

**EVOLUTION OF THE BUREAU OF RECLAMATION:
AN INSIDER HISTORIAN'S PERSPECTIVE ON THE LEGACY AND THE
CHALLENGE**

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THE MOVEMENT FOR RECLAMATION

Westerners had long known that the largely arid American West receives a distinctly small share of the earth's fresh water supply. As a result, because it is essential for occupation, settlement, agriculture, and industry, water has always been a dominating factor in the arid West's prehistory and history.

The snowmelt and gush of spring and early summer runoff frustrated early Western settlers. They watched helplessly as water they wanted to use in the dry days of late summer disappeared down Western watercourses. In response to this problem, settlers developed water projects and created complicated Western water law systems, which varied in detail among the various states and territories but generally allocated a sort of property right in available water based on the concept of prior appropriation (first in time, first in right) for beneficial use.

At first, water development projects were relatively simple. Settlers diverted water from a stream or river and used it nearby; but, in many areas, the demand for water outstripped the supply. As demands for water increased, settlers wanted to store "wasted" runoff for later use. Storage projects would help maximize water use and make more water available for use. Unfortunately, private and state-sponsored irrigation ventures often failed because of lack of

money and/or lack of engineering skill. This resulted in mounting pressure for the Federal Government to develop water resources.

In the jargon of the day, irrigation projects were known as "**reclamation**" projects. The concept was that irrigation would "reclaim" or "subjugate" arid lands for human use. John Wesley Powell's western explorations and his published articles and reports; private pressures through publications, irrigation organizations, and irrigation "congresses"; nonpartisan Western political pressures; and Federal Government studies, conducted by the U. S. Army Corps of Engineers and U. S. Geological Survey (USGS), contributed to the discussions and cogitations that influenced American public opinion, Congress, and the executive branch in support of "reclamation."

During their period of dominion, the Spanish and Mexican governments in the American Southwest supported settlement and irrigation through their land grant systems. Before 1900, the United States Congress had already invested heavily in America's infrastructure. Roads, river navigation, harbors, canals, and railroads had all received major subsidies. A tradition of government subsidization of settlement of the "West" was longstanding when the Congress in 1866 passed "An Act Granting the Right-of-Way to Ditch and Canal Owners over the Public Lands, and for other Purposes." A sampling of subsequent congressional actions promoting irrigation reveals passage of the Desert Land Act in 1877 and the Carey Act in 1894 which were intended to encourage irrigation projects in the West. In addition, beginning in 1888, Congress appropriated money to the USGS to study irrigation potential in the West. Then, in 1890 and 1891, while that irrigation study continued, the Congress passed legislation reserving rights-of-way for reservoirs, canals, and ditches on lands then in the public domain. However, westerners wanted more; they wanted the Federal Government to invest directly in irrigation projects.

Western interest in Federal investment in irrigation was exacerbated by the Depressions of 1873, 1883, and 1893 which successively effectively dried up private investment money in the West for irrigation and other projects.

So, as the Nineteenth Century ended, a number of events meshed to create the correct political, economic, and technological setting for the creation of a Federal irrigation service. The "reclamation" movement demonstrated its strength when pro-irrigation planks found their way into both Democratic and Republican platforms in 1900. Then, in 1901, "reclamation" gained a powerful supporter in Theodore Roosevelt when he became President after the assassination of William McKinley.

“RECLAMATION” BECOMES A FEDERAL PROGRAM

President Roosevelt supported the "reclamation" movement because of his personal experience in the West, and because of his “conservation” ethic. He later wrote in his autobiography that

The first work I took up when I became President was the work of reclamation. Immediately after I had come to Washington, after the assassination of President McKinley. . . before going into the White House, [Frederick] Newell and [Gifford] Pinchot called upon me and laid before me their plans for National irrigation of the arid lands of the West. . .¹

To Roosevelt and others of that time, “conservation” meant a movement for sustained exploitation of natural resources by man for the good of the many through careful management -- a very different ethic than what “conservation” means today. Roosevelt also believed “reclamation” would permit "**homemaking**" in support of the agrarian Jeffersonian Ideal. Reclamation supporters believed the program would make homes on subsistence family farms for Americans. After some political horse trading over rivers and harbors legislation, the Reclamation Act passed in both Houses of the Congress by wide margins, and President

Roosevelt signed the Reclamation Act in June of 1902.

