

The United States on October 16 signed the Constitution of the Food and Agriculture Organization of the United Nations. "Agriculture" was defined as including fisheries, marine products, forestry, and primary forest products.

1946

Reorganization Plan No. 3 of May 16 consolidated the General Land Office and the Grazing Service to form the Bureau of Land Management in the Department of the Interior. Simultaneously, the Grazing Service budget was cut by 80 percent, resulting in the "McCarren Leaves" when most Grazing Service personnel were fired or paid by the advisory boards.

Act of July 24 amended the Wildlife Restoration Act of 1937 by limiting the apportionment of funds to any one state to not less than ½ percent and not more than 5 percent of the total amount apportioned, and by permitting the use of not more than 25 percent of the federal apportionment for maintenance of completed wildlife restoration projects.

Joint Resolution of August 8 directed the Fish and Wildlife Service to prosecute investigations, experiments, and a vigorous program for the elimination of the sea lamprey from the Great Lakes.

Act of August 14 strengthened the Coordination Act of 1934 by authorizing the Secretary of the Interior, through the Fish and Wildlife Service, to provide assistance to, and cooperate with, federal, state, and public or private agencies and organizations in the development, protection, and rehabilitation of wildlife resources of the United States.

An American Forest Congress was held October 9 to 11 in Washington, D.C., under the sponsorship of the American Forestry Association. The directors of the association subsequently drafted a detailed program which was overwhelmingly adopted early in 1947 by a referendum vote of the membership.

The Nature Conservancy organized to promote preservation of threatened ecosystems through private purchase of land.

On December 9, the Secretary of the Interior delegated to the Commissioner of Indian Affairs authority to approve sales of timber from Indian lands up to 40,000 M board feet and to adjust stumpage prices on these sales.

The Forest Service, in December, issued the first of six reappraisal reports, based on its nationwide reappraisal project conducted in 1945 and 1946.

Local research centers were organized for the first time under the Southern and the Southeastern Forest Experiment Stations.

1947

McCarran Subcommittee Report attacking Grazing Service published.

1947

Forest Pest Control Act of June 25 declared it to be the policy of the government to protect all forest lands irrespective of ownership from destructive forest insect pests and diseases. It authorized the Secretary of Agriculture either directly or in cooperation with other federal agencies, state and local agencies, and private concerns and individuals to conduct surveys to detect infestations and to determine and carry out control measures against incipient, potential, or emergency outbreaks.

Commission on Organization of the Executive Branch of the Government (Hoover Commission) established to make recommendations to promote economy, efficiency, and improved service in the executive branch of the government.

Secretary of the Interior authorized to dispose of sand, stone, gravel, clay, timber, and other materials on public lands exclusive of national forests, national parks, national monuments, and Indian lands. Material exceeding \$1000 in appraised value must be sold at public auction. Receipts are disposed of in the same manner as receipts from the sale of public lands.

Interior Department Appropriations Act amended the Taylor Grazing Act of 1934 to authorize the Secretary of the Interior in fixing fees for the grazing of livestock in grazing districts to "take into account the extent to which such districts yield public benefits over and above those accruing to the users of the forage for livestock purposes." Such fees were thereafter to consist of (1) a grazing fee, 12½ percent of which is distributed to the states for the benefit of the counties in which the grazing districts are located, and (2) a range improvement fee which, when appropriated by Congress, is available for the construction, purchase, or maintenance of range improvements. Of the receipts from public lands not in grazing districts which are leased for grazing under section 15 of the Taylor Grazing Act, 25 percent is available, when appropriated by Congress, for range improvements, and 50 percent is distributed to the states for the benefit of the counties. Of the receipts from grazing districts on ceded Indian lands, 33⅓ percent is distributed to the states for the benefit of the counties, and the remaining 66⅔ percent is deposited to the credit of the Indians.

Mineral Leasing Act for Acquired Lands authorized the Secretary of the Interior to lease acquired lands containing deposits of coal, phosphate, oil, oil shale, gas, sodium, potassium, and sulfur under the provisions of the mineral leasing laws, with the consent of the head of the department having jurisdiction over the lands and subject to such conditions as he may prescribe.

1948

Barrett Committee investigation of Forest Service grazing programs took place.

Use and occupancy of national forest lands in Alaska permitted for purposes of residence, recreation, public convenience, education, industry, agriculture, and commerce

for periods not exceeding thirty years and in tracts not exceeding 80 acres. Lands so leased are not subject to disposal or leasing under the mining laws.

Oregon and California Railroad lands and the reconveyed Coos Bay Wagon Road lands, except power sites, reopened to exploration, location, entry and disposition under the general mining laws.

Secretary of Agriculture established the National Forest Board of Review, the name of which was changed in 1950 to National Forest Advisory Council.

Transfer of certain real property controlled but no longer needed by federal agencies authorized (1) to the states for wildlife conservation purposes other than for migratory birds or (2) to the Secretary of the Interior if the property has particular value in carrying out the national migratory bird management program.

Appropriations not to exceed a total of \$500,000 authorized for the purpose of acquiring certain specified lands in Cook, Lake, and St. Louis counties in the Superior National Forest, Minnesota, the development or exploitation of which might impair the unique qualities and natural features of the remaining wilderness canoe country. It also directed payment of the counties, in lieu of the usual 25 percent of gross receipts, of 0.75 percent of the fair appraised value of the land in the area covered by the act, as determined by the Secretary of Agriculture at ten-year intervals.

Water Pollution Control Act (Taft-Barkley Act) provided for technical and financial cooperation by the federal government with states and municipalities in the formulation and execution of programs for the abatement of stream pollution. Necessary appropriations were authorized for the five-year period ending June 30, 1953.

The Society for Range Management organized.

1949

First of the reports of the Commission on Organization of the Executive Branch of the Government (Hoover Commission) was sent to Congress on February 5.

Convention of February 8 between the United States and ten other countries (T.I.A.S. 2089) established the International Commission for the Northwest Atlantic Fisheries, with authority to conduct investigations and to promulgate regulations for the taking of fish in the Northwest Atlantic Ocean.

Third International Forestry Congress was held at Helsinki, Finland, July 10 to 20.

United Nations Scientific Conference on the Conservation and Utilization of Resources was held at Lake Success, New York, August 17 to September 6. An International Technical Conference on the Protection of Nature was held simultaneously.

1949

Congress provided for the sale at public auction of public land in Alaska not within national parks, monuments, forests, Indian lands, or military reservations which have been classified by the Secretary of the Interior as suitable for industrial or commercial purposes, including the construction of housing, in tracts not to exceed 160 acres, to any bidder who furnishes satisfactory proof that he has bona fide intentions and the means to develop the tract for the intended use.

