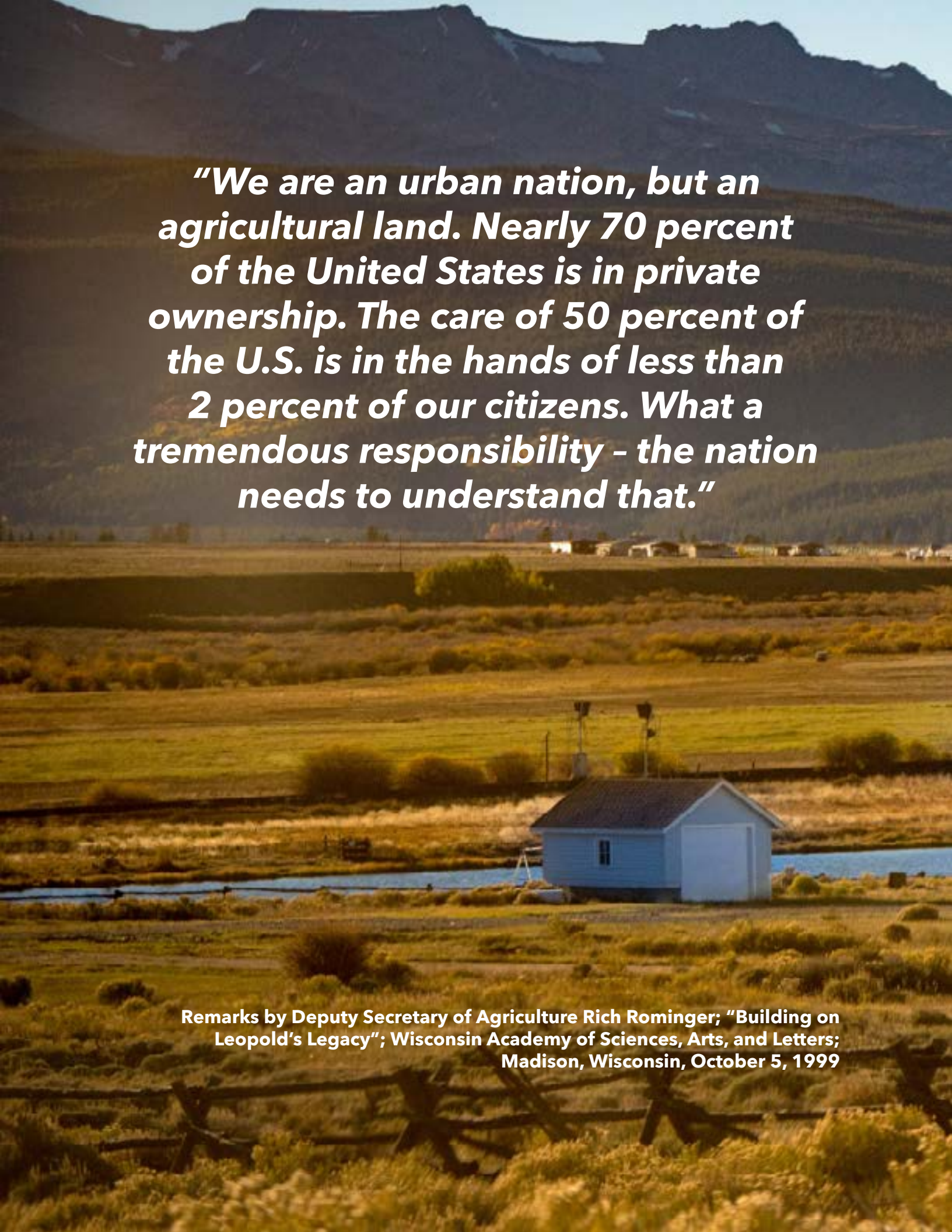




The U.S. Department of Agriculture's Role in America's Private Lands Conservation Movement


Chronology of Key Developments - 1933 Through 2019

Thomas W. Christensen
U.S. Department of Agriculture
January 1, 2020



“We are an urban nation, but an agricultural land. Nearly 70 percent of the United States is in private ownership. The care of 50 percent of the U.S. is in the hands of less than 2 percent of our citizens. What a tremendous responsibility - the nation needs to understand that.”

Remarks by Deputy Secretary of Agriculture Rich Rominger; “Building on Leopold’s Legacy”; Wisconsin Academy of Sciences, Arts, and Letters; Madison, Wisconsin, October 5, 1999



“Everything we do, all we share, even whatever we amount to as a great enduring people, begins and rests on the sustained productivity of our agricultural land.”

**Hugh Hammond Bennett,
Former Chief, USDA Soil Conservation Service, 1959**

CONTENT

Introduction.....i

**Key Principles for Voluntary Conservation
on Private Lands.....iv**

Chronology

1933-1939

Setting the Foundation for the Movement.....1

1940-1949

Upstream Watershed Improvements.....25

1950-1959

Assistance Through a Single Farm/Ranch Agreement.....40

1960-1969

Community Development Gains Emphasis.....54

1970-1979

Emphasis on Natural Resources Conditions and Trends.....66

1980-1989

Conservation Woven into the Fabric of Farm Policy.....80

1990-1999

A Broader Conservation Mission With Supporting Programs.....99

2000-2009

Conservation Enhancements Come to the Forefront.....121

2010-2019

Landscape-Scale Conservation Rises Again.....140

General Index.....160

Summary of Statutes, Public Laws, Executive Orders, USDA Memoranda,
USDA Departmental Regulations, Policies, Manuals, and Other Federal
Publications.....171

Appendix

Timeline of Agency Leaders (Farm Service Agency, Natural Resources
Conservation Service, and Their Predecessor Agencies).....A1, A2

Soil and Water Conservation Funding Over Time (1936-2019).....B1

Memorandum Transferring the Soil Erosion Service from the Department
of Interior to the Department of Agriculture (March 25, 1935) and
full text of Public Law 74-46 establishing the Soil Conservation Service
(April 27, 1935).....C1

"Our Conservation Song" (December 1, 1960), USDA Soil Conservation
Service, Columbia, South Carolina.....D1

Links to "Hugh Hammond Bennett: The Story of America's Private Lands
Conservation Movement", Video Produced by USDA and Released on
June 22, 2017 and "Past, Present, and Future of Conservation Districts"
Produced by NACD and released on April 17, 2018.....E1



INTRODUCTION

This chronology covers the nearly nine decades from 1933 through 2019, with a central focus on highlighting the role of the U.S. Department of Agriculture (USDA) in furthering the private lands conservation movement that grew out of the Dust Bowl and economic crisis of the 1930s. It pulls together information from innumerable sources, including but not limited to, original source materials, scientific journals, web sites, textbooks, speeches and presentations, scholarly papers, agency publications, and many other written documents. Importantly, considerable information from the early decades, often specific to the Soil Erosion Service (SES) and Soil Conservation Service (SCS), was pulled from four principal documents: 1) "A Chronological History of the Soil Conservation Service and Related Events", compiled by Robert L. Geiger, Jr., December 1955; 2) "Organization and Development of the Soil Conservation Service - A Reference for Employees", July 1970; 3) "The Soil Conservation Service", D. Harper Simms, 1970; and 4) "A History of Water Resources Activities of the United States Department of Agriculture", Eugene C. Buie, September 1979.

While much has been written about the early decades of the private lands conservation movement in the U.S., with some of this in chronological order, I have not located a single document that chronicles USDA's role over the entire past nearly nine decades (since 1933). The major focus of this chronology is on both the Natural Resources Conservation Service (NRCS) and the Farm Service Agency (FSA), and their predecessor agencies. This is because these agencies have been the most consistently dominant leaders within USDA for technical and/or financial support of private lands conservation by virtue of their legislative authorities and delegations from the Secretary of Agriculture. Other USDA agencies also made significant contributions to this movement throughout these nine decades and references to them are appropriately placed throughout the chronology.

This chronology is not intended to be all-inclusive nor a scholarly, refereed publication with footnotes. Although I believe the information provided to be an accurate representation and sources are identified, it is possible there may be some errors, or certainly many additions could be made, especially in more recent decades where awareness is greater. I also acknowledge this chronology does not capture every significant contribution to the movement over the last nearly nine decades and certainly additions can be made as they are identified. This document is intended to display in one place a comprehensive chronology of highlights during the USDA journey regarding the nation's private lands conservation movement since 1933. It provides brief descriptions and some context for key legislative authorities, executive orders, secretarial directives, policies, implementation of programs and initiatives, technology developments, resource assessments and inventories, and other developments that track the evolution of the movement, with a USDA perspective. As a minimum, I believe it will be useful in informing USDA personnel and other stakeholders about this nationally important voluntary conservation movement over its soon 100-year lifespan.

As a chronology of key developments, this document is not intended to "flow" as if the user were reading an article or book. Items in time sequence may not relate one to another; rather, each item is intended to stand on its own and where possible is descriptive enough to give the user context for the item. In some cases, the exact date could not be located. If only a calendar year could be identified, the chronology item is placed at the end of that calendar year for consistency throughout this document. The "sources" shown for each item can be used for further research, or to lead the user to other sources for greater context, detail, and description. An acronym is used only within an individual item after the word has first been spelled out, recognizing that each item is intended to stand on its own.

Please note that each decade contains an initial synopsis of the key developments during that decade. Each synopsis is entirely my interpretation based on my research, understanding, personal experience, and almost 40 years of professional work history with USDA -- predominantly in conservation.

This document was prepared over an eleven-week period, between October and December 2019. Four individuals provided valuable expertise and assistance throughout the development of the document, as follows:

Deborah Miles (FPAC Business Center) - incredible patience and hard work in moving "pen and ink" to type, formatting, and maintaining version control.

Jennifer Nelligan (Alithea Advisors) - unparalleled expertise, skill, and ability related to researching, writing, analyzing, and visual portrayal of data and information; without question, the most uniquely talented and dedicated contributor I have worked with in my 40-year career.

Jon Vrana (FPAC Business Center, now retired) - research, consultation, locating information and sources, and providing content related to the "Timeline of Agency Leaders" appendix.

Paul Fariss (FPAC Business Center) - research, locating information and sources, and providing content related to non-FPAC USDA agencies.

This project was carried out independently as a "High Priority Project" for FY2020 assigned to me by Farm Production and Conservation Mission Area Under Secretary Bill Northey on October 15, 2019.

This document contains a general index, plus a summary of statutes, public laws, Executive Orders, USDA Memoranda, and Departmental regulations, policies, manuals and other publications addressed in the chronology. If you are viewing an electronic copy, you may desire to use the traditional search function to seek key words or jump to specific sections by clicking on the "Bookmarks."


I alone assume responsibility for any errors or inaccuracies that may exist. All attempts were made to quality control this document many times to avoid errors or inaccuracies.



THOMAS W. CHRISTENSEN
U.S. Department of Agriculture
January 1, 2020

Positions Held by Thomas W. Christensen with the U.S. Department of Agriculture:

- **Farm Production and Conservation Mission Area, Business Center (2017-2020)**
 - Deputy Chief Operating Officer for Business Services
- **Natural Resources Conservation Service/Soil Conservation Service (1981-2017)**
 - Associate Chief for Operations/Chief Operating Officer
 - Regional Conservationist (Central Region)
 - Deputy Chief for Programs
 - Director, Financial Assistance Programs Division
 - Director, Conservation Operations Division
 - Director, Animal Husbandry and Clean Water Programs Division
- Chief Information Officer
- State Conservationist, Champaign, Illinois
- Assistant State Conservationist (Programs), Boise, Idaho
- SCS Graduate Program in Public Policy, Duke University, North Carolina
- Area Conservationist, Utica/Whitesboro, New York
- District Conservationist, Plattsburgh, New York
- Soil Conservationist - 2 locations, North Carolina (Monroe and Shelby)
- **Statistical Reporting Service (1980-1981)**
 - Agricultural Statistician, Albany, New York



"Since the achievement of our independence, he is the greatest patriot who stops the most gullies."

Patrick Henry (Founding Father, Governor of Virginia, Attorney, Planter, and Orator), before the Virginia Assembly in 1777.

Key Principles for Voluntary Conservation on Private Lands

The U.S. Department of Agriculture (USDA), through its broad partnership with other federal, State, and local governmental entities and the private sector (nonprofit and for-profit), continues to fulfill the conservation legacy established by Hugh Hammond Bennett and his contemporaries in the 1930s through the early 1950s. Although our natural resource challenges have increased in complexity, and scientific knowledge has grown substantively, many of Bennett's ideas and principles about voluntary approaches, the critical role of local leadership, and conservation technical assistance based on sound science have withstood the test of time and still greatly guide USDA's work today.

1. We can't do conservation work only from behind a desk or windshield. We must walk the land, engage with the landowner/landuser, and see firsthand the natural resource challenges and opportunities.
2. Good science must be the foundation for voluntary conservation on private lands.
3. Natural resource concerns cannot be treated in isolation; soil, water, air, plants, animals, and humans are all part of an integrated system with interdependencies.
4. Coordinated action must be focused on a watershed- or landscape-scale to gain the greatest positive and sustainable conservation outcomes.
5. Local leadership is critical to success; federal and State agencies must work in collaboration with local leadership to achieve desired conservation outcomes.

Note: These principles have been used in various forms for at least the last decade, if not longer. While they are not a verbatim representation of the words spoken or written by former Soil Conservation Chief Hugh Hammond Bennett, I do believe they provide a good synopsis of many of the foundational ideas and sentiments he verbally expressed, wrote about, and carried out during his career. My first recollection of hearing a current conservation leader speak to these "principles" in a formal setting, and with great passion/commitment, was by former Natural Resources Conservation Service Chief Dave White in a presentation at the National Association of Conservation Districts Annual Meeting in Orlando, Florida in February 2010. Since that time, I have used these "principles" in many presentations as NRCS Regional Conservationist (Central) and Associate Chief for Operations. These "principles", in a similar form, are contained in the following publication: "Conservation Planning" published by the National Conservation Planning Partnership in 2016.



Setting the Foundation for the Movement

1933 - 1939

"In this democracy, National action to conserve soil must be generated by these millions of land users. If they are active and willing participants in such a movement, it will endure; otherwise it will fail."

Hugh Hammond Bennett, "Soil Conservation", 1939, page 313.

SETTING THE FOUNDATION FOR THE MOVEMENT

1933 - 1939

"...Nevertheless, after full consideration of the functions involved, and leaving out all other considerations-which is after all the only way in which I have any right to look at the problem-I have definitely concluded that as a matter of function, the Soil Erosion Service should be transferred to the jurisdiction of the Department of Agriculture. The functional work involved is concerned more with agriculture than with any other broad subject..."

March 20, 1935 Memorandum from President Franklin D. Roosevelt to Secretary of Interior Harold Ickes regarding the transfer of the Soil Erosion Service from the Department of Interior to the Department of Agriculture.

Conservation of soil and water resources on agricultural lands became a national focus in 1932 with the election of President Franklin D. Roosevelt and the establishment of his New Deal administration. With urgency, multiple pieces of legislation were passed and funding was appropriated by the U.S. Congress to respond to the agricultural economic crisis and stem the wastage of soil resources caused by wind and water erosion. The major dust storms of 1934 and 1935, which brought soil particles from the Great Plains eastward over Washington, D.C. and into the Atlantic Ocean, created a startling visual image of the crisis at hand.

Early New Deal legislation included the Emergency Conservation Work Act of March 1933, which established what became known as the Civilian Conservation Corps (CCC). The CCC provided meaningful employment for over 3.5 million unemployed young men and World War I veterans during its nine-year lifespan. The National Industrial Recovery Act of June 1933 provided funds to fight soil erosion and establish the temporary Soil Erosion Service (SES) in the U.S. Department of Interior. In combination, the SES and the CCC became an early means through technical expertise and labor to demonstrate to farmers and ranchers the conservation measures needed to control erosion, reduce sedimentation of waters, and begin to stem the wastage of soil resources on agricultural lands. The Coon Creek Project in Coon Valley, Wisconsin was the first erosion control project established by the SES. The Navajo Demonstration Project was the tenth one established and constituted 15 million acres on the Zuni and Hopi Reservations, with another 12 million acres of non-reservation land added in 1937.

In March 1935, the SES was moved from Interior to the U.S. Department of Agriculture (USDA) because the soil erosion problems were predominantly on agricultural lands and thus USDA was better positioned to effectively deliver federal assistance for this soil conservation movement. By April 1935, Congress passed the Soil Conservation Act of 1935 to change the temporary SES to a permanent USDA action agency named the Soil Conservation Service

(SCS), charged with carrying out a permanent program of soil and water conservation to aid the efforts of farmers, ranchers, and forest stewards. In less than a year, the 1935 Act was amended and renamed the Soil Conservation and Domestic Allotment Act of 1936, authorizing the Agricultural Conservation Program (ACP) to provide both technical assistance and cost-sharing to improve soil erosion control, build the productive capacity of soils, and reduce commodity surpluses by paying farmers to replace seven soil-depleting crops with soil-conserving crops. The soil conservation payments through ACP became a principal vehicle to move federal cash payments to rural areas during this period of acute economic crisis.

The Omnibus Flood Control Act of 1936, further amended in 1937, was the first stage of federal legislation to help governments and organizations bridge the gap between soil and water conservation work on individual farms and ranches and the downstream flood control work of the U.S. Army Corps of Engineers. The Act signaled for the first time that it was a proper role for the federal government to assist with planning and implementation for conservation measures to retard excessive runoff and control erosion in watersheds for flood control.

February of 1937 also saw President Roosevelt send to State governors the "Standard State Conservation District Law", urging them to adopt it in their State to form conservation districts to provide local leadership for the conservation movement on private lands. These districts were to be charged with developing and carrying out a comprehensive program of soil, water, and related natural resources conservation, with assistance from USDA. This totally new concept of collaboration between federal, State, and local units of government caught on quickly, with 45 states enacting conservation district enabling legislation by January 5, 1944. The local leadership role of conservation districts was recognized by Chief Bennett and others as vitally important to the success of the private lands conservation movement, which was wholly dependent on the voluntary actions of individual landowners and landusers.

From a natural resources inventory perspective, the 1930s also were a fruitful decade for soil and water conservation efforts. The pioneering National Erosion Reconnaissance Survey was undertaken by the SCS, the first well-documented inventory ever conducted that identified the degree of soil erosion caused by wind and water on the total land area of the U.S. The survey results confirmed what Hugh Hammond Bennett, SES and SCS Chief, had stated all along - soil erosion was a serious problem of national dimensions. This initial inventory became the precursor for the periodic inventories regarding natural resource conditions and trends conducted ever since, first by the SES/SCS and now the Natural Resource Conservation Service.

With the new integrated science of soil and water conservation taking hold, and the growth in the SCS workforce that had a desire to apply this knowledge to agricultural landscapes, the need for technical tools to support their efforts became paramount. It was not possible to send interdisciplinary technical teams to every farm or ranch for conservation planning and implementation work, so soil conservationists and technicians needed tools, data, and information to assist their efforts. Soil conservation surveys dealing with erosion, land use,

slope, and soil type were developed for use in conservation planning. The first Soil Survey Manual was published in 1937 to provide the principles and practices for making and using soil surveys. And the procedures for developing Land Capability Classes to streamline the erosion control planning and implementation process were released. Given the scope and intensity of the soil erosion challenge nationally, efficiency was embraced early on in this movement out of necessity to ensure the effective delivery of conservation technical assistance to farmers, ranchers, and forest stewards.

Chronology

March 31, 1933 - The Emergency Conservation Work Act (Public Law 73-5), also known as the Unemployment Relief Act, was authorized on March 31, 1933. Executive Order 6101, signed April 5, 1933 by President Roosevelt, established the Emergency Conservation Work (ECW) Program and appointed a Director, Robert Fechner. The Program provided conservation work for young men primarily from families receiving government assistance and unemployed veterans of World War I. It also employed some skilled craftsman and foresters, and Native American men living on Indian Reservations. The name of the ECW Program was changed officially to the more recognized Civilian Conservation Corps (CCC) in 1937.

On April 17, 1933, just 12 days after Executive Order 6101 was signed, the first ECW Program Camp (Camp Roosevelt) came into being and soon thousands of young men and World War I veterans were headed to camps. The Secretary of War had responsibility for the ECW Program (CCC) workers; the Departments of Agriculture and Interior were responsible for setting up useful work programs for these workers. Hugh Hammond Bennett, as Director of the new Soil Erosion Service (SES), seized the opportunity later in 1933 and developed work plans for erosion control projects to secure the assistance of these workers.

During the existence of the ECW/CCC from 1933 to 1942 (until shortly after Pearl Harbor), there were 4,500 camps in which 3.5 million men served. The SES/Soil Conservation Service (SCS) gave technical supervision to enrollees in over 800 of these 4,500 camps. Among their many accomplishments, these SES/SCS supervised workers helped to install 2,216 water impounding and diversion dams, 28,858 miles of terracing, 3,537,582 check dams, 15,443,308 rods of fence, 432,565,238 trees, and other conservation measures. Farmland benefited from erosion control projects totaled 40 million acres.

During the first years of the SES/SCS and the CCC camps, Bennett thought the most effective soil erosion control results could be achieved if there were demonstration projects that worked in large areas, preferably entire watersheds of 25,000 to 300,000 acres. These demonstration projects were aligned with watershed boundaries in order to show the cumulative effects of

soil conservation, including flood prevention. Initial projects were located in watersheds near soil erosion experiment stations so these projects could utilize the research results. Farmers in the watershed projects signed five-year agreements to implement conservation measures. SES/SCS supplied equipment, seed, seedlings, and assistance in planning the measures, and labor from the CCC to help install the measures. Bennett's goal of 350 demonstration projects in SES/SCS by 1944 was not reached; the total number of projects never exceeded 182.

Sources: 1) "Civilian Conservation Corps Established", NC Department of Natural and Cultural Resources, March 31, 2013; 2) "Starting the Civilian Conservation Corps", The American Presidency Project, 32-Executive Order 6101, April 5, 1953; University of California Santa Barbara; 3) "Into the Woods: The First Year of the Civilian Conservation Corps", National Archives, Prologue Magazine, Vol. 38, No. 3, Fall 2006; 4) "Civilian Conservation Corps", History.com, Editors of History.com, Originally Published on May 11, 2010; Updated on October 17, 2018; 5) "Civilian Conservation Corps Facts", CCC History Library, Civilian Conservation Corps Museum, James J. Justin, Original Web Pages, 1998; 6) "Publ Inf - Map of the Civilian Conservation Corps (CCC): Technical Supervision by the Soil Conservation Service: 1934-42," USDA NRCS, South National Technical Center, Fort Worth, Texas, South NTC Bulletin No. S260-3-4, June 22, 1983, 3 pages.

May 12, 1933 - President Roosevelt signed Public Law 73-10, commonly referred to as the Agricultural Adjustment Act of 1933 and recognized as the first Farm Bill. This Act was intended to address the acute economic emergency facing American agriculture. The newly created Agricultural Adjustment Administration (AAA) was given the responsibility to carry out the provisions of the Act relating to the U.S. Department of Agriculture (USDA). (AAA was a predecessor of the Farm Service Agency).

The 1933 Act established a Federal Acreage and Production Reduction Program to help bring farm production in line with demand to improve farm prices. This Act ended in 1936 when the U.S. Supreme Court declared it unconstitutional because it levied a tax on one group (processors) to pay another group (farmers).

Sources: Public Law No. 73-10, 48 Stat. 31, The National Agricultural Law Center at Nat.AgLaw@uark.edu; "Agriculture Adjustment Act", New Georgia Encyclopedia, Chris Dobbs; October 31, 2018; Retrieved from Web on December 17, 2019.

June 1933 - Prior to creation of the Soil Erosion Service, Hugh Hammond Bennett was involved with the planning for conservation work on the Navajo Reservation. The Commissioner of the Bureau of Indian Affairs, John Collier, requested assistance from Secretary of Agriculture Henry Wallace to establish an experimental soil erosion station on the Navajo Reservation with the use of Civilian Conservation Corps (CCC) labor. Mr. Bennett visited the reservation in late June 1933 and determined that the lands were severely damaged by soil erosion, a result of overgrazing by sheep and goats.

Setting the Foundation for the Movement

1933 - 1939

The forthcoming "Bennett-Collier" report stated that much of the damage was irreversible, but large areas could partially be restored. They selected Mexican Springs as the ideal site for the first soil erosion demonstration area.

Sources: 1) "Anthropology in the Soil Conservation Service", Lawrence C. Kelly. *Agricultural History*, Vol. 59, No. 2, The History of Soil and Water Conservation: A Symposium, April 1985, pp136-147; 2) "Conservation and Culture: The Soil Conservation Service, Soil Science, and Conservation on Tribal Land in the Southwest, 1934-1994." Rebekah C. Beatty Davis, USDA Natural Resources Conservation Service. July 1997.

July 7, 1933 - Hugh Hammond Bennett and John Collier, the Commissioner of the Bureau of Indian Affairs, met with the Navajo Tribal Council for the first time. Mr. Bennett explained the seriousness of the erosion problem and recommended that Tribal leaders allow the Civilian Conservation Corps to establish an erosion demonstration project at Mexican Springs. The Tribal Council granted permission for the Mexican Springs demonstration area the next day. They received an initial grant of \$250,000 and began fencing off the area in fall 1933, just prior to the establishment of the Soil Erosion Service.

When the SES was formally established on September 19, 1933, it was assigned \$5 million from the Public Works Administration funds. Of this, \$1 million was specifically dedicated for work on the Navajo Reservation. The "Navajo Experiment" was the largest SES projects and included 13 demonstration areas. The SES staff had approximately 85 SES employees and partnered with a Navajo workforce of 700.

The SES/SCS soil scientists and technicians found the project extremely challenging. There was limited information and data on Tribal lands. There were few maps, as the reservation had never been surveyed. They lacked an accurate census of the number of Navajo people and livestock (e.g., sheep, goats, horses, cattle) to inform target reductions.

The SCS and Bureau of Indian Affairs were also facing increasing resistance to combine herds to reduce pressure on the limited pastures. The first anthropologist was hired in 1935 to study the Navajo culture and society. This was an in-depth study that provided an improved understanding of things of cultural and religious significance, political and social dynamics, and decision-making structures and authorities. The key would be for SCS technicians to work cooperatively with the natural leaders of the land-use communities, not only to explain what had to be done to save the range, but to leverage the Navajo's experiences and insights. For instance, they found that community resistance was not to the installation of dams, water spreaders, and tanks; it was that the recommended sites impacted other activities equally important to the Navajo. Additionally, they did not have access to heavy equipment to maintain dams over time. Such anthropological and sociological insights resulted in greater community involvement in implementing conservation measures, as well as the ability to maintain them over time with resources that they could more easily access.

Sources: 1) "Anthropology in the Soil Conservation Service", Lawrence C. Kelly. *Agricultural History*, Vol. 59, No. 2, The History of Soil and Water Conservation: A Symposium, April 1985, pp136-147; 2) "Conservation and Culture: The Soil Conservation Service, Soil Science, and Conservation on Tribal Land in the Southwest, 1934-1994." Rebekah C. Beatty Davis, USDA Natural Resources Conservation Service. July 1997.

September 19, 1933 - A temporary "New Deal" agency, the Soil Erosion Service (SES), was established within the U.S. Department of Interior to carry out provisions of the National Industrial Recovery Act of 1933 (Public Law 73-67) relating to the prevention of soil erosion. The SES is the first national action program of soil conservation anywhere in the world. Action to establish the SES was based on an earlier resolution adopted by a special board of public works on July 17, 1933. Hugh Hammond Bennett is named Director and Walter C. Lowdermilk the Vice-Director.

Source: "The Soil Conservation Service", D. Harper Simms, 1970, page 11.

October 10, 1933 - The Coon Creek Project in Coon Valley, Wisconsin, was the first soil erosion control project established by the Soil Erosion Service (SES). The project was headquartered out of La Crosse, Wisconsin and actual work began in November 1933. Between the late fall of 1933 and June 1935, 418 of the 800 farmers in this project area signed cooperative agreements to follow SES recommendations for strip cropping, crop rotations, rearrangement of fields, and the conversion of steep cropland to pasture and woodland. Many of the agreements obligated SES to supply Civilian Conservation Corps labor, as well as fertilizer, lime, and seed.

Aldo Leopold, then on the faculty of the University of Wisconsin and author of the recently published "Game Management", convinced SES to hire a biologist to improve wildlife habitat in the watershed. Most of the strategies to increase wildlife populations were of a more enduring nature. Gullies and areas that could not be farmed readily were converted to wildlife planting areas. Some hedges for wildlife also served as permanent guides for contour stripcropping. Attention was paid to reforestation with tree species that provided good wildlife habitat.

Sources: 1) "The Civilian Conservation Corps: Demonstrating the Value of Soil Conservation", Douglas Helms, *Journal of Soil and Water Conservation* 40; March-April 1985; pages 184-188; 2) "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970.

October 16, 1933 - President Roosevelt, citing his authority under the National Industrial Recovery Act of June 16, 1933 (Public Law 73-67), created the Commodity Credit Corporation (CCC) on October 16, 1933 through Executive Order 6340, with incorporation in the State of

Setting the Foundation for the Movement

1933 - 1939

Delaware. The Delaware Corporation was later dissolved with passage of the CCC Charter Act of 1948 that required all wholly owned government corporations to be reincorporated as agencies or instruments of the U.S. The reason for establishing the CCC was to consolidate the functions specified in seven statutes, including the Agricultural Adjustment Act of 1933.

Among specific powers of the CCC was carrying out conservation programs authorized by law. The CCC had specific authority that allowed it to borrow up to \$30 billion at any one time from the U.S. Treasury, with essentially automatic restoration of its borrowing authority for losses that occurred in a federal fiscal year ("net realized losses"). The CCC Charter Act of 1948 provides the Secretary of Agriculture with certain powers and discretion in using the CCC. The Secretary oversees the CCC and its Board of Directors, which consists of other USDA employees.

Sources: 1) "The Commodity Credit Corporation: In Brief", Congressional Research Service, 7-5700, Megan Stubbs, September 4, 2019, 12 pages; 2) Commodity Credit Corporation Charter Act, FSA-OA-CCC, October 2004, 22 pages; 3) Commodity Credit Corporation Briefing Book, Prepared by FPAC Business Center and Office of General Counsel, USDA, May 2019, 110 pages.

April 1, 1934 - Twenty-two Emergency Conservation Work (ECW) camps were assigned to the SES and commenced operations on soil erosion projects. Prior to this, SES accessed some ECW labor through other agencies.

Source: 1) "Reclamation Era", United States Bureau of Reclamation, Volumes 23-25, 1932; 2) "Hugh Hammond Bennett and the Creation of the Soil Conservation Service, September 19, 1933-April 27, 1935", USDA NRCS, Historical Insights Number 9, Douglas Helms, March 2010, page 8; 3) "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970.

May 11, 1934 - A major dust storm had blown a dense cloud of fine soil particles from the Great Plains to Washington, D.C. and 300 miles further east into the Atlantic Ocean. Congress decided action must be taken about soil erosion.

Source: 1) "Organization and Development of the Soil Conservation Service, A Reference for Employees", USDA-SCS, SCS-CI-13, Revised July 1970; 2) "Hugh Bennett's Dream-And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 15.

August 15, 1934 - Hugh Hammond Bennett, Soil Erosion Service (SES) Director, initiated the pioneering National Erosion Reconnaissance Survey of 1934. This survey, the first well documented nationwide resources inventory ever conducted, estimated the degree of erosion caused by water and wind on the total land area of the United States. Results from the survey showed the following findings for the nation's land per the October 1935 issue of "Soil

Conservation": 3 percent was depleted, 12 percent had severe erosion, 41 percent had moderate erosion, 37 percent had slight erosion; and the remaining 7 percent was categorized as "other." The Survey results confirmed what Bennett had stated all along - that soil erosion was a serious problem of national dimensions.

By the early 1940's, the Soil Conservation Service's (SCS) program design began with an accurate assessment of natural resources. In 1945, SCS published a report called "Conservation Needs Inventory", which laid the groundwork for future inventories. In 1956, SCS led a team of seven U.S. Department of Agriculture agencies to update the 1945 inventory - using statistical sampling for the first time to collect natural resources data. This resulted in the release of the 1958 inventory for each county. The 1967 Conservation Needs Inventory (CNI) updated the 1958 inventory and featured data collection at specific-sampling points with random sampling units. The 1967 CNI included other detailed information such as watershed boundaries and land use treatment needs.

By the 1970s, SCS had linked resource inventory data with soils data. The follow-on more limited 1977 inventory was referred to as the 1977 National Resources Inventory (NRI). From 1977 to 1997, the NRI was conducted on a five-year cycle. Since 2001, a statistically sound subset of 800,000 NRI sample sites across the U.S. has been selected every year for data collection. The more frequent annual data collection on sample sites provides the agency the capability to gather data on emerging natural resource issues more timely.

Sources: 1) "History of Natural Resource Inventories Completed by the USDA's Soil Conservation Service and Natural Resources Conservation Service", Soil and Water Conservation Society, 2016; 2) "Natural Resources Inventory Training Modules; USDA NRCS, Resource Inventory and Geographic Information Systems Division, 1994; 3) "Through These Eyes: The 70 Years of Soil and Water Conservation in Minnesota", USDA NRCS, Vic Ruhland, April 2005, page 31.

December 18, 1934 - A committee appointed by the Secretary of Interior (Harold Ickes), and headed by Ward Shepard of Interior's Indian Service, assessed and reported on the soil erosion problem and recommended a permanent coordinated program of soil erosion control. Because this was primarily an agricultural problem involving farming methods and lands used for farming, this committee further recommended the Soil Erosion Service be transferred to the U.S. Department of Agriculture (USDA).

Sources: 1) "Hugh Bennett's Dream - And How It Grew", The Soil Conservation Service, D. Harper Simms, 1990, pages 12 and 13; 2) "Organization and Development of the Soil Conservation Service, A Reference for Employees", USDA-SCS, SCS-CI-13, Revised July 1970.

March 6 and 21, 1935 - Additional great dust storms, following the one of May 11, 1934, sent clouds of soil particles from Kansas, Colorado, Texas, and Oklahoma over Washington, D.C.,

Setting the Foundation for the Movement

1933 - 1939

other eastern cities, and further east into the Atlantic Ocean on March 6 and March 21, 1935. In New York City, the dust storm obliterated the view of the Empire State Building as snow and soil fell down in masses.

Soil Erosion Service Director Hugh Hammond Bennett was able to capitalize on these storms; one took place during his testimony on March 21 before a subcommittee of the Senate Committee on Agriculture. These major dust storms, with dust settling on the streets of Washington, D.C. and darkened skies, helped to crystalize Congressional support for the proposed legislation for a permanent soil erosion control and prevention program.

Sources: 1) "Organization and Development of the Soil Conservation Service, A Reference for Employees, USDA SCS, SCS-CI-13, Revised July 1970; 2) "Hugh Bennett's Dream-And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 15; 3) "Hugh Hammond Bennett and the Creation of the Soil Conservation Service, September 19, 1933 - April 27, 1935", USDA NRCS, Historical Insights Number 9, Douglas Helms, March 2010, pages 18-22.

March 22, 1935 - *"...I feel that the work of the Soil Erosion Service and other Federal and State agencies cooperating in erosion control is slowly but surely persuading farmers that such control is, in fact, both an individual and patriotic duty..."*

Source: March 22, 1935 Memorandum from Franklin D. Roosevelt to the Reverend A.C. Millar, Editor, "The Arkansas Methodist", Little Rock, Arkansas.

March 25, 1935 - The Soil Erosion Service (SES) was transferred to the U.S. Department of Agriculture by order of the Federal Emergency Administrator of Public Works, as approved by President Franklin D. Roosevelt on March 25, 1935. All personnel, funds, equipment, and property were transferred. This included 51 Emergency Conservation Work (ECW) projects that originally were assigned to the Department of Interior or the Forest Service for erosion control work on agricultural lands.

Sources: 1) "Organization and Development of the Soil Conservation Service, A Reference for Employees, USDA SCS, SCS-CI-13, Revised July 1970; 2) "Hugh Bennett's Dream-And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 15.

March 27, 1935 - The Secretary of Agriculture, through Departmental Memorandum 665, directed the unification of the Department's soil erosion related activities under the Soil Erosion Service (SES), newly transferred from the Department of Interior to the U.S. Department of Agriculture (USDA). This Memorandum also transferred to the SES the erosion control experiment stations of USDA's Bureau of Chemistry and Soils, plus the erosion control nurseries of its Bureau of Plant Industry.

The erosion control nurseries transferred to SES from the Bureau of Plant Industry were in 13 states: Alabama, Arizona, California, Iowa, Louisiana, Missouri, New Mexico, North Carolina, North Dakota, Oklahoma, Texas, Washington, and Wyoming. Work of the nurseries led to the domestication of many native species and provided a nationwide system of observational studies of native and non-native plants to determine potential usefulness for soil and moisture and related purposes.

Sources: 1) "A History of Water Resources Activities of the United States Department of Agriculture", Eugene C. Buie, September 1979; 2) Briefing Paper on the Plant Materials Centers, Douglas Helms, National Historian, Natural Resources Conservation Service, April 7, 2008.

April 2 and 3, 1935 - *"This [erosion] menace to the continuing welfare of the Nation is out in the open, and can never again be driven back into cover by essays, round-table discussions, or the academic opinions of those who do not know the land in detail, what is taking place on it, and what must be done to save it."*

Source: Paper submitted to the Subcommittee of the Committee on Agriculture and Forestry, United States, Seventy-Fourth Congress, First Session, April 2 and 3, 1935, by Hugh Hammond Bennett.

April 5, 1935 - In a report submitted to the President on April 5, 1935, Robert Fechner, Director of Emergency Conservation Work, identified the progress and accomplishments of the Civilian Conservation Corps (CCC) from its initiation on April 5, 1933 to March 31, 1935. In the report, Director Fechner states: "The dispatch with which conservation projects were begun and the tremendous total of work testify to the thoroughness with which these technical agencies met the new responsibilities thrust upon them by the initiation of the Emergency Conservation Work Program."

The work of the CCC under the Soil Erosion Service (transferred from the U.S. Department of Interior to the U.S. Department of Agriculture on March 25, 1935) was largely restricted to gully control. The report further states: "The advancement of conservation in the United States by the Emergency Conservation Act of March 31, 1933, through the work of the CCC, has been tremendous and heartening; it has pushed forward conservation progress from ten to twenty years."

"The major gains have been (a) real and lasting physical accomplishments in the forests and on other land (b) greatly increased public understanding and appreciation of the meaning and purpose of conservation (c) the practical training of CCC enrollees in conservation methods, practices and purposes (d) a nation-wide stimulation of interest in forestry, soil erosion control and conservation on the part of states and private landowners (e) a many-fold increase in the rate of acquisition of lands for national forests and federal wild-life refuges, and (f) an accelerated program of forest research in problems relating directly to the CCC work projects."