In July of 1902, Secretary of the Interior Ethan Allen Hitchcock established the United States Reclamation Service (USRS) within the Division of Hydrography in the USGS. Charles D. Walcott, director of the USGS, also became the first “director” of the USRS, and Frederick Newell became the first “Chief Engineer” while continuing his responsibilities as chief of the Division of Hydrography.

The Reclamation Act required that

Nothing in this act shall be construed as affecting or intended to affect or in any way interfere with the laws of any State or Territory relating to the control, appropriation, use, or distribution of water . . . or any vested right acquired thereunder, and the Secretary of the Interior . . . shall proceed in conformity with such laws . . .

That meant implementation of the act required that Reclamation comply with numerous and often widely varying state and territorial legal codes. The development and ratification over the years of numerous interstate compacts governing the sharing of streamflows between states, of several international treaties governing the sharing of streams by the United States with Mexico or Canada, and numerous court decisions made Reclamation’s efforts to comply with state or territorial water law even more complex. Colorado was party to the most famous of Western compacts, the Colorado River Compact signed in 1922 and ratified by Congress in 1928. However, quite a number of other compacts affected Colorado – the South Platte River Compact (March 8, 1926)², the Rio Grande Compact (1930 [temporary] and 1939)³, the Republican River Compact (May 26, 1943)⁴, the Upper Colorado River Basin Compact (April 6, 1949)⁵, and the Arkansas River Compact (May 31, 1949)⁶ are among these. Examples of court decisions include *Wyoming v. Colorado* [259 U.S. 419] decided in 1922 and *Nebraska v. Wyoming*, [325 U.S. 589] decided in 1945.

In its early years, the Reclamation Service relied heavily on the USGS Division of Hydrography's previous studies of potential projects in each western state. Between 1903 and 1906, about 25 projects were authorized throughout the West. Because Texas had no Federal lands, it was not one of the original "reclamation" states. It became a reclamation state only in 1906.

PRINCIPLES OF THE RECLAMATION PROGRAM

Using revenues from the sales of public lands, Reclamation implemented a program underlain by several basic principles. The details have changed over the years, but the general principles remain: (1) Federal monies spent on reclamation water development projects which benefitted water users would be repaid by the water users; (2) projects remain Federal property even when the water users repay Federal construction costs though the Congress could, of course, choose to dispose of title to a project; (3) Reclamation generally contracts with the private sector for construction work; (4) Reclamation employees administer contracts to assure that contractors' work meets Government specifications; (5) in the absence of acceptable bids on a contract, Reclamation, especially in its early years, would complete a project by "force account" (that is, would use Reclamation employees to do the construction work); and, (6) hydroelectric power revenues could be used to repay project construction charges.

EARLY HISTORY OF RECLAMATION

In 1907, the USRS separated from the USGS to become an independent bureau within the Department of the Interior. The Congress, and the Executive Branch, including USRS, were then just beginning a learning period during which the economic and technical needs of Reclamation projects became clearer. Initially overly optimistic about the ability of water users

to repay construction costs, Congress set a 10-year repayment period. Subsequently, the repayment period was increased to 20 years, then to 40 years, and ultimately to an indefinite period based on “ability to pay.” Other issues that arose included: soil science problems related both to construction and to arability (ability of soils to grow good crops); economic viability of projects (repayment potential) including climatic limitations on the value of crops; waterlogging of irrigated lands on projects resulting in the need for expensive drainage projects; and, the need for practical farming experience for people successfully to take up project farms. Many projects were far behind their repayment schedules, and settlers were vocally discontented.