Anderson-Mansfield Reforestation and Revegetation Act authorized a schedule of appropriations for the reforestation and revegetation of the forest and range lands of the national forests. "It is the declared policy of the Congress to accelerate and provide a continuing basis for the needed reforestation and revegetation of national forestlands and other lands under administration or control of the Forest Service".

Clarke-McNary Act amended by authorizing (1) annual increases in the appropriation for cooperative forest fire protection with the states up to a maximum of \$20,000,000 for the fiscal year 1955 and thereafter; (2) annual increases in the appropriation for cooperation with the states in providing planting stock for farmers and others up to a maximum of \$2,500,000 for the fiscal year 1953 and thereafter; and (3) an annual appropriation of \$500,000 for cooperation with the land-grant colleges or other suitable state agencies in educating farmers in the management of forest lands and in harvesting, utilizing, and marketing the products thereof.

U.S. Supreme Court on November 7 affirms decision of the Washington Supreme Court that a Washington law of 1945 providing for the control of cutting on privately owned forest lands is constitutional.

Southern Regional Education Compact was ratified by the legislatures of ten states. Coordination of teaching and research in forestry has been attempted under the compact.

1950

Reorganization Plan No. 3 of March 13 transferred to the Secretary of the Interior, with two exceptions, all functions of all agencies and employees of the department; authorized the Secretary to effect such organization of the department as he deemed appropriate; and added an assistant secretary and an administrative assistant secretary to the department.

Granger-Thye Act "to facilitate and simplify the work of the Forest Service," broadened the authority granted the Secretary of Agriculture by the act of March 3, 1925, to accept contributions for administration, protection, improvement, reforestation, and other work on nonfederal lands within or near national forests; provided for sales and exchanges of nursery stock with public agencies; authorized the lease, protection, and management of public and private range land intermingled with or adjacent to national forest land; made available, when appropriated by Congress, an amount equivalent to 2 cents per animal-month for sheep and 10 cents per animal-month for other kinds of

livestock under permit on a national forest for range improvements on that forest; provided for the organization of local advisory boards on petition of a majority of the grazing permittees on a national forest; authorized the Secretary of Agriculture to issue permits for the grazing of livestock on national forests for periods not exceeding ten years and renewals thereof; and repealed the provision of the Weeks Act of 1911 limiting contributions to counties to 40 percent of their income from other sources.

National Science Foundation established "to promote the progress of science" and for other purposes.

Fish Restoration and Management Act (Dingell-Johnson Act) authorized the annual appropriation of an amount equivalent to the revenue from the tax on fishing rods, creels, reels, and artificial lures, baits, and flies, to be used for cooperation with the states in fish restoration and management projects up to 75 percent of the total cost of the projects.

Cooperative Forest Management Act authorized an annual appropriation of \$2,500,000 to enable the Secretary of Agriculture to cooperate with state foresters in providing technical services to private forest landowners and operators and to processors of primary forest products. The Cooperative Farm Forestry Act of 1937 was repealed effective June 30, 1951.

A Water Policy for the American People, the first volume of a three-volume report of the President's Water Resources Policy Commission (Cooke Commission), was transmitted to the President on December 11.

President Truman's "Point Four" proposed a cooperative program for aid in the development of economically undeveloped areas of the world.

The Society of American Foresters celebrated its Golden Anniversary and published a comprehensive history of forestry in the United States during the previous fifty years.

Airports Bill authorized Secretary of the Interior to recommend building of airports to promote use and management of national parks and monuments and to convey lands to build needed airports.

1952

Resources for Freedom, report of the President's Materials Policy Commission (Paley Commission), was transmitted to the President on June 2.

Interior Department Appropriations Act of July 9 made the appropriation for access roads to O. and C. lands deductible from the 75 percent of gross receipts payable to the counties.

1952

Financial authorizations approved by the Water Pollution Control Act of 1948 extended to June 30, 1956.

Budget Bureau Circular A-47, outlining restrictive criteria for evaluating water projects, adopted. Taxes foregone as result of project must be included as a cost, and only direct benefits were to be calculated. Power benefits were not to be included unless power produced was cheaper than next cheapest alternative.

Secretary of Agriculture appointed a Forest Research Advisory Committee under authority of the Agricultural Research and Marketing Act of August 14, 1946.

1953

Reorganization Plan No. 2 of March 25 transferred to the Secretary of Agriculture, with certain specified exceptions, all functions of all agencies and employees of the department; authorized the Secretary to effect such organization of the department as he deemed appropriate; and added two assistant secretaries and an administrative assistant secretary to the department.

Submerged Lands Act of May 22 confirmed and established the titles of the states to lands beneath navigable waters within state boundaries and to the natural resources within such lands and waters; provided for the use and control of such lands and resources; and confirmed the jurisdiction and control of the United States over the natural resources of the seabed of the continental shelf seaward of state boundaries.

Commission on Organization of the Executive Branch of the Government (Second Hoover Commission) established.

Commission on Intergovernmental Relations (Kestenbaum Commission), one of the committees which dealt with federal-state relations in the field of natural resources, established.

Agricultural Appropriations Act appropriated \$5 million to conduct studies and carry out preventive measures for the protection of watersheds under the provisions of the Soil Conservation Act of 1935.

Act of August 7 provided for the jurisdiction of the United States over the submerged lands of the outer continental shelf and authorized the Secretary of the Interior to lease such lands for certain purposes.

A National Advisory Committee on Weather Control established to study and evaluate public and private experiments in weather modification.

1953

The Federal Reserve Act amended to authorize national banks to make loans secured by first liens up to 40 percent of their appraised value "upon forest tracts which are properly managed in all respects." Loans may not be made for more than two years, except that they may be made for ten years under a mortgage providing for their amortization at a rate of not less than 10 percent a year.

Fourth American Forest Congress was held October 29 to 31 in Washington, D.C., under the sponsorship of the American Forestry Association. Following the Congress, "A Program for American Forestry" was formulated by the directors and in 1954 was approved by the membership of the association.

1953-1954

Numerous bills providing for recognition of grazing permittees' "rights" on public lands or sale of allotments to permittees defeated in Congress.

1954

Atomic Energy Commission established, forbidding government competition with commercial nuclear electric power industry and requiring an AEC license from all operators.

President Eisenhower on May 26 established a Cabinet Committee on Water Resources policy consisting of the Secretaries of the Interior (chairman), Agriculture, Commerce, Army, and Health, Education, and Welfare, and the chairman of the Federal Power Commission.

Limitation of 142 million acres on the total area that might be included in grazing districts removed.