Setting the Foundation for the Movement

1933 - 1939

Robert Fechner had been a union vice-president before taking on the Director of Emergency Conservation Work. He was personally picked and appointed by President Roosevelt.

Sources: "Two Years of Emergency Conservation Work (Civilian Conservation Corps, April 5, 1933 - March 31, 1935", 99076-A-through 99076-F, Robert Fechner, Director of Emergency Conservation Work, April 5, 1935; 2) "Civilian Conservation Corps", History.com, Editors of History.com, Originally Published on May 11, 2010; Updated on October 17, 2018.

April 27, 1935 - The President approved the Soil Conservation Act (Public Law 74-46) creating the Soil Conservation Service (SCS), formerly Soil Erosion Service (SES), within the United States Department of Agriculture (USDA) on April 27, 1935. On that same day, Departmental Memorandum 673 was issued by the Secretary of Agriculture establishing the SCS and providing that this new agency include the activities that were conducted by the SES.

This action agency was charged with the development and prosecution of a continuing nationwide program of soil conservation to help farmers and ranchers apply what research scientists were finding out about soil erosion and how to reduce it. The name change from the Soil Erosion Service to the Soil Conservation Service (SCS) was a conscious effort to give the new agency's name a more positive ring and to invest this agency with a conservation charge broader than erosion control. Hugh Hammond Bennett favored this more optimistic name that better described the interrelated methods used to conserve and improve soils, not just hold them in place. Hugh Hammond Bennett was named Chief of the new agency, and Dr. Walter C. Lowdermilk the Associate Chief.

After passage of the Soil Conservation Act of 1935, the SCS began searching for more effective methods to bring federal conservation technical assistance to all farmers and ranchers. Thereafter, much of the SCS work was with individual farmers and ranchers who were convinced of the value of conservation. There was less focus on concentrating efforts in selected watersheds. As Robert J. Morgan later wrote in 1966 on this matter in "Governing Soil Conservation: Thirty Years of the New Decentralization", *"What the Soil Conservation Service needed was a representative who could walk over a man's land with him, lay out a conservation plan, and come back to help him install the more difficult practices and structures."*

The 1935 Act also established a national policy, arming the Secretary of Agriculture with the authority to implement a national program of soil and water conservation, and providing latitude on the way this was to be done. This Act was recognized as a major milestone in conservation history, especially with regard to private lands.

The Soil Conservation Act was later amended by the 74th Congress with the passing of Public Law 74-461 and renamed the Soil Conservation and Domestic Allotment Act, signed into law by President Roosevelt on February 29, 1936. The 1936 amended Act encouraged the use of soil resources in such a manner as to preserve and improve soil fertility, promote economic

use, and diminish the exploitation and unprofitable use of soil resources. It also authorized the Agricultural Conservation Program (ACP), which was aimed at building the productive capacity of the soil, improving soil erosion control, and reducing commodity surplus by paying farmers to replace seven soil-depleting crops with soil-conserving crops.

ACP was administered by U.S. Department of Agriculture's Agricultural Adjustment Administration (AAA) and provided cost-share payments to farmers and ranchers. With the striking down of Public Law 73-10 (Agricultural Adjustment Act of 1933) in 1936 by the U.S. Supreme Court, the soil conservation payments through ACP became the major vehicle to move cash to rural areas (a major goal of the Roosevelt Administration and Congress) during the acute economic crisis facing American agriculture. ACP continued in operation until it was terminated, and its functions reorganized under provisions of the 1996 Farm Bill.

Sources: 1) Public Law 74-461, February 29, 1936, 2) "Governing Soil Conservation: Thirty Years of the New Decentralization", Robert J. Morgan, 1966; 3) "Hugh Bennett's Dream-And How It Began", The Soil Conservation Service, D. Harper Simms, 1970, page 15-17; 4) "Hugh Hammond Bennett and the Creation of the Soil Conservation Service", USDA NRCS, Historical Insights Number 8, Douglas Helms, September 2008, page 12.

May 1, 1935 - The Resettlement Administration (RA) was established in the U. S. Department of Agriculture (USDA) through Executive Order 7027, under authority of the Emergency Relief Appropriations Act of April 8, 1935. The RA was created to resettle "destitute or low-income families from rural and urban areas" to government-planned communities; administer projects addressing soil erosion, stream pollution, sea coast erosion, reforestation, and flood control; and to make loans to help finance the purchase of farmlands and equipment by farmers, farm tenants, croppers, and farm laborers. This agency later became the USDA's Farm Security Administration (FSA) in 1937, and the Farmers Home Administration in 1946, and was the earliest forerunner to Rural Development.

Source: "Overview: The Farm Security Administration", National Archives, www.archives.gov-education-depression-curriculum-section2.pdf

June 6, 1935 - On June 6, 1935, the Secretary of Agriculture's Committee on Soil Conservation (SCS) made a recommendation, approved by the Secretary, that on or after July 1, 1937 all erosion-control work on private lands be undertaken by SCS only through legally constituted "Soil Conservation Associations." This action helped lay the groundwork for soil conservation districts at the county level.

Source: "Hugh Bennett's Dream - And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 18.

December 1935 - The Soil Conservation Service reached its peak number (489) of Civilian Conservation Corps (CCC) camps operated at one time for conservation work in rural areas around the Nation. These camps provided technical assistance, manual labor, and materials to install erosion and water control measures on privately-owned lands. CCC operated until June 30, 1942.

Sources: 1) "A Legacy of Conservation: 75 Years of Helping People Help the Land in North Dakota, 1935-2010", USDA Natural Resources Conservation Service, North Dakota; 2) "Civilian Conservation Corps Facts", CCC History Library, Civilian Conservation Corps Museum, James J. Justin, Original Web Pages, 1998; 3) "A History of Water Resources Activities of the United States Department of Agriculture", Eugene C. Buie, September 1979, page 7.

December 1935 - The USDA's Soil Conservation Service and Department of Interior's Bureau of Indian Affairs established an interagency group called "Technical Cooperation - Bureau of Indian Affairs" (TC-BIA). John Collier, the Commissioner of the Bureau of Indian Affairs, had a vision for a highly integrated team of soil scientists, anthropologists, sociologists, and economists to study soil erosion and Indian land use. Its purpose was to produce land-utilization plans appropriate for reservations, without disrupting traditional systems of social organizations of land use.

Source: "Anthropology in the Soil Conservation Service", Lawrence C. Kelly. Agricultural History, Vol. 59, No. 2, The History of Soil and Water Conservation: A Symposium, April 1985, pp136-147.

1935 - The Soil Conservation Service (SCS) emphasized that a "soil conservation survey" should provide the basis for conservation planning for farms and ranches. Some "soil conservation surveys" were also made in watershed protection areas, and areas where reservoir sedimentation studies were being carried out. These "soil conservation surveys" included mapping of four factors: erosion, land use, slope, and soil type. With the increase in availability of the standard soil survey maps and the transfer of the responsibility for soil surveys from the U.S. Department of Agriculture's Bureau of Plant Industry, Soils, and Agricultural Engineering to SCS in 1952, the "soil conservation surveys" were discontinued. The standard soil survey maps were then used for the interpretation of land capability classes, aided by specific guidelines developed for this purpose.

Sources: 1) "Readings in the History of the Soil Conservation Service", USDA Soil Conservation Service, Economics and Social Sciences Division, 1992; 2) "Soil Surveys and Maps", A Reprint from "The Literature of Soil Science", Cornell University Press, Ithaca, New York; Ralph J. McCracken and Douglas Helms; Edited by Peter McDonald, 1994, pages 286 and 287.

1935 - Congress authorized the Reconstruction Finance Corporation to refinance local drainage and irrigation districts in distress. This assistance enabled districts in 26 States to continue operations during the Depression. Drainage districts also received assistance from the Civilian Conservation Corps (CCC) Camps. In 1935, 46 CCC Camps involved with the U.S. Department of Agriculture were engaged with rehabilitation and reconstruction of drainage improvements that were authorized under State drainage laws. By 1941, drainage and irrigation work had been approved by the Soil Conservation Service as conservation work to be included in farm conservation plans. Drainage work conditioned land needed for the great expansion in agricultural production during and following World War II.

Sources: 1) "Reconstruction Finance Corporation", Office of the Law Revision Counsel, USC Ch. 14, 1957; 2) "The Civilian Conservation Corps: Demonstrating the Value of Soil Conservation", In Readings in the History of the Soil Conservation Service, USDA SCS, Economics and Social Sciences Division, Historical Notes Number 1, September 1992 and July 1999, Douglas Helms, pages 44-50.

June 22, 1936 - The Omnibus Flood Control Act of 1936 (Public Law 74-738), as amended in 1937, was the first stage of Federal legislation to help governments and organizations bridge the gap between soil and water conservation work on individual farms and the downstream flood control work of the U.S. Army Corps of Engineers. The Act recognized the need for runoff and water flow retardation on watersheds as a principal means of flood prevention and signaled for the first time that assistance with flood control was a proper role for the Federal government. The Act, as amended, authorized the U.S. Department of Agriculture to carry out surveys and investigations of watersheds and to install measures to retard excessive runoff and prevent erosion. The Soil Conservation Service shared responsibility with the Forest Service and the Bureau of Agricultural Economics. A number of surveys were completed, and some planning was done, but because of the need to support World War II efforts, the program was stopped before measure installation was initiated.

Source: "Hugh Bennett's Dream - And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, pages 19 and 20.

1936 - The U.S. Department of Agriculture's Bureau of Plant Industry's soil erosion control nurseries were transferred to the Soil Conservation Service (SCS) in 1936. After taking over these nurseries from the Bureau, SCS had 48 major nurseries in operation, which produced 130 million trees and seedlings for Civilian Conservation Corps work areas and demonstration projects.

Source: "The Civilian Conservation Corps: Demonstrating the Value of Soil Conservation", Douglas Helms, Journal of Soil and Water Conservation 40 (March-April 1985); pages 184-188.

February 27, 1937 - President Franklin D. Roosevelt sent the "Standard State Soil Conservation District Law" to State governors for them to adapt it for their States and urged them to enact it to provide local leadership for the conservation movement. Conservation districts, governmental subdivisions of the State organized by local people, would direct a district's soil and water conservation activities. The Federal government would supply equipment and technical assistance through trained soil conservation personnel. These districts were a totally new concept for collaboration between federal, State, and local units of government, with no precedent. By January 5, 1944, 45 states had enacted district enabling legislation. Today, volunteer district officials (about 17,000 nationwide) direct the activities of nearly 7,000 district employees nationwide and collaborate closely with the U.S. Department of Agriculture, States, and many other governmental and non-governmental partners.

The "Standard State Soil Conservation Districts Law", sent by President Roosevelt to all governors in February 1937, provided the basis for the authorities and responsibilities of districts. The law declared, "*the necessity of creating governmental subdivisions of the State, to be known as "soil conservation districts," to engage in conserving soil resources and preventing and controlling soil erosion;...*" Furthermore, it defined the powers of districts and their directors, the cooperative role of the districts with one another and State and federal agencies, the election or appointment of directors, and many other items related to their formation and operation.

In not one single State, however, did the Standard Districts Law get adopted in the exact form recommended by President Roosevelt. Each State adapted the recommended law to local conditions and needs. Some States eliminated sections that provided for the adoption of conservation ordinances (land use regulations), while others provided that a district's boundary should be coterminous with the particular county in which the district was established, among other adaptations.

Known as "conservation districts," "soil conservation districts," "soil and water conservation districts," "resource conservation districts," or "natural resources districts," depending upon their location in the U.S., these local units of government were charged with developing and carrying out a comprehensive program of soil, water, and related natural resource conservation, management, and development by providing technical assistance and programs to residents, landowners, and units of government.

Another major outcome from States' enactment of district laws was the creation of a State agency to oversee the establishment and operation of conservation districts. These were called State Soil Conservation Committees, Commissions, Boards, or Councils depending on the State. Because of these State district laws and subsequent amendments to them, the soil conservation movement was transformed from a wholly federal effort to an intergovernmental one by engaging State and local entities and their efforts in a substantive, meaningful way. Per Philip M. Glick in the "The Politics of Conservation" in the September/October 1982 "Journal

of Soil and Water Conservation", *"Ours is not a layer-cake form of government but a marble cake. Each level of government makes indispensable contributions."*

Sources: 1) "The Politics of Conservation", Journal of Soil and Water Conservation; Glick, P.M; 1982. 2) "The Emergence of Districts" For Love of the Land: A History of the National Association of Conservation Districts, R. Neil Sampson, 1985, pages 26-48; 3) "Technical Assistance - The Engine of Conservation", USDA NRCS, Historical Insights Number 5, Douglas Helms, March 2005, pages 1 and 2; 4) "A Standard State Soil Conservation Districts Law", USDA SCS, 1936, 32 pages.

March 3, 1937 - The first State soil conservation district law is enacted by Arkansas. By the end of 1937, twenty-two States had passed a State soil conservation district law and other States soon followed. By January 1948, all 48 States (the number of States in 1948) had passed district laws and 1,921 districts had been established. In 1969, there were 3,017 districts in operation and 99 percent of all farms and ranches, and 99 percent of the agricultural land in the U.S. was within a conservation district.

Over the years, many of these State soil conservation district laws have been amended one or more times to meet changing conditions. For example, in some States the governing body for a conservation district has one or more non-farm members. These changes have not modified the essential character of the conservation district. These districts still remain the volunteer, non-paid governing body for the local unit legally responsible for local soil and water conservation activities, and are a core conservation partner of USDA across the entire nation.

In the 1980s and 1990s, Native Americans organized conservation districts that also receive assistance from the Natural Resources Conservation Service. There are now 33 Tribal Conservation Districts.

Sources: 1) "Soil Conservation Districts: Local Democracy in a National Program", Vol. 8, No. 4; H. Walker, Jr. and W.R. Parks; 1946; 2) "Partners in Conservation: The Conservation District Perspective", 50 years of Soil and Water Conservation: Symposium Proceedings, Milton E. Mekelburg, April 1985, pages 7 and 8.

May 10, 1937 - When the Technical Cooperation - Bureau of Indian Affairs (TC-BIA) was established in December 1935, Milton Eisenhower questioned the legality of using Soil Conservation Service (SCS) appropriations for social scientists and anthropologists. Although Hugh Hammond Bennett maintained a human dependency team staffed by social scientists and anthropologists, many questioned how this supported the SCS mission.

In the face of increasing opposition, Mr. Collier and Mr. Bennett signed a Memorandum of Understanding on May 10, 1937 that defined the agencies' responsibilities as it related to the TC-BIA." The MOU was valid for two years. In this MOU, the Bureau of Indian Affairs was

Setting the Foundation for the Movement

1933 - 1939

responsible for anthropologists and economists. Soil technicians were under the administrative supervision of regional SCS directors.

Its socio-economic survey team completed at least 22 studies before it was disbanded in 1939.

Sources: 1) "Anthropology in the Soil Conservation Service", Lawrence C. Kelly. Agricultural History, Vol. 59, No. 2, The History of Soil and Water Conservation: A Symposium, April 1985, pp136-147; 2) "Conservation and Culture: The Soil Conservation Service, Soil Science, and Conservation on Tribal Land in the Southwest, 1934-1994." Rebekah C. Beatty Davis, USDA Natural Resources Conservation Service. July 1997.

July 22, 1937 - The Bankhead-Jones Farm Tenant Act, Title III (Public Law 75-210) established the Land Utilization Program, which authorized the Secretary of Agriculture to develop a program of land conservation and utilization, including the retirement of lands which were submarginal or not primarily suitable for cultivation.

Land retirement under this Act was predominantly in the Great Plains, where land was purchased and converted to grassland. By 1953, the Soil Conservation Service managed some seven million acres under this Act. In 1953, responsibility for these lands was transferred to the Forest Service through a U.S. Department of Agriculture reorganization. Many of these lands later became National Grasslands.

Sources: 1) Bankhead - Jones Farm Tenant Act, U.S. Statutes at Large, 50, Part 1 (1937): 522-33; 2) "Hugh Hammond Bennett's Dream - And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 25.

August 4, 1937 - The first soil conservation district was organized, comprising 120,000 acres in parts of Anson and Union Counties in the piedmont region of North Carolina. It was named the Brown Creek Soil Conservation District and included the farmland where Hugh Hammond Bennett, the "Father of Soil Conservation", was born and raised. By the end of 1937, 14 other conservation districts in six States were organized. By 1940, more than 300 districts covering 190 million acres were organized. By 1950, the number of conservation districts had grown to 2,164. Today, there are nearly 3,000 conservation districts in 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

"One of the best, and certainly the most promising, of the devices yet invented by man for dealing democratically and effectively with maladjustment in land use, as well as for carrying forward positive programs of desirable conservation, and for maintaining the work, is the soil conservation district." Hugh Hammond Bennett, Soil Conservation Service Chief, July 25, 1946 in a speech at the National Association of Soil Conservation District Governing Officials, Chicago, Illinois.

Source: "The Emergence of Districts", For Love of the Land: A History of the National Association of Conservation Districts; National Association of Conservation Districts, League City, Texas; R.Neil Sampson, 1985, pages 32-38.

August 28, 1937 - The Water Facilities Act (Public Law 75-399) was approved. The Act (also known as the Pope-Jones Act) authorized the Secretary of Agriculture to plan and construct or to assist in the construction of facilities for water storage and utilization in arid and semi-arid areas of the United States. These "projects" could be located on either federal or privately-owned land. The Act of August 17, 1954 (68 Stat. 734) terminated the construction phase of the program, expanded the purposes to include land conservation and improvement projects, and extended the coverage of the program to all of the States and Territories. This authority was later repealed and replaced the Consolidated Farmers Home Administration Act of 1961 (Public Law 87-128 on August 8, 1961).

Source: "A History of Water Resources Activities of the United States Department of Agriculture", Eugene C. Buie, September 1979, page 15.

September 1, 1937 - The Farm Security Administration (FSA), formerly the Resettlement Administration (RA), was established within the U.S. Department of Agriculture under authority of the Bankhead-Jones Farm Tenant Act (Public Law 75-21). FSA served to aid poor farmers, sharecroppers, tenant farmers, and migrant workers. It promoted soil conservation and helped with rural rehabilitation, farm loans, and subsistence homestead programs. The FSA was not a relief agency, but instead it relied on a network of cooperation between States and county offices to determine which clients needed loans that could not get this credit somewhere else. Farmers could use these loans to buy land, equipment, livestock, or seeds. Additionally, the FSA assisted families by providing healthcare, education, and training programs for participating families. The goal of these measures was to help families become self-sustaining. The FSA was one of the New Deal's most progressive and controversial agencies because of its advocacy for government planning and economic intervention in rural America. Critics of the FSA, and its predecessor the RA, felt it was "socialistic."

The "Historical Section" in RA, and then FSA, was a publicity department created to document rural poverty and government efforts to alleviate it. It contained a photographic unit with skilled photographers that produced much of the iconic documentary photography from the era of the Dust Bowl and the New Deal.

Source: "Overview: The Farm Security Administration" at <https://www.archives.gov/files/atlanta/education/depression-curriculum/section-2.pdf>

1937 - The First Soil Survey Manual is published in 1937, then revised in 1951, and revised again 1993. It was then published in March 2017 as "USDA Handbook" No. 18. This manual provides the major principles and practices needed for making and using soil surveys and for

Setting the Foundation for the Movement

1933 - 1939

assembling and using related data. The manual serves as a guiding document for activities of the National Cooperative Soil Survey (NCSS) and is oriented to the needs of those actively engaged in preparing soil surveys. Because the Manual describes all facets of the soil survey process, it is an important guide for developing proposals to conduct soil surveys and to create detailed plans for projects in other parts of the world.

Source: "Soil Survey Manual", USDA NRCS, USDA Handbook 18, Government Printing Office, Washington, D.C., C. Ditzler, K. Scheffe, and H.C. Marger (eds.), 2017.

1937

"The life of an SCS soil surveyor is arduous but exciting. Any gathering of these men (there are a few women soil surveyors too) brings forth an endless stream of reminiscences, garnished with tales of encounters with angry bulls or, worse, with irate moonshiners. The sight of a stranger digging in a field arouses a wide range of reactions. One unfortunate soil surveyor in Oregon had just finished studying the soil profile and was filling in a last shovelful of earth when an armed posse arrived. His explanation was not accepted, and he had to dig out the deep hole again before the posse was convinced he was neither a grave-robber nor a murderer trying to dispose of a body."

Source: "Soil Conservation in Practice", The Soil Conservation Service, D. Harper Simms, 1970, page 35.

February 16, 1938 - Congress enacted the Agricultural Adjustment Act of 1938 (Public Law 75-430), more comprehensive than the 1933 Act that was declared unconstitutional and repealed in 1936. It emphasized the importance of farm conservation by reauthorizing the conservation programs originally established in 1935 under the Soil Conservation and Domestic Allotment Act. The 1938 Act continued to build on conservation policy by increasing payments to participants and setting rules for how payments should be divided between landowners and producers (tenants and sharecroppers). This Act also created the Federal Crop Insurance Corporation as an agency within the U.S. Department of Agriculture.

Also, through the Agricultural Adjustment Act of 1938, the Conservation and Production Research Laboratory (CPRL) was established as part of the Soil Conservation Service, in concert with the Texas Agricultural Experiment Station. The Laboratory had a goal of addressing wind erosion problems in the Southern Great Plains. Early research involved stubble mulch tillage, water conservation, wind erosion control, wheat improvement, grass reseeding, and livestock management. This laboratory was established in direct response to the Dust Bowl and was built upon Pullman clay loam, a moderately permeable and common surface soil in that region.

Sources: 1) Public Law 75-430, 52 Stat. 31, enacted February 16, 1938; 2) "Providing Technology for Sustainable Production Systems", Conservation and Research Laboratory; Bushland, Texas; USDA Agricultural Research Service;

Last modified on December 8, 2019; 3) "Agricultural Adjustment Act, 1938 Law and Legal Definition", USLegal.com; retrieved on November 11, 2019.

July 1, 1938 - The Secretary of Agriculture delegated to the Soil Conservation Service (SCS), under the Water Facilities Act of 1937 (Public 75-399), the responsibility for the action phases of this Act including the planning, construction and installation of water storage and utilization facilities; development of conservation management plans for farms and ranches where the work was carried on; and, the rendering of technical advice on water facilities matters. The projects could be located on either federally-or privately-owned land in the 17 arid and semiarid states of the Western U.S. The Farm Security Administration provided financial assistance through loans. Responsibility for the action phases of the "Water Facilities Program" remained with SCS until July 1, 1942, when these responsibilities were transferred to the Farm Security Administration.

Source: "A History of Water Resources Activities of the United States Department of Agriculture", Eugene C. Buie, September 1979.

November 1, 1938 - Effective this date, per Secretary of Agriculture Wallace's October 6, 1938 directive, the Soil Conservation Service (SCS) was assigned to administer the action phase of the forestry program authorized by the Cooperative Farm Forestry Act (50 Stat. 188) of May 18, 1937 - also known as the Norris-Doxey Act. This Act gave a legislative basis for the Shelterbelt Project for the Prairie States, but also included authorization for an expanded program of assistance to farm woodlot owners across the U.S. The Act authorized annual appropriations not to exceed \$2.5 million.

Secretary Wallace assigned the implementation primarily to the SCS and not the Forest Service because, in his words, the SCS had become "a broad land-use agency" in which the "principle of coordinated farm planning" applicable to farm woodlot management could be carried out effectively. Wallace recognized that SCS had a corps of foresters trained and experienced in carrying out a farm forestry program. The Forest Service continued responsibility for assisting farm enterprises that had a predominant forest land use.

Source: "A Chronological History of the Soil Conservation Service and Related Events", USDA Soil Conservation Service, SCS-CI-1, Robert L. Geiger, Jr., December 1955; 2) "A Period of Rapid Progress, 1918-1931", Forestry History Society; 3) The Principal Laws Relating to the USDA Forest Service State and Private Forestry Programs", FS-758, USDA Forest Service, Revised March 2011.

November 1, 1938 - The Secretary of Agriculture transferred the responsibility under Title III of the Bankhead-Jones Farm Tenant Act of July 22, 1937 (Public Law 75-210) from the Farm

Setting the Foundation for the Movement

1933 - 1939

Security Administration to the Soil Conservation Service (SCS). Under this program of land conservation, utilization, and retirement of sub-marginal lands, SCS completed, operated, and maintained some dams for floodwater storage, recreation, and other purposes until the program was transferred to the Forest Service on January 1, 1954.

Source: "Hugh Bennett's Dream-And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 20.

December 1938 - The Secretary of Agriculture transferred from the Division of Irrigation and Drainage of the Bureau of Agricultural Engineers to the Soil Conservation Service (SCS) work that dealt with drainage and irrigation investigations, experiments, and demonstrations. The authorization for this action stemmed from the Secretary's October 6, 1938 announcement of a realignment of functions within USDA. It was the same USDA realignment that transferred the cooperative snow survey and water forecasting responsibilities in Western States from the same Bureau to SCS. Prior to this transfer of functions, SCS had no authority to carry out field work on agricultural water management. The Agricultural Appropriations Act of 1940 (Public Law 76-159) on June 30, 1939, and subsequent appropriations acts, later provided specific authorizing language for SCS to spend funds on on-farm irrigation and drainage activities, which were a key focus area for SCS in the 1940's and 1950's.

Source: "A History of Water Resources Activities of the U.S. Department of Agriculture", September 1979, Eugene C. Buie, page 25.

June 1939 - In a 1939 speech titled "The Farmer as a Conservationist", Aldo Leopold stated:

"When the land does well for its owner and the owner also does well by his land - when both end up better by reason of their partnership - then we have conservation. When one or the other grows poorer, either in substance, or in character, or in responsiveness to sun, wind, and rain, then we have something else, and it is something we do not like."

Source: "The Farmer as Conservationist", American Forests, Volume i; 5 No. 6, June 1939.

July 1, 1939 - Cooperative snow survey and water supply forecasting duties and functions in the 17 arid and semi-arid Western States were transferred to the Soil Conservation Service (SCS) from the U.S. Department of Agriculture's former Bureau of Agricultural Engineering on July 1, 1939. The move to the SCS increased the area covered by snow courses as well as the application of water supply forecasts. When most research functions of the SCS were transferred to the Agricultural Research Administration effective November 15, 1952, the snow survey and water supply forecasting remained in SCS because of its role in advising soil

conservation districts and farmers on technical matters concerning the storage, movement, and use of water on the farm, especially with regard to irrigation water supplies.

Source: "Soil and Water Resources Conservation Act: 1980 Appraisal: Soil, Water, and Related Resources in the United States", Parts 1-2, U.S. Department of Agriculture, 1981.

August 1939 - The procedures for developing land capability classes (LCCs) were released by the Soil Conservation Service (SCS) in the "Soil Conservation Survey Handbook", through its Physical Surveys Division. This Handbook represented a culmination of a team effort between 1936 and 1939. While SCS Chief Hugh Hammond Bennett did not originate the LCCs, he embraced their use. The philosophical heritage of the LCCs was a desire to develop a permanent agriculture in the U.S. with a system of cultivation under which land would be used without deterioration.

LCCs originally were developed to be used hand-in-hand with detailed erosion maps. However, it was quickly recognized the LCC maps contained sufficient detail to streamline the erosion control planning and application process. The streamlining was particularly helpful during World War II when the number of SCS field conservationists declined steeply.

Sources: 1) "Readings in the History of the Soil Conservation Service", USDA Soil Conservation Service, Douglas Helms, 1992, pages 60-73; 2) "Land Capability Classification," USDA Soil Conservation Service, Agricultural Handbook No. 210; A.A. Klingebiel, P.H. Montgomery, Issued September 1961, Approved for reprinting January 1973.

November 27, 1939 - The Soil Conservation Service is assigned responsibility within the U.S. Department of Agriculture for flood control operations on land that is predominantly agricultural.

Source: "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, July 1970.

1930s - Early efforts at conservation tillage ("trashy farming") in the 1930s were researched in the form of chisel-plowing in the Great Plains in an attempt to conserve limited soil moisture. Innovative farmers designed and built tillage implements that would penetrate the dry soils of the Great Plains and leave as much mulch on the surface as possible. Prior to this, it was common to plow and disc the soil and burn any remaining residue on the soil surface, in attempts to "open up the soil" to the limited precipitation that would fall on the land.

In the 1930s, the Soil Conservation Service teamed up with researchers in Nebraska, South Carolina, Ohio, and other locations to learn more about conservation tillage. Weed control was

Setting the Foundation for the Movement

1933 - 1939

a major challenge. While efforts in the 1940s and 1950s advanced the tillage equipment to minimize tillage and maintain surface residue, a parallel effort was ongoing to create a chemical method of controlling weeds. By the 1980s, post-emergence herbicides were on the market and, when used in coordination with no-till planters and drills, created a financially- and scientifically-feasible method of agricultural production through minimized tillage and lessened soil erosion.

With the passage of the 1985 Farm Bill and its Conservation Compliance requirements, and advances from research and years of practical application, no-till and minimum-tillage methods of agricultural production had a rapidly increasing adoption rate.

Sources: 1) "Advances in Soil and Water Conservation. Conservation Tillage for Erosion Control and Soil Quality", R.L. Blevins, R. Lal, J.W. Doran, G.W. Langdale, and W.W. Frye, 2018; 2) "Sixty Years of Conservation Research", Forum, Agricultural Research, M.E. Carter, Acting Administrator of Agricultural Research Service, April 1988.



Upstream Watershed Improvements

1940 - 1949

"In a December 1946 essay, left in pencil draft at his death, he (Aldo Leopold) lists four conditions – he calls them "guesses" – for land-health and the continued ticking of the "biotic clock". They are: "1 – Cease throwing away its parts. 2 – Handle it gently. 3 – Recognize that its importance transcends economics. And 4 – Don't let too many people tinker with it."

Remarks in reference to Aldo Leopold by Deputy Secretary of Agriculture Rich Rominger, "Building on Leopold's Legacy" at the Wisconsin Academy of Sciences, Arts, and Letters; Madison, Wisconsin; October 5, 1999.

UPSTREAM WATERSHED IMPROVEMENTS

1940 - 1949

“What a frightful lack of foresight, and what terribly false economy it would be, if we did not go ahead with the soil conservation job!”

Hugh Hammond Bennet: “Soil Conservation in the World Ahead”, Journal of Soil and Water Conservation 2, January 1947, page 47.

President Roosevelt’s “Reorganization Plan IV” of 1940 brought clarity that the Soil Conservation Service (SCS) would focus on private lands conservation, leaving U.S. Department of Interior agencies with the responsibility for public lands conservation. This year also saw the start of long-term efforts by the Agricultural Research Service, Soil Conservation Service (SCS), and Purdue University to develop a universal soil loss equation (USLE) to provide soil conservationists with a formula to develop a numerical estimate of soil loss for a field to support conservation planning.

The attack on Pearl Harbor in December 1941 resulted in a significant impact to the U.S. Department of Agriculture (USDA), including its conservation efforts, as funding and staff resources were reduced to support the war effort. In the SCS alone, well over 3,000 employees were on military duty and the overall workforce declined by 44 percent between June of 1941 and June of 1944. Funding for the Civilian Conservation Corps was stopped in June of 1942. USDA agencies were realigned under new umbrella organizations to bring greater focus and effectiveness to food production and distribution. This greater focus on increased food production to support the war effort also brought about increased drainage of wet soils to improve productivity on existing acres and to bring new acres under production.

Also during World War II, the SCS watershed-based demonstration projects initiated in the 1930s were closed down in 1944. SCS flood control work was also suspended until 1945. In addition, the SCS was assigned responsibility for 15 of the Civilian Public Service Camps authorized by the Selective Training and Service Act of 1940, as part of the federal government’s program of employing conscientious objectors on work of national importance in lieu of their service in the military. As SCS Chief Hugh Hammond Bennett stated in 1942, *“The Service enlisted wholeheartedly in the effort to buildup the Nation’s defenses and when war came on December 7, completely streamlined its organization and went on a war footing.”*

The 1940s also saw the formation of two important non-governmental organizations that have partnered with USDA on conservation efforts since their origins. The Soil Conservation Society of America, later to become the Soil and Water Conservation Society, to support the relatively new profession of soil conservation was declared a formal organization in September

1943. The National Association of Soil Conservation Districts Governing Officials, later to become the National Association of Conservation Districts (NACD), officially formed in 1946 at a meeting in Chicago. NACD, and its predecessors, have been the unified voice for conservation districts since this time through grass roots advocacy, delivering conservation education, improving district capacity, providing networking opportunities and leadership training, and supporting outreach to underserved communities.

After World War II had ended, the watershed-based flood control work of SCS resumed in 1945 in eleven major watersheds encompassing nearly 31 million acres. Work on watershed feasibility plans was initiated to determine if flood control prevention measures would have benefits that exceeded costs. The SCS also launched its first global agricultural work in 1946 in coordination with the Foreign Agricultural Service and through reimbursable agreements. The SCS's working style of encouraging and helping farmers and ranchers to develop their own conservation plans and providing technical information became the unofficial global standard for conservation management.

The year 1946 also brought the first Plant Materials Program release from the SCS in North Dakota - - Mandan Canada Wildrye. During this decade, SCS also assisted with some 20 large conservation demonstrations on farms that involved the application of conservation systems in a single day. Many governmental and private sector partners played contributing roles. The August 18, 1948 demonstration on the 175-acre Thrasher Farm near Frederick County, Maryland drew a crowd of over 40,000 observers.

The USDA Appropriations Act of 1950, actually passed on June 29, 1949, provided the important authorization for county agricultural conservation committees (with State committee approval) to allocate up to five percent of their allocation per year for SCS technical assistance to carry out the technical aspects of the Agricultural Conservation Program (ACP)

Chronology

April 19, 1940 - The President's "Reorganization Plan IV" announced that all functions of the Soil Conservation Service (SCS), except research, would transfer to the Department of Interior for soil and water conservation operations on Interior-managed land. From the plan's enactment on June 30, 1940 and moving forward (via 54 Stat. 1234), SCS was focused on privately-owned land and the Department of Interior agencies had responsibility for public land soil conservation programs.

Source: "Hugh Bennett's Dream - And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 21.

June 4, 1940 - Reorganization Plan No. IV of 1940 (54 Stat. 1234) transferred Soil Conservation Service (SCS) "soil and moisture conservation operations" on Tribal lands to the Department of Interior. This reorganization was based on the principle that soil and moisture saving operations were the responsibility of the agency administering that land.

The Department of Interior established the Office of Land Utilization to direct and integrate conservation operations on all of the public domain under its jurisdiction. According to Secretary of Interior Harold Ickes, "This action is already resulting in a higher degree of efficiency and economy in the practice of conservation by eliminating overlapping and duplication of effort." The Department of Interior also established the Soil and Moisture Conservation Office.

This statute effectively precluded the SCS from initiating conservation projects on Tribal lands. It was not until 1977 that SCS resumed conservation work on Tribal lands. On July 1, 1977, the USDA Office of General Counsel issued Interagency Memorandum #28. This memo issued a reinterpretation of Reorganization Plan No. IV of 1940 and established that the SCS could work on Tribal lands that are situated within the boundaries of a conservation district.

Sources: 1) Statement of Hon. Harold L. Ickes, Secretary of the Interior on April 16, 1940; 2) "Anthropology in the Soil Conservation Service", Lawrence C. Kelly. Agricultural History, Vol. 59, No. 2, The History of Soil and Water Conservation: A Symposium, April 1985, pp136-147; 3) "Conservation and Culture: The Soil Conservation Service, Soil Science, and Conservation on Tribal Land in the Southwest, 1934-1994." Rebekah C. Beatty Davis, USDA Natural Resources Conservation Service. July 1997.

1940 - The Universal Soil Loss Equation (USLE) grew out of efforts started in 1940 to develop a soil-loss estimating procedure for the Corn Belt. This effort by U.S. Department of Agriculture technical specialists and cooperating university scientists resulted in a procedure called the slope-practice method. The equation was described by Austin W. Zingg, a Soil Conservation Service (SCS) Soil Conservationist, (and later an Agricultural Research Service (ARS) technical staff specialist), in an article in "Agricultural Engineering" in 1940.

By 1945, a number of publications reflected the research work that had been done to further develop a universal soil loss equation during World War II, including adding crop and conservation practice factors and the concept of a specific soil loss limit to Zingg's original equation. A national committee met in Ohio in 1946 to adapt the Corn Belt formula to cropland in other regions.

Work continued between ARS, SCS, and Purdue University to carry out erosion studies to further support the refinement of the formula, known as the Musgrave equation by the late 1940s. More than 10,000 plot-years of basic runoff and soil loss data, available from State and federal cooperative research projects in 49 locations, were summarized and analyzed. U.S. Department of Agriculture Handbook 537, developed by Walter H. Wischmeier (a professor of

agricultural engineering at Purdue University) and others, was issued in May 1965 to explain the USLE and how it could help in conservation planning. The handbook was later updated in 1978. The Revised Universal Soil Loss Equation (RUSLE), which was a computerized version of the USLE with improvements, was initially released for public use in 1992.

The USLE provided soil conservationists with a formula that allowed them not only to help a farmer see in graphic detail the factors that affected erosion in each field, but also established a numerical soil loss limit (defined as "T", the maximum average annual erosion rate below which a soil's productivity can be sustained economically and indefinitely) as a target. The USLE became SCS's most critical tool to support conservation planning. The USLE and modified versions of it were used worldwide.

Sources: 1) "USLE History", USDA, National Soil Erosion Research, West LaFayette, Indiana, 2016; 2) "The Universal Soil Loss Equation With Factor Values for North Carolina", U.S. Department of Agriculture, Soil Conservation Service, Raleigh, N.C., Revised May 1981; 3) "Soil Erosion By Water: The Research Experience", The History of Soil and Water Conservation, The Agricultural Historical Society, Edited by Douglas Helms and Susan L. Flader, By L.Donald Meyer and William C. Moldonhauer, 1985, pages 95-102.

May 22, 1941 - Civilian Public Service Camps were authorized by the Selective Training and Service Act of 1940 (Burke-Wadsworth Bill, Public Law 76-783, September 6, 1940). The first Civilian Public Service Camp was assigned to the Soil Conservation Service (SCS). As many as 15 of these camps were operating in connection with the work of SCS from May 22, 1941 to August 28, 1947, when the last camps were discontinued. These camps were a source of labor used in securing wider application of conservation measures. These camps were allotted to SCS by the federal government's Selective Service as part of its program of employing conscientious objectors on work of national importance under civilian direction in lieu of their service in the military.

Source: "Men of Peace in a World at War: Civilian Public Service in New York State, 1941-1946", New York History, Robinson, 1997.