The learning period for Reclamation and the Congress resulted in substantial changes when the USRS was renamed the Bureau of Reclamation in 1923 and, in 1924, the Fact Finder’s Act began major adjustments to the basic Reclamation program. Those adjustments were suggested by the Fact Finder’s Report which resulted from an in-depth study of the economic problems and settler unrest on Reclamation’s twenty-plus projects. Elwood Mead, one of the members of the Fact Finder’s Commission, was appointed Commissioner of Reclamation in 1924 as the reshaping of Reclamation continued. A signal of the changes came in 1928, for instance, when the Congress authorized the Boulder Canyon Project (Hoover Dam), and, for the first time, large appropriations began to flow to Reclamation from the general funds of the United States instead of from public land revenues and other specific sources. This was at least partially a response to the fact that many projects were not economically viable. The Congress chose to continue to invest in the West through subsidization of projects from general funds and through hydroelectric revenues.

In 1928, the Boulder Canyon Act ratified the Colorado River Compact and authorized construction of Hoover Dam which was a key element in implementation of the compact.

Subsequently, during the Depression, Congress authorized almost 40 projects for the dual purposes of promoting infrastructure development and providing public works jobs. Among these projects were the beginnings of the Central Valley Project in California, the Colorado-Big Thompson Project in Colorado, and the Columbia Basin Project in Washington. With the addition of the Boulder Canyon Project which included both Hoover Dam and the All-American Canal System, these four Depression-era projects represent between forty and fifty percent of Reclamation's irrigated acreage.



Ultimately, of Reclamation's more than 180 projects, about 70 were authorized before World War II, but the remainder were authorized during and after World War II in both small authorizations and major authorizations, such as the Pick-Sloan Missouri Basin Program (1944), the Colorado River Storage Project (1956), and the Third Powerplant at Grand Coulee Dam (1966). The last really big project construction authorization occurred in 1968 when Congress approved the Colorado River Basin Project Act which included the Central Arizona Project, the Dolores Project, the Animas-La Plata Project, the Central Utah Project, and several other smaller projects.

LABORATORIES

One problem confronted by Reclamation was laboratory testing of special problems. Testing was carried out in various locations such as Montrose and Estes Park, Colorado, Colorado State University, and Reclamation offices in the old Custom's House in Denver until Reclamation located its primary laboratory at the Denver Federal Center in 1946.. These research laboratories study modeling and designs for hydraulic structures, concrete technology, electrical problems, construction design innovations, groundwater, weed control in canals and reservoirs, various environmental issues, water quality, ecology, drainage, control of evaporation

and other water losses, and other technical subjects.

HYDROELECTRIC GENERATION

 earliest hydroelectric plant on a Reclamation project was in place in 1908,⁷ and it was soon followed by hydroelectric generation on two other Reclamation projects in 1909. However, it was only during the 1930s that generation of hydroelectric power became a principal benefit of Reclamation projects.  Reclamation built the major hydroelectric plant at Hoover Dam only after a hard public debate about whether the Federal Government should become involved in public power production or whether private power production should be the rule. It was the Hoover Dam precedent which ultimately allowed Reclamation to become a major hydroelectric producer. Once the issues received public airing at Hoover Dam, major hydroelectric plants became a feature of many Reclamation projects. Hydroelectric revenues have subsequently proved an important source for funding repayment of Reclamation project costs. In 1993, Reclamation had 56 powerplants online and generated 34.7 billion kilowatt hours of electricity. In 1999, revenues from Grand Coulee hydroelectric generation alone returned to the U. S. Treasury about two-thirds of Reclamation's entire appropriated budget.