Act declared the controverted Oregon and California Railroad lands in the indemnity strip to be O. and C. lands shall continue to be administered as national forest lands, and the receipts from which shall be disposed of as provided in the act of August 28, 1937. In order to facilitate administration and accounting, the Secretary of Agriculture was authorized to designate in each county an area of national forest land of substantially equal value, revenues from which shall be disposed of under the 1937 act. The Secretary of the Interior and the Secretary of Agriculture were also directed to block up national forest and intermingled and adjacent O. and C. lands, exclusive of those in the indemnity strip, by exchange of administrative jurisdiction on approximately an equal-value (and so far as practicable an equal-area) basis.

Southeastern Interstate Forest Fire Protection Compact established "to promote effective prevention and control of forest fires in the Southeastern region of the United States." It applied to Alabama, Florida, Georgia, Kentucky, Mississippi, North

Carolina, South Carolina, Tennessee, Virginia, and West Virginia, and to any contiguous state on approval by the legislature of each member state.

Secretary of Interior recommended in favor of Echo Park Dam in Dinosaur National Monument Dam, setting off major public movement in opposition.

Internal Revenue Code authorized farmers to deduct expenditures for soil or water conservation or for the prevention of erosion, up to 25 percent of gross income in computing federal income taxes.

Controversy over reclassification of Three Sisters Primitive Area in Oregon led preservation groups to seek legislative action to protect wilderness.

Small Watersheds Act initiated extensive new program in which the Soil Conservation Service and Local groups would cooperate in flood and soil erosion prevention programs. Popularly known as the "Small Watersheds Act," the program provided for funding and construction of projects in small watersheds.

A National Watershed Congress was held in Washington, D.C., December 6 to 7.

After fifty years of discussion, the Saint Lawrence Seaway, linking the Great Lakes with the Atlantic Ocean, was authorized.

1955

The Surgeon General of the Public Health Service authorized to cooperate with other agencies in providing research and technical assistance relating to the control of air pollution.

Materials Disposal Act amended by adding common pumice, pumicite, and cinders to the materials specified in that act, and authorized the disposal of all such materials on both unreserved and reserved public lands except national parks, national monuments, and Indian lands by the secretary of the department having jurisdiction over the lands in question. It also provided that on unpatented claims subsequently located, the United States shall have the right to dispose of the timber and other nonmineral surface resources, provided that such disposal shall not endanger or materially interfere with mining operations; and it established a procedure whereby the right to the use of timber and other surface resources on existing, inactive mining claims may be canceled or waived.

U.S. Supreme Court ruled, in Pelton Dam case (*F.P.C. v. Oregon*), that the federal government has jurisdiction over unappropriated, nonnavigable waters causing floods flowing over reserved federal lands. This defeat for state water control raised fears of federal jurisdiction over western waters.

1955

National Park Service identified sixteen choice coastal recreation/park sites in study, *Our Vanishing Shoreline*, undertaken with donated funds.

Mining Claims Rights Restoration Act authorized development of mineral resources on public lands withdrawn or reserved by the United States for power production purposes subject to oversight of the Secretary of Interior.

Air Pollution Control Act authorized federal program in air pollution research and training.

1956

Fish and Wildlife Act reorganized the Fish and Wildlife Service into Bureau of Sport Fisheries and Wildlife and Bureau of Commercial Fisheries.

"Mission '66" undertaken by National Park Service.

Federal Water Pollution Control Act Amendments provided funding for water pollution control programs on state and federal levels and created Water Pollution Control Advisory Board.

Great Plains Conservation Program authorized Secretary of Agriculture to enter into contractual relations with Great Plains farmers and ranchers in counties susceptible to severe soil erosion. The program's objective was to encourage new soil and water conservation techniques in Great Plains region.

Agricultural Act initiated new federal/state reforestation program on public and private lands, authorizing aid to farmers converting farmland to forest land.

Al Sarena mining scandal, prompted by alleged Department of Interior improprieties in issuing questionable mining patent for valuable timberland, becomes partisan issue.

Upper Colorado River Project authorized deleting controversial Echo Park Dam but including large multipurpose dam program consisting of four major and eleven smaller dams.

1957

"Operation Outdoors" undertaken by Forest Service.

Deferred Grazing Program commenced payments to stock owners engaged in deferred grazing scheme. The act stipulated payments equal to fair rental value for grazing use of land withheld, and allowed payments to ranchers on nonfederal lands proclaimed major disaster areas in times of drought.

1958

Seneca Indians lose effort to block construction of Kinzua Dam in Pennsylvania on grounds that dam would flood lands protected by a 1754 treaty (*Seneca Indians v. Brucker*).

Fish and Wildlife Coordination Act amended the Watershed Protection and Flood Prevention Act of 1954 to require executive level interagency consultation in developing integrated wildlife conservation watershed improvement plans. Also provided for interagency cooperation to ensure the protection of fish and wildlife in construction or operation of water resource projects.

Pesticide Research Act authorized investigations of pesticide impact on fish and wildlife.

National Outdoor Recreation Resources Review Commission (ORRRC) established by Congress.

"Timber Resources For America's Future" published by Forest Service, emphasizing the importance of private holdings in Eastern and Southern regions.

Alaska Statehood Act admitted Alaska to Union and granted new state authority to select 102.9 million acres over twenty five years.

1959

Minute Man Historical Park Act authorized first expenditure of public revenues for national park land acquisition.

"Pacific Coast Recreation Area Survey," prepared by National Park Service, recommended establishment of five state and five national parks.

"A Program for the National Forests" promulgated by Secretary of Agriculture, a long-range plan based on Timber Resources Review publication of previous year.

Criminal sanctions for water pollution impacting horses and burros on public lands authorized by Congress.

1960

Multiple Use Sustained Yield Act authorized Secretary of Agriculture to "develop and administer the renewable surface resources of the national forests for multiple use and sustained yield of the several products and services obtained therefrom." Stipulated as multiple uses were outdoor recreation, range, timber, water, and wildlife and fish. Finally, the multiple uses were qualified as being supplemental to, but not in derogation of, the purposes for which the national forests were established as set forth in act of June 4, 1897.

1960

"Our Fourth Shore," a National Park Service Study of Great Lakes shoreline recreation opportunities, recommended five new national parks.

Public Land Administration Act authorized BLM to engage in cooperative management agreements for use and development of public lands.

Amendments to Mineral Leasing Act of 1920 authorized raise in yearly minimum rentals on oil and gas leases, and development of cooperative plans to operate oil and gas reserves for conservation purposes.

"National Grasslands" established by decree of Secretary of Agriculture announcing formal policy for management of 3.8 million acres of national forest land.

Congress instructed U.S. Army Corp of Engineers to manage its reservoir areas for maintenance of adequate timber supplies through sustained yield programs, reforestation, and related conservation practices.

BLM launched "Project 2012."

1961

President Kennedy declared national goal of putting a man on the moon by the end of the decade.