November 11, 1941 - The first meeting of the Soil Conservation Society of America (SCSA) was held in Chicago, Illinois on November 11, 1941. The need for this society arose when Soil Conservation Service Chief Hugh Hammond Bennett and a small group of visionary conservationists began discussions about the need for a society to support the relatively new profession of soil conservation. These visionaries recognized the need for a professional society to advance the art and science of good land and water use; creating a common meeting ground, a medium for joint expression, and a collective means to advance the cause of soil conservation. Because of World War II, holding a national meeting was not advisable and nearly two years elapsed before the founders of SCSA declared its formal organization on

Upstream Watershed Improvements

1940 - 1949

September 1, 1943. In 1946, the SCSA published its first "Journal of Soil and Water Conservation" and had 14 chapters across the nation and a growing membership of 1,700.

As the SCSA matured, it changed its name to the Soil and Water Conservation Society (SWCS) to reflect its broader mission and international scope.

Source: "The Emergence of Districts", For Love of the Land: A History of the National Association of Conservation Districts, R. Neil Sampson, 1985, page 44.

1941 - After the attack on Pearl Harbor in December 1941, the United States becomes involved in World War II. Consequently, funding for conservation programs decreased over the next few years as funding needs for the war effort took primacy. Maintaining adequate staff capacity during World War II was a challenge for the Soil Conservation Service (SCS). Well over 3,000 SCS employees were on military duty and the total number of full-time employees dropped in just three years from 12,728 on June 30, 1941 to 7,139 on June 30, 1944. Additionally, State and County War Board activities took considerable time for agency State and local leaders, such as the Timber Production War Project that developed plans for woodlot management and utilization. Increased food production was a focus, facilitated by the drainage of wet soils.

Source: "Through These Eyes: The First 70 Years of Soil and Water Conservation in Minnesota", USDA NRCS, Vic Ruhland, April 2005, pages 46 and 47.

1941 - Following a three-year study, primarily of private forests, the Joint Congressional Committee on Forestry, under the chairmanship of Senator John H. Bankhead of Alabama, issued a report on "Forest Lands of the United States." The report recommended various cooperative aids to private forest landowners, expansion of public ownership, and a Federal-State system of regulation of forestry practices.

Source: "Chronological Landmarks in American Agriculture", USDA ERS, Agriculture Information Bulletin 425, Compiled by Maryanna S. Smith and Dennis M. Roth; November 1990, page 63.

February 23, 1942 - Executive Order 9069 of February 23, 1942 established the Agricultural Conservation and Adjustment Administration. This consolidated the Agricultural Adjustment Administration (renamed the Agricultural Adjustment Agency under the same Executive Order), the Sugar Agency, the Federal Crop Insurance Corporation, the Farm Security Agency, and the Soil Conservation Service.

Source: "Executive Agencies and Functions of the Federal Government Abolished, Transferred, or Terminated Subsequent to March 4, 1933; Appendix A; United States Government Manual, First Edition; Division of Public Inquiries, Office of War Information; 1945.

June 30, 1942 – The Civilian Conservation Corps (CCC) ended on June 30, 1942 when no Congressional appropriation was made as resources were diverted to the World War II efforts. Over 3.5 million young men and unemployed World War I veterans served in 4,500 camps during the period of their existence from 1933 to 1942, with a peak of more than 500,000 corpsmen employed at one time in September 1935. During the life of the CCC, the Soil Conservation Service supervised the work of more than 800 of the 4,500 camps.

“CCC’s real contribution, however, lay in proving the feasibility of conservation. The positive public attitude associated with CCC work, including soil conservation, helped to create an atmosphere in which soil conservation was regarded, at least in part, as a public responsibility.”
J. Douglas Helms, Senior Historian, USDA Natural Resources Conservation; Handout Prepared for Prince William Forest Park’s “1930s Heritage Days”, May 31-June 1, 2008.

Sources: 1) “Happy 75th Anniversary to the Civilian Conservation Corps”, J. Douglas Helms; Handout for Prince William Forest Park “1930s Heritage Days”, May 31-June 1, 2008; 2) “Civilian Conservation Corps”, History.com, Editors of History.com, Originally Published on May 11, 2010; Updated on October 17, 2018; 3) “Chronological Landmarks in American Agriculture”, USDA ERS, Agriculture Information Bulletin 425, Compiled by Maryanna S. Smith and Dennis M. Roth; November 1990, page 65.

July 1, 1942 - The responsibility for all soils inspection and correlation work conducted by the U.S. Department of Agriculture was assigned to the Bureau of Plant Industry, Soils, and Agricultural Engineering. This included any soil surveys carried out the by Soil Conservation Service.

Source: “Hugh Bennett’s Dream - And How It Grew”, The Soil Conservation Service, D. Harper Simms, 1970, page 21.

December 5, 1942 – Executive Order 9280 of December 5, 1942, transferred all functions concerned with food production to the Food Production Administration and all functions concerned with food distribution to the Food Distribution Administration. The agricultural press hailed the establishment of these “Food Administrations” with the U.S. Department of Agriculture, although these names were not officially used until 4 months later under Executive Order 9334. The Secretary of Agriculture was authorized and directed by the President to assume full responsibility for and control over the Nation’s food program to ensure an adequate supply and efficient distribution of food to meet war and essential civilian needs The Food Production Administration included the Agricultural Adjustment Agency, the Farm Credit Administration, the Farm Security Administration, the Soil Conservation Service, and other food production activities.

Upstream Watershed Improvements

1940 - 1949

Sources: 1) USDA History Collection, Series III. Secretary's and Agency Memoranda. Scope and Content Note. Subseries 2. Agency Memoranda. 1939-1991; 2) "Executive Agencies and Functions of the Federal Government Abolished, Transferred, or Terminated Subsequent to March 4, 1933; Appendix A; United States Government Manual, First Edition, Division of Public Inquiries, Office of War Information, 1945; 3) "Chronological Landmarks in American Agriculture", USDA ERS, Agriculture Information Bulletin 425, Compiled by Maryanna S. Smith and Dennis M. Roth; November 1990, page 66.

1942 - In 1942 a report by Soil Conservation Service (SCS) Chief Hugh Hammond Bennett titled "How Can We Help Win the War?", he answered the question employees of the SCS had asked themselves since December 7, 1941. Bennett addressed the question of how the SCS was doing its part in the war effort on three fronts. The first front was in critical areas where increased acreages of "war crops" complicated the soil erosion problem; the second front had to do with areas of conservation districts where the conservation program was reshaped to fit war conditions; and the third front was a simple-conservation practices program used effectively in critical areas under pressure for their agricultural production to meet supply needs. As Bennett stated, *"The Service enlisted wholeheartedly in the effort to buildup the Nation's defenses and when war came on December 7, completely streamlined its organization and went on a war footing."*

Source: "How Can We Help Win the War"? A Report by the Chief of the Soil Conservation Service, H. H. Bennett, 1942.

April 19, 1943 - The Soil Conservation Service (SCS), Agricultural Adjustment Agency, Farm Security Agency, and a number of other U.S. Department of Agriculture agencies, became part of the War Food Administration (WFA) through Executive Order 9334 on April 19, 1943. This consolidated the Food Production Administration, the Food Distribution Administration, the Commodity Credit Corporation, and the Extension Service. The WFA was established within the U.S. Department of Agriculture to work toward increased food and fiber production. Technical assistance was provided by the SCS. The WFA was terminated by Executive Order 9577 on June 29, 1945 with the ending of World War II, and the agencies returned to their pre-war status.

Source: "A Chronological History of the Soil Conservation Service and Related Events", USDA Soil Conservation Service, SCS-CI-1, Robert L. Geiger, Jr., 1955.

July 30, 1944 - The Soil Conservation Service demonstration projects were closed down. The Appropriations Act for federal fiscal year 1945 and ensuing years prohibited expenditure of appropriations for soil and water conservation operations in demonstration projects. Emphasis was then placed on technical assistance to landowners and landusers who cooperated with their local soil conservation district.

Sources: 1) "A Chronological History of the Soil Conservation Service and Related Events", USDA Soil Conservation Service, SCS-CI-1, Robert L. Geiger, Jr., 1955; 2) "Hugh Bennett's Dream - And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 19.

September 21, 1944 - The U.S. Department of Agriculture Organic Act (58 Stat. 732) was passed to provide for the control and eradication of certain animal and plant pests and diseases, to provide for a more efficient protection and management of the National Forests, and to facilitate the carrying out of agricultural conservation and related agricultural programs.

Source: "Chronological Landmarks in American Agriculture", USDA ERS, Agriculture Information Bulletin 425, Compiled by Maryanna S. Smith and Dennis M. Roth; November 1990, page 67.

December 22, 1944 - The Flood Control Act of 1944 (Public Law 78-534) amended the Flood Control Act of 1936 (Public Law 74-738); it authorized the Secretary of Agriculture to install watershed improvement measures to reduce flooding, sedimentation, and erosion damages in 11 upstream watersheds based on survey reports completed under the authority of the Flood Control Act of 1936. The conservation work in these 11 projects involved accelerated land treatment conservation practices and measures, but no structural measures. The introduction of the first construction of dams under the 1944 Act took place with the completion of 24 dams in November 1952 in the Sandstone Creek Watershed, a sub-watershed of the Washita River in Oklahoma. The Soil Conservation Service (SCS) and Forest Service shared joint responsibilities in carrying out the U.S. Department of Agriculture's responsibilities for the 1944 Act. SCS had leadership on privately-owned land, and the Forest Service for all work in National Forests and technical assistance on all forest land in each watershed.

Under this Act, along with the later Watershed Protection and Flood Prevention Act of 1954 (Public Law 83-566), the RC&D Program starting in the 1960's, and the Pilot Watershed Program of 1953, the Soil Conservation Service (SCS)/Natural Resources Conservation Service (NRCS) helped local sponsors to construct over 11,800 flood control dams in 2,000 watersheds since 1948. The 11 authorized watershed projects became the predecessors of the small watershed projects authorized by the Agricultural Appropriations Act of 1953 and the Watershed Protection and Flood Prevention Act of 1954 (Public Law 83-566). As the initial scope of Public Law 83-566 was expanded, the same authorities were extended to the 11 projects authorized by the Flood Control Act of 1944.

Sources: 1) "Hugh Bennett's Dream - And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 22; 2) "A History of Water Resource Activities of the United States Department of Agriculture", Eugene C. Buie, September 1979, pages 19-22.

Upstream Watershed Improvements

1940 - 1949

March 30, 1945 - Water conservation and utilization officially became a part of the Soil Conservation Service's (SCS) responsibility when water conservation and utilization programs authorized by the Water Conservation and Utilization Act (Case-Wheeler Act, Public Law 76-848) of August 11, 1939, as amended, were transferred from the Farm Security Administration (FSA) to SCS on March 30, 1945.

Source: "A Chronological History of the Soil Conservation Service and Related Events", USDA Soil Conservation Service, SCS-CI-I, Robert L. Geiger, Jr., 1955.

June 29, 1945 - The War Food Administration was terminated via Executive Order 9577. Its functions were transferred back to the U.S. Department of Agriculture. The Soil Conservation Service regained its bureau status, reporting directly to the Secretary of Agriculture.

Source: 1) "Hugh Bennett's Dream - And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 21.

July 1, 1945 - The functions of the Soil Conservation Service related to the Cooperative Farm Forestry Program authorized by the Cooperative Farm Forestry Act of May 18, 1937, were transferred to the U.S. Forest Service.

Source: "A Chronological History of the Soil Conservation Service and Related Events", USDA Soil Conservation Service, SCS-CI-I, Robert L. Geiger, Jr., 1955.

August 1945 - Per the "Basic Policies and Functions of the Soil Conservation Service", Soil Conservation Service (SCS) policy was established to "*hold administrative and overhead costs in all offices to the minimum consistent with efficient management, in order that the greatest possible part of resources provided to the service may be available for work on the land.*" It was also written in SCS policy to "*render to conservation districts, landowners and operators, and others with the least possible cost.*"

Source: "Basic Policies and Functions of the Soil Conservation Service", Prefaced for official use within the Soil Conservation Service; not available for General Distribution; August 1945.

1945 - Flood control work, which had been suspended for the duration of World War II, was resumed by the Soil Conservation Service (SCS). Under the Flood Control Act of 1944, the SCS had been authorized to carry out flood control and prevention work in eleven major watersheds in twelve states and encompassing nearly 31 million acres. The objective was to

determine if flood control and prevention measures in these watersheds would have benefits that exceeded costs, and to plan feasible programs for those watersheds where it did.

Source: "Hugh Bennett's Dream - And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 22.

January 1946 - Conservation district officials met in Washington, D.C. to plan a project of "turning swords into plowshares." A bill had been introduced in Congress requesting to transfer heavy-duty World War II military equipment to peacetime uses in protecting soil and water resources. The setback in gaining approval of this legislation to support the surplus equipment transfer to districts was a clear indication that district officials needed to band together to speak with one, unified voice. They lacked the standing to bring about the needed legislation at that time. Thus, 18 representatives from 17 States met again on July 24 and 25, 1946 in Chicago, at the Morrison Hotel, forming the National Association of Soil Conservation District Governing Officials, predecessor to the current National Association of Conservation Districts (NACD). The officials elected temporary directors and officers, adopted a constitution, and also adopted a slogan, "Nail Down the Topsoil."

The Association has gone through several name changes during its existence. First as the National Association of Soil Conservation Districts Governing Officials, then shortened to the National Association of Soil Conservation Districts. In 1962, the name was expanded to the National Association of Soil and Water Conservation Districts. It was during the 1970 annual convention in San Francisco that the Association's name was then shortened to the National Association of Conservation Districts (NACD).

Since 1946, NACD has been the unified voice for conservation districts through grass roots advocacy, educating future generations, improving district capacity, providing networking opportunities and leadership training, and supporting outreach to underserved communities. NACD is a nonprofit 501(c)(3).

Sources: 1) "NACD History" on National Association of Conservation Districts webpage. November 13, 2019; 2) "National Association of Conservation Districts", MS 460, Records, 1924- [ongoing]; Iowa State University Special Collections Department, page 3.

May 1946 - In cooperation with other agencies, the Soil Conservation Service (SCS) Plant Materials Program makes its first release, Mandan Canada Wildrye. This variety of Canada Wildrye was developed at the Northern Great Plains Field Station at Mandan, North Dakota. Work began in 1935, with selections made based on leafiness, fineness to leaves, short stature, and resistance to stem rust. The main virtue of Mandan Canada Wildrye was its ease of establishment, rapid growth, and high seed and forage yields. It was developed and released through the cooperative efforts of the Division of Forage Crops and Diseases; Bureau of Plant

Upstream Watershed Improvements

1940 - 1949

Industry, Soils, and Agricultural Engineering; Agricultural Research Administration, Division of Nurseries; North Dakota Agricultural Experiment Station; and SCS. Today, through its 25 Plant Materials Centers, the Natural Resources Conservation Service evaluates plants and vegetative technologies to support U.S. Department of Agriculture conservation programs and practices. To date, over 745 plant releases have been made through the program.

Sources: 1) "Mandan Canada Wildrye", A Conservation Plant Release by USDA NRCS Plant Materials Center, Bismarck, North Dakota; Published July 2005, Revised 2012. (NRCS Website, November 12, 2019); 2) "Two New Grasses: Mandan Wildrye and Green Stipagrass", Bulletin 339: Introduction and Spread of Weeds and Other Plants in North Dakota, North Dakota Agricultural Experiment Station, George A. Rogler, Associate Agronomist, Division of Forage Crops and Diseases, May 1946, 2 pages; 3) NRCS Plant Material Centers Executive Summary, Natural Resources Conservation Service, USDA. March 4, 2019.

July 1946 - *"...Is there an alternative to the kind of soil conservation program I have described? I know of only two: outright and absolute government regulation on the use and treatment of all lands, or despicable abandonment of hope. Which of these (three alternatives) do you prefer"?*

Source: "Program of Soil Conservation", Journal of Soil and Water Conservation, Soil Conservation Society of America, Volume 1, No. 1, Hugh Hammond Bennett, July 1946, page 34.

July 1946 - *"How fast America adopts soil conservation measures depends mainly on how well and how widely the merits and rewards of conservation are sold. Only when the idea is sold to the point of arousing action does conservation come to reality."*

Source: "Conservation Call for Selling", J.I. Case Co., Racine, Wisconsin; Single Page (page 51) in Journal of Soil and Water Conservation, Soil Conservation Society of America, Volume 1, No. 1, July 1946.

August 12, 1946 - The Foreign Services Act of 1946 (Public Law 79-724) and the Foreign Assistance Act of 1961 (Public Law 87-195), as amended, empowered Federal agencies to work abroad. The U.S. Department of Agriculture's (USDA) Foreign Agricultural Service (FAS) coordinated the USDA's international technical assistance, participant training, and scientific and technical-exchange programs. The FAS managed reimbursement agreements for the Soil Conservation Service (SCS) work with foreign governments, internal organizations, and other federal agencies. The SCS, and now the Natural Resource Conservation Service (NRCS), can assist the FAS under authority of the Economy Act, and the FAS can assist the U.S. Agency for International Development under the authority of the Foreign Assistance Act. SCS/NRCS have worked under reimbursable agreements between the FAS and the U.S. Agency for International Development since 1962.

The SCS/NRCS had launched its global agricultural conservation work when its first Chief, Hugh Hammond Bennett, joined other world leaders in signing the Constitution of the United Nations Food and Agricultural Organization in Quebec City, Canada on October 16, 1945, driven by food shortages and the lack of agricultural sustainability. Skilled SCS/NRCS soil, water, and agricultural scientists had worked to sustain and improve global resources. The Agency's working style - encouraging farmers and ranchers to develop their own conservation plans and sharing technical information - has become an unofficial global standard for conservation management.

Sources: 1) "The Foreign Service Act of 1946, Public Law 79-724, August 12, 1946; 2) Foreign Assistance Act of 1961, Public Law 87-195; September 4, 1961; 3) "The United Nations Food and Agriculture Organization", ISRMUN 2016, Sam Roberts International School, 2016.

August 14, 1946 - The Farmers Home Administration Act was passed and approved as Public Law 79-731. The Act abolished the Farm Security Administration and established the Farmers Home Administration (FmHA) to fund housing, community projects, and rural development. Direct and guaranteed credit went to individual farmers, low-income families, and seniors in rural areas. The FmHA was a close partner of the Soil Conservation Service (SCS) in rural development activities, such as through resource conservation and development projects. The FmHA also made loans to sponsoring local organizations for watershed protection and flood prevention program projects to enable sponsors to meet their part of the cost of these projects. In addition, each FmHA loan applicant was advised to seek SCS help through the local soil conservation district, and SCS referred individuals and groups to FmHA when seeking financing to help carry out a conservation practice or project.

Source: "Working with Other Agencies", the Soil Conservation Service, D.Harper Simms, 1970, pages 106 and 107.

October 2, 1946 - Hugh Hammond Bennett in a speech at the Engineering and Human Affairs Conference at Princeton University states the following when discussing how productive land is not like any other natural resource because it must be maintained and used simultaneously - that is, while it is in use it must also be kept intact to remain productive....*"We must keep what we have or do without, for when soil has been washed or blow into the oceans it is not recoverable..."*

Source: "The Development of Natural Resources: The Coming Technological Revolution on the Land." Address delivered by H. H. Bennett, USDA, Soil Conservation Service, before "Engineering and Human Affairs" Conference at the Princeton University Bicentennial Conference, Princeton, New Jersey, October 2, 1946.

Upstream Watershed Improvements

1940 - 1949

1947 - *"Everyone ought to be dissatisfied with the slow spread of conservation to the land. Our progress still consists of largely letterhead pieties and convention oratory. The only progress that counts is that on the actual landscape of the back forty, and here we are still slipping two steps backward for each forward stride."*

Source: Dr. Aldo Leopold, Department of Wildlife Management, University of Wisconsin, "The Ecological Conscience", Address at Conservation Meeting, Minneapolis, Minnesota, June 1947.

August 18, 1948 - The Soil Conservation Service assisted in some 20 large conservation demonstrations in the 1940s that involved applying conservation systems to a farm in a single day. Equipment, fertilizer, and seed dealers and distributors, nurseries, and many other commercial and service organizations contributed to these demonstration days. Huge crowds turned out to see the conservation work in progress, all done between sunrise and sunset. Media attention at local, State, regional, and national levels helped to spread the story of soil and water conservation on private lands. On August 18, 1948, such a demonstration was carried out by 500 volunteer workers and nearly 200 bulldozers, tractors, and implements on the 175-acre Thrasher Farm near Frederick County, Maryland, and drew a crowd of over 40,000 observers.

Included on the front cover of the printed program distributed at the one-day, August 18, 1948 Thrasher Farm "Face Lifting" were the following words from an anonymous poet: *"Hordes of gullies now remind us we should build our lands to stay, and departing leave behind us fields that have not washed away; when our boys assume the mortgage on the land that's had our toil, they'll not have to ask the question, Here's the farm but where's the soil?"*

Sources: 1) "175 Acre Farm Rebuilt in Eight Hour Day", Popular Science, John F. Loosbrock, June 1949, pages 162-166; 2) "Thrasher Farm Transferred in a Day", The Frederick News-Past, Rebecca Long Chancy, August 17, 1998; 3) "Maryland Conservation Field Day, Frederick County", Wednesday, August 18, 1948.

June 29, 1949 - The Appropriations Act of 1950 (Public Law 81-146) passed on June 29, 1949 for the U.S. Department of Agriculture, under "Conservation and Use of Agricultural Land Resources", authorized county agricultural conservation committees (with State committee approval) to allocate up to five percent of their allocation per year for Agricultural Conservation Program (ACP) technical assistance from the Soil Conservation Service (SCS) for its services related to carrying out ACP. The Production and Marketing Administration (PMA) and SCS carried out this program consistent with Secretary's Memorandum 1278 (later issued on February 15, 1951), which called for the use of each acre of agricultural land within its capabilities and the treatment needs of each acre.

Note: Federal fiscal year went from July 1 to June 30 at this time, as compared to current fiscal year, which is October 1 to September 30.

The U.S. Department of Agriculture's Role in America's Private Lands Conservation Movement:

A Chronology of Key Developments (1933 - 2019)

Sources: 1) "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970; 2) "Soil Conservation in Practice", The Soil Conservation Service, D. Harper Simms, 1970, page 32.



Assistance Through a Single Farm and Ranch Agreement

1950 - 1959

“From every conceivable angle - economic, social, cultural, public health, national defense – conservation of natural resources is an objective on which all should agree.”

Hugh Hammond Bennett; “The Hugh Bennett Lectures”, Raleigh, NC: The Agricultural Foundation, Inc., North Carolina State College, June 1959.

ASSISTANCE THROUGH A SINGLE FARM/RANCH AGREEMENT

1950 - 1959

"We see in this program an opportunity for all federal and state agencies which are in the field of soil and water conservation to coordinate their activities through local agencies of state government, such as Soil Conservation Districts, in the implementation of all of their programs into a coordinated program in the Great Plains. We, as representatives of the Soil Conservation Districts, are appreciative of the opportunity and certainly accept the challenge that is thrown to us to do this job."

Motion by William E. Richards, Adopted Unanimously by NASCD Great Plains Meeting, Denver, CO, January 11, 1957. Reprinted in "National Issues Heat Up", For Love of the Land: A History of the National Association of Conservation Districts, R. Neil Sampson, page 140.

The early 1950s were marked by the retirement of Hugh Hammond Bennett, the "Father of Soil Conservation", in 1952 after spending his last year of federal service as a Special Assistant to the Secretary of Agriculture. In 1950, a short time before Bennett's retirement, well-known Conservationist and Pulitzer Prize Author Louis Bromfield had stated *"Hugh Hammond Bennett deserves the greatest honor from the American people as one of the greatest benefactors since the beginning of their history."*

During this decade, policy development and technical requirements to support U.S. Department of Agriculture (USDA) conservation assistance continued to evolve. In 1951, Secretary's Memorandum 1278 stated the basic objective of all USDA conservation efforts would be *"...the use of each acre of agricultural land within its capabilities and the treatment of each acre of agricultural land in accordance with its needs for protection and improvement."* That same year, the Soil Conservation Service (SCS) officially adopted "progressive conservation planning" to better enable farmers, ranchers, and forest stewards to gradually move into well-rounded conservation systems on their lands. This same Secretary's Memorandum specified that the Agricultural Conservation and Stabilization Service would continue to administer the financial assistance for the Agricultural Conservation Program (ACP), with SCS responsible for the technical assistance.

Organizational changes within USDA continued in the 1950s, including the Secretary's 1951 directive to consolidate State and county offices as soon as possible. In 1952, all cooperative soil survey work in USDA was consolidated with the SCS, as well as all flood-control, river-basin

investigation, and watershed planning activities. It was the Secretary's 1953 reorganization of USDA that moved the National Grasslands from SCS to the Forest Service, and designated the Agricultural Research Service as USDA's primary research agency. Under this same reorganization, SCS closed its regional offices, marking the beginning of substantially greater responsibilities and staffing for State offices. In 1954, the SCS plant nurseries were converted to plant materials centers and began to focus on the evaluation and release of plant materials for conservation uses, no longer producing large volumes of plants for field use.

A number of important pieces of federal legislation were passed in the 1950s that had significant impacts on the direction and offerings available to support voluntary soil, water, and related natural resources conservation work. First, the Watershed Protection and Flood Prevention Act of 1954 was approved and created a permanent nationwide small watershed program to help communities willing to protect, improve, and develop watersheds for flood control and other complementary or compatible purposes. Second, statutory revisions to the U.S. Internal Revenue Code provided for income tax deductions for the expenditures for soil and water conservation measures on farmland. Third, Title II of the Agricultural Act of 1956 (commonly known as the Soil Bank Act) established two new voluntary farmland retirement programs to decrease surplus supplies and reduce the stifling effects of soil erosion, the Acreage Reserve Program and the Conservation Reserve Program. This was not without controversy, however, due to their negative impacts on rural businesses and communities and failure to substantially reduce production. And fourth, Public Law 84-102 in August of 1956 established the Great Plains Conservation Program to target technical and financial assistance in 10 Great Plains States through a single voluntary agreement for the entire ranch or farm.

A synopsis of the 1950s cannot close without appropriate mention of USDA's 1953 publication of "Conquest of the Land Through 7,000 Years" by Dr. Walter C. Lowdermilk, then retired Assistant Chief of the Soil Conservation Service. This seminal publication traced the development and importance of agricultural cultivation over these 7,000 years and concluded that civilizations were either wiped out or thrived in large part based on their stewardship of the earth's resources, most notably soil.

Chronology

March 6, 1950 - *"Hugh Bennett deserves the greatest honor from the American people as one of the greatest benefactors since the beginning of their history."* Louis Bromfield (Conservationist, Pulitzer Prize Author, and Contemporary of Hugh Hammond Bennett) on March 6, 1950.

Source: "The Hugh Hammond Bennett Lectures", North Carolina State College, June 1959.

August 25, 1950 - The Cooperative Forest Management Act (64 Stat. 473, as amended; 16 U.S.C. 568c, 568d) was approved. The Act authorized federal cooperation with the States to provide on-the-ground technical services to private forest landowners and operators and to processors of primary forest products with respect to forest management and the harvesting, marketing, and processing of forest products.

Sources: 1) "Cooperative Forest Management Act (1950)", Oxford Reference; 2) "The Principal Laws Relating to USDA Forest Service State and Private Forestry Programs", FS 758, USDA Forest Service, Revised March 2011; 3) "Chronological Landmarks in American Agriculture", USDA ERS, Agriculture Information Bulletin 425, Compiled by Maryanna S. Smith and Dennis M. Roth, November 1990, page 71.

1950 - The Land Improvement Contractors of America (LICA) was formed in 1950 in response to the growth in specialized contractors for the installation on private lands of conservation works of improvement. LICA members contracted with farmers and ranchers to install irrigation and drainage systems, terraces, waterways, and carry out other earth moving and shaping activities. Conservation improvements installed involving cost-sharing with the farmers or ranchers from the U.S. Department of Agriculture (USDA), such as through the Agricultural Conservation Program, required technical certification from the Soil Conservation Service (SCS) to receive payment from USDA. SCS commonly worked with these land improvement contractors on permanent conservation practices, supplying these contractors with technical standards and specifications to help ensure proper installation.

Source: "Third Party Vendors in Conservation", USDA NRCS Historical Insights Number 2, March 2002. J. Douglas Helms and Patricia J. Lawrence, USDA NRCS, Washington, D.C.; page 6.

February 15, 1951 - Secretary of Agriculture Charles Brannan issued Secretary's Memorandum 1278 to direct closer coordination between the Soil Conservation Service (SCS), the Agricultural Conservation Program (ACP) of the Production and Marketing Association (PMA), and the conservation programs of the U.S. Forest Service under the supervision of the Assistant Secretary of Agriculture. As part of this closer coordination, the Memorandum made the SCS responsible for technical assistance to carry out the permanent types of conservation work undertaken by the ACP. The Agricultural Stabilization and Conservation Service (ASCS), with SCS technical assistance, continued to administer financial assistance under ACP until 1996 when the Environmental Quality Incentives Program (EQIP) was authorized through the 1996 Farm Bill.

The Secretary's Memorandum also directed physical consolidation of the U.S. Department of Agriculture's (USDA) State and county offices as soon as it could be efficiently accomplished. *"The common grouping of offices is leading to additional cooperation among agricultural*

Assistance Through A Single Farm/Ranch Agreement

1950 - 1959

agencies in giving farmers assistance in their efforts to conserve soil and attain greater productivity. The goal to provide farmers with efficient "one-stop" service in every state and county is being pursued aggressively."

Memorandum 1278 on the coordination of USDA's conservation program goes on to state the following: *"The basic physical objective of soil conservation activities by Department agencies shall be the use of each acre of agricultural land within its capabilities and the treatment of each acre of agricultural land in accordance with its needs for protection and improvement."* Consistent with this imperative, the SCS made the land-capability concept the foundation of its "complete" conservation plan approach. SCS believed that separate, unrelated conservation practices would not accomplish the objectives of soil and water conservation effectively nor efficiently.

Sources: 1) U.S. Department of Agriculture Soil Conservation Service, December 1952. "Soil Conservation", Vol. XVIII, No. 5. Pp.104-105; 2) "Soil Conservation in Practice", The Soil Conservation Service, D. Harper Simms, 1970, pages 32 and 33.

April 9, 1951 - "Progressive planning" was officially adopted by the Soil Conservation Service (SCS) and soil conservation districts. The new procedure consisted of three stages to enable farmers and ranchers to start gradually and move progressively into well-rounded conservation systems on their farms.

Sources: 1) Unnumbered SCS Memorandum, April 9, 1951; 2) SCS Field Memorandum SCS-1150, September 3, 1952.

April 30, 1952 - Dr. Hugh Hammond Bennett, first Chief of the Soil Conservation Service, and often referred to as the "Father of Soil Conservation", retired from federal government service. Under civil service rules at that time, Bennett would have had to retire at age seventy on April 15, 1951. By Executive Order 10229 from President Harry S. Truman, dated March 30, 1951, Bennett's term of office was extended to April 30, 1952 and he served as a Special Assistant to the Secretary of Agriculture until that date.

Secretary of Agriculture Charles F. Brannan, in announcing the extension of Dr. Bennett's tenure in April 1951 stated: "Particularly today, when agricultural production is so important in the mobilization program, Dr. Bennett's long experience is invaluable. His continued services will contribute greatly to the further advancement of soil and water conservation, which is so important in the mobilization of our agricultural resources."

Sources: 1) "The Chief Will Stay Another Year", "Soil Conservation" Magazine, Vol. XVI, No. 11, pages 250-251; 2) "Hugh Bennett's Dream - And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, page 23; 3) Title 3 - The President, Executive Order 10229; Federal Register, Volume 16, Number 64, April 3, 1951.

November 15, 1952 - Secretary of Agriculture Charles Brannan, through Secretary's Memorandum 1318, unified soil survey work in the U.S. Department of Agriculture (USDA) when he transferred the Division of Soil Survey and the responsibility for soil surveys from the Bureau of Plant Industry, Soils, and Agricultural Engineering to the Soil Conservation Service (SCS). All cooperative soil survey activities in USDA were now the responsibility of SCS. Also, on this date, all soil, water management, and crop management research of the SCS was transferred to the Agricultural Research Administration (ARA). Both the SCS and ARA business lines were directed by Secretary's Memorandum 1318 to be carried out cooperatively with State experiment stations and other agencies.

Source: "USDA Department of Agriculture Yearbook - A Century of Service: The First 100 Years of the U.S. Department of Agriculture", 1962.

April 1, 1953 - The Soil Conservation Service (SCS) is assigned responsibility for administering all U.S. Department of Agriculture flood-control and river-basin investigation activities by the Secretary of Agriculture (Memorandum 1325). With SCS leadership now for the "Pilot Watershed Program", using \$5 million in funding appropriated in 1953 by the U.S. Congress under the Flood Control Act of 1944 (Public Law 78-534), 62 watersheds in 33 states were selected and designated by December 8, 1953 to initiate planning activities. The plans were designed to demonstrate the practicability of complete watershed protection as a means of conserving soil and water; reducing floodwater and sediment damages, silting of reservoirs, and impairment of stream channels; and, of solving or alleviating other upstream land and water problems. The SCS developed standards and procedures to guide these projects, including for watershed plans, surveys, and the installation of flood prevention measures. Also, included were evaluations of the hydrologic and economic effects of the planned installed works of improvement. Planned works of improvement were installed in 54 of the original 62 watershed projects, with the other eight projects terminated. The last projects were completed in 1972.

Source: "Budget for the Department of Agriculture; General Agricultural Outlook", U.S. Congress, House Committee on Appropriations, 1964, page 1,018.

August 1953 - The U.S. Department of Agriculture published the work of Dr. W.C. Lowdermilk, titled "Conquest of the Land Through 7,000 Years" (Agricultural Bulletin No. 99). Dr. Lowdermilk was formerly the Assistant Chief of the Soil Conservation Service -- he retired in 1947 and passed on May 6, 1974. This publication, since reprinted in August 1975, February 1997, and September 1999, traced the development and importance of agricultural cultivation over these many years.

Dr. Lowdermilk discovered that soil erosion, deforestation, overgrazing, neglect, and conflicts between cultivators and herders have helped topple empires and wipe out entire civilizations. Concurrently, he learned that careful stewardship of the earth's resources, through terracing, crop rotation, and other soil conservation measures, had enabled other societies to flourish for centuries. As Dr. Lowdermilk stated in Bulletin No. 99, *"If the soils had remained, even though the cities were destroyed and the populations dispersed, the area might have been reseeded again and the cities rebuilt. But now that the soils are gone, all is gone."*

When invited to broadcast a talk on soil conservation in Jerusalem in 1939, Dr. Lowdermilk gave for the first time what has been called an "Eleventh Commandment", as follows: *"Thou shalt inherit the Holy Earth as a faithful steward, conserving its resources and productivity from generation to generation. Thou shalt safeguard thy fields from soil erosion, thy living waters from drying up, thy forests from desolation, and protect thy hills from overgrazing by thy herds, that thy descendants may have abundance forever. If any shall fail in this stewardship of the land thy fruitful fields shall become sterile stony ground and wasting gullies, and thy descendants shall decrease and live in poverty or perish from off the face of the Earth."*

Source: "Conquest of the Land Through 7,000 Years", U.S. Department of Agriculture, Agricultural Bulletin No. 99, Dr. W.C. Lowdermilk, 1953.

November 2, 1953 - This was the effective date of a major reorganization in the U.S. Department of Agriculture (USDA) under the Secretary of Agriculture's "Reorganization Plan No. 2 of 1953." The Soil Conservation Service (SCS) was grouped with the Agricultural Research Service (replacing the Agricultural Research Administration), Forest Service, Federal Extension Service, Agricultural Conservation Program Service, and Farmer Cooperative Service (formerly the Cooperative Research and Service Division in the Farm Credit Administration) into the new Federal-States Relations group.

Under this USDA reorganization, the seven regional offices of the SCS were abolished (in 1936 there had been eleven of these regional offices), and greater responsibilities were given to the SCS State offices. The regional directors and their staffs were transferred to the Staff of the Administrator (Chief) for the period of liquidation of the regional offices (Secretary's Memo 1320, Supplement 4, November 2, 1953). This marked the beginning of the stronger organizational role for SCS State offices, with their substantially greater responsibilities and larger staffs.

Secretary of Agriculture Ezra Taft Benson also transferred the land utilization projects of the Soil Conservation Service to the Forest Service. Effective January 4, 1954, the Forest Service was charged with ensuring a sustained yield of the grasses as well as the multiple uses of the land. As a result, the National Grasslands served as wildlife refuges, as public recreation areas, and as sources of mineral wealth in addition to supporting grazing.

The Agricultural Research Service (ARS) was established under Secretary's Memorandum 1320, Supplement 4, to serve as the U.S. Department of Agriculture's primary research agency—replacing the Agricultural Research Administration. All soil conservation research except for investigations required for the soil survey administered by SCS, were to be transferred to ARS effective January 4, 1954. The Soil Survey Research related activities retained by SCS included those related to soil formation, soil geography, and laboratory analysis to aid in the proper classification and mapping of soils for the basic principles of their behavior and change. Also, the Conservation and Production Research Laboratory established in 1938 was transferred from the SCS to ARS, continuing the research programs with a focus on sustaining production on high quality agricultural products, while improving the producer's profit margin and protecting the environment of the region.

Sources: 1) U.S. Congress, Senate Committee on Government Operations, Committee Prints, 1964, page 40; 2) "Reorganization Plan No. 2 of 1953", UScode.gov; 3) "History and Timeline", Office of Communications, USDA Agricultural Research Service; 4) USDA NRCS eDirectives, GM-430-402-A-Subpart A- Introduction; 402.3 Legislative Authority for the Soil Survey, C. (1) and (2).

January 4, 1954 - The National Runoff and Soil Loss Data Center was created at Purdue University by the Agricultural Research Service (ARS). The Center was developed by ARS Research Statistician Walt Wischmeier as a central location for the soil erosion data that had been collected across the U.S. since the 1930's, and was to utilize this data in further development of erosion prediction equations. An important asset at Purdue University was its leadership in computing facilities, allowing for rapid analysis and summarization of the runoff and erosion data.

Source: "About the Universal Soil Loss Equation", National Soil Erosion Research: West LaFayette, Indiana, USDA Agricultural Research Service. Retrieved November 2019 from the Agricultural Research Service website.

June 30, 1954 - The Soil Conservation Service (SCS) nurseries, where the plant materials work of SCS started in 1936 after their transfer from the U.S. Department of Agriculture's Bureau of Plant Industry, were reduced to 10 and converted to plant materials centers in separate States. The objective of these centers was to evaluate and release plant materials for conservation use, not produce large volumes of plants as had been done in the nurseries.

Source: "Employee Handbook", USDA Soil Conservation Service, SCS-PER-750 (SI), February 1977.