RECLAMATION AND INTERSTATE WATERS

Allocation of the waters of the Colorado River was addressed in 1922 in Santa Fe when Secretary of Commerce Herbert Hoover moderated a meeting of commissioners representing Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming. The meeting developed and signed the Colorado River Compact (Compact) to divide and allocate the waters of the Colorado River. For Reclamation, this is the most complex and difficult of the interstate compacts, and it was ratified by the Congress in 1928 without the concurrence of Arizona. California and Arizona argued for years over how to calculate Arizona's share of the waters of

the lower Colorado River. The Arizona legislature ratified the Compact only in 1944 and then later sued California over its interpretation of the Compact. The lawsuit lasted from 1952 until issuance of the Supreme Court decree in 1964. Concern over the Compact has only heightened over the years as it became increasingly apparent that there isn't consistently as much water in the Colorado River as was presumed by the signers and ratifiers of the Compact.⁸ In addition, the Compact did not anticipate provision for 1.5 million acre-feet of water promised to Mexico in a 1944 treaty. Reclamation is deeply involved in these complicated Colorado River issues because Reclamation reservoirs largely store and regulate the flow of the Colorado River. Reclamation dams in the Upper Colorado River Basin deliver water to Glen Canyon Dam which then stores the water in Lake Powell. From Lake Powell, the water is delivered in accordance with the terms of the Colorado River Compact to the Lower Colorado River Basin states. Once delivered to the Lower Colorado River Basin, Hoover Dam stores the water in Lake Mead.

The Colorado River Compact is the most complex and difficult of the interstate compacts. As already mentioned, Reclamation is affected by other compacts and court decisions all over the West where the waters of interstate streams are shared among states.

SPECIAL PROJECTS

Reclamation's traditional area of operation is the 17, arid, continental states of the West. Reclamation has, however, at times been assigned work outside that traditional operational area. For instance, during the late 1920s Reclamation studied "planned group settlement" in the South in cut over areas and swamps. This project was supposed to create new farms, but it ultimately died as impacts of the farm depression of the 1920s and 1930s were recognized. Other projects in the eastern United States were also undertaken, and Reclamation's photograph collection includes hundreds of photographs from areas outside the arid West. Beginning in the 1930s

Reclamation studied possible projects in Hawaii, and in 1954 the Congress authorized investigations on Oahu, Hawaii, and Molokai among the Hawaiian Islands. In the 1940s and 1950s Reclamation studied many water development projects in Alaska and ultimately built the Eklutna Project outside Anchorage. The Eklutna Project has since been transferred out of Reclamation.

INDIAN TRIBES

In the early years of its history, Reclamation was actively involved, in conjunction with the Indian Service, in irrigation projects for Indian tribes including the San Carlos, Blackfeet, Flathead, Crow, and Yuma. However, the majority of Reclamation project water went to non-Indians. In the early years, Reclamation's mission to develop water supplies appeared to carry the potential for injuring the rights of tribes. If non-Indians began using Reclamation-provided water, it was feared they would establish a senior right under the appropriation doctrine, leaving little or no water for the tribes when they were ready to develop their reservation lands. In the landmark 1908 decision, *Winters v. United States*, the Supreme Court attempted to reconcile this potential conflict through the "Winters Doctrine." This case concerned the Milk River in Montana, and actually delayed development of Reclamation's Milk River Project. The Winters Doctrine established the principle of reserved rights – Indian tribes with reservations have reserved water rights in sufficient quantities to fulfill the purposes for which the reservation was established, and the date of the reserved right is the date of the treaty or Executive Order setting aside the land. The dates of reserved rights generally are very early in relation to non-Indian settlement and, thus, establish very high priority for Indian water rights. Further, unlike appropriative water rights, a reserved water right does not have to have been used to remain in effect. A reserved right remains in effect regardless of how many years have passed. A

congressionally authorized and funded Reclamation project could not take precedence over senior water rights. Thus, if a tribe had senior reserved water rights, its right to the future development of reserved rights should not be affected legally by Reclamation project development. Nevertheless, there are situations in which tribes have encountered difficulties in attempting to develop their senior reserved water rights for various reasons – situations the United States, with Reclamation’s participation, is trying to address through the Indian water rights settlement program and other initiatives.