Land Application Moratorium imposed for eighteen months by Interior Secretary Udall. BLM prohibited from accepting new applications for nonmining disposition of public lands until backlog processed.

"Development Program for the National Forests" promulgated by Kennedy administration based on 1959 program.

Wetlands Loan Program authorized \$105 million loans to purchase wetlands for waterfowl habitat.

Cape Cod National Seashore Act authorized first national park to be acquired primarily through purchase/condemnation.

Agriculture Act authorized Secretary of Agriculture to make/insure loans to associations and private farmers for purposes of promoting land and water development, use, and conservation.

Delaware River Basin Compact established commission to oversee interstate use.

1961

Amendments to Federal Water Pollution Control Act strengthened enforcement provisions, increased authorization for sewage treatment plant construction grants, and authorized inclusion of pollution control or abatement as benefit of federal dam projects.

Hawaii Land Use Planning Act enacted two years after statehood granted.

McIntire-Stennis Cooperative Research Act authorized Secretary of Agriculture to undertake coordinated program in forestry, range, and related research.

Food and Agricultural Act amended the Soil Conservation and Domestic Allotment Act of 1936 to authorize ongoing federal administration of the Agricultural Conservation Program (ACP).

Final reports of Outdoor Recreation Resources Review Commission released.

Rachel Carson's *Silent Spring* published, calling attention to environmental impact of pesticides.

Point Reyes National Seashore authorized by Congress, but allows ranch and dairy operations to continue and permits 50-year amortization period for summer residence property.

Bureau of Sport Fisheries and Wildlife receives first authorization for recreation facilities.

One-year suspension of Jones Act authorized to permit use of foreign ships in transport of timber. Subsequent suspension renewal attempt in 1963 failed.

Forestry Research Act authorized Secretary of Agriculture to provide 50 percent matching funds for forestry research at land grant colleges, agricultural experiment stations, and state-supported graduate programs in forestry.

Relief authorized to occupants of invalid, unoccupied mining claims which served as principal residences for prescribed period.

Omnibus River and Harbor and Flood Control Act constituted massive appropriation for navigation and flood control projects to be implemented by Secretary of Army under direction of the Chief of Engineers.

Creation of Bureau of Outdoor Recreation in Department of Interior by secretarial order.

1963

In *Arizona v. California*, the United States Supreme Court approved for the first time allocation of water to non-Indian federal reservations under the reserved rights doctrine.

Outdoor Recreation Cooperation Act amended the 1936 Recreation Study Act and authorized Secretary of Interior to formulate a nationwide outdoor recreation plan. Technical assistance to states, recreation research, and new duties to Bureau of Outdoor Recreation also approved.

Bureau of Outdoor Recreation Act constituted the organic act for newly formed Bureau of Outdoor Recreation (Interior Department), created to provide technical planning services in the recreation field.

Clean Air Act authorized HEW to monitor air pollution violations.

Congress authorized Secretary of Interior to prepare national plan for outdoor recreation and to provide technical assistance for the promotion of regional and interagency cooperation.

1964

Congress authorized \$15 million payment to Seneca Indians displaced by Kinzua Dam.

Land and Water Conservation Fund—consisting of motorboat fuel taxes, user fees, and limited appropriated monies—authorized to provide federal grants to aid states in planning for, acquiring, and developing land and water areas and facilities for recreation purposes.

BLM received its first appropriation (\$700,000) for general recreation purposes.

Wilderness Act established National Wilderness Preservation System to be composed of federally owned lands designated by Congress as "wilderness areas." The Secretary of Agriculture was specifically charged with responsibility for reviewing all Forest Service primitive areas for their wilderness suitability and recommending candidate areas to President within ten years.

Classification and Multiple Use Act required Secretary of Interior to develop regulations for determining whether public lands should be disposed of or retained under federal management. Lands classified for sale or disposal were to be processed within two years of date of classification.

1965

Water Quality Act required states to establish and enforce water quality standards for interstate waters within their boundaries. Also authorized Department of Health, Education and Welfare to set standards in absence of appropriate state action.

White House Conference on Natural Beauty convened by President Johnson.

Highway Beautification Act established broad range of programs affecting billboards, junkyards, and strip development along federally funded highways, heralding new federal policy on aesthetic conservation.

Water Resources Planning Act authorized Federal Water Resources Council to coordinate water resources planning and policy.

Appalachian Regional Development Act authorized study to propose framework for federal involvement in stripmining regulation and authorized \$1.1 billion in aid to twelve economically depressed states.

November blackout in northeastern states leaves New York City without electricity for eight to thirteen hours and focuses attention on energy matters.

In *Scenic Hudson Preservation Conference v. Federal Power Commission*, the Second Circuit Court of Appeals affirmed standing of plaintiffs to sue to protect aesthetic values. Established requirement that F.P.C. actively seek information on impacts and alternatives to proposed license.

Anadromous Fish Conservation Act authorized the Secretary of Interior to enter into cooperative agreements with states for purpose of enhancing anadromous fishery resources threatened by water resource developments.

Solid Waste Disposal Act provided technical and financial assistance to state and local governments and interstate agencies in the planning, development, and conduct of solid waste disposal programs.

River and Harbors and Flood Control Act authorized additional allocations to provide uniform policies with respect to recreation, fish, and wildlife impacts of federal multiple-purpose water resource projects.

Title III of Bankhead Jones Farm Tenant Act amended to include recreation.

1966

National Wildlife Refuge System Administration Act consolidated into one new National Wildlife Refuge System the various wildlife refuges, ranges, and management areas existing under Interior Department jurisdiction.

1966

National Historic Preservation Act declared national policy that "the historical and cultural foundations of the nation should be preserved as a living part of our community life and development in order to give a sense of orientation to the American people." To this end, the act established a national register of historic sites, structures, and objects; a grants-in-aid program to the states; and a matching-fund program to aid the National Trust for Historic Preservation chartered by Congress in 1949.

Seagrant College Act, an analog to land grant college concept, enacted to develop technology of aquaculture and exploitation of ocean resources.

Wildlife Protection Act authorized Secretary of Interior to acquire habitat of seventy-five species of birds and mammals threatened with extinction.

Secretary of Interior Udall put freeze on state selection of Alaskan acreage due to conflict with native land claims.

Clean Water Restoration Act authorized federal funding for flood control purposes on navigable rivers or their tributaries.

Executive Reorganization Plan No. 2 and Amendments to Federal Water Pollution Act transferred water pollution function from Department of Health, Education and Welfare to Department of the Interior.

Fur Seal Act prohibited taking of fur seals within U.S. territorial waters or by U.S. citizens in north Pacific Ocean.

1967

Air Quality Act gave Department of Health, Education and Welfare authority to oversee establishment of state air quality standards and implementation plans. Also empowered HEW to designate atmospheric areas and air quality control regions. The act instituted for the first time national standards for automobile emissions.