August 4, 1954 - The Watershed Protection and Flood Prevention Act of 1954 (Public Law 83-566) was signed by the President on August 4, 1954 and created a permanent nationwide small

Assistance Through A Single Farm/Ranch Agreement

1950 - 1959

watershed program to help local communities willing to protect, improve, and develop watersheds. It assigned primary responsibility in the U.S. Department of Agriculture to the Soil Conservation Service for cooperation with local organizations to provide flood control assistance to rural communities in upstream watersheds not exceeding 250,000 acres.

The Act originally authorized works for flood control, but it was quickly amended to make other complementary or compatible objectives eligible for this financial and technical assistance. Additionally, the Act authorized cooperative river basin surveys and investigations to provide a basis for coordinating resource development and guiding upstream watershed activities. These surveys and investigations were not directed specifically toward developing Public Law 83-566 watershed projects.

This small watershed program was unique among federal water resources programs in that it was an "assistance" program - all actions eligible under this program had to be initiated by local people. The decisions as to project scale and scope were local decisions, within the constraints and parameters of the program.

Sources: 1) "Soil Conservation in Practice", The Soil Conservation Service, D. Harper Simms, 1970, pages 25, 43-48; 2) "Chronological Landmarks in American Agriculture", USDA ERS, Agriculture Information Bulletin 425, Compiled by Maryanna S. Smith and Dennis M. Roth; November 1990, page 73; 3) "Employee Handbook", USDA Soil Conservation Service, SCS-PER-750 (SI), February 1977.

August 16, 1954 - Public Law 591, Section 175, Subtitle A, resulted in the revision of the U.S. Internal Revenue Code to include authority for deductions for income tax purposes of expenditures for soil and water conservation on land in farming, not to exceed 25 percent of the gross income derived from farming during that taxable year.

Source: "Employee Handbook", USDA Soil Conservation Service, SCS-PER-750 (SI), February 1977.

August 17, 1954 - Public Law 83-597 amended the Water Facilities Act of August 28, 1937 to extend the water facilities loan program of the Farmers Home Administration (FHA) to the entire nation, which formerly had been limited to the 17 Western States. It also authorized the FHA to conduct a program of direct or insured loans for applying soil and water conservation practices to agricultural land. Upon the request of FHA, the Soil Conservation Service reviewed the technical phases of loan applications, assisted in preparation of conservation plans and designs, and supervised installation of approved practices and measures.

Sources: 1) "Federal Reclamation Laws Annotated: A Chronological Compilation of....", Volume 2, U.S. Department of Interior, 1958, page 323; 2) "A History of Water Resource Activities of the United States Department of Agriculture", Eugene C. Buie, September 1979, page 25; 3) "Chronological Landmarks in American Agriculture", USDA ERS, Agriculture Information Bulletin 425, Compiled by Maryanna S. Smith and Dennis M. Roth; November 1990, page 73.

Mid 1950s - By the mid-1950s, Soil Conservation Service assistance was already beginning to extend beyond agricultural lands. The rapid rise of suburban development after World War II, where cropland was converted to housing developments, did not diminish the need for soil erosion control and flood protection on this land. Terraces on the contour in cropland a year later might become the gently curving pattern for properly graded streets in a new suburban development. The conservation principles, and many conservation practices applied on agricultural land, were recognized as applicable to all land uses, including land under development for urban or suburban use.

January 28, 1955 - The planning and installation of conservation practices originally required the collaborative efforts of many and various sciences and technical disciplines. College curricula in the 1930s, however, were not organized around an integrated soil conservation discipline, but rather individual disciplines in soil science, agronomy, engineering, forestry, and other technical specialties.

Early Soil Erosion Service and Soil Conservation Service (SCS) demonstration projects used teams of discipline specialists to develop conservation plans for individual farms or ranches. As the work expanded beyond the demonstration projects, and conservation districts started to come into place in 1937, teams of technical specialists to support the interdisciplinary approach could not be employed for each conservation plan. The work unit conservationist at the local level needed technical guidance and instructions on conservation practices. Technical specialists at regional levels began to develop technical manuals and guidance for the conservationists' use in planning and applying conservation practices.

SCS Administrator Don Williams issued Administrator's Memorandum SCS-72 on January 28, 1955 to place in SCS policy how technical staff was to carry out its technical responsibilities for the Agricultural Conservation Program (ACP) administered by Agricultural Stabilization and Conservation Service--from conservation practice needs and feasibility, to completed design and layout of the practices, to supervision of practice installation, to certification of the performance of the practice.

SCS further refined its procedures to support carrying out this responsibility under ACP on June 19, 1956 through Administrator's Memorandum SCS-81. This procedure compelled SCS to develop and provide technical standards for the permanent type conservation improvements so contractors would have guidance on their design and installation. It was consistent with these technical standards that SCS technicians certified that permanent conservation improvements were installed properly and consistent with SCS standards.

The NRCS Field Office Technical Guide (FOTG) was the culmination of decades of deploying technical assistance for conservation, including ACP. The FOTG is now the primary science-based field office reference for the agency's conservation work. The FOTG is a dynamic technical tool that is consistent in format and key content nationwide but is localized to apply specifically to the geographic area for which it is prepared. NRCS launched its fifth revision of the FOTG on September 19, 2019. It is a proven, time-tested tool that helps field conservationists and their customers to achieve consistent, quality results on-the-ground.

Today's NRCS FOTG is electronic and includes five major sections: General References, Natural Resources Information, Conservation Management Systems, Practice Standards and Specifications, and Conservation Effects.

Sources: 1) "Third Party Vendors in Conservation", USDA NRCS Historical Insights Number 2, March 2002. J. Douglas Helms and Patricia J. Lawrence, USDA NRCS, Washington, D.C. Pages 2 and 3; 2) "Technical Assistance - The Engine of Conservation", USDA NRCS, Historical Insights Number 5, March 2005, page 2.

October 18, 1955 - A Soil and Water Conservation Advisory Committee for the U.S. Department of Agriculture was established through Secretary's Memorandum 1390 and consisted of 18 members appointed by the Secretary, none of which were federal government employees. The Committee's function was to make objective evaluations and furnish advice and recommendations to the Secretary and agencies on soil and water conservation problems and corresponding program needs and development.

Sources: 1) Department of Agriculture, United States Congress, House Committee on Government Operations. U.S. Printing Office, 1956, page 704; 2) "Federal Advisory Committees: First Annual Report of the President to the Congress, Part 1, March 1973 of Agency Advisory Committees", CY1972.

January 1, 1956 - The Soil Conservation Service began emphasizing conservation cropping systems in lieu of crop rotations to call attention to the interrelationships of individual conservation practices to treating cropland.

Source: "Employee Handbook", USDA Soil Conservation Service, SCS-PER-750 (SI), February 1977.

January 11, 1956 - President Dwight D. Eisenhower sent a message to both Houses of the Congress calling attention to the erosion problems that existed throughout Great Plains region:

"The Great Plains region, a vast agricultural empire peopled by 17 million of our citizens, is an area of severe climactic variations which periodically produce widespread suffering and heavy economic losses. In this region farm families have

a continuous struggle to protect their best cultivated and grazing lands against soil erosion during seasons of high winds and frequent periods of extremely dry weather.

Some of the most critical problems of the area are the outgrowth of war when farmers and ranchers in the Great Plains States patriotically and energetically responded to their Government's call for greatly increased production to meet wartime demands by converting grasslands to cultivation.

Because these problems directly concern the lives and prosperity of millions of American citizens, the Nation as a whole is directly concerned. Because all Americans are concerned with the maintenance and improvement of our soil and water resources, every citizen in the land has an interest in the solution of agricultural difficulties in the vast Great Plains areas."

Source: Statement submitted by E.L. Peterson, Assistant Secretary of Agriculture, Great Plains Conservation Program: Hearing Before the Committee on Agriculture, House of Representatives, Eighty-fourth Congress, Second Session of H.R. 11831 and HR 11833, June 28, 1956.

April 10, 1956 - The Secretary of Agriculture assigned the Soil Conservation Service responsibility for carrying out the National Inventory of Soil and Water Conservation Needs on nonfederal lands through Secretary's Memorandum 1396. It was conducted in cooperation with land-grant colleges and other federal, State, and local agencies. Its purpose was to provide the U.S. Department of Agriculture and other land-use planning and conservation agencies with reasonable estimates of the magnitude and urgency of the conservation measures needed to maintain and improve U.S. productive capacity. This effort was completed in 1961, and updated with refinements in 1967 and 1968.

Source: "Basic Statistics of the National Inventory of Soil and Water Conservation Needs." U.S. Department of Agriculture. Statistical Reporting Service, Crop Reporting Board. 1962, Introduction and page 1.

May 28, 1956 - The Agricultural Act of 1956 (Public Law 84-540) is passed and includes two voluntary programs that paid farmers to retire farmland from production to decrease surplus supplies as well as the stifling effects of soil erosion that threatened the welfare of Americans, markets, and commerce: the conservation reserve program (CRP) and the acreage reserve program (ARP). Title II of this Act soon became known as the Soil Bank Act, which took 29 million acres out of production by offering farmers 3- to 10-year contracts, and also focused on increasing wildlife habitat. Under the Act, annual rental payments were made to farmers to plant and retain cropland in grass or trees through these long-term contracts. The Soil Bank's CRP called for whole farms to be placed in a conservation use reserve; the ARP sought to limit production by reducing some or all planted acres on a participating farm. Placing whole farms

in the Soil Bank's CRP was controversial because of the negative economic impact on rural communities and the businesses dependent on area farmers, and its failure to substantially reduce production. The Act was repealed in 1965.

Sources: 1) "History and Outlook for Farm Bill Conservation Programs", Choices, 4th Quarter 2004, Zachary Cain and Stephen Lovejoy, pages 37-42; 2) "Chronological Landmarks in American Agriculture", USDA ERS, Agriculture Information Bulletin 425, Compiled by Maryanna S. Smith and Dennis M. Roth; November 1990, page 75.

June 13, 1956 -Secretary's Memorandum 1399 assigned the Soil Conservation Service the responsibility for soil-suitability information where needed for conservation practices related to the Soil Bank's Conservation Reserve Program and for the technical phases of water-storage facilities under the Water Facilities Act of 1937, as amended in 1954.

Source: "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970.

August 7, 1956 - Public Law 84-1018 amended Public Law 83-566 (Watershed Protection and Flood Prevention Act of 1954) to add authority for federal assistance for municipal and industrial water supply development, for upstream flood prevention, and for irrigation, drainage, and other phases of agricultural water management. Prior to this time, appropriations acts and transfer responsibilities from other agencies were the only source of Soil Conservation Service authority to provide assistance with irrigation and drainage.

Also, on August 7, 1956, President Dwight Eisenhower signed Public Law 84-102 to establish a long-term conservation program called the Great Plains Conservation Program (GPCP) to target technical and financial assistance in 10 Great Plains States. The GPCP was assigned to the Soil Conservation Service on December 10, 1956 via Secretary's Memorandum 1408 and introduced the concept of a single voluntary agreement that included technical and financial assistance for the entire farm or ranch. An appraisal of the GPCP found that 53% of these agreements had been with combination livestock - crop farms, 30% with principally livestock farms or ranches, and over 10% with crop and cash grain farms. The GPCP influenced national soil conservation policies and programs, as its long-term contract model to maintain cost-shared conservation practices became a standard for other conservation programs.

A 1977 Congressional study found that 26 percent of farmers in GPCP had plowed up their newly established grasslands for wheat production after their contracts had expired as Russian grain purchases drove up demand and prices. This plowing up of grasslands pointed out the difficulty of maintaining long-term conservation practices, especially in land retirement programs. Functions of this program were transferred to the Environmental Quality Incentives Program (EQIP) in 1996.

Sources: 1) "Great Plains Conservation Program, 1956-1981: A Short Administrative and Legislative History, USDA NRCS, NRCS History Articles, November 24, 1981. Reprinted from "Great Plains Conservation Program: 25 Years of Accomplishment." SCS National Bulletin Number 300-2-7; 2) "Chronological Landmarks in American Agriculture", USDA ERS, Agriculture Information Bulletin 425, Compiled by Maryanna S. Smith and Dennis M. Roth; November 1990, page 75; 3) "Conserving the Plains: The Soil Conservation Service in the Great Plains", Agricultural History, Volume 64, Number 2, Douglas Helms, Spring 1990, page 69.

July 2, 1957 - The Lower Colorado River Indian Tribes (CRIT) in Parker, AZ organized the first Indian conservation district. The Parker County Soil and Water Conservation District was organized as a regular county district, since there was no legal authority to establish a conservation district under Tribal code.

The Soil Conservation Service (SCS), however, did not have authority to initiate new projects on Tribal lands. Reorganization Plan No. IV of 1940 (54 Stat. 1234), enacted on June 4, 1940, transferred SCS "soil and moisture conservation operations" on Tribal lands to the Department of the Interior.

Source: "Conservation and Culture: The Soil Conservation Service, Soil Science, and Conservation on Tribal Land in the Southwest, 1934-1994." Rebekah C. Beatty Davis, USDA Natural Resources Conservation Service. July 1997.

August 12, 1958 - The Watershed and Flood Prevention Act of 1954 (Public Law 85-624) amends Public Law 83-566 to include appropriate recognition for fish and wildlife resources in planning watershed projects.

Source: "Employee Handbook", USDA Soil Conservation Service, SCS-PERS-750 (SI), February 1977.

May 22, 1959 - The Soil Conservation Service was assigned responsibility (Secretary's Memorandum 1430) in 1959 for planning and placing in continued readiness a nationwide system for radiological monitoring of agricultural land and waters, livestock, and farm commodities stored or harvestable on farms, ranches, or at bin sites. Because a need for this radiological monitoring never arose, these responsibilities decreased in the 1970's, and the program ended around 1980.

Sources: "1) Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970; 2) "Through These Eyes: The First 70 Years of Soil and Water Conservation in Minnesota", USDA NRCS, Vic Ruhland, April 2005, page 68.



Community Development Gains Emphasis

1960 - 1969

"Conservation is ethically sound. It is rooted in our love of the land, our respect for the rights of others, our devotion to the rule of the law."

Lyndon B. Johnson, Special Message to the Congress Proposing Measures to Preserve America's Natural Heritage, February 23, 1966. Contained within "Public Papers of the Presidents of the United States, Lyndon B. Johnson, Containing the Public Messages, Speeches, and Statements of the President, 1966 Book I – January 1 to June 30, 1966, page 202.

COMMUNITY DEVELOPMENT GAINS EMPHASIS

1960 - 1969

“A conservation system, even though it may control erosion and runoff, or provide for orderly water management, it is not acceptable if it does not provide efficient use of costly modern equipment. Basic principles of conservation learned through the years are still sound. These key principles are being woven into new systems of conservation to meet the needs of the modern land user.”

Norman A. Berg, Associate Administrator, Soil Conservation Service, U.S. Department of Agriculture, Washington, D.C. for 1969 Research Planning Workshop of Agricultural Research Service at Skyland Lodge, Shenandoah National Park, Virginia, October 6, 1969.

Dr. Hugh Hammond Bennett, first Chief of the Soil Conservation Service (SCS), passed away on July 7, 1960 and was buried with full military honors in Arlington National Cemetery. His gravestone reads “Father of Soil Conservation.”

February of 1962 saw the release of Secretary’s Memorandum 1488, outlining the expectations for the U.S. Department of Agriculture’s (USDA) cooperation with soil and water conservation districts and the promulgation of a modernized memorandum of understanding with each conservation district to reflect the cooperation between districts and USDA on the broadened concepts of soil and water conservation. In May of that same year, President Kennedy conducted the first White House Conservation Conference since Theodore Roosevelt in 1908. In his speech, President Kennedy discussed the relationship between conservation and foreign policy, and the necessity of natural resources development for U.S. long-term economic growth. Kennedy also stated *“That’s the way we all feel about conservation – it won’t come this afternoon, but we ought to get started this afternoon, if it’s ever going to come.”*

Important federal legislation was also passed in the 1960s that had lasting impacts on the private lands conservation movement. Principal among these statutes was the Food and Agriculture Act of 1962 that gave the Soil Conservation Service (SCS) the authority to be more heavily involved in matters of environmental quality and community-wide resource programs. This Act enabled the Secretary of Agriculture to authorize locally-sponsored, multi-county Resource Conservation and Development project areas to enhance the environment and standard of living in these largely rural areas. Additionally, the October 1962 passage of the Drainage Referral Act prohibited USDA from assisting landowners/landusers in draining potholes and marshes in Minnesota and the Dakotas if wildlife would be materially harmed. Other federal legislative action in 1966 provided additional authorities for SCS to supply soil survey information and interpretations to States and other public agencies for

Community Development Gains Emphasis

1960 - 1969

community planning and resource development, and directed the Secretary of Commerce to consult with the Secretary of Agriculture on guidelines to minimize soil erosion from highway construction.

Soil and water conservation technical developments continued in the 1960s also. In 1962, the first estimation of the implementation of conservation tillage by farmers began through the efforts of SCS. In 1964, the earliest direct SCS use of a software technical application began with the release of a FORTRAN computer program for storm event watershed-scale surface water hydrology, known as TR-20. And in 1965, the first prototype wind erosion equation (WEQ) was released for use to aid conservation planning and predict the effects of alternative conservation systems on wind erosion reduction.

SCS also launched "Sammy Soil Saver" in 1967 as a tool for teaching natural resources conservation to young people, and helped the Boy Scouts of America develop for release in 1968 a 95-page aid for Scouts and Explorers in meeting merit badge requirements. Also, in 1969, SCS changed the name of the local office Work Unit Conservationist to District Conservationist, a position title that still stands today and recognizes the important USDA cooperative relationship with local conservation districts.

With the encouragement of the Secretary of Agriculture, Orville Freeman, the Soil Conservation Service (SCS) became more involved in the interface between urban and rural areas - the expanding suburbs. Working with conservation districts, SCS began to see opportunities to transfer some agricultural conservation practices and measures to these developing areas for erosion/sediment control and water quality protection/improvement. Early activities focused in the suburbs of Maryland and Virginia. Chicago and Milwaukee were examples of other urbanizing areas at the leading edge of local action for improved planning and conservation practice/measure implementation.

It was June 5, 1961 when the USDA's Agricultural Stabilization and Conservation Service (ASCS) replaced the Commodity Stabilization Service under authority of the USDA Reorganization Plan No. 2 of 1953.

Chronology

July 7, 1960 - Dr. Hugh Hammond Bennett, first Chief of the Soil Conservation Service, died. He was buried in Arlington National Cemetery, July 12, 1960, with full military honors to recognize Bennett's service in World War I. His gravestone reads "Father of Soil Conservation."

Source: "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970.

June 5, 1961 - The U.S. Department of Agriculture's Agricultural Stabilization and Conservation Service (ASCS) replaces the Commodity Stabilization Service. Organizational changes were made to incorporate the functions transferred by the Secretary of Agriculture under authority of Reorganization Plan No. 2 of 1953.

Source: "Chronological Landmarks in American Agriculture", USDA ERS, Agriculture Information Bulletin 425, Compiled by Maryanna S. Smith and Dennis M. Roth; November 1990, page 78.

July 1, 1961 - Automatic data processing of conservation progress reports went into effect for the Soil Conservation Service.

Source: "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970.

February 1, 1962 - Secretary's Memorandum 1488 outlined the U.S. Department of Agriculture's (USDA) cooperation with soil and water conservation districts and promulgated a modernized standard form of memorandum of understanding (MOU). It instructed all USDA agencies that provided assistance to districts to review their working agreements and other arrangements and ensure a reflection of the broadened concepts of soil and water conservation.

Source: "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970.

February 13, 1962 - Secretary's Memorandum 1448, Supplement 1, assigned to the Farmers Home Administration, supported and assisted by the Soil Conservation Service and other responsible U.S. Department of Agriculture agencies, implementation of proposed industrial and commercial facility projects and all community facility projects consistent with Public Law 87-27. (Area Redevelopment Act of May 1, 1961).

Source: "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970.

Community Development Gains Emphasis

1960 - 1969

May 24-25, 1962 - A White House Conference on Conservation was held in the State Department's West Auditorium in Washington, D.C. President Kennedy and Vice President Johnson were the principal speakers. It was the first White House Conservation Conference since President Theodore Roosevelt called the White House Conference of Governors in 1908. This 1962 conference brought together for the first time a broader array of representatives from across the U.S. and federal, State and Congressional officials for a discussion of "Conservation for the Sixties." In his speech, President Kennedy discussed the relationship between conservation and foreign policy, and the necessity of natural resources development for the country's long-term economic growth. In his closing, Kennedy stated the following about conservation: *"That's the way we all feel about conservation - it won't come this afternoon, but we ought to get started this afternoon, if it's ever going to come."*

Secretary of Agriculture Orville L. Freeman spoke at the conference. The Secretary spoke mainly about Administration proposals to aid land-use adjustments proposed in the draft "Agricultural Act of 1962" - that is, the concept of multiple use for private lands. Freeman indicated this would include multi-purpose recreational development on small watersheds, cooperative pilot recreation projects, grassland demonstration and family forest projects, and rural renewal developments.

Sources: 1) News Release (P.N. 7593-62), U.S. Department of Interior, May 9, 1962; 2) Remarks to White House Conference on Conservation, Digital Identifier: JFKPoF-038-0298-p0001. Archives of John F. Kennedy Presidential Library and Museum, May 25, 1962; 3) "White House Conference on Conservation", Journal of Forestry, Society of American Foresters, Charles E. Randall, 1962.

September 27, 1962 - The Food and Agriculture Act of 1962 (Public Law 87-703) provided the Soil Conservation Service (SCS) the authority to be involved more heavily in matters of environmental quality and community-wide resource programs. The Act also authorized the use of technical and financial assistance to accelerate conservation, development and utilization of natural resources, improve the general level of economic activity in rural areas, and to enhance the environment and standard of living in "resources conservation and development projects."

The Secretary of Agriculture authorized locally-sponsored, multi-county Resource Conservation and Development (RC&D) project areas and SCS was delegated by the Secretary the responsibility to administer the RC&D program. Eight other U.S. Department of Agriculture (USDA) agencies that managed conservation or development activities were involved with the RC&D Program. RC&D Councils composed of local government officials, farmers, ranchers, civic leaders, business leaders, and others set the local direction and priorities for the operation of their non-profit organization within RC&D legislative authority and USDA national guidelines. The number of authorized RC&D areas eventually grows to 375 covering 2,696 counties, by 2011. Funding for the RC&D Program, which peaked at \$53 million per fiscal year, was discontinued by Congress in fiscal year 2011.

Sources: 1) U.S. Office of Management and Budget, 2014; 2) "Hugh Bennett's Dream - And How It Grew", The Soil Conservation Service, D. Harper Simms, 1970, pages 26 and 27; 3) "Report to Congress on the Resource Conservation and Development (RC&D) Program", USDA NRCS, January 2006, 3 pages.

October 2, 1962 - Public Law 87-732, the Drainage Referral Act, was enacted on October 2, 1962 and prohibited the U.S. Department of Agriculture from assisting landowners in draining potholes and marshes in Minnesota and the Dakotas if wildlife would be materially harmed.

Sources: 1) Public Law 87-732, Drainage Referral Act, October 2, 1962; 2) "Farm Drainage in the United States: History, Status, and Prospects", USDA Economic Research Service, Miscellaneous Publication Number 1455, Foreword, December 1987, page ii.

November 2, 1962 - Secretary's Memorandum 1515 designated the Soil Conservation Service (SCS) as the U.S. Department of Agriculture (USDA) agency responsible for administering the activities under the Food and Agriculture Act of 1962 (Public Law 87-703, Section 102), pertaining to resource conservation and development (RC&D) projects. Memorandum 1515 stated the basic objectives, policies, and principles of the Department in participating in RC&D projects. (It was superseded on October 9, 1969 by Memorandum 1665 which merged the Farmers Home Administration's rural renewal areas into the RC&D Program). On March 6, 1963, RC&D Memorandum SCS-1 provided the policies for assisting local sponsors to plan and carry out these projects.

Secretary's Memorandum 1515 also delegated to SCS the leadership in USDA for activities relating to income-producing recreation enterprises on private land and for liaison with groups in a position to assist with recreation development. The Food and Agriculture Act of 1962 had authorized the USDA to help landusers develop recreation resources. SCS leadership included liaison with other federal, State, and local agencies that assisted with recreation development. Recreation development could add to a farmer's income and help other businesses as well; it also diverted less productive or marginal cropland to more suitable or profitable uses; and, it helped to improve the local economy.

Source: "Agriculture, Rural Development, and Related Agencies Appropriations for Fiscal Year 1980: Department of Agriculture", United States Congress, Senate Committee on Appropriations, Subcommittee on Agriculture, Rural Development, and Related Agencies. U.S. Government Printing Office, 1979. Page 1615.

1962 - Estimation of the implementation of conservation tillage by farmers began in 1962, when the Soil Conservation Service first reported the acreage of minimum tillage. "No-Till Farmer" magazine's advisory service began estimating no-till acreage in 1972. Starting in 1982, the Conservation Technology Information Center (CTIC) conducted the National Crop Residue Management Survey to measure and track the type of tillage used by crop at the county level

Community Development Gains Emphasis

1960 - 1969

through in-field observation at mile or half-mile intervals. The full national survey by CTIC ended in 2004.

Source: "CRM Survey Data", Conservation Technology Information Center Website Under CTIC Projects/ Data on Conservation Practices/ CRM; Retrieved December 17, 2019.

March 1963 - The Soil Conservation Service is assigned responsibility for technical assistance in the rehabilitation of disaster-damaged agricultural land, emergency protection against high water, loan of equipment, and assistance in transportation.

Source: "A Legacy of Conservation: 75 Years Helping People Help the Land in North Dakota, 1935-2010", USDA Natural Resources Conservation Service, 2010.

November 18, 1963 - The Cooperative State Research Service in the U.S. Department of Agriculture succeeded the Cooperative State Experiment Station Service.

Source: "Chronological Landmarks in American Agriculture", USDA ERS, Agriculture Information Bulletin 425, Compiled by Maryanna S. Smith and Dennis M. Roth; November 1990, page 79.

1964 - The Soil Conservation Service (SCS) and Agricultural Research Service released a FORTRAN computer program for storm event watershed-scale surface water hydrology, known as TR-20. This computer program was the earliest direct SCS use of a software technical application in agency history. It originally ran on mainframe computers; an MS-DOS version was later released in 1986 for personal computers, and a Windows version called WinTR-20 was released in 2004.

Source: "An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)", Jack Carlson, Retired NRCS CIO, November 27, 2019, page 1.

April 23, 1965 - Secretary's Memorandum 1573 gave the U.S. Department of Agriculture direction on the natural beauty of the countryside and assigned the Soil Conservation Service and the Forest Service the responsibility to provide technical assistance to landowners, operators, communities, and state and local governments in developing programs relating to natural beauty, including privately-owned woodlands.

Source: "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970.

July 22, 1965 - The Water Resources Planning Act of 1965 (Public Law 89-80) was enacted and required the establishment of principles, standards, and procedures to be followed for all federal projects affecting water and related land areas. In 1973, 1980, and 1982, the Water Resources Council established guidelines for multi-objective planning for national economic development. This legislation was applicable to Soil Conservation Service watershed programs.

Source: "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970.

1965 - A wind erosion equation (WEQ) was published in 1965. Although early versions of the WEQ were being developed in the late 1950s, it was not until 1961 that a prototype equation was available for use. The prototype from 1961 contained eight variables that affect the susceptibility of a field to wind erosion. The 1965 published WEQ included eleven variables combined into five factors in the equation. The WEQ for wind erosion, and the Universal Soil Loss Equation (USLE) for sheet and rill erosion, were adopted by the Soil Conservation Service originally as tools for planning conservation systems. They were effective means to communicate erosion control principles to landusers, and enhanced the ability to compare the predicted erosion effects of alternative conservation systems to establish quality standards used in conservation planning.

In the late 1980's, a computer version of WEQ was released. In 1997, further refinements were introduced by the Natural Resources Conservation Service (NRCS) through an amendment to the National Agronomy Manual (Circular No. 2).

The WEQ was replaced by NRCS for agency use with the May 2010 release of Version 1.0 of the Wind Erosion Prediction System (WEPS), the development of which began in 1985 with Agricultural Research Service (ARS) scientists. WEPS was developed to address deficiencies in the then 20-year old predominantly empirical WEQ. WEPS incorporated many process-based features and relied on laboratory wind tunnel research and extensive field studies.

Sources: 1) NRCS Website under "Technical/ECS/Agronomy", November 13, 2019; 2) "A History of Wind Erosion Prediction Models in the United States Department of Agriculture: The Wind Erosion Prediction System (WEPS); Aeolian Research 10; 2013; pages 9-24; 3) "The Wind Erosion Prediction System and its Use in Conservation Planning", Published Online by USDA ARS Rangeland Resources and Systems Research Unit, Fort Collins, CO; February 15, 2019; pages 71-101; 4) "Predicting and Controlling Wind Erosion", The History of Soil and Water Conservation, The Agricultural History Society, Edited by Douglas Helms and Susan L. Flader; by Leon Lydle, 1985, pages 103-112.

September 7, 1966 - Public Law 89-560, the Community Planning and Resource Development Act, was authorized, and included additional authorities related to the Soil

Community Development Gains Emphasis

1960 - 1969

Survey Program. It facilitated cooperative assistance to States and subdivisions in community and resource development in areas of rapidly changing land uses, including farm and ranch areas that were urbanizing. The Act was intended to reduce pollution from sediment and other pollutants and authorized the Soil Conservation Service to provide soil survey information and interpretations to assist States and other public agencies in community planning and resource development. Soil survey information helped community planners to select land suitable for construction of housing, factories, schools, airports, highways, and shopping centers in expanding urban and developing areas.

Source: "Water Quality in the Natural Resources Conservation Service: An Historical Overview", Agricultural History, Volume 76, Number 2; Douglas Helms, Douglas J. Lawrence, Patricia J. Lawrence, Peter F. Smith; Spring 2002, page 298.

September 7, 1966 - Secretary's Memorandum 1600, based on the May 26, 1966 Executive Order 11282 ("Prevention, Control, and Abatement of Air Pollution by Federal Agencies), required U.S. Department of Agriculture agencies to participate in the prevention, control, and abatement of air pollution.

Source: "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970.

September 13, 1966 - The Federal-Aid Highway Act of 1966 (Public Law 89-574) was approved. For the first time, Congress inserted an erosion control provision in a federal highway act. It also directed the Secretary of Commerce to consult with the Secretary of Agriculture on guidelines to minimize soil erosion from highway construction.

Sources: 1) "Organization and Development of the Soil Conservation Service: A Reference for Employees", USDA Soil Conservation Service, SCS-CI-13, Revised July 1970; 2) "Employee Handbook", USDA Soil Conservation Service, SCS-PERS-750 (SI), February 1977.

October 15, 1966 - The National Historic Preservation Act of 1966 (Public Law 89-665), as amended, ensured that no federal funds were spent on work affecting historic properties until local and national advisory councils on historic preservation had a chance to review the project plan.

Source: "National Historic Preservation Act of 1966", National Conference of State Historic Preservation Officers, Website, Retrieved December 17, 2019.

1967 - "Sammy Soil Saver", the brainchild of SCS District Conservationist and artist Ernest "Howard" Whitaker, is officially launched as a tool for teaching natural resource conservation to young people. A sixteen-page children's coloring book ("The Adventures of Sammy Soil"), with story developed by Ernest Whitaker and Sandra L. Purdue, is one of the educational products developed.

Sources: 1) "NRCS Mascot Educates Americans on Soil Conservation for 40-Plus Years", NRCS Webpage (2019); Geiger, M., 1967; 2) "South Dakota Transfers "Sammy" to NACD", Tuesday Letter: National Association of Conservation Districts, Vol. 38, No. 3; March 1988, page 7.

1968 - The Boy Scouts of America published "Soil and Water Conservation" (No. 3291), a 95-page aid for Scouts and Explorers in meeting merit badge requirements, but also a publication intended for general interest and made available to schools and public libraries. The publication covered what soil is, conservation practices, conservation in watersheds, the hydrologic cycle, water pollution, and what can be done to help. The Soil Conservation Service (SCS) was recognized by the Boy Scouts of America for researching, writing, and illustrating the 1968 publication. SCS personnel had written parts of an earlier merit badge handbook in 1952.

Sources: 1) "Soil and Water Conservation", Boy Scouts of America, No. 3291, 1968; 2) "National Jamboree: SCS Teaches Demonstration at Jamboree", Soil and Water Conservation News, USDA Soil Conservation Service, February 1990, pages 10-12.

January 1, 1969 - The Soil Conservation Service (SCS) position title of "Work Unit Conservationist" was changed to "District Conservationist". The name of the local SCS office was changed from Work Unit Office to Field Office.

The title of Work Unit Conservationist was deemed awkward and meaningless to the general public. After repeated attempts to find a more suitable working title for the local SCS line officer, the SCS Administrator revived the title of District Conservationist and applied it to the Work Unit Conservationist position. The District Conservationist title had been used previously by SCS but it had denoted a position somewhat comparable to the then Area Conservationist or current day Assistant State Conservationist for Field Operations.

Sources: "Employee Handbook", USDA Soil Conservation Service, SCS-PERS-750(SI), 1977, page 2; 2) "Organization and Administration", The Soil Conservation Service, D. Harper Simms, 1970, pages 64-68.

July 1, 1969 - Rural renewal projects, formerly administered by the U.S. Department of Agriculture's Farmers Home Administration, were converted to resource conservation and development (RC&D) projects and transferred to the Soil Conservation Service.

Community Development Gains Emphasis

1960 - 1969

Source: "Agriculture, Environmental, and Consumer Protection Appropriations", U.S. Congress, House Committee on Appropriations, Parts 4-5, 1971, page 640.

October 6, 1969 - *"We are all aware that conservation and conservation concepts are an everchanging thing in light of new technology and farming methods. Constant vigilance is required to shed the habits of yesteryear and bend with these changing times."*

Source: Norman A. Berg, Associate Administrator, Soil Conservation Service, U.S. Department of Agriculture, Washington, D.C. for 1969 Research Planning Workshop of Agricultural Research Service at Skyland Lodge, Shenandoah National Park, Virginia, October 6, 1969.

1960s - The Soil Conservation Service (SCS) was encouraged during the Kennedy-Johnson Administration by Secretary of Agriculture Orville Freeman to become more involved in the interface between urban and rural areas - the expanding suburbs. SCS staff living and working in the "urban fringe", and providing assistance to conservation districts, began to see opportunities to transfer some agricultural conservation practices and measures to these developing areas for erosion/sediment control and water quality protection/improvement.

The Maryland and Virginia suburbs of Washington, D.C. were among the first to take steps toward State laws and local ordinances to address erosion/sediment control on developing lands. Soil surveys done in cooperation with county governments grew in importance, as did upstream watershed work to control and trap sediments and plant materials to stabilize soils in harsh conditions. SCS staff assisted conservation districts and developers with plans to reduce erosion and sedimentation, made standards and specifications for installing conservation practices accessible to developers, and also advised districts and developers on the technical adequacy of related plans.

The sediment and control movement related to developing lands was not constrained to Maryland and Virginia. Chicago and Milwaukee were examples of other areas at the leading edge of local action for improved planning. In response, Congress passed the Soil Information Assistance for Community Planning and Resource Development Act on September 7, 1966 (Public Law 89-560) to address the growing need for water quality protection in urbanizing areas. The Act emphasized the need for SCS to carry out soil surveys in support of efforts to better plan development and reduce sediment and other pollutants resulting from shifting land use from agriculture to industry, housing, transportation, recreation, and related services.

Fairfax County, Virginia, just west of Washington, D.C., was the first soil and water conservation district to have a full-fledged suburban soil and water conservationist assigned in SCS history. This assignment enabled SCS to gain experience for suburban and developing lands work that was confronting conservation districts and SCS throughout the U.S.

The U.S. Department of Agriculture's Role in America's Private Lands Conservation Movement:

A Chronology of Key Developments (1933 - 2019)

Sources: 1) "Water Quality in the Natural Resources Conservation Service: An Historical Overview", *Agricultural History*, Volume 76, Number 2; Douglas Helms, Douglas J. Lawrence, Patricia J. Lawrence, Peter Smith; Spring 2002; pages 293-299; 2) "Soil Conservation in Practice", *The Soil Conservation Service*, D. Harper Simms, 1970, page 41.



Emphasis on Natural Resources Conditions and Trends

1970 - 1979

***"A cloak of loose, soft material, held to the Earth's
hard surface by gravity, is all that lies between life and
lifelessness."***

Wallace H. Fuller, *Soils of the Desert Southwest*, 1975.

EMPHASIS ON NATURAL RESOURCES CONDITIONS AND TRENDS 1970 - 1979

“The environmental movement can be kept strong and healthy only if the basics of natural resources management are kept out in the open and in proper perspective. If your environmental education does not include a good textbook on natural resources management, it is time to put a foundation under your ecological concern.”

Holt Bodinson, “The Land Is All We Have”, writing in the “New York State Environment” published by the New York State Department of Environmental Conservation in the mid-summer 1971 issue. (Source: “For the Decade of the Environment” in “For Love of the Land: A History of the National Association of Conservation Districts”, R. Neil Sampson, 1985, page 203).

The 1970s were a decade of great change with the growing public concern for the environment, resulting in greater emphasis on wetlands protection and fish and wildlife habitat improvement; significant new water quality legislation and programs to better address nonpoint sources of pollution; Congressional direction for the U.S. Department of Agriculture (USDA) to appraise the status, conditions, and trends related to natural resources on non-federal lands; and, the beginnings of the rapid development of computers and software to automate processes and technical tools. Toward the end of the decade, USDA also undertook efforts to identify the institutional barriers that were hindering Tribal participation in conservation programs, including participation in the Agricultural Conservation Program (ACP) which had been in place since 1936.

The National Environmental Policy Act (NEPA), passed in 1969, became effective in 1970. This legislation declared the federal government was to create and maintain conditions under which people and nature could exist in productive harmony. The first “Earth Day” was held on April 22, 1970, mirroring the expectations of NEPA and other federal environmental and conservation legislation, and brought new and greater demands on USDA, especially the Soil Conservation Service (SCS) as the lead conservation agency for non-federal lands.

In the early 1970s, multiple pieces of new federal legislation brought fish and wildlife concerns, and related recreational opportunities, to the forefront and heightened the focus on these needs as a key purpose for conservation programs. The Water Bank Act of 1970 was authorized to help prevent the serious loss of wetlands and to restore and improve wetlands and their functions for migratory waterfowl. “Protection of Wetlands” (Executive Order 11990), issued by the President in 1977, supported NEPA concepts and served to further protect

Emphasis on Natural Resources Conditions and Trends

1970 - 1979

wetlands. In 1979, the U.S. Fish and Wildlife Service's "Classification of Wetlands and Deepwater Habitats of the U.S." publication updated Circular 39 ("Wetlands of the United States") from 1956; it continued to serve as the foundation for wetlands policy as administered by SCS through its conservation programs.