In recent years the Federal Government has become much more sensitive to Indian tribal water issues. Many Reclamation projects include provision for honoring the Secretary of the Interior’s trust responsibility for Indian water rights. Among notable examples are the Central Arizona Project, the Dolores Project, and the Animas-La Plata Project. Reclamation is also involved in water-related activities such as the Mni Wiconi water distribution system in South Dakota which provides rural culinary water supply in a large area that includes several reservations. Reclamation personnel often serve on negotiating teams or provide technical expertise to negotiating teams working for the Secretary of the Interior to develop equitable water solutions for Native American tribes. Reclamation has amended its procedures so that before any new actions are undertaken, Reclamation first determines if the action could adversely impact Indian trust resources. When it appears that adverse impacts are possible, Reclamation will work with the tribe to seek to avoid the impacts, or when unavoidable, to determine appropriate mitigation.

RECLAMATION PROJECTS AND THE ENVIRONMENT

Conservation and environmental issues are not as new to Reclamation as many think. The nature of conservation and environmental issues and how they have affected Reclamation, however,

has changed considerably. Very early in Reclamation's history between 1908 and 1912, for instance, there was a public outcry about conservation of Lake Tahoe's natural lake level and scenic beauty when Reclamation proposed to build a dam both to increase storage capacity and to sometimes lower the existing lake level to benefit the Newlands Project. In a distinctly different direction, Reclamation's Belle Fourche Project in South Dakota was specifically designed to avoid mixing hazardous industrial mining wastes in Whitewood Creek with its irrigation water.

Subsequently, proposals for Reclamation projects raised public consciousness about major dams and their impacts on various resources. Reclamation, by the mid-1930s, was looking at fishery issues as it addressed construction of Grand Coulee and other dams. On another front, in the mid- to late-1930s, Coloradoans and their congressional representatives pushed Reclamation to build the Colorado-Big Thompson Project which would require construction on the fringe of and under Rocky Mountain National Park. The project was ultimately built because Rocky Mountain National Park was created with a provision in the enabling law that specifically authorized a water development project infringing on the National Park. In the 1950s, the controversy over construction of Echo Park Dam in Dinosaur National Monument heightened public awareness of issues surrounding construction of a dam in a National Park Service-managed area. Ultimately, public opinion forced cancellation of plans for Echo Park Dam and resulted in construction of the alternative, Glen Canyon Dam. By the 1960s, Marble Canyon and Bridge Canyon dams were proposed, but Secretary of the Interior Stewart Udall canceled those dams because of public pressure in support of preserving parts of the Grand Canyon. Ironically, opposition was based at least partly on the public's belief that nuclear power generation was a viable alternative for meeting growing electric power needs in the West.

Although effects on the environment were always, to a limited extent, a part of

Reclamation's work, during the 1960s, Reclamation's work began to change substantially as public awareness reached new heights. There was a sea change in America and the way Americans looked at natural resources exploitation. This change resulted, in part, from improved communication which meant that the average American's news came not from newsreels, radio, and newspapers, but from television, with same-day information and images which visually reinforced issues. It also came, in part, from transportation changes which meant that the average American could travel to the "West" on airliners or in powerful cars on much improved highways. Americans were coming to understand issues about the West better and to consider the West "theirs." Thus, expanded knowledge and accessibility resulted in an increasingly proprietary feeling on the part of large new groups of Americans toward public lands and public works. At the same time, communities across the country began to pay increasing attention to water and air pollution issues. This new situation combined with far more sophisticated science and resultant understandings of the complex interactions of the communities of nature as well as of water and air pollution issues. Among other items, the effects of wetlands loss on fisheries and bird populations were better recognized. Improved understanding of the natural world and its issues combined with a shifting political power which moved away from the rural and agrarian population and components of the economy to the urban population and components of the economy. The change was signaled in many ways. Wide-open, little-regulated exploitation of historic and natural resources, even on private property, lost support in America as effects on animals, birds, fishes, plants, water, air, archaeological sites, and historic sites were better recognized.