National Park Foundation created, replacing National Park Trust Fund Board, to encourage charitable gifts to National Park Service for the advancement of its conservation activities.

1968

Wild and Scenic Rivers Act established a national system to preserve wild and scenic rivers which were to be authorized for inclusion by Congress or designated and administered by state through which they flowed. Three-tiered system of classification created: wild, scenic, and recreational. Criteria for inclusion in the system were established for each classification category.

1968

National Trail System Act created a national trail system based on three trail categories: state and metropolitan trails, national recreation trails, and national scenic trails. Provided for "instant" designation of Appalachian and Pacific Crest trails and for study of fourteen other trails for possible inclusion in the system.

Zero Population Growth (ZPG) organized.

Atlantic Richfield Company strikes oil in commercial quantities on North Slope of Alaska. Trans-Alaskan pipeline venture subsequently formed to transport oil from drilling sites to port of Valdez.

North Cascades Complex Act created North Cascades National Park as well as Ross Lake and Lake Chelan National Recreation Areas.

Redwood National Park Act set aside 58,000 acres in northern California coastal region for preservation of *Sequoia sempervirens* redwoods. Most expensive national park land acquisition program in history.

LWCF amended to allow appropriation from general revenues to support fund and to allocate up to \$200 million annually from outer continental shelf oil and gas leasing to LWCF.

1969

Santa Barbara oil spill covers 800 square miles with a thick oil slick and focuses national attention on oil pollution.

Friends of the Earth organized.

Endangered Species Conservation Act prohibited importation of endangered species of fish or wildlife into the United States and proscribed "interstate shipment of reptiles, amphibians, and other wildlife taken contrary to state law."

"Stratton" [Marine Science] Commission report urges creation of NOAA (National Oceanic and Atmospheric Administration) to consolidate twenty-two bureaus in nine federal departments responsible for ocean policy matters.

National Conservation Bill of Rights introduced in House of Representatives proposing an amendment to the U.S. Constitution relating to natural resources conservation and natural beauty of the United States.

1970

National Environmental Policy Act of 1969 signed on New Year's Day, heralding the commencement of the "environmental decade." NEPA required every federal agency to prepare and circulate an environmental impact statement (EIS) "on proposals for legislation and other major federal actions significantly affecting the quality of the human environment." The act also created the federal Council of Environmental Quality (CEQ) in the Executive Office of the President to advise the President on matters of environmental quality and to review agency compliance with the act.

Natural Resources Defense Council organized.

Jet port in Everglades halted by White House order.

Executive Reorganization Plans Nos. 3 and 4 created Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA). EPA delegated authority for water quality, air quality, pesticide, radiological, and solid waste functions while NOAA assigned existing federal programs in marine resource management under Secretary of Commerce.

Air Quality Act authorized EPA to set primary and secondary air quality standards and to foster development of state plans to implement standards.

Earth Day celebrated April 22.

Bolle report, *A University Looks at the Forest Service*, published. This evaluation of Forest Service practices in Bitterroot National Forest prompted national debate on clear cutting.

California Environmental Quality Act enacted incorporating many features of the federal model.

Executive Order 11574 (December 23) provided guidelines for administration of Refuse Act permit program.

Resource Recovery Act amended Solid Waste Disposal Act to provide additional assistance for development of resource recovery systems and improved solid waste disposal facilities.

Delaware River Basin Commission amended Comprehensive Plan to levy penalties against municipalities for continuing pollutant discharge.

Geothermal Resources Act empowered Secretary of Interior to issue leases for geothermal resources on public lands.

1970

In *Environmental Defense Fund v. Hardin*, judicial concept of standing expanded with determination that biological harm to people and other living things, resulting from Secretary of Agriculture's failure to suspend use of DDT, was sufficient to grant judicial review.

National Materials Policy Act created commission to develop national materials policy with the objective of promoting more efficient use of present resources and technology.

1971

Report of Public Land Law Review Commission issued, generating considerable controversy concerning its commodity and disposition orientation.

Calvert Cliffs Coordinating Committee v. AEC established the importance of the EIS and judicial review in the environmental reform movement. Construction of proposed nuclear facility enjoined pending preparation of an adequate EIS.

Congress refused to appropriate additional funds for development of SST (supersonic transport). Environmental hazards created by plane cited as congressional justification.

"Framework for the Future," calling for more balance in Forest Service Programs, adopted by Forest Service as goal statement.

Alaskan Native Claims Settlement Act facilitated building of Trans-Alaska pipeline by resolving native land claims. Law provided that approximately 53,000 Eskimos, Aleuts, and Indians would receive \$462.5 million in federal grants, \$500 million in federal and state mineral revenues, and 22 million acres of land outside TAPS corridor. Secretary of Interior authorized to withhold 80 million acres of national interest lands from state and native selection.

Federal Communications Commission challenged in *Friends of the Earth v. FCC* on its refusal to hold that TV spots advertising big cars and leaded gasoline present one side of a controversial issue of public importance, raising Fairness Doctrine implications.

Coal-leasing moratorium imposed by Secretary of Interior after analysis revealed that most leaseholders were not producing coal. Massive reassessment of coal program triggered by this action.

Hunting from Aircraft Act prohibited hunting bald eagles, golden eagles, and wolves from helicopters, in response to public outrage over practice.

RARE I (Roadless Area Review and Evaluation) undertaken by the Forest Service to identify potential wilderness areas.

1971

The United States Supreme Court in *Citizen to Preserve Overton Park v. Volpe* by declaring that courts must adhere to rigorous standard for judicial review of administrative decisions in environmental matters; advanced the "substantial inquiry" or hard look doctrine which has become central tenet of administrative and environmental law.

"Church Guidelines" for clear cutting published after Senate Subcommittee on Public Lands investigation of national forest harvest techniques. Guidelines immediately adopted as clear cutting policy by Forest Service.

Wild and Free Roaming Horse and Burro Act directed Secretary of Interior to manage and protect such animals from "capture, branding, harassment, or death," and to maintain for them specific sanctuaries on the public lands. Both BLM and Forest Service required to protect federal populations on public lands.

Washington State Environmental Policy and Shoreline Management Acts Passed.

Oregon Forest Practice Act enacted.

1972

Marine Mammals Protection Act imposed moratorium on killing and importing of most marine mammals.

Coastal Zone Management Act authorized \$186 million in grants to states for cooperative planning to protect coastal areas.

United Nations Stockholm Conference on the Human Environment concluded that all states are responsible for damage to environment of other states or international areas, and established "Earthwatch" program to monitor environmental indicators.