Water quality improvement was a primary focus of significant new federal legislation in the 1970s, resulting in new federal programs and initiatives and greater cooperative efforts domestically and with both Canada and Mexico. April of 1972 saw the Canadian Prime Minister and U.S. President sign the Canada-U.S. Agreement on Great Lakes Water Quality, affirming a joint commitment to reduce nutrient pollution in the Great Lakes, including from nonpoint agricultural sources. The Federal Water Pollution Control Act of 1972, later amended in 1977 as the Clean Water Act, authorized the new U.S. Environmental Protection Agency (EPA), in cooperation with States and other federal agencies, to develop comprehensive water pollution control programs - - including from agricultural and silvicultural nonpoint sources. Importantly, the 1977 amended Act gave greater emphasis to nonpoint source pollution abatement efforts and established the Rural Clean Water Program (RCWP). Through RCWP, USDA, EPA, and other partners improved their understanding of the complex scientific, economic, and social issues related to nonpoint pollution control from agricultural and silvicultural sources. Congress also enacted the Colorado River Basin Salinity Control Act in 1974, creating a new program and directing USDA and the Department of Interior to cooperate with States in the planning and implementation of on-farm conservation measures to achieve higher irrigation efficiencies and reduce the saline runoff to the Colorado River to achieve the salinity control targets agreed to by the U.S. and Mexico.

Other 1970s legislative action by Congress created: 1) the Rural Abandoned Mine Program in 1977, through which SCS cooperated with States and Interior to assist landusers to reclaim the soil and water resources on rural lands adversely affected by past coal mining practices, 2) the Soil and Water Resources Conservation Act of 1977 that directed the SCS to assess the status, condition, and trends of soil, water, and related natural resources on non-federal lands to serve as the basis for improvement and planning future conservation programs and initiatives, and 3) the authorization of the Emergency Conservation Program to be administered by the Agricultural Stabilization and Conservation Service to deliver assistance to farmers and ranchers to repair agricultural land damaged by natural disasters, and conserve water during severe droughts.

Technical developments continued to advance in the 1970s. The first national soils database created cooperatively by Iowa State University and SCS became operational in 1973. In 1975, SCS released "TR-55", a tool to help guide the planning of structural and non-structural solutions for water problems caused by radical changes in land use, such as in urbanizing watersheds. Also in 1975, SCS released "Soil Taxonomy: A Basic System of Soil Classification for Making and Interpreting Soil Survey", the first complete publication of taxonomy as it

applied to soils in the U.S. It was also in the mid-1970s that SCS began installing the SNOTEL (SNOpack TELEmetry) automated data acquisition system utilizing meteor burst technology.

The establishment of USDA Agricultural Service Centers at the county level also began in the mid-1970s and was intended to provide customers with one central location for their engagement with USDA's locally-based agencies - - later to become known as "one-stop shopping" in popularized terminology.

Chronology

January 1, 1970 - The National Environment Policy Act of 1969 (Public Law 91-190) becomes law and declares that it is the policy of the federal government to use all practicable means to create and maintain conditions under which people and nature can exist in productive harmony and fulfill the social, economic, and other requirements of present and future generations of Americans. The Act called for evaluations and impact analyses of all planned actions (such as watershed projects) by disclosing the decision-making process and the measures to be taken to mitigate adverse environmental impacts. Project planning became more complex and environmental agencies, groups, and individuals now played a key role in project planning.

Sources: 1) "Through These Eyes: The First 70 Years of Soil and Water Conservation in Minnesota", USDA NRCS, April 2005, page 71; 2) "Employee Handbook", USDA Soil Conservation Service, SCS-PERS-750 (SI), February 1977.

April 3, 1970 - The Environmental Quality Improvement Act of 1970 (Public Law 91-224) declared there was a national policy for the environment that provided for the enhancement of the environment. The Act recognized that State and local governments were primarily responsible for implementing this national policy and that the federal government was to encourage and support implementation of this policy.

This 1970 Act provided legislative assurance that federal departments and agencies conducting or supporting public works that affected the environment would implement the policies established under law. It also established the Office of Environment Quality in the Executive Office of the President to provide support for the Council on Environmental Quality that was established by Public Law 91-190.

Source: "The Environmental Quality Improvement Act of 1970", Located at Energy.gov, Under the Office of NEPA Policy and Compliance; Retrieved December 17, 2019.

Emphasis on Natural Resources Conditions and Trends

1970 - 1979

April 22, 1970 - The first "Earth Day" was held, an activity sponsored by colleges and universities throughout the Nation. The activity brought new and greater demands on the Soil Conservation Service for information on conservation and the environment. Concern was expressed by some in mainstream conservation agencies and organizations about what was viewed as extreme proposals being brought forward in the name of environmental protection, including the view by some environmental groups that the solution to most problems was a Federally-directed solution. The increased use of direct Federal intervention to solve environmental challenges was a key aspect of the evolving environmental agencies.

"We must all seek to learn. It is unfortunate, I believe that the term "environmentalists" has come to signify a particular interest, a particular approach, and a particular group of people. All people should be environmentalists, for a rational and practical environmentalism is what will ensure the survival and progress of mankind."

John S. Wilder, "Conservation Districts in the Decade Ahead",
1974 Annual Convention (NACD), Houston, TX

Sources: 1) "Soil Conservation" Magazine, USDA Soil Conservation Service, 1970, page 286; 2) "The Decade of the Environment", For the Love of the Land: A History of the National Association of Conservation Districts, R. Neil Sampson, 1985, pages 200-204.

July 18, 1970 - Public Law 91-343 (an amendment to the Bankhead-Jones Farm Tenant Act), was enacted and provided authority to furnish technical and cost-sharing assistance in carrying out plans for land conservation and utilization. The cost-sharing was applicable to water-based fish and wildlife or recreational development.

Source: "Employee Handbook", USDA Soil Conservation Service, SCS-PER-750 (SI), February 1977.

November 30, 1970 - The Agricultural Act of 1970 (Public Law 91-524) offered payments to farmers who were willing to let fishermen, hunters, and trappers onto their conservation acreage.

Source: "History and Outlook for Farm Bill Conservation Programs", Choices, Zachary Cain and Stephen Lovejoy, 4th Quarter 2004, page 39.

December 19, 1970 - The Water Bank Program was authorized under Public Law 91-559 to prevent the serious loss of wetlands, and beginning in 1971, to preserve, restore, and improve

wetlands and their functions in 15 states in the Northern Great Plains, especially North Dakota and Minnesota. The program was focused on land located in important migratory waterfowl nesting, breeding, and feeding areas. Agreements with owners and operators of this land were for a period of ten years, with opportunity for renewal. The program was administered by the Agricultural Stabilization Service (ASCS). The Soil Conservation Service, working with conservation districts, was assigned responsibility for conservation planning and related technical servicing under this authority. The authorities and functions of the Water Bank Program were transferred to the Wetlands Reserve Program (WRP) in 1990.

Sources: 1) "Public Law 91-559, December 19, 1970, pages 1468-1471; 2) "Through These Eyes: The First 70 Years of Soil and Water Conservation in Minnesota", USDA NRCS, Vic Ruhland, April 2005, page 79; 3) "Farmland or Wasteland: A Time to Choose, Overcoming the Threat to America's Farm and Food Future", R. Neil Sampson, 1981, page 383.

1970 - The Soil Conservation Service (SCS) adopted a logo - a blue drop of water in a green basin below the SCS letters - a modernistic design created with assistance from the U.S. Department of Agriculture. The logo was intended to fully depict the involvement of SCS in soil and water conservation. In 2002, the Natural Resources Conservation Service (NRCS) adopted the logo again, changing the letters SCS to NRCS.

Source: "Through These Eyes: The First 70 Years of Soil and Water Conservation in Minnesota", USDA NRCS, Vic Ruhland, April 2005, page 78.

1970 - The Soil Conservation Service (SCS) completed its first agency-wide strategic plan, which it called "A Framework for a Better America." That plan presented a unified vision covering the range of programs and activities authorized over the preceding decades of SCS operations. The first agency-wide strategic plan had identified the SCS mission as assisting all Americans to enjoy: quality in the natural resource base for sustained use, quality in the environment, and quality in the standard of living based on community improvement and adequate income.

Source: "Resource Conservation Today for a Quality Environment Tomorrow - Strategic Initiatives for the 90's"; Draft Document transmitted to Soil Conservation Service (SCS) leadership on August 29, 1991 by Manly S. Wilder, Deputy Chief for Strategic Planning and Budget Analysis, SCS.

1970 - Delaware was the first state to complete the "once over" soil survey mapping when it was finished in 1970. The correlation work for this mapping was then completed in 1971, and the last publication of a component of the Delaware "once over" soil survey (Sussex County)

Emphasis on Natural Resources Conditions and Trends

1970 - 1979

was published in 1974. Other States with early completed "once over" soil survey mapping were Rhode Island in 1977, Connecticut in 1979, and Oklahoma in 1983.

Source: Dave Hoover's (Director, NSSC, USDA NRCS, Lincoln, NE) email communication with Paul Fariss (FPAC Business Center), then reflected in Paul Fariss' email communication with Thomas W. Christensen (FPAC Business Center) on December 3, 2019; 2) "Soil Survey of Sussex County, Delaware"; USDA NRCS in Cooperation With Delaware Agricultural Experiment Station; Issued May 1974; 74 pages.

April 15, 1972 - The Prime Minister of Canada and the President of the U.S. signed the Canada-U.S. Agreement on Great Lakes Water Quality. Subsequently, the International Joint Commission created a "reference group" on Great Lakes pollution from land use activities to study the impacts from agriculture, forestry, and other land uses on the Great Lakes' boundary waters. The reference group was chaired by Norman A. Berg, Associate Administrator of the Soil Conservation Service. Recommendations from the reference group helped lead to Canada/U.S. targets for phosphorous loading. Demonstrations and the development of on-farm conservation practices to reduce non-point source pollution became increasingly important in helping to address the targets through conservation system implementation.

Sources: 1) "Perspectives on Nonpoint Source Pollution: Proceedings of a National Conference", Kansas City, Missouri, May 19-22, 1985; 2) "Water Quality in the Natural Resources Conservation Service: A Historical Overview", Agricultural History, Volume 76, Number 2; Douglas Helms, Douglas L. Lawrence, Patricia J. Lawrence, Peter Smith; Spring 2002, pages 299-300.

October 18, 1972 - The Federal Water Pollution Control Act of 1972 (Public Law 92-500; Clean Water Act) authorized the Administrator of the U.S. Environmental Protection Agency, in cooperation with States and other federal agencies, to develop comprehensive programs for water pollution control. Section 208 of the Act required that areawide waste treatment include a process to identify agricultural-and silvicultural-related nonpoint sources of pollution and procedures to control these sources.

Because of this Act, and the 1969 National Environmental Policy Act (Public Law 91-224), watershed-based planning began to incorporate biological and chemical concerns, first on agricultural land and later with urban storm water management.

Amendments to the 1972 Act required a permit from the U.S. Army Corps of Engineers for placing dredge and fill materials into, or adjacent to, waters of the United States.

Sources: 1) Public Law 92-500, October 18, 1972, page 816; 2) "The Decade of the Environment", For the Love of the Land: A History of the National Association of Conservation Districts, R. Neil Sampson, 1985, pages 209-210.

August 10, 1973 - Title X of the Agriculture and Consumer Protection Act of 1973 (Public Law 93-86) provided authority for cost-sharing for soil and water conservation, pollution abatement, timber production, and other purposes through the Rural Environment Conservation Program (RECP). Cost-sharing, both annual and long-term (3 to 5 years), was contingent upon a conservation plan approved by the conservation district. The Soil Conservation Service was responsible for conservation planning and technical servicing, except for forestry practices which were the responsibility of the Forest Service. The Agricultural Stabilization and Conservation Service administered the RECP. The RECP was a renaming of the long-standing Agricultural Conservation Program (ACP) in recognition of the new awareness in Congress on environmental matters. The name of the RECP was changed back to ACP in 1974.

Sources: 1) Public Law 93-86, August 10, 1973, page 221; 2) "Farmland or Wasteland: A Time to Choose, Overcoming the Threat to America's Farm and Food Future", R. Neil Sampson, 1981, page 268; 3) "History and Outlook for Farm Bill Conservation Programs", Choices, Zachary Cain and Stephen Lovejoy, 4th Quarter 2004, page 39; 4) Source: "Employee Handbook", USDA Soil Conservation Service, SCS-PER-750 (SI), February 1977.

1973 - The Soil Conservation Service and the Iowa State University Statistical Laboratory began work on a national soils database in 1971, which moved to operational status in 1973. The Soils Interpretation Record (SIR) database system ("Soils-5 Database") remained operational until it was replaced in 1996 by the National Soil Information System (NASIS).

Source: "Profiles in the History of the U.S. Soil Survey", Technology and Engineering, John Wiley and Sons; Douglas Helms, Anne B.W. Effland, Patricia J. Durana, April 15, 2008, 331 pages.

1973 - The Soil Conservation Service (SCS) discontinued providing technical assistance for the drainage of specified wetlands, as defined by the Fish and Wildlife Service of the Department of Interior. In 1975, the SCS policy was broadened to include nearly all freshwater and saline-water areas.

Source: "Farm Drainage in the United States: History, Status, and Prospects", USDA Economic Research Service, Miscellaneous Publication Number 1455, Foreword, December 1987, pages ii and iii.

June 24, 1974 - Congress enacted the Colorado River Basin Salinity Control Act (Public Law 93-320) directing the U.S. Department of Agriculture to cooperate in the planning and implementation of on-farm conservation measures to reduce saline runoff and seepage in order to meet the salinity control objectives of the law. The Act authorized the Secretary of Interior to transfer funds to the Secretary of Agriculture to provide technical assistance to farmers to achieve higher on-farm irrigation efficiencies. Through the Colorado River Basin

Emphasis on Natural Resources Conditions and Trends

1970 - 1979

Salinity Control Program (CRSCP), reduced salt loading to enhance and protect the quality of the Colorado River for use in the United States and Mexico was a primary objective. Despite repeal of the CRSCP in 1996, U.S. Department of Agriculture obligations continued with EQIP funds after this date.

Source: 1) Public Law 93-320, June 24, 1974, page 266; 2) "Colorado River Basin Salinity Control Program", NRCS Website Under Home/ Programs/ Alphabetical Listing + Archive/ Colorado River Basin Salinity Control Program; Retrieved December 17, 2019; 3) "Colorado River Basin Salinity Control Program", Bureau of Reclamation Website Under Reclamation/ Upper Colorado Region/ Colorado River Basin Salinity Control Program; Retrieved December 17, 2019.

Mid-1970s - The Soil Conservation Service National Technical Centers at Fort Worth, Texas and Portland, Oregon, and the U.S. Department of Agriculture (USDA) mainframe computers at Fort Collins, Colorado took on the data management functions for the Snow Survey Program that used mainframe computers at mostly state universities starting in the late 1960s. In the late 1970s, the Snow Survey Program began installing the SNOTEL (SNOpack TELEmetry) automated data acquisition system utilizing meteor burst technology.

The establishment of USDA Agriculture Service Centers in counties for USDA agencies also began in the mid-1970s. These local centers were intended to provide customers with one central location for their engagement with USDA's locally-based agencies.

Source: "An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)", Jack Carlson, Retired NRCS CIO, November 27, 2009; pages 2 and 3.

January 4, 1975 - The Indian Self-Determination and Education Assistance Act of 1975 (Public Law 93-638) was enacted. This Act provides for maximum Indian participation in the government and education of the Indian people, as well as provide for the full participation of Indian Tribes in programs and services conducted by the Federal Government for Indians and to encourage the development of human resources of the Indian people. This Act also provided the legal basis for Indian Tribes to establish their own conservation districts.

Source: "Conservation and Culture: The Soil Conservation Service, Soil Science, and Conservation on Tribal Land in the Southwest, 1934-1994." Rebekah C. Beatty Davis, USDA Natural Resources Conservation Service. July 1997.

January 1975 - The Engineering Division of the Soil Conservation Service (SCS) published Technical Release (TR) No. 55, "Urban Hydrology for Small Watersheds." TR-55 provided a guide for field personnel in estimating the effects of land use changes and structural measures on hydraulic and hydrologic parameters, runoff volume, and peak rates of discharge. At the time of this release, it was recognized that the effects of urbanization in watersheds from

greater coverage by impervious surfaces and stream channelization could have significant impacts on water runoff – greater volumes, more concentration and in less time, and less soil percolation. TR-55 was a tool to help provide a guide to solutions for water problems caused by radical changes in land use by applying systematic planning and installation of structural and nonstructural mitigation measures.

Source: "Urban Hydrology for Small Watersheds", Technical Release No. 55, Engineering Division, Soil Conservation Service, U.S. Department of Agriculture, January 1975.

December 1975 - The first edition of Agricultural Handbook No. 436, "Soil Taxonomy: A Basic System of Soil Classification for Making and Interpreting Soil Survey", a standardized measurement system of soils, was made available for use. This taxonomy had been in use for about seven years before its December 1975 publication. However, this was the first complete publication of the taxonomy as it applied to the soils of the United States. The Chief architect and principal author of "Soil Taxonomy" was Guy D. Smith, with contributions from several other leading pedologists. Guy D. Smith described four elements to the rationale for the development of this taxonomy, as follows: 1) the changing concept of the soil series, 2) the need for increasingly more quantitative interpretations of soil properties, 3) the great expansion of soil survey activity and applications, and 4) the increasing need for the generalization of soil properties and classification, including non-agricultural uses.

Sources: 1) Monthly Catalog of United States Government Publications, Issues 978-983. U.S. Government Printing Office, 1976; 2) "Soil Surveys and Maps", A Reprint from "The Literature of Soil Science", Cornell University Press, Ithaca, New York; Ralph J. McCracken and Douglas Helms; 1994, pages 287-288.

May 25, 1977 - Executive Order 11990 (Protection of Wetlands) was issued by the President in furtherance of the National Environmental Policy Act of 1969, as amended. The Order was intended "to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative." Later, the Food Security Act of 1985 denied farm program benefits to producers who grew annual crops on wetlands drained after December 1985. Subsequently, Soil Conservation Service assistance on drainage was generally limited to improving drainage on existing cropland, that was prior converted, through better design, construction, and maintenance.

Sources: 1) Federal Register, Volume 78, Issue 216, page 66855; 2) "Farm Drainage in the United States; History, Status and Prospects", USDA Economic Research Service, Miscellaneous Publication Number 1455, Summary, December 1987, page v.

Emphasis on Natural Resources Conditions and Trends

1970 - 1979

July 1, 1977 - Reorganization Plan No. IV of 1940 (54 Stat. 1234; June 4, 1940) transferred the Soil Conservation Service's (SCS) "soil and moisture operations" to the Department of Interior. The original interpretation of this statute precluded the SCS from conservation projects on Tribal lands.

At that time, however, there was no legal basis for Indian Tribes to establish their own conservation districts.. This changed with the enactment of the Indian Self-Determination and Education Assistance Act of 1975 (P.L. 93-638; January 4, 1975).

The USDA Office of General Counsel issued USDA Interagency Memorandum #28 on July 1, 1977, which provided for a reinterpretation of Reorganization Plan No. IV of 1940. Its reinterpretation established that the SCS could work on Tribal lands that are situated within the boundaries of a conservation district. .

Source: "Conservation and Culture: The Soil Conservation Service, Soil Science, and Conservation on Tribal Land in the Southwest, 1934-1994." Rebekah C. Beatty Davis, USDA Natural Resources Conservation Service. July 1997.

August 3, 1977 - The Rural Abandoned Mine Program (RAMP) was authorized by Section 406 of the Surface Mining Control and Reclamation Act of 1977 (Public Law 95-85). RAMP was authorized for the purpose of reclaiming the soil and water resources of rural lands adversely affected by past coal mining practices. The program was administered by the Soil Conservation Service (SCS), which provided technical and financial assistance to land users to voluntarily enter into 5-to 10-year contracts for the reclamation of eligible abandoned coal-mined lands and waters. A reclamation plan was prepared by the land user with SCS assistance, including financial cost-share. SCS provided its RAMP assistance under cooperative agreements with States and the U.S. Department of Interior's Office of Surface Mining. Coordination of RAMP activities in a State was accomplished through a State Reclamation Coordinating Committee. Funding for RAMP came from a per-ton reclamation tax levied on each ton of coal mined in the United States.

Sources: 1) "Deputy Chief for Programs: Mission, Functions, and Responsibilities, Briefing Booklet", USDA Soil Conservation Service, December 1992, pages 11and 12; 2) "Farmland or Wasteland: A Time to Choose, Overcoming the Threat to America's Farm and Food Future", R. Neil Sampson, 1981, page 383.

September 29, 1977 - The Food and Agriculture Act of 1977 (Public Law 95-113) was passed and called for the U.S. Department of Agriculture to take a closer look at sources and solutions for point and nonpoint farm pollution, including animal waste; and, to increase the targeting of its resources for water quality improvement.

Source: "History and Outlook for Farm Bill Conservation Programs", Choices, Zachary Cain and Stephen Lovejoy, 4th Quarter 2004, page 39.

November 18, 1977 - Congress passed the Soil and Water Resources Conservation Act (RCA) as Public Law 95-192 of 1977 to conserve, protect, and enhance the Nation's natural resources for future uses. Congress enacted this law because there was widespread concern about future food supplies and about environmental degradation.

The Consolidated Farm and Rural Development Act of 1972 (Public Law 92-419) and the Soil and Water Resources Conservation Act of 1977 directed the Soil Conservation Service to assess the status, condition, and trends of soil, water, and related natural resources on non-federal lands. The first National Resource Inventory (NRI) was conducted and, until 1997 was done on a five-year cycle. Beginning in 2000, the NRI was transitioned to a continuous inventory process, where data on critical natural resource issues was collected annually. The NRI was developed to augment the Soil Survey Program to provide more comprehensive natural resource information.

These assessments also were intended to serve as a basis for improvement and for planning future conservation activities. It is recognized that the results of these acts were one of the instrumental factors in the passage of the Conservation Provisions in the 1985 Farm Bill.

Source: "Soil Conservation in the 1980s: A Historical Perspective", The History of Soil and Water Conservation, The Agricultural History Society, Edited by Douglas Helms and Susan L. Flader; Sandra S. Batie, 1985, pages 14 - 21.

November 28, 1977 - The Secretary of Agriculture and Soil Conservation Service (SCS) established formal memoranda of understanding with the Parker County Soil and Water Conservation District (SWCD). This was the first Indian conservation district established by the Lower Colorado River Indian Tribes (CRIT) in July 1957.

Source: "Conservation and Culture: The Soil Conservation Service, Soil Science, and Conservation on Tribal Land in the Southwest, 1934-1994." Rebekah C. Beatty Davis, USDA Natural Resources Conservation Service. July 1997.

December 27, 1977 - The Clean Water Act of 1977 (Public Law 95-217) amended Section 208 of the Federal Water Pollution Control Act to provide for the establishment of a Rural Clean Water Program (RCWP). Section 208 (j) authorized the U.S. Department of Agriculture, acting through the Soil Conservation Service (SCS), to establish a program to enter into 5-to 10-year land treatment contracts with rural landowners and operators to assist them to install and maintain best management practices (BMPs) to control nonpoint sources for improved water quality. The SCS assisted with planning and installing conservation systems in 21 authorized experimental watersheds across the U.S., ranging from 5,000 to over 623,000 acres in size.

Emphasis on Natural Resources Conditions and Trends

1970 - 1979

RCWP also authorized SCS to transfer funds to State and local governments, including State water-quality agencies and conservation districts, to carry out RCWP. SCS field staff worked closely with conservation districts to implement RCWP on the ground. RCWP provided SCS and its partners a view into the complex scientific, economic, and social issues related to the movement of materials through and over the soil to water bodies.

Source: "Water Quality in the Natural Resources Conservation Service: A Historical Overview", *Agricultural History*, Volume 76; Number 2; Douglas Helms, Douglas J. Lawrence, Patricia J. Lawrence, and Peter F. Smith; Spring 2002; page 302.

February 22, 1978 - The Agricultural Conservation Program Navajo Project, a USDA-wide effort to identify institutional barriers that hinder Tribal participation in programs, was initiated. The Agricultural Stabilization and Conservation Service (ASCS) evaluated the adequacy of the delivery system for its programs, including the Agricultural Conservation Program (ACP), and planned to develop ways to improve ASCS program services to these Native Americans. In addition, the Soil Conservation Service (SCS) did similarly with its soil and water conservation program development, and the Cooperative Extension Service was asked to expand its conservation education programs for the Navajo Tribe.

Source: "Agricultural Conservation Program Navajo Project", *Hearings, Reports, and Prints of the Senate Committee on Agriculture, Nutrition, and Forestry*; 1978.

July 1, 1978 - The Cooperative Forestry Assistance Act of 1978 (Public Law 95-313), as amended, consolidated a broad range of State and private forestry assistance program authorities involving fire, forest management, forest health, wood utilization, urban forestry, and organizational management assistance to State forestry agencies. The Act also authorized the Forestry Incentives Program administered by the Soil Conservation Service. The program served to plant trees and improve timber stands to increase supplies from nonindustrial private forest lands. The Act also authorized a more flexible funding method, using consolidated payments to replace the many functional grants and formulas previously used.

Sources: 1) "Public Law 95-313; 92 Stat. 365; 2) "Allocating Cooperative Forestry Funds to States: Block Grants and Alternatives: A Report to the USDA Forest Service"; Pinchot Institute for Conservation, April 2001, page 7.

August 4, 1978 - The Agricultural Credit Act of 1978 (Public Law 95-334), as amended, authorized the Emergency Conservation Program (ECP), with the Agricultural Stabilization and Conservation Service the lead to administer it for the U.S. Department of Agriculture. The program's purpose through cost-sharing, and with technical assistance from the Soil

Conservation Service, was to repair agricultural land damaged by natural disasters and conserve water during severe droughts.

Sources: 1) "Disaster Assistance Fact Sheet - Emergency Conservation Program", USDA Farm Service Agency, October 2017; 2) "Emergency Conservation Program", Federal Grants Wire on Web at Home/ Department of Agriculture/ Farm Service Agency/ Emergency Conservation Program.

August 13, 1978 - The Soil Conservation Service (SCS) established the Parker County field office, its first field office on Tribal lands.

Source: "Conservation and Culture: The Soil Conservation Service, Soil Science, and Conservation on Tribal Land in the Southwest, 1934-1994." Rebekah C. Beatty Davis, USDA Natural Resources Conservation Service. July 1997.

1978 - The U.S. Department of Agriculture's (USDA) Agricultural Research Service (ARS) became part of the Science and Education Administration (SEA), with its labs and various regional research centers becoming part of this new umbrella organization. The SEA consisted of ARS, the Cooperative State Research Service, Extension Service, and the National Agricultural Library. In June 1981, the SEA's Agricultural Research Staff and the associated labs and regional research centers were returned to USDA control, reassuming the former Agricultural Research Service (ARS) name.

Source: "Science and Education Administration", website at www.archives.gov

1978 - The Soil Conservation Service purchased and deployed Harris remote computer terminals, which allowed engineers to access engineering software at the U.S. Department of Agriculture's Washington Computer Center and obtain results in a day or less. The Harris computers also enabled soil scientists to directly access soils data on mainframe computers to produce key reports.

Source: "An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)", Jack Carlson, Retired NRCS CIO, November 27, 2009; page 3.

December 1979 - Publication of the Department of Interior Fish and Wildlife Service's "Classification of Wetlands and Deepwater Habitats of the United States," replaced Circular 39, "Wetlands of the United States," published in 1956, on which Soil Conservation Service wetlands policy was based.

Sources: "Wetlands of the United States: Their Extent and Their Value to Waterfowl and Other Wildlife", Circular 39, U.S. Department of Interior Fish and Wildlife Service, Samuel P. Shaw and C. Gordon Fredine, 1956, 67 pages.



Conservation Woven Into The Fabric of Farm Policy

1980 - 1989

"But fifty years have taught us that no single program, no single agency, no single organization can solve the nation's soil and water resource problems alone. No single approach – federal, State or local has all the answers."

Peter C. Myers, Chief, Soil Conservation Service; "50 Years of Soil and Water Conservation Symposium Proceedings", April 1985.

CONSERVATION WOVEN INTO THE FABRIC OF FARM POLICY

1980 - 1989

“The heart of the soil and water conservation job in conservation districts was the conservation plan, a guide to land use and conservation treatment. Tailored to each farm or land unit, it is developed by the farmer and a professional conservationist working together.”

“For the Love of the Land: A History of the National Association of Conservation Districts”, R. Neil Sampson, National Association of Conservation Districts, League City, Texas, 1985, page 18.

If for no other reason, the decade of the 1980s had an “earthquake-like” impact on voluntary private lands conservation because of the introduction to agriculture of the Food Security Act of 1985 (1985 Farm Bill). As former Soil Conservation Service (SCS) Chief and then Deputy Secretary of Agriculture Peter C. Myers said in 1988, the 1985 Farm Bill had “woven...conservation efforts into the very fabric of farm policy.” It was the first Farm Bill to have a specific title dedicated to conservation and introduced Conservation Compliance, Sodbuster, Swampbuster, and the Conservation Reserve Program into mainstream agriculture and U.S. Department of Agriculture (USDA) responsibilities. If an agricultural producer was to maintain his/her eligibility for USDA program benefits, he/she would now have to meet certain USDA requirements for protecting highly erodible lands and wetlands, and satisfy soil erosion control standards for farmland. The impact to Agricultural Stabilization and Conservation Service (ASCS) and SCS staff across much of the nation was equally dramatic and the agencies struggled for years to meet the workload demands, new complexities, and sometime controversies related to helping producers meet the intent of this monumental conservation legislation.

The 1985 Farm Bill also introduced State Technical Committees and Local Working Groups for advisory purposes to make recommendations to USDA related to the implementation and technical aspects of its conservation programs. In 1988, then SCS Chief Wilson Scaling issued national guidance on the use of “alternative conservation systems” (ACS) in carrying out the highly erodible lands provision. The development and use of ACS’s addressed in part the controversy associated with SCS’s administration of the “soil loss tolerance” (T) requirements and supported the Congressional Conference Committee report on the 1985 Act, which stated it was not the intent of the Conferees to cause undue hardship on producers in complying with the new conservation provisions.

Conservation Woven Into The Fabric of Farm Policy

1980 - 1989

Partly in response to the workload challenges of administering the 1985 Farm Bill's conservation provisions, and partly attributed to the evolving computer technology and the opportunities it afforded for greater workforce efficiency and effectiveness, major information technology developments took place for SCS field offices. First, desktop personal computers began to arrive in the early 1980s, and then software development efforts began to be realized. Under a USDA contract, SCS deployed microcomputers and software to all its offices. By 1988, the Computer Assisted Management and Planning System (CAMPS) was deployed to SCS field offices, including linkage to a geographic information system called SCS-GRASS. In 1989, the Grazing Lands Application was deployed to provide a functional planning tool that helped range conservationists to record, organize, analyze, and transfer vast amounts of information to assess best practices for grazing operations. It was also in 1985, under legislative authority gained in 1981, that SCS implemented the Earth Team Volunteer Program to assist in meeting workload demands from the Farm Bill.

Secretary's Memorandum No. 2006, issued on January 18, 1980, was significant because of its extension of eligibility for all USDA services to American Indians on Tribal lands. This directive was a significant departure from Reorganization Plan No. IV of 1940 that had transferred soil and moisture conservation operations on Tribal lands to the Department of Interior.

Other developments in the 1980s included USDA's launch of a national program to target conservation efforts on critical natural resource problem areas in 1981, focusing more of existing appropriations in these geographic areas. Further efforts in 1983 by SCS to shift resources to problem soil erosion areas met with some partner concerns and led the Congress to freeze this shift of resources to targeted areas in 1984.

In 1981, the SCS launched a new system to make objective ratings of the agricultural suitability of land against demands for other uses - - the Land Evaluation and Site Assessment (LESA) system. The LESA system also became a procedural tool at the federal level to assess the impact of federal programs on farmland protection. Also, first in 1980 as the National High Altitude Photography (NHAP) and later in 1986 as the National Aerial Photography Program (NAPP), the Agricultural Stabilization and Conservation Service (ASCS) was a key leader in acquiring aerial photography/orthophotography for conservation and other uses.

In 1983, Departmental Regulation 9500-3 (Land Use Policy) gave SCS responsibility to assist units of government in protecting natural resources by carrying out sound land-use technical assistance, recognizing the regulatory roles of States and local governments. In 1988, SCS established liaison positions in a number of U.S. Environmental Protection Agency offices, and with State and local water quality agencies, to work on Section 208 planning, the design of best management practices, the compilation of technical data, and the coordination of information exchange.

The formation of a new national-level core conservation and development partner for USDA took place in 1988 when the National Association of Resource Conservation and Development

Councils (NARC&DC) was established as a nonprofit 501(c)(3) to assist RC&D Councils in developing partnerships; acting as a liaison between Councils, foundations, and government agencies; and providing training and help to solve the challenges faced by RC&D Councils. It was 1982 when the Conservation Technology Information Center (CTIC) was formed as a special independent project of the National Association of Conservation Districts to serve as a national public-private partnership to champion, promote, and provide information on technologies and systems to conserve natural resources so they are productive and profitable. Toward the close of the decade in 1989, the National Watershed Coalition was formed as a partnership-based 501(c)(3) to advocate for addressing natural resource problems and issues using watersheds as the planning and implementation unit.

Chronology

Early 1980s – Desktop personal computers began to enter the Soil Conservation Service office environment. Before this, all computing was done at the State office, Center, or National Headquarters levels.

Source: "An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)", Jack Carlson, Retired NRCS CIO, November 27, 2019.

January 18, 1980 – The Secretary of Agriculture issued a Secretary's Memorandum No. 2006, "Conservation Assistance to Indians on Tribal Lands." This extended eligibility for all USDA services to the American Indians on Tribal lands. This was a significant departure from the Reorganization Plan No. IV of 1940 (54 Stat. 1234), which transferred soil and moisture conservation operations on Tribal Lands to the Department of the Interior.

As of June 2009, the Natural Resources Conservation Service (NRCS) had 45 full-time and 30 part-time field offices on Indian lands. There were approximately 150 full-time NRCS Tribal liaisons serving 562 federally recognized Tribes. Also, as of June 2009, the NRCS had mutual agreements with 31 Tribal conservation districts. Most of the conservation districts on reservation lands are organized under Tribal law.

In December 2006, the Bureau of Indian Affairs (BIA), the Farm Service Agency (FSA), and the NRCS entered into a Memorandum of Understanding (MOU) that recognized the common objectives of consulting with Indian landowners and Indian Tribes, and promoting best management practices for Indian lands with regard to managing and conserving natural resources. This MOU defined the responsibilities of each agency to ensure they worked toward their shared goals through communication and cooperation.

Conservation Woven Into The Fabric of Farm Policy

1980 - 1989

Both FSA and NRCS recognize the trust responsibility relationship between the federal government and Indian Tribes as established by specific statutes, treaties, court decisions, executive orders, regulations, and policies.

Sources: 1) "NRCS Work with Tribal Conservation Districts", He Loved to Carry the Message: The Collected Writings of Douglas Helms, Douglas Helms, 2012, page 318; 2) "Key Tribal Policies, Procedures and Partnerships: A Reference Guide for NRCS Employees", General Manual Title 410 - National Instruction, USDA NRCS, June 2009, 11 pages; 3) "Conservation and Culture: The Soil Conservation Service, Soil Science, and Conservation on Tribal Land in the Southwest, 1934-1994." Rebekah C. Beatty Davis, USDA Natural Resources Conservation Service. July 1997.

February 1, 1980 - The Science and Education Administration (preceded by the Agricultural Research Service (ARS) and replaced again by ARS in 1981), in conjunction with the U.S. Department of Agriculture, released *CREAMS: A Field Scale Model for Chemicals, Runoff, and Erosion from Agricultural Management Systems* as part of Conservation Research Report #26. CREAMS described a mathematical model for evaluating non-point source pollution from field-sized areas, using hydrology, erosion/sedimentation, and chemistry with the goal of selecting best management practices.

Source: "CREAMS: A Field Scale Model for Chemicals, Runoff, and Erosion From Agricultural Management Systems", Conservation Research Report, Number 26, USDA Science and Education Administration, February 1980, pages 1-13.

March 18, 1980 - The Agricultural Appropriations Act of 1980 (Public Law 96-213) authorized a \$50 million experimental Rural Clean Water Program (RCWP) to be administered by the Agricultural Stabilization and Conservation Service (ASCS). This experimental program was not based on authorization from the Clean Water Act, but was authorized solely in the appropriations bill. ASCS was directed to run the program without allowing a state or local role in program administration. The RCWP eventually targeted twenty experimental watershed areas characterized by water quality issues and a variety of agricultural production types. RCWP showed mixed results in demonstrating improvements in water quality resulting from conservation practices and systems in these twenty watersheds. RCWP was successful in providing a window into the complex scientific, economic, and social issues related to the movement of nutrients and other supplements over the soil to water bodies.

Source: "Farmland or Wasteland: A Time to Choose, Overcoming the Threat to America's Farm and Food Future", R. Neil Sampson, 1981, page 275.

November 24, 1980 - The Agricultural Stabilization and Conservation Service's (ASCS) report titled "National Summary Evaluation of the Agricultural Conservation Program (ACP)" was released. The evaluation was undertaken at the request of the President.

This evaluation involved an intensive effort to develop analytical information useful in making decisions about ACP, including data from a sample of 61,000 cost-shared practices from four program years across 171 counties in 46 States.

The report concentrated on identifying ways to increase the amount of soil and water saved through ACP, with opportunities identified to reduce the cost of conserving soil and water. It did not address the value of the benefits of soil or water conservation, the cost of technical assistance, nor the impacts of conservation practices on the farmer's cost of production.

Originally authorized as a temporary program in the 1936 Soil Conservation and Domestic Allotment Act (that had amended the 1935 Soil Conservation Act), ACP operated until the passage of the 1996 Farm Bill. ACP had different purposes, goals, and policies over its operations of more than 60 years. At first, ACP functioned partially as a means to transfer federal funds to farmers struggling to survive when the agriculture sector was severely depressed in the late 1930s. ACP was also used to encourage farmers to shift land use and provided educational services through demonstration projects.

Controversy in the 1970s centered on ACP's focus on control (State and county versus National) and its effectiveness in conserving soil and water resources as opposed to providing assistance for production-oriented practices. Beginning in the 1979 program year, changes in appropriations language relaxed the constraints on the Secretary's authority to administer ACP and mandated increases in its problem-solving orientation.

Source: "National Summary Evaluation of the Agricultural Conservation Program - Phase I", USDA Agricultural Stabilization and Conservation Service, November 24, 1980; 65 pages, plus Appendices.