Rachel Carson's *Silent Spring* appeared in 1962 and increased public support for more environmentally sensitive project development. While even popular music expressed growing environmental concerns, increased public consciousness and support manifested itself in political

action when the Congress passed the Wilderness Act in 1964, the Fish and Wildlife Coordination Act in 1965, the National Historic Preservation Act in 1966, the Wild and Scenic Rivers Act of 1968, the National Environmental Policy Act (NEPA) of 1969, and many other subsequent laws. Accompanying and buttressing these Federal laws were presidential Executive Orders, Federal regulations; and state and local laws, orders, and regulations.

The specific effects of Reclamation projects were also better identified in this period. Dam construction adversely affected some native fish populations while also often creating blue ribbon fishing waters below dams. Dams often altered the flow characteristics and ecology of rivers and streams. Land “reclamation” and construction projects affected plant, animal, fish, and bird populations through displacement or destruction because of ecological changes. In addition, land development made possible by water development often destroyed historic or archeological resources. Destruction of non-arable wetlands was a special environmental problem. Hydroelectric production, often considered pollution-free, was recognized as carrying environmental effects because of altered water temperatures, effects on native fish populations, effects on migratory fish, and water fluctuations. Environmental issues that conflicted with traditional bureau missions were not unique to Reclamation. Americans identified long menus of environmental effects throughout construction and natural resources exploitation programs in both the government and private sectors in American society.

After a period of adjustment to the new laws and regulations, and as a result of increasing public and political pressure, Reclamation developed staffs to deal with environmental and historic preservation issues. Reclamation invests a great deal of time and money in issues such as: endangered species; instream flows; the preservation and enhancement of quality freshwater fisheries below dams; preserving wetlands; conserving and enhancing fish and wildlife habitat;

dealing with Endangered Species Act issues; controlling water salinity and sources of pollution; ground water contamination; and the recovery of salmon populations on both the Columbia/Snake and the San Joaquin/Sacramento River systems. Reclamation implemented “reoperation” (revision of the way hydroelectric power generation is scheduled and carried out) of hydroelectric facilities at Glen Canyon Dam on the Colorado River to better achieve environmental objectives. Reclamation has made costly modifications to dams such as Shasta and Flaming Gorge to achieve environmental goals. There is a major effort underway among Federal and state agencies and other interest groups to improve environmental and water quality in the delta at the mouth of the Central Valley of California where the San Joaquin and Sacramento Rivers join and flow into San Francisco Bay.

Ironically, Reclamation’s attempts to use drainage water to support environmental objectives at the Kesterson National Wildlife Refuge in the Central Valley of California resulted in unexpected and difficult environmental problems. The drainage water mobilized selenium and concentrated it in water of the refuge causing death and deformity among the affected animal populations. The selenium issue was a problem neither Reclamation nor the Fish and Wildlife Service foresaw, and it has been dealt with.

RECREATION

Reclamation reservoirs provide flatwater recreation opportunities all over the West. From the very beginning of Reclamation’s history, westerners were quick to identify and enjoy recreation opportunities on and in the water captured behind dams on Reclamation projects. However, recreation was not recognized legally as a project use until 1937. Reclamation transferred Lake Mead, behind Hoover Dam, to the National Park Service for recreation management in 1936 and initiated the still-existing pattern of seeking other agencies to manage recreation at Reclamation facilities. That pattern means that today Reclamation manages only

about one-sixth of the recreation areas on its projects. From the 1930s to the early 1960s, authorizations by Congress for recreation identified specific projects; but in the mid-1960s, the Congress began to give Reclamation more generalized authorities for funding recreation on all projects. Fishing, hunting, boating, picnicking, swimming, and other recreational opportunities developed over the years.