Federal Environmental Pesticide Control Act substantially amended 1947 Federal Insecticide, Fungicide, and Rodenticide Act, which had been administered by Department of Agriculture until transferred to EPA in 1970 reorganization.

Sierra Club v. Butz declared that all areas contiguous to a wilderness or primitive area must be protected as wilderness pending congressional actions on inclusion of area in wilderness system.

Noise Control Act charged EPA with responsibility to set emission standards for all major noise sources. Noise control programs were to be formulated and administered by the states under EPA supervision.

Bald and Golden Eagle Protection Act established criminal penalties for taking or possession of bald and golden eagles.

1972

Federal Water Pollution Control Act Amendments enacted, despite presidential veto, mandating complex set of state programs to meet EPA water quality standards and implementation of point and nonpoint source water pollution controls.

Executive Order 11643 (February 8) directed heads of all federal agencies to ban use of any chemical toxicant on federal lands against predatory animals when secondary harm could occur to human or other animals.

Executive Order 11644 (February 8) instructed agency and department heads to issue regulations controlling the use of off-road vehicles on public lands.

Forest Service published "Environmental Program for the Future" (EPFF) and initiated unit planning process.

Indians occupy Washington offices of the Bureau of Indian Affairs for one week to publicize demands that property rights granted them by treaties be recognized.

Oregon's Minimum Deposit Act (Ch. 745, Oregon Laws of 1971), commonly known as the "bottle bill," went into effect. First state act directed against popular use of disposable beverage containers.

Sierra Club v. Ruckelshaus held that administrator's duty to implement a policy of "no significant deterioration" under the Clean Air Act is nondiscretionary.

Florida Environmental Land and Water Management Act enacted, serving as model of major state land use legislation.

In *Friends of Mammoth v. Mono City* California Supreme Court dictated NEPA compliance for private activities "for which a government permit of other entitlement of use is necessary."

California Coastal Zone Commission created by Proposition 20, a public initiative calling for controlled coastal growth through increased environmental protection.

Sierra Club v. Morton, also known as the "Mineral King" case, clarified "standing" criteria in environmental litigation initiated by reformers acting as "private attorney generals." Justice W. Douglas's frequently cited dissenting opinion posed question of tree's right to sue on own behalf.

NRDC v. Morton established "rule of reason" standard for NEPA requirement of EIS discussion of "alternatives to the proposed action."

Volunteers in National Forests Program authorized Secretary of Agriculture to recruit and train volunteers to assist in Forest Service activities.

1973

Endangered Species Act established federal procedures for identification and protection of endangered plants and animals in their critical habitats. Declared broad prohibiting against taking, hunting, harming, or harassing listed species, and was intended, in large part, through cooperative federal and state efforts, to restore endangered populations to a level where protection no longer necessary.

Federal District Court decision in *West Virginia Division of Izaak Walton League v. Butz* commenced litigation phase of Monogahela controversy with ruling that Forest Service harvesting practices violate 1917 Organic Act.

Trans-Alaska Pipeline authorized by Congress in statute which removed 50-foot limit on rights-of-way across public lands and exempted TAPS from further litigation of NEPA requirements.

Arab oil embargo prompted 400 percent increase in cost of foreign oil and intense public concern for energy supplies.

Speed limit lowered to 55 mph on national highways.

Agricultural and Consumer Protection Act created under Title X of Forestry Incentives Program (FIP) to authorize financial assistance through long-term contracts with owners of nonindustrial private forest lands. Funds provided for tree planting and timber stand improvement to enhance productivity of nation's small private forests.

"Convention on International Trade in Endangered Species of Wild Fauna and Florida" established international treaty between United States and numerous nations to regulate trade strictly in threatened plant and animal species.

President's Advisory Panel on Timber and the Environment (PAPTE) report called for sounder financial management of national forests.

National Land Use Planning Bills rejected by Congress.

Executive Order 11752 issued, concerning prevention, control, and abatement of environmental pollution at federal facilities.

California Forest Practice Act enacted, outlining State Forestry Board authority in timber harvesting matters.

The Court of Appeals for D.C. Circuit upheld, in all respects, EPA's cancellation of virtually all remaining registrations for DDT in *Environmental Defense Fund v. Environmental Protection Agency*.

1973

Scientists' Institute for Public Information v. AEC held that NEPA required EIS for research and development program aimed at commercializing the Liquid Metal Fast Breeder Reactor, affirming NEPA's technology assessment function.

1974

Energy Reorganization Act created the Energy Research and Development Administration (ERDA), replacing the Atomic Energy Commission and centralizing energy programs from EPA, Interior, and other federal departments.

Federal Energy Administration created to consolidate federal energy management functions in face of fuel crisis.

Eastern Wilderness Act extended 1964 Wilderness Act to eastern third of nation adding sixteen new areas to the system.

Forest and Rangeland Renewable Resources Planning Act directed Forest Service to undertake long-range planning to ensure adequate timber supply and maintenance of environmental quality. Forest Service required to prepare a decennial assessment of renewable resource supply and demand and update management program at five-year intervals.

Safe Drinking Water Act authorized EPA to promulgate national primary drinking water regulations specifying permissible contaminant levels or mandating adoption of specific treatment techniques. The states were given major enforcement responsibilities to be carried out under regulations and plans approved by the federal EPA.

"Conti decision," an out-of-court settlement of a Sierra Club suit brought against Forest Service for failure to prepare an EIS or RARE I, prohibited alternation of any de facto wilderness pending completion of land use planning process.

Justice Douglas, sitting as Circuit Justice, issued opinion in *Warm Springs Task Force v. Gribble* which stayed further work on Warm Springs Dam project in Sonoma County, California, confirming in dictum the central role of the CEQ as administrator of NEPA.

NRDC v. Morton confirmed applicability of NEPA to livestock grazing permit program of the Bureau of Land Management, Department of Interior.

Washington State Forest Practices Act enacted.

1975

Environmental Protection Agency regulations designated all federal lands as class II for air quality purposes.

1975

Initial "Monongahela" decision upheld by Fourth Circuit Court of Appeals, setting stage for legislative remedy of 1897 act inadequacies (*Zaak Walton League v. Butz*).

Executive Order 11870 (July 18) pertaining to "Animal Damage Control on Federal Lands" amended the first order promulgated to address problem in 1972 and allowed for the experimental use of sodium cyanide in federal predator control research programs.

I *NRDC v. Train*, District of Columbia Court of Appeals accepted theory that the citizen suit provisions of the environmental laws do not provide the exclusive bases of jurisdiction.

Wyoming Statewide Planning Law enacted.

In *Joint Tribal Council of the Passamaquoddy Tribe v. Morton* trust relationship between United States and tribal signatories to Nonintercourse Act established in land conveyance matters.