1980 - The National High Altitude Photography (NHAP) program was initiated in 1980 and coordinated by the U.S. Geological Survey (USGS) to acquire aerial photography of the 48 conterminous United States every five years. It was established as an interagency program to eliminate duplicate efforts and maximize the use of government funds to build a uniform archive for multiple uses. Both the Agricultural Stabilization and Conservation Service and Soil Conservation Service were key cooperators with USGS and remain so today under the National Aerial Photography Program (NAPP), the new name adopted in 1986.

Source: "Mapping, Remote Sensing, and Geospatial Data", U.S. Geological Survey Website, November 13, 2019.

Conservation Woven Into The Fabric of Farm Policy

1980 - 1989

December 22, 1981 - The Agriculture and Food Act of 1981 (Public Law 97-98) included a section on Special Areas Conservation Programs based in part on the experience of the Great Plains Conservation Program. The U.S. Department of Agriculture (USDA) did not request additional funds for these special areas, but did target some problem areas for the allocation of extra funds out of its existing appropriations.

USDA launched a national program to target conservation efforts on critical resource problem areas in the spring of 1981. The impetus for this policy option to achieve conservation goals came about as a central thrust of planning under the Soil and Water Resources Conservation Act (RCA) of 1977 and was seen as a way of increasing public expenditures on conservation. Both the Soil Conservation Service and the Agricultural Stabilization and Conservation Service were the key agencies in planning and implementing this targeting, with the Agricultural Research Service and the Economic Research Service providing research support.

Sources: 1) "Conserving the Plains: The Soil Conservation Service in the Great Plains", *Agricultural History*, Volume 64, Number 2, Douglas Helms, Spring 1990, pages 69 and 70; 2) "Targeting Erosion Control: Economic Effects", U.S. Department of Agriculture Agricultural Research Service and Economic Research Service, Conservation Research Report Number 36, May 1987, 38 pages.

1981 - The Soil Conservation Service established the first Senior Information Resources Management Officer (SIRMO) position, with both a supporting division, and with a National Information Resources Management Committee to advise the SIRMO.

Source: "An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)", Jack Carlson, Retired NRCS CIO, November 27, 2009.

1981 - The Soil Conservation Service launched a new system to make objective ratings of the agricultural suitability of land against demands for other uses. The Land Evaluation and Site Assessment (LESA) system was designed to help elected officials, citizens, farmers, soil conservationists, and planners rate a tract's soil potential for agriculture, as well as social and economic factors, such as location, access to markets, and adjacent land use.

Soon after it was designed, LESA became a procedural tool at the federal level for identifying and taking into account the adverse effects of federal programs on farmland protection, and to ensure that federal programs, to the extent practical, were compatible with State, local, and private programs and policies to protect farmland. These farmland protection requirements were spelled out in Title I of the Agriculture and Food Act of 1981 (Public Law 97-98) and its subsequent amendments.

Source: "A Decade with LESA: The Evolution of Land Evaluation and Site Assessment", Edited by Frederick R. Steiner, James R. Pease, and Robert E. Coughlin, 1999.

April 1982 - The Soil Conservation Service (SCS) opened its first office in Guam (at Agana) at the University of Guam. Located nearly 4,000 miles from the nearest SCS office in Hawaii, the Guam office is east of the international dateline from Hawaii. Secretary of Agriculture John Block authorized this expanded technical assistance under the Appropriations Act of December 24, 1980 for Certain Insular Areas of the United States (Public Law 96-597), governing U.S. Department of Agriculture assistance to the territories. Previous SCS work had been limited to some soil survey work reimbursed by the island governments.

The territories now covered under this expanded technical assistance included Guam, the Northern Mariana Islands, the Trust Territory of the Pacific Islands, and American Samoa. The more than 2,000 islands span several million square miles over a distance of more than 3,000 nautical miles. The combined land area is just over 500,000 acres.

Source: "SCS Office in Guam Opens for Business", Soil and Water Conservation News, September 1982, page 7.

1982 - The Conservation Technology Information Center (CTIC) was established in 1982 by a group of agribusinesses, government agencies, and association partners and opened its doors in 1983 as a special independent project of the National Association of Conservation Districts (NACD). Establishment of CTIC culminated nearly 18 months of effort by an ad-hoc group representing the agricultural industry, the U.S. Department of Agriculture, the U.S. Environmental Protection Agency, private foundations, the Soil Conservation Society of America, and NACD. CTIC was originally headquartered in NACD's Washington, D.C. office, with a field office in Fort Wayne, Indiana. The Center began operation with a \$50,000 challenge grant to NACD from the Joyce Foundation. The grant was provided on the basis that industry would provide at least \$25,000 in matching start-up funds, which was met.

CTIC, a nonprofit 501(c)(3) organization, resulted from recognition that a gap existed with respect to the flow of information between the public and private sectors on conservation tillage. The CTIC served as a clearinghouse for reviews, communicated new research technologies, and instructed on innovative approaches. It provided conservation districts and others who influence on-farm management decisions with accurate information about crop yields and economic values. This national public-private partnership continues to champion, promote, and provide information on technologies and sustainable agricultural systems that conserve and enhance soil, water, air, and wildlife resources and are productive and profitable.

The Soil Conservation Service (SCS) assisted CTIC with the National Crop Residue Management Survey starting in 1983. After the 2004 data collection cycle, the Natural Resources Conservation Service (NRCS) no longer required field staff to collect the data. Since then, CTIC has encouraged local partners to collect the data on a voluntary basis. The survey was instrumental in estimating acres under conservation tillage and trends over time. Survey

Conservation Woven Into The Fabric of Farm Policy

1980 - 1989

results have been used to assess the success of programs and initiatives, document farmer fuel savings, prioritize areas for program focus, and provide assessment data as a core component of local watershed management plans.

Source: Conservation Technology Information Center website under "Crop Resource Management Survey", as of November 15, 2019.

1983 - The Soil Conservation Service (SCS) undertook an effort to shift resources to problem soil erosion areas because these areas often did not align with areas of the greatest concentration of SCS personnel. SCS began adjusting the formulas for allocating funds and personnel to States by giving greater weight to these targeted soil erosion areas. In 1984, Congress froze these allocation and personnel adjustments for soil erosion targeting based on partner concerns about loss of these resources in non-target areas.

Source: "Delivering Technical and Financial Assistance: Targeting Erosion Control", A Report from a National Research Project, U.S. Department of Agriculture Economic Research Service and Agricultural Research Service, Conservation Research Report Number 33, October 1985; 73 pages plus Appendices.

March 22, 1983 - U.S. Department of Agriculture Departmental Regulation 9500-3 ("Land Use Policy") gave the Soil Conservation Service responsibility to assist units of government in protecting natural resources and carrying out sound land-use technical assistance while recognizing the regulatory roles of State and local governments.

Source: "Land Use Policy", Departmental Regulation Number 9500-3, U.S. Department of Agriculture, March 22, 1983.

October 1, 1983 - The Soil Conservation Service (SCS), the Agricultural Stabilization and Conservation Service (ASCS), and the Forest Service began using the Conservation Reporting and Evaluation System (CRES), a national reporting system, to collect, store, retrieve, and analyze data on land treatment practices for conservation programs for ASCS, FS, and SCS provided technical and/or financial assistance.

Memorandums of Understanding between ASCS, FS, and SCS established a cooperative relationship between these agencies to carry out CRES. Comparative data from CRES was used to make adjustments to programs to allocate resources more effectively.

Source: "Conservation Reporting and Evaluation System (CRES)", Departmental Manual Number 9500-001, U.S. Department of Agriculture, December 22, 1993; 7 pages, Plus Appendices.

October 3-5, 1984 - "Conservation Tillage: Strategies for the Future", the first ever national conference on conservation tillage, was held in Nashville, Tennessee on October 3-5, 1984. The conference drew over 800 participants from throughout the U.S. and some foreign countries. Participants included farmers, agribusiness representatives, scientists, educators, professionals in government and agriculture policy, and representatives from environmental and other public interest groups.

This conference had 65 diverse sponsors and provided an opportunity for dialogue on key issues and the implications of the rapidly increasing adoption of conservation tillage. The conference had four major focus areas: production technology, ecological issues, economics, and public policy. This organizational structure enabled participants to create focal points for future conservation tillage research, education, policy, and development agendas.

Source: "Conservation Tillage: Strategies for the Future", Conference Proceedings, National Conference; October 3-5, 1984; Opryland Hotel, Nashville, Tennessee (Date Stamped as Received on April 8, 1985).

April 2, 1985 - Soil Conservation Service (SCS) Chief Peter C. Myers provides to Secretary of Agriculture John R. Block a report titled "Evaluation of Conservation Technical Assistance: Part 1, National Summary." The evaluation was carried out under the authority of the Soil and Water Resources Conservation Act of 1977 and covered activities of SCS field offices based on data collected during 1983. The evaluation reported that the Conservation Technical Assistance (CTA) Program met its objectives and was managed according to Departmental and agency policies.

The evaluation report, however, contained six major recommendations as follows:

- "Strengthen SCS guidelines for providing erosion-control work.
- Clarify the definition of water conservation and the role of CTA in water-conservation.
- Improve guidelines for range-conservation assistance.
- Increase the proportion of the CTA effort that provides direct assistance to land users.
- Improve the SCS time- and progress- reporting system.
- Broaden future CTA evaluations."

Chief Myers' April 2, 1985 report to the Secretary indicated SCS was already implementing actions to improve the CTA Program at field offices in response to the evaluation. Nine actions were identified as completed or underway; six other major actions were identified in the report for future implementation.

Source: "Evaluation of Conservation Technical Assistance: Part 1 - National Summary", USDA Soil Conservation Service, April 2, 1985; 60 pages.

December 23, 1985 - The Food Security Act of 1985 (Public Law 99-198) established highly erodible land (HEL) conservation and Sodbuster, reduction of wetland conversion (Swampbuster), and the Conservation Reserve Program (CRP). This Farm Bill also required a soil map on all land considered highly erodible so that a conservation plan could be implemented on the land by December 31, 1989. The U.S. Department of Agriculture's Soil Conservation Service (SCS) was given the technical responsibility for implementing three main conservation provisions of the Act: "Conservation Compliance; Sodbuster; and Swampbuster." The Agricultural Stabilization and Conservation Service had responsibility for administering CRP.

Title XII of the Food Security Act of 1985 was entitled simply "Conservation", but the provisions it contained and the sweeping changes it set in motion have, in many respects, redefined the term "conservation" as previously used in American agriculture. The most central change - conservation no longer implied farmers' activities or government programs, separately and unequally, outside the mainstream of the ag economy and farm policy making. The 1985 Farm Bill had "*woven...conservation efforts into the very fabric of farm policy*", per Deputy Secretary of Agriculture Peter C. Myers, May 9, 1988. It was the first Farm Bill to have a specific title devoted to conservation.

The 1985 Act's new array of conservation provisions was designed to link soil and related natural resources conservation to eligibility for other U.S. Department of Agriculture (USDA) programs. The framers of the various provisions especially wanted to eliminate the possibility that commodity price support programs would encourage poor soil conservation practices or the loss of wetlands.

Congress also authorized the Conservation Reserve Program (CRP) in the 1985 Food Security Act. The CRP's conservation goals originally were focused on soil erosion and water quality. This new CRP did not have the whole farm requirement of the Soil Bank's CRP from the 1950's and 1960's. The 1985 Farm Bill's CRP was intended to conserve not only highly erosive lands, but also the conservation of other biologically sensitive and important areas. In essence, the public "rented" the land from farmers to ensure it was taken out of production and placed in a conservation use. The authorized funding for CRP in the 1985 Farm Bill for cost-sharing and rentals represented roughly two-thirds of the increase in USDA's conservation budget from about \$1 billion to \$3 billion annually. CRP was widely supported by farmers, conservationists, and wildlife groups.

Section 1261 of the 1985 Farm Bill provided that the SCS establish State Technical Committees in each State for advisory purposes to make recommendations related to the implementation and technical aspects of USDA's conservation programs and activities with no implementation or enforcement authority. State Technical Committees were composed of agricultural producers, owners and operators of nonindustrial private forest lands, and other professionals who represented a variety of interests and disciplines in the soil, water, wetlands, plant, and wildlife sciences.

The 2008 Farm Bill amended the 1985 Act to state that Local Working Groups were to be considered a subcommittee of the applicable State Technical Committee, and thus were exempt from the Federal Advisory Committee Act (FACA).

The Agricultural Stabilization and Conservation Service Administrator and SCS Chief signed a Memorandum of Understanding on January 9, 1990 to clearly identify each agency's area of responsibility in carrying out the provisions of the 1985 Act, including areas of coordination and data sharing such as checking the producer's annual certification of compliance with the conservation provisions.

"We should not underestimate the enormity or complexity of the tasks [ahead]...The Department of Agriculture in all of its history has never been asked by Congress or the public to undertake such a broad, comprehensive, consistent, and coordinated program that involved all of its agencies into one problem-solving enterprise." Assistant Secretary of Agriculture George Dunlop, November 3, 1987 at the conference, "American Agriculture at the Crossroads, A Conservation Assessment of the 1985 Food Security Act", Kansas City, Missouri.

Sources: 1) "History and Outlook for Farm Bill Conservation Programs", Choices, Zachary Cain and Stephen Lovejoy, 4th Quarter 2004, pages 39 and 40; 2) "Technical Assistance: The Engine of Conservation", USDA NRCS, Historical Insights Number 5, March 2005, pages 3 and 4.

1985 - The Soil Conservation Service (SCS) gained the authority to use volunteers as Congress passed new legislation (Section 1526 of Public Law 97-98, Agriculture and Food Act of 1981) in 1981. In 1982, a small volunteer program was initiated. The volunteer effort was expanded and organized as the Earth Team in 1985, primarily because the 1985 Farm Bill significantly increased the workload of SCS. These volunteer services could be utilized as long as these individuals did not displace any U.S. Department of Agriculture employees. Based on available records from FY1999 through FY2019, a 20-year period, 737,268 Earth Team volunteers donated more than 13,754,220 million hours during that time period alone.

Sources: 1) Email exchange between Farm Production and Conservation Business Center employees Terry Bish and Jon Vrana dated October 16, 2019 at 1:12PM; "With One Voice: The National Association of Conservation Districts", R. Neil Sampson, 2009, pages 203 and 204.

1985 - The Soil Conservation Service (SCS) formed the Field Office Software Support Team (FOSST) at Fort Collins, Colorado to build and deploy the Computer Assisted Management and Planning System (CAMPS), the first field-level automation system. Concurrently, in September 1985 the SCS established the Field Office Communications and Automation System (FOCAS) under the U.S. Department of Agriculture's Agriculture Microcomputer Productivity System (AMPs) contract with Electronic Data Systems (EDS) to acquire and deploy

microcomputer systems, related equipment, and software for all of its offices - along with training, maintenance, and supplies.

As reported in the SCS's August 1989 issue of "Current Developments", an internal survey showed the benefits of FOCAS outweighed the costs by nearly two to one, consistent with previous estimates. The survey included seven State offices (IA, KS, MS, NY, OR, TX, UT), six area offices, and 20 field offices. The results showed that, on average, field offices would improve efficiency by 34 percent over the life of FOCAS.

Sources: 1) "Implementing FOCAS; Part 2: Putting FOCAS to Work"; USDA Soil Conservation Service, FOCAS Implementation Team, February 1986; 2) "FOCAS Benefits Outweigh Costs", Current Developments, USDA Soil Conservation Service, August 1989, pages 5 and 6; 3) "Conservation Toolkit for the Next Century", Soil and Water Conservation News, USDA NRCS, Volume 10, Number 6, September 1989, pages 5 and 6.

October 22, 1986 - The Tax Reform Act of 1986 (Public Law 99-514) Revised Section 175(c)(3) of the Internal Revenue Code regarding soil and water conservation expenditures for deduction on a taxpayer's return. Expense deductions under Section 175 were limited to those that were consistent with a conservation plan approved by the Soil Conservation Service (SCS), or in the absence of such a plan, a plan of a comparable State conservation agency. The taxpayer, not SCS, was responsible for certifying that their Section 175 expense for conservation expenditures was based on the plan approved by the SCS or the comparable State agency.

Source: "CPA-Tax Reform Act of 1986", New York Bulletin No. NY180-9-2, USDA Soil Conservation Service, December 8, 1988.

1986 - The Agricultural Stabilization and Conservation Service's National High Altitude Photography (NHAP) Program was revised to a one-camera, 1:40,000 scale program with a choice of using either color infrared or black and white film. This larger scale provided the detailed additional image resolution desired by soil surveyors and conservation planners. In 1987, the Program name was changed to the National Aerial Photography Program (NAPP) in recognition of modifications in the user requirements and flight specifications. With scales of 1:12,000 and 1:24,000 for the orthophotography made from NAPP imagery, these orthophotographs serve as the soil survey base maps used by the Natural Resources Conservation Service.

Source: "Mapping, Remote Sensing, and Geospatial Data", U.S. Geological Survey Website, November 13, 2019.

November 1, 1987 - *"We knew things would change when the conservation provisions of the 1985 Farm Bill became law. But nobody knew how much."*

Source: Peter C. Myers, Deputy Secretary, USDA; "American Agriculture at the Cross Roads: A Conservation Assessment of the 1985 Food Security Act"; November 1-3, 1987 Conference in Kansas City, Missouri; Summary Prepared for SWCS by Kenneth A. Cook, Senior Associate, The Conservation Foundation.

January 19, 1988 - The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) releases its proposed "Plan of Action" to help improve the representation of minorities and females on Soil and Water Conservation Districts Boards, Councils, and Committees." Through cooperative efforts with District Boards and their leadership, the SCS sought to ensure USDA's programs and services were available to landusers without regard to race, color, national origin, sex, age, disability, or religion. This Plan of Action included four major goals and 15 specific actions. It was accepted and approved by the Secretary of Agriculture.

On May 2, 1998, the Chief of SCS (Wilson Scaling) and the President of the National Association of State Conservation Administrators (NASCA) issued a joint memorandum regarding shared ideas and efforts to achieve broader representation of females and minorities on local District Boards. It was acknowledged that the goals of the January 1988 SCS Plan of Action only could be achieved through the necessary leadership and collaborative action of NASCA, local conservation districts, and their National, Regional, and State Associations. SCS had no authority to engage with conservation district elections or the appointment of individual district directors (supervisors), but it did have a history of assisting local boards by providing the names of capable conservationists for consideration, upon request.

Source: 1) Master's Memo Prospectus, Thomas W. Christensen, Public Policy Graduate Student and Soil Conservation Service Area Conservationist, Institute of Policy Science and Public Affairs, Duke University, June 27, 1990; 2) Soil Conservation Service General Manual (230-GM), June 1988.

May 3, 1988 - Soil Conservation Service (SCS) Chief Wilson Scaling's national bulletin on the use of "alternative conservation systems (ACS)" in the context of Highly Erodible Lands (HEL) under Title XII of the Food Security Act of 1985 makes definitively clear to all within SCS that *"ACS are to be included in all field office technical guides where there is highly erodible land subject to the compliance provision of the 1985 Food Security Act. ACS will be developed for all HEL soils."* Prior to this bulletin, some SCS State Conservationists were developing ACS only for certain HEL soils, and some State Conservationists were considered too rigid in their use of "T" (soil loss tolerance) as a requirement. (Note: "T" is the maximum erosion level below which a soil's productivity can be sustained indefinitely.)

The development and use of ACS as opposed to the "T" requirement, or "2T" if "T" was impracticable to achieve, was recognition that the applicable conservation system should be

Conservation Woven Into The Fabric of Farm Policy

1980 - 1989

designed to achieve substantial reductions in soil erosion—taking into consideration economic and technical feasibility and other resource factors. The SCS move from “T” (or “2T”) in the interim rule was clarified in the final rule in that “T” was a goal and not a requirement. The move to a less rigid requirement and the application of ACSs was supported by the Congressional Conference Committee report on the original 1985 Food Security Act, which states, *“It is not the intent of the Conferees to cause undue hardship on producers to comply with the provisions. Therefore, the Secretary should apply standards of reasonable judgment of local professional soil conservationists and consider economic consequences in establishing requirements....”*

Sources: 1) “CPA - Inclusion of Alternative Conservation Systems Field Office Technical Guides”, SCS National Bulletin No. 180-8-31, from Chief Wilson Scaling to State Conservationists on the Use of Alternative Conservation Systems, May 3, 1988; 2) “PGM - Food Security Act of 1985”, SCS Memorandum from Chief Wilson Scaling to All State Conservationists on Use of Alternative Conservation Systems, September 21, 1985.

1988 - The Computer Assisted Management and Planning System (CAMPS) was delivered to Soil Conservation Service (SCS) field offices in two versions: DOS CAMPS for offices without mini-computers and UNIX CAMPS for networked offices with mini-computers. This release motivated the development of companion software applications, including data sharing by SCS with the Agricultural Stabilization and Conservation Service.

CAMPS streamlined and automated certain clerical and administrative tasks at SCS field offices. Its linkage with a Geographic Information System (SCS-GRASS: Geographic Resources Analysis Support System) was to support more flexible conservation planning concepts using system approaches.

Source: “Conservation Toolkit for the Next Century”, Soil and Water Conservation News, USDA Soil Conservation Service, September 1989, pages 5 and 6.

1988 - SCS liaison positions with the U.S. Environmental Protection Agency (EPA) were established in a number of EPA offices to provide technical advice on non-point source pollution control and to help coordinate activities in support of the Clean Water Act, especially regarding Section 208 planning and implementation as a means to help meet soil erosion control goals.

Initially, SCS liaison positions were established at EPA national headquarters and in each of its ten EPA regional offices. At the height of this SCS/EPA collaboration, sixty to eighty SCS staff members were detailed to State and local water quality agencies also to work on Section 208 planning, including the design of best management practices, coordination of information exchange, and compiling technical data. These liaison positions largely were eliminated by the late 1990s.

Sources: 1) "Three New SCS EPA Liaisons", Soil and Water Conservation News, USDA Soil Conservation Service, October 1989, page 14; 2) "Water Quality in the Natural Resources Conservation Service: An Historical Overview"; Agricultural History, Volume 76, Number 2; Douglas Helms, Patricia J. Lawrence, Douglas L. Lawrence, Peter Smith; Spring 2002, pages 301 and 302.

1988- The National Association of Resource Conservation and Development Councils (NARC&DC) was formed to assist RC&D Councils in developing partnerships that enhance the quality of life in America's communities. The NARC&DC coordinates the efforts of member RC&D Councils at the national level and acts as a liaison between Councils, foundations, and governments in legislative and inter-governmental activities. The NARC&DC also provides training and helps solve challenges that RC&D Councils face in their efforts to sustain and improve the quality of life in their communities. The NARC&DC is a nonprofit 501(c)(3).

Source: U.S. Congress, House Committee on Appropriations, 2005. Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations for 2006, Part 2, 2005, 109-1 Hearings.

January 10, 1989 - The final version of the "Federal Manual for Identifying and Delineating Jurisdictional Wetlands" is released as an interagency cooperative publication by the U.S. Fish and Wildlife Service, the U.S. Environmental Protection Agency, the U.S. Department of the Army, and the U.S. Department of Agriculture's Soil Conservation Service. The Manual was intended to provide the basis for all federal agencies to identify and delineate jurisdictional wetlands, including wetland determinations under the 1985 Food Security Act. It described technical criteria, field indicators and other sources of information, and methods for identifying and delineating jurisdictional wetlands in the U.S. It was the product of many years of practical experience in wetland identification and delineation by the four cooperating agencies. The Manual was the culmination of efforts to merge existing field-tested wetland delineation manuals, methods, and procedures by these agencies. Interagency training regarding use of this new manual was slated to be conducted in fiscal year 1990.

Source: "Federal Manual for Identifying and Delineating Jurisdictional Wetlands", Federal Interagency Committee for Wetland Delineation; US ACE, US EPA, US F&WS, USDA SCS, Washington, D.C.; Cooperative Technical Publication, January 10, 1989, 76 pages, plus appendices.

January 1989 - The U.S. Department of Agriculture's (USDA) Conservation Reserve Program Work Group released "The Conservation Reserve Program: Progress Report and Preliminary Evaluation of the First Two Years" in January 1989. The Work Group's participating USDA offices and agencies included the Agriculture Stabilization and Conservation Service, Economic Research Service, Extension Service, Forest Service, Office of Budget and Program

Conservation Woven Into The Fabric of Farm Policy

1980 - 1989

Analysis, and Soil Conservation Service. The U.S. Environmental Protection Agency and U.S. Fish and Wildlife Service also contributed.

The Conservation Reserve Program (CRP) was established under the Food Security Act of 1985. A key purpose of this progress report and evaluation was to assess enrollment and the impacts of that enrollment early in the implementation of CRP. The evaluation concluded that CRP had reduced agricultural production and related economic activity. "Nationally, the economic activity decreases were very small in all sectors. Reductions due to the decrease in agricultural production and the associated use of agricultural inputs were partially offset by the infusion of CRP rental, cover establishment, and cost-share payments into the economy. The economic effects were concentrated in the agricultural sectors in the Northern Plains, Southern Plains, and the Mountain Regions -- areas having the greatest level of CRP enrollment."

Source: "Conservation Reserve Program - Progress Report and Preliminary Evaluation of the First Two Years", U.S. Department of Agriculture, January 1989.

July 14, 1989 - Soil Conservation Service (SCS) National Bulletin No. 290-9-5 distributed to all offices the recommendations of a work group formed in March 1988, and led by Connecticut State Conservationist Philip H. Christensen, regarding ways to streamline the National Resources Inventory (NRI) process. The Bulletin identified that SCS intended to implement many of these recommendations for the 1992 NRI process.

The recommendations for NRI process streamlining from the work group fell into four categories, as follows:

- Improvement of the organization and coordination of the inventory process.
- Acceleration of the use of remote sensing and geographic information systems (GIS).
- Establishment of a process to utilize teams in carrying out inventory activities.
- Executing a continuous national inventory process.

Sources: 1) "Streamlining the National Resources Inventory Process - Executive Summary", Transmitted to All SCS Field Offices Via National Bulletin No. 290-9-5, July 14, 1989; 2) "Streamlining the NRI", Soil and Water Conservation News, USDA Soil Conservation Service, September 1989, Pages 7 and 8.

August 31, 1989 - Agricultural Research Service (ARS) Administrator, Dr. R.D. Plowman, officially presented to the Soil Conservation Service (SCS), the Forest Service, and the Bureau of Land Management, the first computer model developed by ARS researchers for the Water Erosion Prediction Project (WEPP). The WEPP model presented by Dr. Plowman was for the

"Hillslope" version, also known as the "Overland Flow Profile" for rill and interrill erosion and deposition on a single hillslope. Field office trials were slated to begin in early 1990. Additional versions of this computer model, the "Watershed" and the "Grid" versions, were still under development as of August 31, 1989. SCS Chief Wilson Scaling noted at this official presentation of the WEPP model how this practical tool would help professional conservationists everywhere.

Source: "ARS Presents First WEPP Model to User Agencies", The Chief's Current Developments, USDA SCS, September 1989, page 4.

September 1989 - The Soil Conservation Service (SCS) publicized to its workforce the selection of a geographic information system (GIS) called SCS - GRASS for use at State and field offices, interfaced with the Computer Assisted Management and Planning System (CAMPS). GRASS was billed as requiring the field office user to have only minimal knowledge of this GIS software to be able to generate a conservation plan map or soils interpretative map.

GRASS was a public domain software package originally developed by the U.S. Army Corps of Engineers. At the time of this announcement in September 1989, SCS-GRASS was in various stages of implementation and use in 60 SCS offices, having been made available for SCS use in the fall of 1988.

Source: "GIS Analyzes Natural Resources", Soil and Water Conservation News, USDA Soil Conservation Service, September 1989, pages 10 and 11.

October 1, 1989 - As a component of the U.S. Department of Agriculture's expanded focus on water quality, the Soil Conservation Service (SCS) released a five-year Water Quality and Quantity Initiative Plan. This SCS plan covered the time period from October 1, 1989 to September 30, 1994. It focused expanded and improved technical assistance to prevent and improve water quality problems.

The SCS plan included four major action areas:

- Programmatic applications included water quality demonstration projects and hydrologic unit areas to address nonpoint water quality concerns, regional technical assistance to ongoing multistate projects addressing major water bodies, and expanded application of ongoing programs.
- Technology development focused on development and improvement of agricultural conservation practices and planning and assessment procedures. Another component was technical training of SCS personnel on assessment and treatment of agriculture-related nonpoint source pollution problems.

Conservation Woven Into The Fabric of Farm Policy

1980 - 1989

- Information efforts encouraged voluntary participation by farmers and ranchers to implement remedial action and inform the agricultural community of water quality concerns.
- Progress assessments evaluated the success of programmatic and technical assistance efforts in remedying agriculture-related water quality problems.

Source: "SCS Releases Five-Year Water Quality Plan", Tuesday Letter, National Association of Conservation Districts, Vol. 40, No. 2, February 1990, page 4.

November 1989 - The Grazing Land Applications (GLA) was released to Soil Conservation Service (SCS) personnel to aid in the improved management of pasture and rangeland in the U.S. The GLA software was a cooperative research and development effort of SCS, the Texas Agricultural Experiment Station, and the Texas A&M University System. The software provided a functional planning tool that helped to record, organize, analyze, and transfer the vast amount of information needed to determine the best practices that could be used on any given grazing operation. The tool provided ranch and pasture managers and owners the ability to carry out "what if" assessments using different scenarios.

The GLA was "region-neutral", meaning it could be used in any of the more than 3,000 field offices nationwide in 1989, including Alaska and Hawaii.

Source: "Grazing Land Software Developed", Soil and Water Conservation News, USDA Soil Conservation Service, November 1989, pages 4 and 5.

1989 - The National Watershed Coalition (NWC) was formed in 1989, succeeding the former Watershed Congress, which traced its origin back to 1951. As a nonprofit 501(c)(3), the NWC was composed of national, regional, State, and local organizations, associations, and individuals that advocated addressing natural resource problems and issues using watersheds as the planning and implementation unit. The NWC was governed by a Board of Directors and believed the proper care of the nation's natural resources was a top national priority. The new Coalition was formed as a result of a recommendation of the May 14-17, 1989 National Watershed Conference held in Oklahoma City, Oklahoma, which was attended by over 300 representatives from 40 States. The National Association of Conservation District's Western Representative, Bob Raschke was the first chairperson of the Coalition.

Source: "Focusing on Districts Needs: Dedication in the Face of Challenge", 1989 Annual Report of the National Association of Conservation Districts, page 12.



A Broader Conservation Mission With Supporting Programs

1990 - 1999

“In creating the new Natural Resources Conservation Service (NRCS), we will build on the strengths of our past 60-year history of strong partnerships with Federal, State, and local people delivering conservation assistance. We will expand our horizons, building new partnerships and looking at our work more holistically and on an ecosystem basis. We will be good stewards of the taxpayer dollars and we will create an NRCS that not only works better, but costs less....”

**Paul W. Johnson, Chief, USDA Natural Resources Conservation Service (NRCS);
NRCS Reorganization/Reinvention Plan, Forward Section; November 9, 1994.**

A BROADER CONSERVATION MISSION WITH SUPPORTING PROGRAMS

1990 - 1999

"In my remarks on balancing the short-term and long-term needs of our environment and our economy, I stated that we have to start addressing our concerns for what they are - an interlocking system of natural resources and land management practices."

Galen S. Bridge, Acting Chief, in "Taking a Fresh Look at Conservation", USDA SCS Memorandum to All SCS Employees on October 28, 1993, in Reference to Remarks Mr. Bridge Made at the Soil and Water Conservation Society's Conference on "The Next Generation of U.S. Agriculture Conservation Policy in March 1993."

The 1990s were a decade that solidified the increasingly dominant role of Farm Bill mandatory funded conservation programs in the U.S. Department of Agriculture's (USDA) long-term private lands conservation assistance portfolio. This decade also saw a major reorganization of USDA, including the establishment of today's Farm Service Agency (FSA) and the Natural Resources Conservation Service (NRCS). Major efforts were also undertaken by NRCS to set its future direction for the use of data and software applications for both field office users and customers, and saw the implementation of major partnership-based efforts to improve water quality. Wetlands also continued to be a major focus, with the onset of the new Wetlands Reserve Program in 1990 and a new four-way federal interagency memorandum of agreement to support wetland determination efforts.

In January of 1990, the Agricultural Stabilization and Conservation Service (ASCS) and the Soil Conservation Service (SCS) approved a new memorandum of understanding regarding their coordination, sharing of data, and the division of 28 separate responsibilities in carrying out the conservation provisions of the 1985 Farm Bill. The Food, Agriculture, Conservation, and Trade Act of 1990 (1990 Farm Bill) continued these conservation provisions and authorized the new Wetlands Reserve Program (WRP) and the Ag Water Quality Protection Program (AWQPP) - - recognizing the importance of landscapes, watersheds, and ecosystems and that natural systems are larger than individual farms or ranches. The Federal Agricultural Improvement and Reform Act of 1996 (1996 Farm Bill) consolidated FSA's long-standing Agricultural Conservation Program (ACP) and NRCS financial assistance programs, creating the new Environmental Quality Incentives Program and the Wildlife Habitat Incentives Program. NRCS was delegated the leadership for the financial as well as the technical aspects of most conservation programs in USDA. Importantly, however, the Conservation Reserve Enhancement Program (CREP) was also authorized through the 1996 Act to be operated by

FSA and provided a new State-federal partnership conservation program geared toward designated agricultural areas. The authorization for a new USDA Task Force on Agricultural Air Quality to advise the Secretary on agricultural air quality issues also stemmed from the 1996 Farm Bill.

The USDA Reorganization Act of 1994 directed the Secretary to streamline and reorganize USDA to achieve greater efficiency, effectiveness, and economies in its organization and consolidated program responsibilities into seven mission areas. The total number of agencies in USDA was reduced from 43 to 30. The ASCS became the Consolidated Farm Service Agency (later FSA) and took on the Farm Home Loan Program of the Farmers Home Administration and the supervision of the Federal Crop Insurance Corporation. The new NRCS eliminated its National Technical Centers, reduced the administrative and management functions of State offices, and established six new regional offices plus new distributed technical institutes to foster scientific and technical innovations for conservation purposes. By March of 1998, USDA had closed about 1,200 field locations and reduced overall staffing by about 15 percent to 109,956 staff years.

Water quality improvement continued as a growing focus area in the 1990s. Beyond the programmatic developments of the 1990 and 1996 Farm Bills, major partnership-based initiatives were implemented. In July of 1990, the Agricultural Research Service and the Cooperative State Research, Education, and Extension Service implemented the Management Systems Evaluation Area (MSEA) Program to develop and promote agricultural management systems to reduce the impact of farming on ground and surface water quality in plot, field, and small watershed scales in five Midwestern States. In 1990, USDA also implemented a major water quality initiative to implement conservation systems in areas where impairment of water quality from agricultural nonpoint sources was significant. This USDA Water Quality Initiative was implemented in 74 watersheds across the U.S. in the form of Nonpoint Source Hydrologic Unit Areas, Water Quality Demonstration Projects, and through Regional Project Initiatives such as Chesapeake Bay, the Great Lakes, and the Gulf of Mexico. In 1997, USDA launched the National Conservation Buffer Initiative and pledged to help landowners apply 2 million acres of conservation buffers by 2002. Also, that same year the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force was established to understand the causes of eutrophication in the Gulf of Mexico, coordinate activities to reduce the size of the hypoxia zone, its severity, and its duration, and to ameliorate the effects of hypoxia.

It was February of 1998 when the White House released the Administration's "Clean Water Action Plan" (CWAP), with a goal to achieve "fishable and swimmable" water for every American. The Action Plan charted a course to address the water pollution problems of both the current and next generations. In support of the CWAP, USDA and the U.S. Environmental Protection Agency collaborated to release in March 1999 the "USDA/EPA Unified National Strategy for Animal Feeding Operations", a document that set the tone and policy framework

A Broader Conservation Mission With Supporting Programs

1990 - 1999

for collaboration and partnerships to reduce the impact of both regulated and non-regulated animal feeding operations on the environment.

The 1990s also brought major developments regarding information technology to support field conservationists. The NRCS Field Office Computing System (FOCS) was deployed to all field offices in the fall of 1994. FOCS contained functionality to support client information, resource inventory data, conservation plans, and conservation contracts; however, its use was discontinued in May 1998 because of its significant data-entry burden on field staff, and other major system challenges. In August 1997, "Future Directions: A Vision of Information Technology for Field Conservationists" was released by NRCS to provide a holistic, business-based, user-friendly approach to the strategic use of information technology to return conservationists to the field to work hand-in-hand with farmers and ranchers on their conservation needs. Over 20 years later, "Future Directions" still serves as the foundation for the vision behind the Conservation Delivery Streamlining Initiative currently under final implementation in 2019 and 2020.

A seminal report provided to the NRCS Chief in November 1995 was the work of a Blue-Ribbon Panel entitled "Data Rich and Information Poor." The Panel's six recommendations were intended to help keep NRCS relevant as an agency moving forward and concluded "NRCS must rethink its data and information activities in a way that will allow the agency to use its rich data resources in a far more information-effective way than it has in the past." Two positive examples of NRCS moving in the direction of the report's recommendations were its 1994 public release of the PLANTS application, the agency's first web application and which provided access to taxonomic and distribution data on plants of the U.S. and their attributes. A second example was the 1994 release of the National Soil Information System (NASIS), which automated the management of soil data collected, processed, and maintained by the cooperative Soil Survey Program. Both PLANTS and NASIS remain in use today by NRCS.

The 1990s included other important actions, such as the 1990 adoption by SCS of a Limited Resource Farmer policy that was the first in USDA. This policy defined the general characteristics of limited resource farmers and outlined areas of SCS responsibility for providing program services to them. In June 1991, the partnership-based Grazing Lands Conservation Initiative was established at a meeting in Bozeman, Montana to both foster and further collaborative efforts to advance grazing lands conservation. Additionally, an important core conservation partner for SCS, and now NRCS, was formed in February of 1992 - - the National Conservation District Employees Association (NCDEA) to represent and assist the now more than 7,000 conservation district professionals who work for local conservation districts. And in 1993, the devastating Midwest Flood took place, which led to massive emergency recovery efforts assisted by many USDA agencies. The SCS/NRCS alone expended more than \$400 million in funds appropriated by the Congress for this recovery work through the Emergency Watershed Protection Program.

December of 1996 was when NRCS's "America's Private Land: A Geography of Hope" was released by Chief Paul Johnson. The document stressed the importance to the nation of private land stewardship and worked to establish private lands in the public mind as "special places" in their own right. This thoughtful document called for a renewed conservation commitment to private land and private landowners.