In 1992, Reclamation had over 300 recreation areas on its projects with almost 5 million acres of land (a little less than five-eighths of Reclamation-controlled Federal lands) open to various recreational uses. In recent years, Reclamation has “reoperated” some facilities seeking to improve recreational fishing, commercial fishing, and white water recreational opportunities. Three recreation areas managed by the National Park Service – Lake Roosevelt behind Grand Coulee Dam, Lake Mead behind Hoover Dam, and Lake Powell behind Glen Canyon Dam – as well as the U. S. Forest Service’s Shasta Lake behind Shasta Dam, are among the most prominent recreation areas on Reclamation projects. Other managing partners for recreation areas include other Federal agencies, state agencies, counties, and cities. These partnerships result annually in millions of recreation days of use on Reclamation projects and raise numerous issues in terms of interagency coordination, water quality, public safety, public access, cost-sharing, law enforcement, etc.. As water is converted from rural to urban uses in the West, resulting in urban population increases, recreation visits to Reclamation projects are expected to increase.

FLOOD CONTROL/DROUGHT BENEFITS

Flood control is one of the benefits provided on many Reclamation projects. Reclamation’s facilities are operated in a way that annually, prevents millions of dollars of flood damage. In the 42 years between 1950 and 1992, Reclamation projects with the most flood

control benefits prevented in excess of 8.3 billion dollars in flood damage.

Flood control is needed in very wet years. In drought periods, Reclamation becomes involved in drought management activities. In some cases, Reclamation projects fare better than other water users because many Reclamation projects have carryover storage which can provide water during a few consecutive years of drought. In some areas, however, growing demand stresses the water supply even in normal water years. Water shortages, often drought-influenced, will probably increase in the Reclamation West, thus forcing more effective and efficient use of water supply. Possible Reclamation drought activities are quite varied, e.g., assisting water users with planning during drought periods for use and allocation of limited water supplies, participating in cooperative contingency planning for future drought, water conservation, loans, involvement in water banking, deepening wells, and water purchases are among the many possible activities.

INTERNATIONAL AND OTHER ASSISTANCE

International assistance is an important aspect of Reclamation's program. Reclamation employees have worked in more than 80 countries providing technical assistance on a wide range of water resources issues, and Reclamation has welcomed more than 10,000 visitors from nearly every country in the world to its facilities. Reclamation routinely provides training programs for foreign visitors. All this activity is done in accordance with United States policy and in cooperation with the U. S. State Department.

In addition, Reclamation provides technical water assistance within the United States to various public and private entities through a variety of programs.

RECLAMATION TODAY

Reclamation currently has more than 180 projects in the 17 Western States which are

managed out of over twenty area offices. The area offices are within five regions which are organized around western watersheds. Many projects are actually operated and maintained by the water users on the projects. Reclamation's projects provide agricultural, municipal, and industrial water to about one-third of the population of the West. Farmers on Reclamation projects produce about 13 percent of the value of all crops in the United States, including about 65 percent of all vegetables and 24 percent of all fruits and nuts. As a result of initiatives under the presidency of Bill Clinton, Reclamation's staffing level is about one-fifth smaller than it was in 1993; and as Reclamation enters into additional partnerships with the beneficiaries of the water and electricity produced on its projects, Reclamation's staffing levels are expected to shrink even further in the Twenty-first Century.

Nevertheless, in Colorado alone, Reclamation has twenty-four projects⁹ – notable among these are the Uncompahgre Project of 1903, Grand Valley Project of 1911, Colorado-Big Thompson Project of 1937, the Wayne Aspinall Unit of the Colorado River Storage Project of 1956, and the Animas-La Plata Project authorized in 1968¹⁰ and currently under construction. In Colorado alone Reclamation normally annually serves some 1.1 million acres of irrigated land, from a net water supply of well over 2 million acre feet of water. In addition, Reclamation water serves in excess of 1,200,000 of Colorado's non-agricultural population.¹¹

As we move farther into the Twenty-first Century in Colorado and the West, Reclamation is the largest single supplier of water and one of the largest suppliers of electricity in the region. Because of that, Reclamation undoubtedly will continue to be an important player as the drama that is Western water is played out on the stage of the arid West.