In a major setback for public interest litigation, United States Supreme Court in *Alyeska Pipeline Service Co. v. Wilderness Society* held that only Congress, not the courts, can authorize exception to "American rule" that attorney's fees cannot ordinarily be recovered by a prevailing party from a losing party.

1976

National Forest Management Act repealed language of 1897 act which prompted Monongahela litigation, extensively amended the RPA planning process, and provoked controversy on nondeclining even flow and other key aspects of intensive management. Act also mandated greater public participation in Forest Service decision making and authorized \$200 million annually for reforestation work.

Resource Conservation and Recovery Act also known as Solid Waste Bill, established new Office of Solid Waste within EPA to provide technical and financial assistance to states and localities for development and implementation of solid waste management plans.

In *Minnesota Public Interest Research Group v. Butz* (II), a statutory assurance that Boundary Waters Canoe Area be administered so as to protect its "primitive" charac-

ter, interpreted to prohibit commercial exploitation of virgin timber within protected area.

Federal Land Policy and Management Act established the Bureau of Land Management, authorized multiple-use management of public lands, and declared government policy of retaining public lands in federal ownership.

Federal Coal Leasing Amendments enacted despite presidential veto, stipulated competitive bidding on all tracts and eliminated preference right leasing. Comprehensive land use planning requirements and strict bidding procedures outlined in act.

U.S. Supreme Court interpreted, in *Kleppe v. New Mexico*, the Wild and Free Roaming Horse and Burro Act to require federal rather than state control of wildlife on public lands. This interpretation has potential to alter traditional federal/state roles in wildlife management.

U.S. Supreme Court limited application of NEPA's EIS requirements by ruling in *Kleppe v. Sierra Club* that Interior Department need not prepare regional EIS on northern Great Plains coal program.

Teton Dam disaster occurs when a Bureau of Reclamation dam on Teton River breaks, killing eight people. This tragedy, clearly a result of engineering error, prompted reevaluation of structural approach to water development.

National Park Service Mining Regulation Act 1901) halted mineral entry in certain national parks and monuments by authorizing Secretary of Interior to proscribe regulations as deemed necessary to preserve the parks. Valid existing rights were not extinguished by the bill.

Forest Service canceled contract with Champion International Plywood Company to sell 8.75 bbf over fifty years in Alaska. This sale had been mired in litigation for many years.

Alpine Lakes Wilderness Bill established 392,000 acre area in central Cascade Mountains of Washington.

Energy Minerals Activity Recommendation System unveiled by Interior Department for competitive coal leasing on the public lands.

Park Services Administration Act raised uniform allowance, revised law enforcement authority, and authorized Park Service to recommend twelve new parks annually on land under any jurisdiction.

Payments-in-Lieu-Act granted counties \$120 million annually for public lands in their jurisdiction.

1976

Proposed reform of "range code," Department of the Interior regulations for range management and leasing, published in *Federal Register*.

Omnibus Wilderness Act designated nineteen wilderness areas in thirteen states.

Natural Defenses Council, Inc. v. Arcata National Corporation held that California Environmental Quality Act applied to harvesting of timber, requiring preparation of environmental impact report.

Executive Order 11917 (June 2) on Animal Damage Control on Public Lands amended prior executive decree to allow for limited operational use of sodium cyanide in federal programs on public lands.

Controversial Kaiparowits coal-fired power project proposed for southern Utah dropped by Southern California Edison after conflict with air quality maintenance area requirements (AQMA) and unfavorable economic projections.

California Coastal Zone Management Act approved, establishing Coastal Zone Conservation Commission as permanent agency and providing administrative framework for preservation of coastal ecology.

Cappaert v. United States held that reservation doctrine does not apply to groundwater.

1977

RARE II, a second roadless area review, undertaken by Forest Service in an effort to speed up designation.

Clean Air Amendments established three classes of air quality maintenance areas. International parks, wilderness areas over 5000 acres, and national parks over 6000 acres included in designation permitting no designation of air quality.

Surface Mining Reclamation Act created Office of Strip Mining (OSM) in the Department of the Interior to oversee planning and review requirements of complex legislation.

Amendments to FWPCA exempted "normal silvicultural practices" from dredge and fill requirements of act in addition to changing name to "Clean Water Act" and giving EPA authority to grant case-by-case extensions to compliance deadline for adoption of best practicable control technology to select industrial dischargers.

1977

Executive Orders 11988-90 (May 25) addressed federal role in floodplain maintenance, use of off-road vehicles on public lands, and wetlands preservation, respectively. Unified federal policies and procedures sought in each area.

In *Dupont v. Train*, United States Supreme Court resolved series of inconsistent decisions among the circuits by upholding EPA's authority under § 301 of FWPCA to issue uniform effluent limitations.

Soil and Water Resources Conservation Act set forth objectives and guidelines for new soil and water conservation program under auspices of Soil Conservation Service of Department of Agriculture.

1978

Endangered American Wilderness Act designated largest single addition in wilderness system, totaling 1.3 million acres in ten western states.

Sealed bids provision of National Forest Management Act repealed.

Toxic Substances Control Act extended federal regulation of chemicals to include premarket testing of potentially dangerous substances.

Redwoods National Park extension approved, adding 48,000 acres of private land to park. Bill allocated \$40 million for retraining of forest workers displaced by the controversial addition.

In *Tennessee Valley Authority v. Hill* U.S. Supreme Court interpreted Endangered Species Act to require that \$100 million federal project be terminated because it would extinguish the endangered snail darter, a small fish found only in that part of Little Tennessee River to be flooded by the dam.

Congress passed amendment to Endangered Species Act which modifies act's rigid mandate in favor of allowing exemptions in specific cases, determined by a special cabinet-level committee.

U.S. Supreme Court in *Philadelphia v. New Jersey* struck down a 1974 New Jersey statute which prohibited liquid and solid waste from being transported into the state for disposal.

In *California v. United States* the U.S. Supreme Court read §8 of Reclamation Act of 1902 to require federal agencies constructing reclamation projects to comply with state-imposed limitations on the use of project waters, striking new balance in federal-

state tension over western water rights. On the same day, in *United States v. New Mexico*, Court declared that federal reservations of land from public domain do not by implication include reservations of waters flowing through or alongside such lands except for minimum amount of water essential to specific purposes for which land was reserved.

The U.S. Supreme Court unanimously held in *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council* that judicial authority to review agency rulemaking where licensing proceedings have been afforded the minimum procedural privileges afforded by the Administrative Procedure Act is limited in the absence of "extremely compelling circumstances."

NRDC v. Hughes confirmed mandatory, nondiscretionary duty pursuant to NEPA to consider fully all environmental impacts of and alternatives to a new federal coal leasing program prior to an administrative decision to adopt and implement it.