Chronology

January 9, 1990 - Agricultural Stabilization and Conservation Service (ASCS) Administrator Keith D. Bjerke and Soil Conservation Service (SCS) Chief Wilson Scaling approved a Memorandum of Understanding (MOU) relative to the implementation of the Conservation Provisions of the Food Security Act of 1985. The MOU served to clearly identify each agency's areas of responsibility and fostered the sharing of data and information between ASCS and SCS regarding producer participation in certain USDA programs. The MOU identified 14 responsibilities for ASCS and a separate 14 responsibilities for SCS.

Source: Soil Conservation Service New York Bulletin NY 180-0-2; Subject: "CPA - Memorandum of Understanding Between ASCS and SCS"; March 1, 1990 (Included attachment of the MOU).

January 27, 1990 - The Agricultural Research Service (ARS), led by research hydraulic engineer D.M. Temple, collaborated with NRCS to design criteria for soil and water conservation structures, such as vegetative waterways, to protect millions of acres from runoff damage. This scientific contribution helped to determine the appropriate slope, vegetation, height of cover, allowance for area of field, and allowance for freeboard for the creation and maintenance of these grass waterways. These waterways are used to convey excess runoff water where flows are of a sufficiently short duration to allow the grass to withstand the inundation period and operation is sufficiently infrequent to allow healthy grass cover to be maintained.

Source: "Grassed Waterways", Engineering Field Handbook, Part 650, Chapter 7, USDA NRCS, December 2007.

January 1990 - The President announced a six-point initiative to help address the unique problems and needs of rural areas across the U.S. A key and central component of the initiative was the formation of State Rural Development Councils (SRDCs). These SRDCs were charged with bringing together the resources of the State and federal governments, localities, Tribal

A Broader Conservation Mission With Supporting Programs

1990 - 1999

governments, and the private sector to support rural development. There was no predetermined method by which the SRDC in each state would create or implement its partnership effort.

The SRDCs were charged with ensuring available resources were employed efficiently, fostering creativity and innovation, and generating collaborative and inclusive processes to achieve that State's rural development goals.

The U.S. Department of Agriculture was a key and central contributor in the SRDC initiative. The Soil Conservation Service (SCS), in particular, was a substantial partner given its dispersed workforce across rural America, its many partnerships with other federal, State, local, Tribal, and private sector entities, and its active role in rural development through the Resource Conservation and Development Councils. In Idaho, SCS Assistant State Conservationist for Programs, Thomas W. Christensen, served as the original chair of the Idaho Rural Development Council during its first two formative years. Idaho was the only state where SCS had served as the chair of an SRDC.

Sources: 1) State-Federal Collaboration on Rural Development, National Governors' Association, State Policy Reports, Economic Development and Commerce Policy Studies, Thomas Unruh and Jay Kaync, 1992, 49 pages; 2) Idaho Rural Development Council Annual Report 1993, Thomas W. Christensen, Chair, Idaho Rural Development Council, 12 pages.

July 1990 - The Agricultural Research Service (ARS) worked with the Cooperative State Research, Education, and Extension Service to develop multi-scale farming systems for improved water quality through the Management Systems Evaluation Area (MSEA) Program. ARS took the lead in studying large areas by implementing the MSEA Program across the Midwest in an interagency effort to evaluate the effect of agricultural management practices on water quality that provide information from which to develop standards for input management plans. The goal of the MSEA Program was to develop and promote agricultural management systems that reduced the impact of farming on ground and surface water quality. MSEA Program sites (plot, field, and small watershed scales) were located in five principal states (Ohio, Missouri, Minnesota, Iowa and Nebraska), with extensive evaluation of the water quality impacts of farming systems conducted at these sites.

A 1994 MSEA Progress Report issued in August 1995 by the ARS (ARS-135) concluded the MSEA Program was rapidly developing a better understanding of how the corn - soybean rotation system affected water quality in different hydrogeological areas. This improved understanding was leading to the development of alternative farming systems that would offer Midwest farmers a choice of profitable and environmentally sound systems.

Source: "Evaluating the Effectiveness of Agricultural Management Practices at Reducing Nutrient Losses to Surface Water", U.S. Environmental Protection Agency, August 25, 2006.

November 28, 1990 - The Food, Agriculture, Conservation, and Trade Act of 1990 (Public Law 101-624) continued the Highly Erodible Land (HEL) and Swampbuster Provisions and Conservation Reserve Program, and authorized the new Wetlands Reserve Program (WRP) and the Ag Water Quality Protection Program (AWQPP). The Act addressed water quality, groundwater pollution, and sustainable agriculture. It recognized the importance of landscapes, watersheds, and ecosystems - natural systems larger than individual farms.

The 1990 Act also added authorities for forestland easements (Forest Legacy Program), broader multiple-use forest management assistance (Forest Stewardship Program), along with landowner incentives (Stewardship Incentives Program), and expanded authorities for urban and community forestry. The Act also contained new authorities for economic revitalization assistance to national-forest dependent rural communities.

The 1990 Farm Bill required the Soil Conservation Service (SCS) to provide assistance to any reservation or Tribal group that requested it. The SCS assistance was to include a consolidated U.S. Department of Agriculture office (along with the Agricultural Stabilization and Conservation Service, the Farmers Home Administration, and other agencies) open at least one day a week on the reservation in office space provided by the local Tribal Council. The 1990 Act resulted in 77 Tribes requesting this additional assistance from SCS. Though making the services of SCS and other USDA agencies more physically accessible, the Act alone did not solve the more complex challenges of social and cultural accessibility.

Sources: 1) "Conservation and Culture: The Soil Conservation Service, Social Science and Conservation on Tribal Lands in the Southwest", USDA NRCS, Resource Economics and Social Science Division, Historical Note 6, Rebekah C. Beatty Davis, July 1997, page 38; 2) "History and Outlook for Farm Bill Conservation Programs", Choices, Zachary Cain and Stephen Lovejoy, 4th Quarter 2004, page 40.

1990 - The U.S. Department of Agriculture (USDA) Water Quality Initiative (WQI) was implemented in 1990 in response to national concern over the declining quality of the Nation's ground and surface waters. The Soil Conservation Service (SCS), the Cooperative State Research, Education, and Extension Service (CSREES), and the Agricultural Stabilization and Conservation Service (ASCS) supported the Initiative's Water Quality Program Plan through education, technical assistance, and financial assistance to solve agricultural-related nonpoint source pollution problems. SCS provided technical assistance for implementing conservation practices for controlling pollution in Nonpoint Source Hydrologic Unit Areas, Water Quality Demonstration Projects, and Regional Project Initiatives. Cost sharing for installation of conservation practices was available from ASCS for the first five years.

Nonpoint Source Hydrologic Unit Areas (HUAs) were projects focused on remediation of documented water quality problems in areas where impairment of water quality by agricultural

A Broader Conservation Mission With Supporting Programs

1990 - 1999

nonpoint sources was significant. The projects were coordinated with State management programs developed under Section 319 of the Water Quality Act of 1987 (Public Law 100-4). A total of 74 watersheds across the country were selected for implementation. SCS provided conservation planning and implementation assistance to farmers and ranchers in these project areas. New and innovative water quality technology and information were provided to cooperators, as it became available. The Environment Quality Incentives Program (EQIP) later was phased in as the vehicle for providing financial assistance to landowners/landusers.

Water Quality Demonstration Projects represented geographic areas with specific combinations of agricultural activities and water resource conditions that impact water quality. Conservation practices were planned, developed, and implemented by SCS, in cooperation with CSREES and the Agricultural Research Service, to remedy water quality problems. Through the farm demonstration process, these practices were expanded to other areas with similar agricultural and water quality conditions.

Regional Project Initiatives included: Chesapeake Bay, Puget Sound, Long Island Sound, Gulf of Mexico, Great Lakes, and areas covered by the Coastal Zone Management Program and the National Estuary Program. SCS assisted in these projects by providing technical assistance to reduce nonpoint source pollution through existing USDA and partner programs.

Source: "USDA Plans for Water Quality Improvement", Soil and Water Conservation News, USDA NRCS, Volume II, Number 6, Diana Morse, November - December 1990, page 4.

1990 - The Soil Conservation Service (SCS) for the first time adopted a National Limited Resource Farmer policy that was also a first for the U.S. Department of Agriculture. The policy defined the general characteristics of such farmers and outlined areas of responsibility for providing program services.

Source: "Conservation Highlights: Summary of Activities of the Soil Conservation Service for Fiscal Year 1990", USDA Soil Conservation Service, May 1991.

June 1991 - The Grazing Lands Conservation Initiative (GLCI) - now called the National Grazing Lands Coalition (NatGLC) was established at a meeting in Bozeman, Montana. The GLCI, funded by Soil Conservation Service through Congressional directive, was a nationwide collaborative process of individuals and organizations working together through coalitions to maintain and improve the management, productivity, and health of the Nation's privately-owned grazing land. Since the establishment of the GLCI in 1991, some appropriations bills included dedicated funds specifically on conservation technical assistance on grazing lands.

Sources: 1) "Grazing Lands Conservation Initiative (GLCI)" from USDA NRCS website Under "Home/ People/ Partners/ Grazing Lands Conservation Initiative, Retrieved on December 16, 2019; 2) "History of the National Grazing Lands Coalition", NatGLC Website, Retrieved on December 16, 2019.

August 30, 1991 - *"I believe that it is essential that SCS play an active role in setting the conservation agenda in the future. This means that SCS must continue to have a strong, well-trained and well-equipped workforce at the field level to provide high quality technical assistance and information to a varied clientele."*

Source: Soil Conservation Chief William Richards, "Resource Conservation Today for a Quality Environment Tomorrow: Strategic Initiatives for the 90's", August 30, 1991.

1991 - SCS initiated a series of conferences in 1991 to raise cultural awareness among SCS employees. The "Harmony Workshops" brought together groups of 50 to 100 SCS personnel for instruction by American Indians in the history and culture of the Tribes in their region; discussed cultural norms, religion, and mythology (as related to the land); and, sensitized SCS employees to matters that affected their planning and working relationships - time, the concepts of present and future, and values.

Source: "Conservation and Culture: The Soil Conservation Service, Social Science and Conservation on Tribal Lands in the Southwest", USDA NRCS, Resource Economics and Social Science Division, Historical Note 6, Rebekah C. Beatty Davis, July 1997, page 39.

February 4, 1992 - The National Conservation District Employees Association (NCDEA) was established by the National Association of Conservation Districts (NACD) Council as an NACD affiliated organization on February 4, 1992 at the NACD Annual Conference in Reno, Nevada. NCDEA is a core member of the National Conservation Partnership and assists the more than 7,000 conservation district professionals who implement conservation programs in their local communities. NCDEA brings the knowledge and experience of conservation district employees to many partnership efforts and to discussions about programs, policies, and procedures with various State and federal officials.

The idea of forming a national employees association for conservation district employees was conceived in February 1984 at a meeting in the Hilton Hotel in Denver, Colorado. The concept was further developed through the 1980s between NACD and the district employees. It was at the NACD Annual Conference in San Diego, California that a special committee voted unanimously to form a National employees association that would be affiliated with NACD.

Source: "History of NCDEA", National Conservation District Employees Association webpage at NCDEA.org; November 22, 2019.

March 12, 1992 - Soil Conservation Service Chief William Richards in remarks to American Farm Bureau Federation Board of Directors in Chicago, Illinois in reference to Conservation Compliance and the need for agriculture to succeed with Compliance stated the following, *"We've got a job ahead of us. And what's at stake is our voluntary approach to agriculture - the approach that makes the family farm the envy of the world. I'm convinced of that, and I will never forget a Congressional hearing where the first words directed at us were 'Please tell us why you people in agriculture shouldn't be regulated.'"*

Source: Remarks by Chief William Richards to the American Farm Bureau Federation Board of Directors, Chicago, Illinois, March 12, 1992. Transmitted by March 17, 1992 Telemail from Soil Conservation Service employee B. Briggs to SCS. INF@2:24 pm MST.

August 31 - September 2, 1992 - The first "National Irrigation-Induced Erosion and Water Quality Conference" was held in Boise, Idaho. Sponsored by 13 cooperating agencies and organizations, including the U.S. Department of Agriculture's Agriculture Research Service and the Soil Conservation Service, the conference theme was "Save Our Soil and Keep Our Water Clean." The conference served to: draw attention to the serious resource problem of irrigation-induced erosion, elevate producer awareness about current technology and practices available to reduce erosion, identify the need for additional research priorities related to the problem, and garner support and commitment from a broad range of agencies, organizations, agricultural leaders, and State and federal legislators to develop workable policies and devote more resources toward the problem. The 1992 conference led to the formation of the "National Irrigated Lands Water Quality/Quantity Initiative" in 1993 to establish collaborative goals and transfer efforts into action.

Source: "Proceeding: National Irrigation - Induced Erosion and Water Quality Conference - Save our Soil and Keep our Water Clean", USDA NRCS, December 1992, 109 pages.

1992 - The Revised Universal Soil Loss Equation (RUSLE) was introduced in 1992. Its changes from the Universal Soil Loss Equation (USLE) first introduced in the 1940's were substantial and represented significant improvements across seven major elements of the formula. RUSLE was implemented using a computer program and was a collaborative effort of ARS, SCS, and others. Differences in soil loss estimates between USLE and RUSLE varied from more to less erosion for a specific location depending on specific factor value changes.

Source: "Revised Universal Soil Loss Equation (RUSLE)." Watershed Physical Processes Research: Oxford, Mississippi; USDA ARS, 2019.

October 28, 1993 - To further support its science-based foundation and to be in alignment with Presidential and Departmental initiatives, the term "total resource management" in the Soil Conservation Service (SCS) was further developed and renamed "Ecosystem-Based Assistance (EBA) for Management of Natural Resources." The EBA term was used because SCS was not the manager of ecosystem resources. Rather, the private citizen was the manager and SCS provided assistance to the private sector to improve and regenerate natural resources.

Source: "Taking a Fresh Look at Conservation", USDA NRCS Memorandum to All Employees, Galen S. Bridge, Acting Chief, October 28, 1993.

December 20, 1993 - The U.S. Department of Agriculture's (USDA) Under Secretary for Natural Resources and Environment launched the Urban Resources Partnership (URP) on December 20, 1993. URP was administered as an "initiative" from the Office of the Under Secretary and was a demonstration project with a five-year start-up base. For seven years, Federal agencies -- including the Soil Conservation Service/Natural Resources Conservation Service (NRCS), and the Forest Service (FS) -- and partners collaborated with underserved communities to address environmental problems, based on the premise that a "greener" urban infrastructure would produce neighborhoods that were cleaner, healthier, more energy-efficient, and ultimately more prosperous.

URP placed federal resources at the service of community-led projects, which included restoring streambanks, establishing public trails, conducting anti-littering/beautification campaigns, and enhancing water quality and urban wildlife habitat. Each participating city established a steering committee that would include various government agencies, nonprofit organizations, and local businesses. The steering committee established the local partnership's mission, investigated natural resource conditions and community needs, set priorities, and agreed to a grant application process. It then assembled a technical team to work on projects with community leaders.

URP was partially funded through \$300,000 U.S. Department of Agriculture grants to each of the 13 designated cities. Communities matched each federal dollar with labor, in-kind donations, and local funding. These partnerships leveraged community-based action to enhance the quality of life.

Federal funding for URP was primarily from the NRCS Conservation Operations Account and the State and Private Forestry Programs of the FS. From fiscal years 1994 through 1998, USDA funding obligated toward URP totaled \$20.3 million. Funding for URP was obligated in one fiscal year for expenditure during the next fiscal year.

Source: "Urban Resources Partnership Program", Evaluation No. 50801-1-Te, Office of the Under Secretary for Natural Resources and Environment, Washington, D.C.; USDA Office of Inspector General-Audit; November 1999.

1993 - The 1993 Midwest Flood was caused by highly unusual meteorological conditions that resulted in the greatest deluge of water ever recorded at that time in the nine states draining to the Mississippi River from Cape Girardeau and north. Starting in the spring of 1993, record amounts of rainfall fell over much of the Missouri and Mississippi River Valleys causing devastating floods. In July 1993 alone, many parts of the Midwest received rain more than 400 percent above normal. The U.S. Department of Agriculture played a major role in flood recovery efforts, which took years to complete.

The staff time and resources devoted to recovery efforts far exceeded any previous emergency response from the Soil Conservation Service (SCS). Through its Emergency Watershed Protection (EWP) Program, Congress had appropriated \$400 million to SCS for this recovery work by March of 1994. This work lasted well into 1995.

This massive recovery work brought to the forefront a number of issues: debates over flood control and floodplain management policies, long-term interagency rivalries on roles and responsibilities, budgetary pressures, and how the SCS ended up repairing many levees that it had not helped to build.

Source: "The Soil Conservation Service Responds to the 1993 Midwest Floods", Steven Phillips; USDA Soil Conservation Service Historical Notes Number 4, November 1994.

January 6, 1994 - The U.S. Department of Agriculture (USDA), the Environmental Protection Agency, the Department of Interior, and the Department of the Army entered into a Memorandum of Agreement (MOA) concerning the delineation of wetlands for the purposes of Section 404 of the Clean Water Act (CWA) and Section C of the Food Security Act of 1985. The MOA was implemented to streamline the wetland delineation process on agricultural lands, to promote consistency between the Clean Water Act and the Food Security Act, and to provide predictability and simplification for USDA program participants.

In January 2005, both the USDA and the Department of the Army withdrew from the 1994 MOA. The stated rationale for withdrawing from the MOA was because of the differences that existed in 2005 between the CWA and Food Security Act regarding the jurisdictional status of certain wetlands (e.g., prior converted or isolated wetlands may be regulated by one agency but not the other) made it frequently impossible for one lead agency to make determinations that were valid for the administration of both laws. Guidance remained in place that would still apply to cases where sufficient overlap existed to enable the wetland delineation made by one agency to be accepted for determining the jurisdiction of the other.

Sources: 1) "Memorandum to the Field: Guidance on Conducting Wetland Determinators for the Food Security Act of 1985 and Section 404 of the Clean Water Act", signed by Bruce I. Knight, NRCS Chief and George S. Dunlop, Deputy Assistant Secretary of the Army (Policy and Litigation), February 25, 2005; 2) "Conservation Compliance

Joint Guidance – Wetlands”, Memorandum from Thomas W. Christensen, Deputy Chief for Programs, NRCS to NRCS State Conservationists, February 22, 2005.

October 13, 1994 - The U.S. Department of Agriculture (USDA) Reorganization Act and Federal Crop Insurance Reform Act of 1994 (Public Law 103-354) amended the Federal Crop Insurance Reform Act of 1980 (Public Law 96-365). The 1994 Act directed the Secretary of Agriculture to streamline and reorganize the USDA to achieve greater efficiency, effectiveness, and economies in its organization and management of programs and activities. In response to this Act, USDA reconfigured and consolidated its program responsibilities into seven mission areas, with six of them renamed, and in most cases responsibilities modified. Only the Natural Resources and Environment Mission Area (Soil Conservation Service/Natural Resources Conservation Service and Forest Service) remained essentially unchanged. In total, U.S. Department of Agriculture agencies were reduced from 43 to 30.

Secretary's Memorandum 1010, October 20, 1994, implemented Section 226 of the U.S. Department of Agriculture Reorganization Act with the Agricultural Stabilization and Conservation Service's Conservation Reserve Program transferred to the newly established Consolidated Farm Service Agency (CFSA). The remaining conservation programs were transferred to the newly established Natural Resources Conservation Service (NRCS). The CFSA not only acquired the Agricultural Stabilization and Conservation Service functions, but also the Farm Home Loan Program of the Farmers Home Administration (abolished by Secretary's Memorandum 1010) and the supervision of the Federal Crop Insurance Corporation (FCIC). On January 16, 1996, the CFSA was redesignated the Farm Service Agency (FSA) without change to the organization or its functions.

The NRCS organizational structure was changed to place more staff at the customer service level (field offices) while streamlining and consolidating functions at headquarters. The National Technical Centers were abolished, with their technical support functions assigned to State offices and National headquarters. State office administrative and management functions were reduced and moved to six new regional offices. New distributed technical institutes were established to foster scientific and technical innovations and technology transfer.

By March of 1998, USDA had closed about 1,200 field locations since passage of the 1994 Act, with the Farm Service Agency, NRCS, and Rural Development most affected. It also had reduced its overall staffing by about 15 percent from 129,495 to 109,856 staff years. The USDA plan also called for consolidation of administrative functions, including the establishment of a Support Services Bureau in headquarters and one State Administrative Support Unit in each state to provide administrative services (including financial management, human resources, civil rights, information technology, procurement, and management services). This USDA plan was never fully realized.

A Broader Conservation Mission With Supporting Programs

1990 - 1999

Sources: 1) "Through These Eyes: The First 70 Years of Soil and Water Conservation in Minnesota", USDA NRCS, Vic Ruhland, April 2005, page 94.

October 20, 1994 - Secretary's Memorandum 1010-1 (Reorganization of the Department of Agriculture), under authorities given the Secretary of Agriculture through the Federal Crop Insurance Reform and Department of Agriculture Reorganization Act of 1994 (Public Law 103-354), transferred the Wetlands Reserve Program, Water Bank Program, Colorado River Basin Salinity Control Program, and the Forestry Incentives Program from the Agricultural Stabilization and Conservation Service to the new Natural Resources Conservation Service.

Source: NRCS General Manual 360, 404.71, Office of the Chief, D.Historical Documents.

Fall 1994 - The Natural Resources Conservation Service (NRCS) deployed the Field Office Computing System (FOCS) to all field offices. FOCS contained client information, resource inventory data, conservation plans, and conservation contracts. It also contained at least six companion applications, such as the Revised Universal Soil Loss Equation (RULSE). Data from the legacy Computer Assisted Management and Planning System (CAMPS) was migrated to FOCS and the use of FOCS was made mandatory to facilitate progress reporting through a common application (NIMS-the National Information Management System). The use of FOCS was quickly discontinued on May 1, 1998, because of its significant data-entry burden on field staff, among other challenges with this system.

Source: "An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)", Jack Carlson, Retired NRCS CIO, November 27, 2009.

1994 - The Natural Resources Conservation Service (NRCS) deployed the National Soil Information System (NASIS), which automated the management of soil data collected, processed, and maintained by soil survey offices and the National Soil Survey Center. NASIS remains in use today by NRCS.

Source: "An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)", Jack Carlson, Retired NRCS CIO, November 27, 2009.

1994 - The Natural Resources Conservation Service (NRCS) deployed PLANTS, the agency's first Internet web application providing public access to taxonomic and distribution data on the plants of the U.S., and the attributes of conservation plants. PLANTS remains in use today by NRCS.

Source: "An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)", Jack Carlson, Retired NRCS CIO, November 27, 2009.

July 1995 - Four water-quality assessment models were delivered by the Agricultural Research Service to the Natural Resources Conservation Service, which developed a comprehensive database/interface system. Most notably, the Root Zone Water Quality Model (RZWQM) was made publicly available for aiding soil and water management. Since originally being delivered in 1995, it has been updated (RZWQM2) to simulate major physical, chemical, and biological processes in an agricultural crop production system. RZWQM2 is a one-dimensional (vertical in the soil profile) process-based model that stimulates the growth of the plant and the movement of water, nutrients and pesticides over, within, and below the crop root zone of a unit area. It has a quasi-two-dimensional macropore/lateral flow. It responds to agricultural management practices including planting and harvest practices, tillage, pesticide, manure and chemical nutrient applications, and irrigation events.

Source: "RZWQM-Root Zone Water Quality Model", Rangeland Resources and Systems Research, USDA ARS, Fort Collins, Colorado; USDA Agricultural Research Service website, accessed November 2019.

November 13-15, 1995 - The Midwest Region Workshop on Whole-Farm Conservation Planning was held in St. Louis, Missouri. This major workshop had 16 sponsors, including State and federal government agencies and a number of nongovernmental organizations. The purpose of the workshop was to discuss perspectives on whole-farm conservation planning, including three key questions: 1) what are the objectives of whole-farm conservation planning?; 2) what are the barriers to total resource management planning?; and 3) what are the strategies to overcome these barriers? The workshop did not produce a concise plan of action because of remaining questions about the concepts. However, it was agreed that continuing steps needed to be taken to move toward providing total resource planning and that the process and results needed to better serve both the customer and the natural resources.

Source: "Midwest Region Whole-Farm Planning Workshop Proceedings", from November 13-15, 1995 Workshop at the Regal Riverfront Hotel, St. Louis, Missouri; 174 pages.

November 1995 - "Data Rich and Information Poor", a report to the Chief of the Natural Resources Conservation Service (NRCS) by the Blue-Ribbon Panel on Natural Resource Inventory and Performance Measurement, was delivered in November 1995. The Panel recommended that NRCS move to the more mainstream Windows platform and away from UNIX to take advantage of commercial office automation software. It also recommended NRCS

focus on applications that made its natural resources and conservation data much more accessible to both internal and external users. The Panel's six recommendations were intended to help NRCS remain relevant moving forward, with a conclusion that *"NRCS must rethink its data and information activities in a way that will allow the agency to use its rich data resources in a far more information-effective ways than it has in the past."*

Source: "Data Rich and Information Poor", A Report to the Chief of the Natural Resources Conservation Service by the Blue Ribbon Panel on Natural Resources Inventory and Performance Management, USDA Natural Resources Conservation Service, November 1995, 36 pages.

April 4, 1996 - The Federal Agricultural Improvement and Reform (FAIR) Act of 1996 (Public Law 104-127; 1996 Farm Bill) consolidated the Agricultural Conservation Program (ACP) and Natural Resources Conservation Service's financial assistance programs into the newly created Environmental Quality Incentives Program (EQIP) and Wildlife Habitat Incentives Program (WHIP), and continued the Wetlands Reserve Program (WRP) and the Conservation Reserve Program (CRP). These programs were designed to enhance wildlife, improve wetlands, and address specific resource concerns on farms.

Elements and functions of the Colorado River Basin Salinity Control Program, Great Plains Conservation Program, Agricultural Conservation Program, and the Water Quality Incentives Projects were combined into EQIP.

The Natural Resources Conservation Service (NRCS) was delegated the leadership for the financial as well as the technical aspects of most conservation programs in the U.S. Department of Agriculture. This leadership included determining the types of conservation practices available for financial assistance; helping farmers, ranchers, and forest stewards prepare applications; ranking applications; certifying the installation or implementation of conservation practices. The payment function for EQIP, WRP, and other conservation programs administered by NRCS stayed with the Farm Service Agency (FSA) until the 2002 Farm Bill. This added responsibility shifted considerable staff to addressing the financial assistance programs, leaving less staff time to spend on the conservation planning that was done previously through the Conservation Technical Assistance Program.

The 1996 Farm Bill in Title I also conditioned annual income payments, called Agricultural Marketing Transition Act (AMTA) contracts, to farmers on their adoption of soil conservation strategies. These payments were based on farm prices and the production of specific crops. To participate in AMTA contracts, a producer had to keep the land in agricultural use and meet the conditions of Conservation Compliance.

The Conservation Reserve Enhancement Program (CREP) also was authorized in the 1996 Fair Act (Farm Bill) and operated by FSA. It implemented a State-Federal conservation partnership program targeted to address specific State- and Nationally-significant water quality, soil

erosion, and wildlife habitat issues related to agriculture. CREP was funded through the Commodity Credit Corporation and offered financial incentives beyond CRP to encourage farmers and ranchers to enroll in 10-to 15-year contracts to retire land from production.

The 1996 Farm Bill also signaled a shift back to the original conservation district approach of locally-led conservation. Congress emphasized the need for close working relationships between conservation districts, NRCS, FSA, and other government agencies. To facilitate this, conservation districts were asked to bring together local stakeholders to provide input to USDA's local Farm Bill workgroups in order to guide USDA conservation program implementation and to integrate the Farm Bill with other local initiatives.

The 1996 Farm Bill also directed the NRCS Chief to establish a task force to address agricultural air quality issues. The "Task Force on Agricultural Air Quality" was established under Departmental Regulation 1042-126. NRCS designated the taskforce members and advised the Secretary on agricultural air quality.

Sources: 1) "History and Outlook for Farm Bill Conservation Programs", Choices, 4th Quarter 2004, Zachary Cain and Stephen Lovejoy, page 40; 2) "Technical Assistance - The Engine of Conservation", Prepared for the Partnership Meeting, March 15, 2005, NRCS, Historical Insights Number 5, J.Douglas Helms, Historian, March 2005, pages 4 and 5; 3) "Technical Assistance for Agriculture Conservation", Every CRSReport.com, June 29, 2007 - January 7, 2011.

October 1996 - The Natural Resources Conservation Service (NRCS) established its first Chief Information Officer (CIO) position to replace the Senior Information Resource Management Officer (SIRMO) position that was established in 1981. Driven by the Clinger-Cohen Act of 1996 (Public Law 104-106), the CIO position was intended to better align information technology (IT) resource planning and use to the agency's strategic mission, link IT capital planning and investment to agency budget formulation and execution, and to better ensure an IT and agency business partnership.

Source: Public Law 104-106, Information Technology Management Reform Act of 1996 (Clinger-Cohen Act), February 10, 1996; 2) "The CIO Role", CIO Magazine, Resource Library, May 1995.

December 1996 - The Natural Resources Conservation Service (NRCS) published "America's Private Land: A Geography of Hope", a call to action under the strong influence of Chief Paul Johnson. The document worked to establish private lands in the public mind as "special places" in their own right and called for a renewed commitment to private land and private landowners. It stressed the importance to the nation of private land stewardship and reminded the nation that NRCS was the only federal agency whose major purpose was to provide conservation technical assistance to private landowners/operators throughout the U.S.

A Broader Conservation Mission With Supporting Programs

1990 - 1999

Source: "America's Private Land: A Geography of Hope", USDA Natural Resources Conservation Service, Program Aid 1548, December 1996, 80 pages.

1996 - The LAN/WAN/Voice (LWV) Project was initiated, with completion in 1999. LWV installed a common telephone system for the Farm Service Agency, the Natural Resources Conservation Service, and Rural Development in all field offices, a common local area network (LAN), a common wide area network (WAN), and internet access.

Source: "Through These Eyes: The First 70 Years of Soil and Water Conservation in Minnesota", Appendix I, USDA NRCS, Vic Ruhland, April 2005, page 122 and 123.

April 1997 - The U.S. Department of Agriculture officially announces the new National Conservation Buffer Initiative and pledges to help landowners install 2 million miles of conservation buffers by 2002. The theme of the buffer initiative was "Buffers: Common-Sense Conservation." The effort was led by the Natural Resources Conservation Service in cooperation with Agricultural Research Service, the Cooperative State Research, Education, and Extension Service (CSREES), the Farm Service Agency (FSA), the Forest Service, State conservation agencies, conservation districts, and nearly 100 other partners. This Initiative included corporate support through a subsidiary group, the National Buffer Council, which played a role in education and marketing. By March 1, 2001, the initiative had resulted in over 1 million miles of conservation buffers. A March 26, 2004 National Arbor Day Foundation media release honoring this Initiative states that 1.5 million miles of buffers were installed, with 200,000 miles of these buffers in trees through living snowfences and field windbreaks planted.

Sources: 1) "Through These Eyes: The First 70 Years of Soil and Water Conservation in Minnesota", USDA NRCS, Vic Ruhland, April 2005, pages 103 and 104; 2) "Existing Legal Strategies for Riparian Areas Protection", Chapter 4; Riparian Areas: Functions and Strategies for Management (2002); National Research Council, The National Academies Press, page 246; 3) "National Arbor Day Foundation to Honor Recipients of Arbor Day Awards", National Arbor Day Foundation Media Release, March 26, 2004.

August 1997 - "Future Directions: A Vision of Information Technology for Field Conservationists" was released by the Natural Resources Conservation Service (NRCS) to provide a holistic, business-based, user-friendly approach to the strategic use of information technology to return conservationists to the field to work hand-in-hand with farmers and ranchers on their conservation needs. The vision established six principles to guide all future NRCS automation decisions affecting the field. The vision resulted in the May 2000 release and implementation of the Customer Service Toolkit and the current direction for mobile planning development and implementation. "Future Directions" endorsed the recommendations of the November 1995 "Data Rich and Information Poor" report in response to field conservationists'

frustration with the data entry burden of the Field Office Computing System (FOCS), and focused attention on the design/delivery of less complicated and monolithic information technology systems to support the field conservationist.

Source: "Future Directions: A Vision of Information Technology for Field Conservationists", U.S. Department of Agriculture, Natural Resources Conservation Service, August 1997, 87 pages.

Fall 1997 - The Mississippi River/Gulf of Mexico Watershed Nutrient Task Force ("Hypoxia Task Force") was established to understand the causes and effects of eutrophication in the Gulf of Mexico; coordinate activities to reduce the size, severity, and duration; and, ameliorate the effects of hypoxia. Activities of the Task Force have included coordinating and supporting nutrient management activities from all sources, restoring habitats to trap and assimilate nutrients, and supporting other hypoxia-related activities in the Mississippi River and Gulf of Mexico watersheds.

In May of 1998, the charter for the Task Force was established, setting its mission, roles, responsibilities, and members. The Hypoxia Task Force has seven federal members, including the U.S. Department of Agriculture (USDA) and the U.S. Environmental Protection Agency, and eight to eleven cabinet-level State members and Tribal leaders.

The Task Force has developed periodic assessments and action plans designed to reduce nitrogen and phosphorous loading to the Mississippi/Atchafalaya River Basin and Gulf of Mexico. USDA has been a key and central leader on the Task Force since inception and has been represented by one or two Under or Deputy Under Secretaries at all times since inception. The Natural Resources Conservation Service has historically played the lead role in supporting this high-level USDA participation.

Source: 1) Mississippi River Collaborative, 2019; 2) "Gulf Hypoxia Action Plan 2008", Mississippi River Gulf of Mexico Watershed Nutrient Task Force, 2008, 61 pages.

1997- The Natural Resources Conservation Service released the results of a special study in 1997 to identify changes in cropland use, vulnerability of land to soil erosion, erosion on land cultivated for crops, and soil conservation practices on cropland. The 1997 Special National Resources Inventory, supplemented by data collected in 1995 and 1996, served to provide the first assessment of realized changes in land use associated with agricultural production and conservation related measures in response to the Federal Agricultural Improvement and Reform (FAIR) Act of 1996. The FAIR Act provided for a considerable increase in production flexibility (known as the "Freedom to Farm").

Source: "1997 Special National Resource Inventory", USDA Natural Resources Conservation Service, 1997, 16 pages.

February 19, 1998 - The White House released the "Clean Water Action Plan (CWAP)" - to fulfill the original goal of the Clean Water Act - "fishable and swimmable" water for every American. The Action Plan charted a new course to address the pollution problems of the next generation. The U.S. Department of Agriculture (USDA) and U.S. Environmental Protection Agency (EPA) were directed to work with seven other federal agencies and the public to develop the CWAP. In support of the CWAP, major activities included the **March 1999** release of the "USDA/EPA Unified National Strategy for Animal Feeding Operations", development and release in **December 2000** by the Natural Resources Conservation Service of the "Technical Guidance for Developing Comprehensive Nutrient Management Plans (CNMPs)" for animal feeding operations, the USDA/EPA Unified Watershed Assessment and Watershed Restoration Action Strategies, and the National Showcase Watershed Project.

Source: "USDA: Meeting the Clean Water Challenge", USDA Fact Sheet, February 1999, 2 pages.

May 1, 1998 - The use of the Field Office Computing System (FOCS) by the Natural Resources Conservation Service was eliminated to reduce the significant burden on employees that hindered their ability to work on the backlog of priority conservation work. Its elimination was determined based on field employees' input that they were bound to the office by the intensive data-entry requirements of FOCS.

Source: Memorandum to All Natural Resources Conservation Employees from Chief Pearlie S. Reed, Subject - "IRM-Use of the Field Office Computing System (FOCS)", April 29, 1998.

1998 - Backyard Conservation was introduced in 1998 as a Natural Resources Conservation Service (NRCS) campaign to introduce conservation practices that help conserve and improve natural resources on agricultural land into the urban and suburban environment. America's farmers and ranchers had been using these practices successfully for decades. This Backyard Conservation Campaign was a cooperative project of the National Association of Conservation Districts, the Wildlife Habitat Council, and NRCS.

Source: "Bridging the Agriculture - Environment Divide: An Historic Investment in Conservation", History of the U.S. Department of Agriculture 1993 - 2000, Submitted to the Clinton Presidential Library, December 2000, page 48.

March 9, 1999 - The U.S. Department of Agriculture (USDA) and U.S. Environmental Protection Agency (EPA) released the Unified National Strategy for Animal Feeding Operations, which set forth a framework of actions that USDA and EPA would take, under then existing statutory and regulatory authority, to minimize impacts to water quality and public health from animal

feeding operations. The Strategy also established a national performance expectation for animal feeding operations, but it did not impose any binding requirements on USDA, EPA, the States, Tribes, localities, nor the regulated Concentrated Animal Feeding Operation (CAFO) community.

USDA and EPA first issued a draft of the strategy for a 120-day public comment period on September 16, 1998. These agencies also conducted 11 national "listening sessions" throughout the U.S. to discuss the draft strategy and seek public feedback.

Source: "Unified National Strategy for Animal Feeding Operations", U.S. Department of Agriculture and U.S. Environmental Protection Agency, March 1999, 46 pages.

April 19, 1999 - The Natural Resources Conservation Service (NRCS) entered into two of the first five Memorandums of Understanding (MOU) with the Certified Professional Soil Scientists and the Certified Professional Agronomists respectively, to become certified organizations that facilitated the use of "third-party vendors" in carrying out USDA conservation programs. Three additional organizations were certified on May 17, 1999: the Certified Professional Crop Scientists, the International Certified Crop Advisers, and the National Alliance of Independent Crop Consultants. Each organization developed a registry of their qualified members, updated annually, and each MOU described their processes for managing continuing education and other administrative matters. These national level MOUs afforded State Conservationists the flexibility to enter into specific agreements with these certified organizations for providing technical assistance from conservation planning to practice implementation. This third-party vendor process was simply one more vehicle for providing technical assistance to USDA conservation program participants.

Source: "Third Party Vendors in Conservation", USDA NRCS, Historical Insights Number 2, J. Douglas Helms and Patricia J. Lawrence, March 2002, pages 8-10.

December 7, 1999 - Secretary of Agriculture Dan Glickman held a day-long National Summit on Private Land Conservation on December 7, 1999, at the Iowa State University's Memorial Union in Ames, Iowa, to take a new look at conservation and forestry issues facing the Nation's private lands and to help spur a public-private dialogue to identify the key conservation issues and to begin the search for solutions to these challenges.

The summit activities included a panel of elected officials, conservation leaders, and others who identified the critical conservation issues on private land, as well as individuals representing a cross-section of interests, including private foundations, major corporations, and agricultural and environmental groups addressing potential solutions to the critical

A Broader Conservation Mission With Supporting Programs

1990 - 1999

conservation issues. Views were expressed on the public's responsibility, local actions, program availability, conservation funding, and locally-led conservation.