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ENDNOTES

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1. Theodore Roosevelt, *Theodore Roosevelt: An Autobiography* (New York: The MacMillan Company, 1913), p. 429.
 2. Approved by Congress on March 8, 1926. The compact was signed by Colorado and Nebraska in Lincoln, Nebraska on April 27, 1923. The state legislatures ratified it after signature in Lincoln.
 3. Temporary Rio Grande Compact. Approved by Congress on June 17, 1930. Commissioners for the states of Colorado, New Mexico, and Texas signed this compact in Santa Fe on February 12, 1929. The compact was ratified by the state legislatures in March, April, and May 1929.

Rio Grande Compact. Approved by Congress on May 31, 1939. This compact was signed by the commissioners of the states of Colorado, New Mexico, and Texas on March 18, 1938, in Santa Fe, New Mexico. It was subsequently ratified by the legislatures of each state.
 4. Approved by Congress May 26, 1943. Congress gave permission to Colorado, Kansas, and Nebraska to negotiate and enter into a compact with respect to the waters of the Republican River Basin on August 4, 1942. The compact was signed in Lincoln, Nebraska, on December 31, 1942.
 5. Approved by Congress on April 6, 1949. Signed by the commissioners of Arizona, Utah, Wyoming, Colorado, and New Mexico in Santa Fe on October 11, 1948 and subsequently ratified by the state legislatures. This Compact paved the way for water developments in the Upper Basin. 50,000 acre feet (af) for Arizona; 51.75% for Colorado [3,855,375 af]; 11.25% for New Mexico [838,125 af]; 23% for Utah [1,713,500 af]; and 14% for Wyoming [1,043,000 af],
 6. Approved by Congress on May 31, 1949. Signed by the Commissioners representing Kansas and Colorado in Denver on December 14, 1948, and subsequently ratified by the legislatures.
 7. The upper Spanish Fork Powerplant on the Strawberry Valley Project began producing power in 1908. First used for project construction, the power was subsequently also used for municipal purposes. In 1909 the Minidoka and Salt River Projects opened hydroelectric plants also.
 8. See footnote 5, above for the Upper Colorado River Basin entitlements. In 1964 the Supreme Court decree in the case of Arizona v. California Supreme Court basically stated that Arizona would received 2,800,000 acre feet plus the Gila River's flow. California would receive 4,400,000 acre feet (4.4 maf) dependable supply plus ½ of any surplus. Nevada would receive 300,000 acre feet. Utah also received a small amount of water for its claims on the Virgin River which enters the Colorado below Lee's Ferry. In addition, California was permitted to continue to use more than its mainstem entitlement of 4.4 maf so long as there was unused apportionment

from the other Lower Basin states. This decree also verified the reserved rights of five Indian tribes along the river in the Lower Basin.

9. These projects are the Animas-La Plata Project, Arnel Unit of the Pick-Sloan Missouri Basin Program (PSMBP), Bostwick Park Project, Collbran Project, Colorado-Big Thompson Project, Dallas Creek Project, Dolores Project, Florida Project, Fruit Growers Dam Project, Fryingpan-Arkansas Project, Grand Valley Project, Mancos Project, Paonia Project, Pine River Project, San Juan-Chama Project, San Luis Valley Project, San Miguel Project, Silt Project, Smith Fork Project, Uncompahgre Project, Wayne Aspinall Unit of the Colorado River Storage Project, and the West Divide Project. In addition, there are parts of the Colorado River Basin-Salinity Control Project, and the Colorado River Water Quality Improvement Program in the state.

10. The Animas-La Plata Project was authorized in the Colorado River Basin Project Act of 1968.

11. These figures are taken from the most comprehensive recent information: Bureau of Reclamation, Department of the Interior, *1992 Summary Statistics: Water, Land, and Related Data* (Government Printing Office, nd).