1979

President Carter's reorganization plan, including a Department of Natural Resources and a shift of the Forest Service out of the Department of Agriculture, dies during the discussion stage.

John McGuire retires as Chief of the Forest Service and is replaced by Max Peterson.

Appendix 2

BIBLIOGRAPHIC ESSAY

Scholars tend to have strong feelings of personal kinship with books. This probably explains why they opt for university life rather than cabinet making (though I am surprised to learn how many of my colleagues are secretly and not-so-secretly dreaming about forsaking the former for the latter). It also may explain why there are so many bibliographies on so many subjects and at such length. What follows is probably available with more polish and analytic focus elsewhere. It is a rough and brief attempt to expand the references cited at the end of each chapter into a usable guide to the basic literature in the field. Its chief virtue is perhaps its brevity. It is simply an attempt to introduce the reader to the most useful starting points on most of the subjects covered in the previous pages. I am assuming that readers who have gotten this far knew very little when they began and now seek further references on specific topics for research or general information purposes. I make no pretense that this is an inclusive listing of references available. All this does is to point to the basic materials where the pertinent citations can be found.

In selecting items to include, I have adopted several reasonable criteria which relate to the scholarly purposes of the bibliography and have departed from them frequently in order to bring my own personal favorites into full view. Following the "places to start" theme, I have omitted references which are not readily available,

including most government documents and publications. I have emphasized materials which have extensive footnotes and bibliographies to provide a third tier of sources for the enthusiast. I have also tried to include as many of the "classics" as possible. Usually, these oft-cited and relied-upon analyses have become classic because they are superb—lucid, exciting, well written, accurate, and useful. Several have, unfortunately, proven to be dangerously wrong. I have so noted with, perhaps, a trace of inappropriate gusto. Hell hath no fury to match a truth-seeker misled.

These reasonable criteria guide the first four sections, which are arranged as follows: (1) a selected listing of "do not start withouts"—many classics and other materials which provide a broad introduction to American land and attitudes toward it, (2) a brief discussion of materials available regarding current issues, (3) bibliographies which are useful to the reader starting research in this general area, and (4) a list of useful references on selected specific topics. In all of these listings, I have included some materials which might seem to the initiated to be too obvious to be worth mentioning. However, I am frequently reminded that what is obvious to a professional researcher is less so to someone who is just starting out. Conversely, it is probably also true that I have omitted many references which others might consider essential. With apologies, I reiterate that feelings of personal kinship are involved.

The final categories reflect my own predilections a bit more thoroughly. I have reserved doctoral dissertations for special discussion. They are not readily available and are frequently simply awful. Like the child with the little curl, however; when they are good they are absolutely marvelous. I have also segregated a number of "the whole truth about"—yellow journalism exposés—into a separate category. Many of these lusty volumes provide color and insight into controversies that are meaningless without an understanding of the passion they have generated. They are not, however, scholarly materials. Finally, saving the best for last, I have devised a category of personal favorites: scholarly gems which are slightly off the beaten path but so exquisite and thought-provoking as to merit special mention somewhere.

GENERAL WORKS

Do not Start Without

Students of the general subject of forest and range policy should begin their search of this literature with an overall understanding of the land, its history, and its relationship to people, politics, and government.

An impressive consensus has emerged that, if you are going to read one book in this area, it should be Wallace Stegner's *Beyond the Hundredth Meridian: John Wesley Powell and the Second Opening of the West* (Houghton Mifflin, 1953). The story of Powell's career is a vibrant introduction to both physical and political realities which dominated critical decades in nineteenth-century resource policy. A broader gauged introduction to the general topic of the American people and land is Bernard De Voto's trilogy, *Course of Empire*, *Across the Wide Missouri*, and *Year of Decision: 1846* (Houghton Mifflin, 1952, 1947, and 1943, respectively). The first book begins with the Moors crossing the Straits of Gibraltar from Africa into Spain, and the last concludes with a confluence of major and minor events in 1846. Although the sweep of the volumes is vast, the focus is such that the reader can, in relatively few pages, begin to

get a feeling for the diversity of people, ideas, and happenings which have molded contemporary attitudes toward land and land management. Conveniently, Stegner takes up approximately where De Voto leaves off, creating a broad-brush portrait—increasingly finely etched as it approaches the twentieth century—of the context of American resource policy.

Two more specific but equally stimulating volumes are Samuel P. Hays's *Conservation and the Gospel of Efficiency* (Harvard University Press, 1959) and Roderick Nash's *Wilderness and the American Mind* (Yale University Press, 1968). Hays's study brings the progressive conservation movement within the range of comprehension and places the forestry crusade of Pinchot and Roosevelt into the context of other resource programs and its broader intellectual impulses. Nash's scholarship is perhaps less impressive than Hays's, in part because Nash retraces much of the ground Hans Huth charted in *Nature and the American* (University of California Press, 1957), and in part because of its clear advocacy orientation. However, the focus on conflicting American attitudes toward the natural world and the introduction to the broad intellectual heritage of the contemporary preservation movement is most valuable.

Two final and even more specifically relevant volumes round out this collection of essential first steps. Paul Wallace Gates's *History of Public Land Law Development* (U.S. Government Printing Office, 1968) is without doubt the most useful single reference in the general area of American land policy. Not designed to enthrall the casual reader, it nevertheless tells the story of the public lands in minute detail without sacrificing readability, analytic coherence, and zest. Gates is one of our most prolific and insightful public land historians; and this volume, done for the Public Land Law Review Commission, is without peer. It is also, unfortunately, out of print. Write your congressperson immediately and urge that funds be allocated to reprint this invaluable volume. Failing that, it is available in most libraries.

E. Louise Pepper's *The Closing of the Public Domain* (Stanford University Press, 1951) is also out of print, but it has been recirculated by Arno Press, which has recycled many valuable classics in the field. Pepper's study of the Taylor Grazing Act is an excellent and totally necessary introduction to what has been for many the quiet corner of renewable resource management—range policy. For style, readability, and scholarship, Pepper's great work is difficult to match. I am not the only person I know who is in this field today because they fell in love with Pepper's masterpiece.

These eight books will put anyone on firm footing for dealing with almost any specific aspect of forest and range policy. Their utility is enhanced considerably, moreover, by extensive references. The bibliographies and footnotes will sate all but the truly intrepid.

Current Issues

Current events are frequently difficult to deal with. Generally, there is less that is reliable and insightful written about them, and recent controversies are apt to be mired in trivia and bias. Fortunately, there are numerous sources which alleviate these problems somewhat for students of forest and range policy.

In February 1976, the Resources Publishing Company (1010 Vermont Avenue N.W., Washington, D.C., 20005) began issuing the biweekly *Public Land News*. Covering a broad range of legislation, litigation regulation, and other activities affecting wild