Source: 1) "Bridging the Agriculture - Conservation Divide: An Historic Investment in Conservation", History of the U.S. Department of Agriculture 1993-2000, Submitted to the Clinton Presidential Library, December 2000, pages 48 and 49; 2) "National Summit on Private Land Conservation - A Summary", USDA NRCS, 2000.



Conservation Enhancement Comes To The Forefront

2000 - 2009

***"If conservation of natural resources goes wrong,
nothing else will go right."***

**M.S. Swamina Than, "India Today", 2008; Indian Agricultural Scientist, Geneticist,
and International Administrator.**

CONSERVATION ENHANCEMENT COMES TO THE FOREFRONT 2000 - 2009

"I believe we have conservation in the right order of priority beginning with sound conservation planning, allocating resources based on sound natural resources factors, enabling local leadership to set priorities, and recognize that everything comes back to the voluntary decisions of farmers, ranchers, and landowners. If this process is allowed to work, there is no limit to what can be achieved in conservation for our natural resources."

Arlen Lancaster, Chief, USDA Natural Resources Conservation Service, Testimony on January 17, 2007. During the Hearing on "Working Lands Conservation: Conservation Security Programs and Environmental Quality Incentives Program", Before the Committee on Agriculture, Nutrition, and Forestry, United States Senate, Washington, D.C.

The first decade of the new millennium brought tremendous advances in the software applications available to support the delivery of both technical and financial assistance associated with the U.S. Department of Agriculture's (USDA) conservation programs. In December of 2000, the Natural Resources Conservation Service (NRCS) fully deployed the first version of the Customer Service Toolkit for customer case management and conservation planning. In January 2001, NRCS brought the (Geospatial) Resource Data Gateway online - - a "storefront" for ordering geospatial datasets available from NRCS, the Farm Service Agency, and other partnering agencies. ProTracts, a web-based application for managing conservation program cost-share contracts was deployed nationwide by NRCS in October 2003 and still serves the agency today. TechReg, the web application to manage the registration, certification, and profiles of technical service providers was brought online in March 2003. Technical tools software such as the Wind Erosion Prediction System (WEPS), the Web Soil Survey, and the Nitrogen Trading Tool (NTT) were also made available during the decade of the 2000's. In August 2008, NRCS officially kicked off the Conservation Delivery Streamlining Initiative (CDSI), introducing an innovative vision and monumental effort to develop workflows and software that simplified conservation delivery, streamlined business processes, and ensured science-based conservation assistance. Much of the CDSI vision has now been achieved as of December 2019.

The decade of the 2000's also saw the implementation of much of the policy and technical guidance efforts initiated in the 1990's related to the conservation needs of animal feeding operations, both regulated and non-regulated. The revised Concentrated Animal Feeding Operations (CAFO) Rule released in December 2002, was developed with substantial data,

information, and engagement from USDA and was introduced jointly for release by the U.S. Environmental Protection Agency Administrator and Secretary of Agriculture. Previously, in December 2000, NRCS had released its "Technical Guidance for Developing Comprehensive Nutrient Management Plans (CNMPs)", a vital tool for conservationists and producers to use in meeting the requirements of the revised CAFO Rule. In June 2003, USDA released an extensive report on the costs of developing CNMPs to better inform policy and programmatic decisions. It was December of 2003 when NRCS also released its "National Animal Agriculture Conservation Framework" with 14 strategies to help livestock and poultry producers meet their conservation needs, and it was July 2004 when NRCS released its "Environmental Quality Incentives Program Livestock Emphasis Action Plan (EQIP-LEAP)" with 24 actions to improve and enhance the use of EQIP for livestock-related conservation needs.

The 2002 and 2008 Farm Bills continued to introduce new conservation programs to USDA supported by mandatory funding. The 2002 Act introduced the Conservation Security Program, the Grassland Reserve Program, and the Conservation Innovation Grants component of the Environmental Quality Incentives Program (EQIP); effectuated a shift in policy direction from maximizing the number of acres in conserving uses to maximizing the environmental benefits for the funds expended; and, increased spending for conservation programs by 80 percent over the 1996 Farm Bill. The 2008 Farm Bill increased authorized funding for conservation programs by another \$4.2 billion over the 2002 Farm Bill, focused on agricultural and forest working lands, and introduced the Cooperative Conservation Partnership Initiative to support landscape-scale conservation and the Agricultural Water Enhancement Program to promote regional-level projects for water conservation and to improve water quality on agricultural lands. The Agriculture Conservation Experienced Services (ACES) authority used by NRCS stems from the 2008 Farm Bill as does the ability for NRCS to reimburse EQIP contract holders for their use of Technical Service Providers to develop NRCS-approved Conservation Activity Plans (CAPs).

This decade saw a plethora of lasting developments that continue to have an impact on conservation efforts a decade or more later. The Conservation Effects Assessment Project (CEAP) was initiated in 2003 as an interagency effort to quantify the environmental benefits of conservation practices at watershed scales and nationally, and thereby help quantify the environmental benefits of conservation programs. In 2004, the President established a new national policy to move beyond "no net loss" of wetlands to an overall gain by creating, improving, and protecting 3 million acres by Earth Day of 2009. The American Recovery and Reinvestment Act of 2009 infused \$340 million into the suite of NRCS watershed programs, with all funds awarded through 1,400 contracts and agreements by March of 2011.

It was February 2005 when NRCS released the first-ever comprehensive policy for the operation of its Conservation Technical Assistance Program along with establishing five overarching priorities for the program. Just a little over one year later, NRCS kicked off its first Conservation Planning Boot Camp to invigorate and develop a lasting training program to

support the development of conservation planning skills. In 2009, NRCS first implemented “payment schedules” to satisfy the 2008 Farm Bill requirement that eliminated cost-share and incentive payments and replaced them with payments for some percentage of the estimated costs incurred - - and for some practices also a measure of the income forgone in implementing that practice. Payment schedules have yielded significant gains in efficiency, transparency, and consistency in how financial assistance is administered through NRCS conservation contracts with farmers, ranchers, and forest stewards.

Chronology

May 2000 - The Natural Resources Conservation Service released the first version of the Customer Service Toolkit as a limited pilot for field conservationists to use for customer case management and conservation plans. The application integrated ESRI ArcView GIS software with Microsoft Outlook/Office tools. Full deployment of the Toolkit was December 1, 2000.

Source: “An Information Technology Chronology, Natural Resources Conservation Service (DRAFT)”, Jack Carlson, Retired NRCS CIO, November 27, 2009; page 15.

September 2000 - The “Father of Soil Conservation”, Hugh Hammond Bennett (1881-1960), was inducted into the U.S. Department of Agriculture (USDA) Hall of Fame. His plaque resides in the lobby area of the U.S. Department of Agriculture Whitten Building and includes this Bennett quote from 1939; *“Out of the long list of nature’s gifts to man, none is perhaps so utterly essential to human life as soil.”* Hugh Hammond Bennett. “Soil Conservation”, 1939.

In total, 14 individuals, groups, and the iconic “Smokey Bear” reside in the USDA Hall of Fame - including Bennett. Also, included in the USDA Hall of Fame is former Soil Conservation Service Chief Norman A. Berg, who was Chief from 1979 to 1982.

Source: Personal identification of the plaques in the USDA Whitten Building Patio, by Jon Vrana, FPAC Business Center, November 2019.

November 9, 2000 -The Small Watershed Rehabilitation Amendments of 2000 (Public Law 106-472) were signed into law on November 9, 2000 and authorized the Natural Resources Conservation Service to provide technical and financial assistance to watershed project sponsors in rehabilitating their dams constructed under Public Law 78-534, Public Law 83-566, the Pilot Watershed Program of 1953, and the RC&D Program. The legislation amended the Watershed Protection and Flood Prevention Act of 1954 (Public Law 83-566). The purpose of

rehabilitation was to extend the service life of dams and bring them into compliance with applicable safety and performance standards or to decommission the dams, so they no longer posed a threat to life or property. In July 2002, NRCS founded the first plan under this 2002 Act to rehabilitate two dams in Roger Mills, OK.

Source: "With One Voice: The National Association of Conservation Districts", R.Neil Sampson, 2009, pages 183 - 186.

December 2000 - In December of 2000, the Natural Resources Conservation Service (NRCS) released the "Comprehensive Nutrient Management Planning (CNMP) Technical Guidance" to be used in assisting livestock and poultry producers to voluntarily address their water quality concerns. This Technical Guidance was contained in the NRCS National Planning Procedures Handbook, the agency's policy on conservation planning procedures to be used in implementing USDA voluntary conservation programs. The objective of a CNMP was to document the animal feeding operation owner's/operator's plan to manage manure and organic by-products by combining conservation practices and management activities into a conservation system that, when implemented, would achieve the goals of the producer and protect or improve water quality.

Source: "National Animal Agriculture Conservation Framework", USDA NRCS, December 2003, 23 pages.

January 2001 - The Natural Resources Conservation Service (NRCS) brought the (Geospatial) Resource Data Gateway (GDG) on-line. This web application provided a "storefront" for ordering geospatial datasets available from NRCS, the Farm Service Agency (FSA), and partner sources. It is a "one-stop" shop for environmental and natural resource data, at any time, from anywhere, and for anyone. It allows the user to choose his/her area of interest, browse and select data, customize the format, then review and download the data.

Source: "Geospatial Data Gateway", USDA NRCS, GDGHome.aspx, Retrieved from NRCS Website, December 11, 2019.

May 13, 2002 - The Farm Security and Rural Investment Act of 2002 (Public Law 107-171), or the 2002 Farm Bill, shifted U.S. agri-environmental policy from land retirement to conservation on working lands - land used primarily for crop production and grazing. The Act carried out a fundamental change in U.S. Department of Agriculture (USDA) conservation funding - from no longer attempting to maximize the number of acres in conserving uses to maximizing the environmental benefits for expended funds. Spending for conservation programs was increased by 80 percent over the previous Farm Bill, much of it going to the Environmental Quality Incentives Program (EQIP) and Conservation Security Program for lands used for crop

Conservation Enhancement Comes To The Forefront

2000 - 2009

production, grazing, and livestock related issues. With the new Conservation Security Program, environmental enhancements took priority over other benefits and rewarded farmers and ranchers for practicing high-level of conservation on their lands.

Land retirement programs (WRP and CRP) placed particular emphasis on wetlands. The Act also created the Grassland Reserve Program (GRP) to assist landowners in restoring and conserving grasslands. The Wildlife Habitat Incentives Program (WHIP) received a ten-fold increase over the 1996 Farm Bill. The Farmland Protection Program (FPP), which provided funds to State, Tribal, and local governments and nonprofit organizations to help purchase easements to prevent the development of productive farmland, also received increased funding.

It was with the 2002 Act that NRCS became responsible for most of the Conservation Title II programs. The payment functions for EQIP, WRP, and other conservation programs that had remained with FSA after the 1996 Farm Bill shifted to NRCS. The exceptions to this were FSA retained the administration of the Conservation Reserve Program, with NRCS continuing to provide its technical assistance, and the Grassland Reserve Program that shared between FSA and NRCS (with FSA the lead for rental contracts and NRCS the lead for easements).

Congress also authorized \$275 million in Commodity Credit Corporation (CCC) funding and \$325 million in discretionary funding for rehabilitation of dams in the 2002 Farm Bill. Over 11,800 flood control dams were built in 2,000 watersheds across the nation since 1948 with Soil Conservation Service/Natural Resources Conservation Service (NRCS) assistance.

The 2002 Farm Bill also introduced the Regional Equity Provision. This Provision gave priority mandatory conservation program funds to approved applications in any state that had not received at least \$12 million in NRCS funding for the fiscal year.

The 2002 Act also was the first Farm Bill to contain an energy title. This title was designed to promote the development of bio-based products by encouraging federal procurement of them, providing grants and loans for renewable energy projects, and funding vital research and development in bioenergy. Responsibilities in USDA related to the energy title were distributed among 11 agencies. In response, NRCS developed and implemented initiatives through the Conservation Security Program and the EQIP, which also favorably impacted water conservation and livestock manure and wastewater management.

Sources: 1) "History and Outlook for Farm Bill Conservation Programs", Choices, Zachary Cain and Stephen Lovejoy, 4th Quarter 2004, pages 40 and 41; 2) "Technical Assistance for Agriculture Conservation", Every CRSReport.com, June 29, 2007 - January 7, 2011.

June 17-18, 2002 - The U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), convened a national dialogue on feed management and diet

manipulation in confined livestock production on June 17 and 18, 2002. About 80 professionals with varying interests and responsibilities related to feed management participated in this dialogue to share their thoughts and perspectives. The dialogue was a first step in identifying technical and institutional challenges associated with the broader implementation of feed management strategies. A report summarized the dialogue's findings and recommendations. "Feed management" was recognized as a means to reduce nutrient outputs in animal manure; NRCS developed a conservation practice standard to support the implementation of this beneficial water quality measure as part of a comprehensive nutrient management plan (CNMP).

Source: "National Animal Agriculture Conservation Framework", USDA NRCS, December 2003, 23 pages.

December 15, 2002 - The U.S. Environmental Protection Agency (EPA) released its revised Concentrated Animal Feeding Operation (CAFO) Rule in the Federal Register. The U.S. Department of Agriculture (USDA) had entered into a collaborative process with EPA on development of the CAFO rule. The USDA identified issues, suggested strategies and approaches to resolve issues, and provided data and information to support additional analysis. The EPA recognized that the USDA Natural Resources Conservation Service-defined comprehensive nutrient management plan satisfied the EPA's nutrient management plan requirements for a CAFO. Secretary of Agriculture Veneman joined EPA Administrator Whitman for the press conference releasing in Washington, D.C. the revised CAFO rule.

Source: "National Animal Agriculture Conservation Framework", USDA NRCS, December 2003, 23 pages.

January 2003 - The Natural Resources Conservation Service (NRCS) released a beta version of ProTracts in January 2003, a web-based application for managing conservation program cost-share contracts for Texas. ProTracts was later deployed nationwide in October 2003 and still serves NRCS all of the years after for its management of conservation contracts such as for EQIP and Conservation Security Program.

Source: "An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)", Jack Carlson, Retired NRCS CIO, November 27, 2009; page 3.

March 1, 2003 - The Natural Resources Conservation Service (NRCS) brought the Technical Service Provider Registry (TechReg) on-line. The web application provided the ability to manage the registration, certification, and profiles of technical service providers, which landowners/landusers could use to meet their conservation goals. NRCS also maintains a Technical Service Provider (TSP) website that contains other information for TSPs and landowners/landusers.

Conservation Enhancement Comes To The Forefront

2000 - 2009

Sources: 1) 2020 USDA Explanatory Notes, Natural Resources Conservation Service, page 27-41; 2) "An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)", Jack Carlson, Retired NRCS CIO, November 27, 2009; page 3.

May 2003 - The U.S. Department of Agriculture (USDA) formed a cross-agency Environmental Credit Trading Work Group to evaluate emerging issues associated with environmental credit trading. The Work Group was intended to facilitate consistent, efficient, and effective agency-level policies and activities that further enabled USDA clients to participate in market-based environmental stewardship to optimize environmental and economic benefits. The Work Group consisted of ARS, CSREES, ERS, Forest Service, FSA, NRCS, Rural Development, the Office of the Chief Economist, and the Office of General Counsel.

Source: "Environmental Credit Trading - A Tool to Increase Agricultural Conservation Implementation", Briefing Paper, U.S. Department of Agriculture, 2003.

May 16, 2003 - The U.S. Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System Permit Regulation and Effluent Limitations Guidelines and Standards for Concentrated Animal Feeding Operations Regulation, 40 CFR Parts 122 and 412 (CAFO Rule), became effective on April 14, 2003. The new regulations expanded the universe of CAFOs that were required to obtain National Pollutant Discharge Elimination System permits to address the discharge of pollutants to waters of the United States. On May 16, 2003, EPA and the U.S. Department of Agriculture (USDA) signed a "Statement of Involvement" reflecting mutual interest in meeting the needs of the CAFO owners and operators that resulted in the implementation of the revised rule. The statement recognized it was the responsibility of EPA and State Permitting Authorities to implement and ensure compliance with the CAFO Rule. USDA was to assist EPA and States to be aware of the needs of producers in meeting CAFO Rule requirements. USDA had substantial interest in the CAFO Rule implementation because of the Department's role in helping producers to develop and implement Comprehensive Nutrient Management Plans (CNMPs) that promoted natural resource management and protected water quality.

Source: "National Animal Agriculture Conservation Framework", USDA NRCS, December 2003, 23 pages.

June 2-4, 2003 - The Natural Resources Conservation Service (NRCS), along with the U.S. Department of Energy, and the Water Environment Federation, sponsored "Anaerobic Digester Technology Applications in Animal Agriculture - A National Summit" in Raleigh, North Carolina from June 2 through 4, 2003. This Summit provided a forum for examining the opportunities for the public and private sectors to work together to facilitate digester adoption

within the context of animal manure and wastewater management, rural economics, and environmental improvement. In reference to the Summit, then NRCS Chief Bruce Knight said:

"AD (anaerobic digester) technology represents a great opportunity to not only take advantage of a renewable energy source, but it can help address air quality and water quality concerns associated with animal agriculture production - we simply need to do everything possible to help producers utilize this technology."

Source: "Summit to Focus on Use of Manure as Renewable Energy Source", WaterWorld, May 5, 2003.

June 2003 - The Natural Resources Conservation Service (NRCS) released Part 1 of the "Costs Associated with Development and Implementation of Comprehensive Nutrient Management Plans (CNMPs)", the results of U.S. Department of Agriculture's assessment of the costs for developing and implementing CNMPs based on NRCS criteria for the first four elements: Manure and Wastewater Handling and Storage, Land Treatment Practices, Nutrient Management, and Recordkeeping. Definitive information on CNMP costs was needed to inform policy development, formulate budgets, and provide insight for the implementation of financial assistance programs, such as EQIP.

Source: "Costs Associated with Development and Implementation of Comprehensive Nutrient Management Plans (Part I), USDA NRCS, June 2003.

December 2003 - The "Natural Resources Conservation Service (NRCS) National Animal Agriculture Conservation Framework" was established as a blueprint for NRCS to focus its efforts in working with America's livestock and poultry producers to help them address their conservation needs. The Framework contained 14 strategies for public and private collaboration to assist livestock and poultry producers to meet regulatory requirements, reduce the need for further regulation through flexible, multi-natural resource solutions, promote innovation and market-based approaches, and share knowledge and increase accountability.

Source: "The National Animal Agriculture Conservation Framework, U.S. Department of Agriculture, 2003.

2003 - The Conservation Effects Assessment Project (CEAP) was initiated in 2003 as an interagency effort to quantify the environmental benefits of conservation practices at watershed scales and nationally, and thereby help quantify the environmental benefits conservation programs are producing. CEAP was driven by two important changes in U.S.

agricultural conservation policy: 1) a growing emphasis on environmental challenges, and 2) a major increase in public funding for U.S. Department of Agriculture conservation programs.

CEAP was initiated by the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS), the Agricultural Research Service (ARS), and the Cooperative State Research, Education and Extension Service (CSREES). Other federal agencies, including the Farm Service Agency (FSA) and the National Agricultural Statistics Service (NASS), and nongovernmental organizations with natural resources and conservation interests, have been partners in various CEAP activities, often through jointly-funded research projects.

CEAP activities were originally organized into three interconnected efforts: 1) bibliographies, literature reviews, and scientific workshops, 2) watershed assessment studies, and 3) national and regional assessments.

Source: "Conservation Effects Assessment Project: Assessing Conservation Practice Effects on Grazing Lands", L.J. Metza and Charles A. Rewab, 2016.

April 22, 2004 - On Earth Day, April 22, 2004, the President established a new goal to move beyond the national policy of "no net loss" of wetlands to one of achieving an overall gain by creating, improving, and protecting three million acres of wetlands by Earth Day 2009. More than 3.6 million acres of wetlands were restored, protected, and improved by Earth Day 2009.

Cooperative conservation was a cornerstone of this effort across federal agencies and with State, Tribal, and local governments; private institutions; and other nongovernmental entities and individuals to meet the initiative's goals. Both the Farm Service Agency and the Natural Resources Conservation Service were strong contributors through seven separate programs.

Source: "President Announces Wetlands Initiative on Earth Day", White House; Wells, Maine, 2004.

July 23, 2004 - The Natural Resources Conservation Service (NRCS) posted to its website the "Environmental Quality Incentives Program (EQIP) Livestock Emphasis Action Plan (LEAP)." LEAP contained 24 separate action items to assess, evaluate, improve, and enhance NRCS assistance to the livestock industry, especially through EQIP. Of the 24 actions in LEAP, six were geared toward determining opportunities for improvement and enhancement of NRCS assistance, four involved EQIP ranking criteria, three were related to information and training, four focused on policy and guidance, and five involved working with other organizations. As of August 11, 2004, 70 percent of the 24 action items were complete, with 100 percent completion targeted for April 2005.

Source: "EQIP Livestock Emphasis Action Plan", Presentation PowerPoint Slides, Thomas W. Christensen, Director, Financial Assistance Programs Division, September 25, 2004.

2004 - The Natural Resources Conservation Service (NRCS) initiated its first cycle of true competitive grants to drive public and private sector conservation innovation under the authority of the 2002 Farm Bill's Conservation Innovation Grants (CIG) under the Environmental Quality Incentives Program (EQIP). Grantees developed tools, technologies, and approaches to support next-generation conservation efforts on working lands, and must typically match the NRCS CIG investment at least one-to-one. The 2018 Farm Bill added authorization in CIG for on-farm trials to support widespread adoption of innovative approaches, practices, and systems on working lands. Since the first grant awards in fiscal year 2004, NRCS has awarded almost \$300 million in grants at the national level alone to over 700 awardees. State-level awards at a lesser dollar value, on a smaller scale, and not in every State also have been made over these same years.

Source: "Conservation Innovation Grants" on NRCS Website Under "Home/ Programs/ Financial Assistance", Retrieved on December 16, 2019.

January 2005 - In collaboration with Texas A&M University, the Agricultural Research Service used over 30 years of data to update the Soil and Water Assessment Tool (SWAT) computer model to address water pollution on federal, State, and local levels. SWAT is a small watershed to river basin-scale model to simulate the quality and quantity of surface and ground water and predict the environmental impact of land use, land management practices, and climate change. SWAT is widely used in assessing soil erosion prevention and control, non-point source pollution control, and regional management in watersheds.

Source: "Soil and Water Assessment Tool Theoretical Documentation", SWAT.tamu.edu; Version 2005.

February 2005 - The Natural Resources Conservation Service (NRCS) released the first-ever comprehensive policy for the operation of its Conservation Technical Assistance (CTA) Program, funded under the Conservation Operations Account. Previously, policy related to the CTA Program was located in disparate portions of agency policy statements and manuals, and was not cohesive nor comprehensive.

In the 2005 CTA Program policy, NRCS also established five program priorities for the CTA Program as follows:

- Development of comprehensive nutrient management plans (CNMPs) to assist the owners and operations of animal feeding operations; particularly, those who need to comply with the EPA's Concentrated Animal Feeding Operation Rule.

Conservation Enhancement Comes To The Forefront

2000 - 2009

- Reduction of non-point source pollution, such as nutrients, sediments, pesticides, or excess salinity in impaired watersheds.
- Reduction of emissions that contribute to air quality impairment.
- Reduction in soil erosion and sedimentation from unacceptable levels on agriculture lands.
- Promotion of at-risk species habitat conservation.

The CTA Program has been funded by discretionary appropriations through NRCS's Conservation Operations Account from the U.S. Congress annually. It works in partnership with the locally-led processes and other conservation programs to address national priorities in concert with local and State needs efficiently and effectively.

Statutory authorities that serve as the foundation for the CTA Program policy stem from the Soil Conservation Act of 1935 (Public Law 74-46), as amended, and multiple pieces of federal legislation since that time, including numerous Farm Bills. The policy is further supported by the CTA Program Rule (7 CFR Part 610).

The CTA Program was for many decades, and remains today, the foundation for on-the-ground technical assistance to farmers, ranchers, forest stewards, communities, nonprofit organizations, other agencies to help them voluntarily conserve, improve, and sustain natural resources, with an emphasis on private lands.

Source: "Technical Assistance - The Engine of Conservation", Prepared for the Partnership Meeting, March 15, 2005, NRCS, Historical Insights Number 5, J.Douglas Helms, Historian, March 2005, page 5.

April 4, 2005 - The Wind Erosion Prediction System (WEPS) model was delivered by the Agricultural Research Service (ARS) to the Natural Resources Conservation Service. It is a computer model for forecasting wind erosion damage in the Great Plains states. ARS remains the lead agency for developing the science of the WEPS model, which seeks to accurately simulate soil loss by wind. The model is essential for, among other things, environmental and conservation planning, natural resource inventories, and reducing air and water pollution from wind-blown soil materials.

Source: "An Introduction to the Wind Erosion Prediction System", Researchgate.net, John Tatarko and Larry Wagner, January 1, 2007.

August 15, 2005 - The Natural Resources Conservation Service brought the Web Soil Survey on-line, enabling users to “zoom” to their geographic area of interest to analyze soil resources and view or print soil interpretations. The Web Soil Survey remains in use today.

Sources: 1) “Web Soil Survey Frequently Asked Questions”, U.S. Department of Agriculture, 2019; 2) “An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)”, Jack Carlson, Retired NRCS CIO, November 27, 2009; page 3.

May 2 through June 22, 2006 - The Natural Resources Conservation Service (NRCS) initiated the inaugural Conservation Planning Boot Camp. The Boot Camp was designed for new NRCS and conservation district field employees to teach them how to guide decision makers through a comprehensive conservation planning process that complies with NRCS national policies and procedures. The course uses classroom and hands-on field experience over multiple weeks to provide foundational skills that improve the ability of field conservationists to work with farmers and ranchers to address their conservation needs through a conservation plan.

Source: Verbal communication between Jeffrey Dziedzic, former NRCS National Employee Development Center Director, and Jon Vrana, FPAC Business Center; November 2019.

April 6, 2006 - In cooperation with the U.S. Environmental Protection Agency, Agricultural Research Service scientists developed a geographic information system (GIS)-based hydrologic modeling tool that integrates national watershed data and state-of-the-art environmental assessment and modeling tools into one convenient package, named the Automated Geospatial Watershed Assessment (AGWA) tool.

Source: “Automated Geospatial Watershed Assessment (AGWA): A GIS-Based Hydrological Modeling Tool for Watershed Management and Landscape Assessment”, U.S. Environmental Protection Agency.

2006 - The Conservation Effects Assessment Project (CEAP) began in 2003 as a multi-agency effort to quantify the environmental benefits of conservation practices applied through U.S. Department of Agriculture (USDA) conservation programs. A few years into the Project, USDA asked the Soil and Water Conservation Society (SWCS) to facilitate an external policy-level review of CEAP. This external review was intended to help USDA understand how best to design and package CEAP outputs based on input from future users to CEAP information, and to recommend refinements of planned approaches or new approaches to enhance capacity to produce comprehensive national assessments.

SWCS assembled a blue-ribbon panel of governmental and non-governmental leaders and academics to represent the communities who would use, interpret, and shape opinion

Conservation Enhancement Comes To The Forefront

2000 - 2009

regarding CEAP outputs and their meaning and value. This panel met twice in 2005 related to this original charge, and an additional time in response to a request from USDA to help identify ways for CEAP to inform the upcoming 2007 Farm Bill Conservation Title debate. The panel issued a preliminary report in March 2005, a second report in September 2005, and a final report in 2006.

In summary, the SWCS-assembled blue-ribbon panel strongly endorsed the purpose of CEAP; recommended a change in its direction to become the coherent, science-based assessment and evaluation system relied upon by policy-makers and the conservation community (use CEAP for solving problems versus estimating environmental effects); encouraged the use of CEAP to inform strategic resource management by answering the question "What did we do last year"?; and, recommend continued use of CEAP to build the science-base for strategic resource management on working lands.

Source: "Final Report from the Blue-Ribbon Panel Conducting an External Review of the U.S. Department of Agriculture Conservation Effects Assessment Project"; Soil and Water Conservation Society; 2006, 24 pages.

January 17, 2007 - *"Everything that happens begins with our basic conservation technical assistance, and as producers decide to adopt specific plans or practices, they may build on that technical assistance by utilizing the financial assistance available from the suite of Farm Bill programs."*

Source: Arlen Lancaster, Chief, USDA Natural Resources Conservation Service, Testimony on January 17, 2007. During the Hearing on "Working Lands Conservation: Conservation Security Programs and Environmental Quality Incentives Program", Before the Committee on Agriculture, Nutrition, and Forestry, United States Senate, Washington, D.C.

January 2008 - The Agricultural Research Service collaborated with the Natural Resources Conservation Service to develop tools that streamline the process of developing computer models and decision-support tools used by agricultural producers and others in natural resource analysis and conservation planning. These tools included the Object-Modeling System and an updated Wind Erosion Prediction System (WEPS). The WEPS replaced the legacy Wind Erosion Equation (WEQ) software developed in 1965 and automated in the 1990s. this system estimated wind erosion and air particulates for conservation planning and resource assessment.

Source: "An Information Technology Chronology: Natural Resources Conservation Service (DRAFT)", Jack Carlson, Retired NRCS CIO, November 27, 2009; page 3.

March 2008 - The Natural Resources Conservation Service (NRCS) and Agricultural Research Service (ARS) worked together to develop a prototype Nitrogen Trading Tool (NTT) that would predict nitrogen losses across a range of soils, climates, crops, and management practices. NRCS and ARS also developed an online nitrogen management tool describing best management practices for dairy farms that utilize a whole-farm perspective.

Source: "Assessment of Nitrogen Losses to the Environment with a Nitrogen Trading Tool (NTT)", USDA Agricultural Research Service, 2008.

April 14, 2008 - The final report of the Air Quality, Climate Change, and Energy (ACE) Integration Working Group is issued on April 14, 2008 within the Natural Resources Conservation Service (NRCS). The Working Group was comprised of a diverse number of subject matter experts across the NRCS Deputy Chief Areas for Programs, Science and Technology, and Soil Survey and Resource Assessment, plus NRCS representatives from States. The report established a baseline of NRCS ACE-related activities at that time, reported on the views of States on agency ACE actions, and provided recommendations for ACE integration opportunities for increased NRCS efficiency and effectiveness.

The report of the ACE Integration Working Group included 14 recommendations for action across the following five categories: policy integration, both programmatic and technical; conservation planning and program implementation; database integration; technology and training integration; and, communication plan development and implementation. The intent of these recommendations was to achieve better coordinated and focused NRCS efforts toward addressing the then evolving concerns of air quality, climate change, and energy - recognizing their important interrelationships.

Source: "Air Quality, Climate Change, and Energy (ACE) Integration Working Group Final Report", Natural Resources Conservation Service, April 14, 2018.

April 25, 2008 - Agricultural Research Service scientists and their cooperators developed an updated version of the USDA nitrogen computer simulation model, the Nitrogen Loss and Environmental Assessment Package (NLEAP), which can predict nitrogen form, application rate, timing, and application alternatives for different cropping systems and conditions.

Source: "Nitrogen in Agricultural Systems: Implications for Conservation Policy", Economic Research Report Number 127, USDA Economic Research Service, September 2011.

June 18, 2008 - The Food, Conservation, and Energy Act of 2008 (Public Law 110-246) increased authorized funding for conservation programs by \$4.2 billion, focused on

agricultural and forestry working lands, expanded the Water Quality Incentive Program (WQIP), and continued the Wildlife Habitat Incentives Program (WHIP). The Conservation Stewardship Program replaced the Conservation Security Program, with more emphasis on enhancements and maintenance of existing conservation. The 2008 Farm Bill also introduced the Cooperative Conservation Partnership Initiative (CCPI) to better support landscape-scale conservation efforts and the Agricultural Water Enhancement Program (AWEP) to promote water conservation and improve water quality on agricultural lands through regional-level partnership agreements and producer-level contracts. Additionally, the Act recognized agricultural production and conservation as compatible goals, and expanded outreach opportunities. Section 2802 of the Act also amended the Soil Conservation and Domestic Allotment Act of 1936 to define technical assistance, including both technical services and technical infrastructure, for greater clarity and recognition of its breadth and depth in conservation work.

The Natural Resources Conservation Service (NRCS) also established the Agriculture Conservation Experienced Services (ACES) Program for experienced workers, age 55 and over, to help provide technical services in support of its conservation work. The authority to take this action came from the 2008 Farm Bill.

Under the ACES Program, NRCS entered into agreements with nonprofit organizations that provided workers on a part-time or full-time basis. NRCS provided funds, office space, position descriptions, work assignments and oversight for the ACES positions, while the nonprofit organization handled advertising, recruiting, hiring and payroll for each position. Available positions spanned a variety of skill sets and education levels. In addition to wages, NRCS covered administrative fees such as federal payroll tax, unemployment compensation, and pay increases. ACES enrollees were neither federal employees nor State agriculture department employees, and their wages did not impact retirement annuities.

Starting in 2008 and as a result of the authority from Public Law 110-246 (Food, Conservation, and Energy Act of 2008), agricultural producers participating in certain NRCS conservation programs could hire a Technical Service Provider (TSP) to help them plan, design, and implement conservation practices or develop conservation activity plans (CAPs) to improve conservation on their operation. TSPs have expanded the number and availability of conservation technical experts capable of offering customized, one-on-one conservation advice/expertise to producers. TSPs include qualified individuals, private businesses, American Indian Tribes, nonprofit organizations, and public agencies.

Participants in the NRCS Environmental Quality Incentives Program (EQIP), with an approved contract that includes TSP services, can be reimbursed for the services of a TSP at the rate established by the program. TSPs are registered or certified in a national directory maintained by NRCS (Tech Reg).

(NOTE: Public Law 110-234 was originally enacted on May 22, 2008, but Title III (Trade) had been excluded. The Law was passed again on June 18, 2008 as Public Law 110-246 in the next session of the U.S. Congress.

Source: Public Law 110-246, June 18, 2008.

August 2008 – The Natural Resources Conservation Service established the Conservation Delivery Streamlining Initiative (CDSI), an outgrowth of the November 2007 report titled “Conservation Assistance Streamlining through Process Reengineering (CASPeR).” In support of the CASPeR report’s recommendations, CDSI was initiated in August 2008 at an NRCS leadership meeting in Tucson, Arizona. CDSI’s purpose was to develop workflows that simplified conservation delivery, streamlined business processes, and ensured science-based conservation assistance. An integrated information technology system was to be developed to implement these improvements through three major integrated components: Conservation Desktop (CD), Conservation Client Gateway (CCG), and the Mobile Planning Tool (MPT). CCG and CD were successfully deployed in 2014 and 2019, respectively. Work on the MPT continues into FY2020, with implementation slated for FY2021.

Innovations introduced through CDSI implementation as of December 2019, included but were not limited to:

- Document management repository that enabled field conservationists and customers to collaborate on and share documents real-time from one consolidated secure platform.
- Customer-facing application (Conservation Client Gateway) that was fully integrated with employee tools (Conservation Desktop).
- Electronic signatures that allowed customers to sign key documents on-line.
- On-line customer verification platform that enabled customers to verify identity from their home, office or tractor cab.
- Ability for customers to import and export geospatial map layers for their unique operations that allowed them to better engage in precision agriculture.

Sources: 1) Email from George W. Cleek, Conservation Section Chief, Information Solutions Division, FPAC Business Center, USDA. March 26, 2019; 2) “NRCS Conservation Delivery Streamlining Initiative (CDSI)”, Briefing Paper for FPAC Leadership, April 26, 2019, 2 pages; 3) “ITD - Conservation Delivery Streamlining Initiative”, August 30, 2017 USDA NRCS Memorandum from NRCS Acting Chief, Associate Chiefs, Regional Conservationists, and Deputy Chiefs to NRCS Enterprise Business Initiatives and Information Technology Team Members.

February 17, 2009 - The American Recovery and Reinvestment Act of 2009 (Public Law 111-5) provided \$340 million to jump start the Natural Resources Conservation Service's (NRCS's) Watershed Protection and Flood Prevention Operations Program (at \$145 million), the Watershed Rehabilitation Program (at \$50 million), and the Floodplain Easement component of the Emergency Watershed Protection Program (at \$145 million). The Act's funding was intended to create and sustain jobs and provide opportunities for economic relief to local communities while addressing critical health and safety issues, improving conservation benefits, and creating/maintaining open spaces. By March 2011, the Natural Resources Conservation Service (NRCS) successfully entered into 1,400 contracts, grants, and agreements, awarding all \$340 million in Recovery Act funding to help rebuild American infrastructure and improve natural resources.

Source: Statement of Thomas W. Christensen, NRCS Regional Conservationist, Before the House Transportation and Infrastructure's Subcommittee on Water Resources and the Environment on March 8, 2011.

September 2009 - The Natural Resources Conservation Service (NRCS) initiated a number of major landscape-scale conservation initiatives based on critically important natural resource concerns in watersheds and other targeted geographic areas. These partnership-based initiatives, were intended to accelerate the realization of the benefits of voluntary conservation programs, including cleaner air and water, healthier soil, and enhanced wildlife habitat.

These landscape-scale conservation initiatives were designed to enhance the locally-driven process to better address nationally and regionally important conservation goals that transcend localities. They built on locally-led efforts and partnerships, and were based on science. Through these initiatives, NRCS and its partners coordinated the delivery of assistance to where it would have the most impact. Where applicable, NRCS worked with regulators to help producers get predictability for their use of voluntary conservation systems or practices, giving them peace of mind that they could sustain agricultural production in the future.

These landscape-level efforts have seen successful across the country. From the removal of streams from the federal impaired waters list to the determination not to list the Greater Sage-Grouse and New England Cottontail, NRCS's work with producers has benefitted wildlife, natural resources, and agricultural operations across the country.

Since establishing the initiatives under the programs of the 2008 Farm Bill, NRCS has used successes and lessons learned to enhance the delivery of the initiatives. With tools like the Regional Conservation Partnership Program, the 2014 Farm Bill further emphasized the focus on building effective partnerships and obtaining meaningful results for key natural resource concerns.

By 2019, the Landscape-Scale Conservation Initiatives included: nine water-based ones, three wildlife and ecosystem-based ones, two regional pollinator ones, and six others of a variety of focus issues.

Sources: 1) "Voluntary Conservation Works, and Further Water Quality Gains Can Be Achieved", *Water Resources Impact*, Volume 14, Number 6, Thomas W. Christensen, USDA NRCS, November 2012, pages 10-14; 2) "Landscape Initiatives" on NRCS Website Under "Home/ Programs/ Landscape Initiatives", Retrieved on December 16, 2019.

2009 - The 2008 Farm Bill eliminated the authority for cost-share and incentive payments for the Environmental Quality Incentives Program (EQIP) and a number of other programs. The 2008 Act established maximum payment limitations of 75 percent of the estimated incurred costs and up to 90 percent of estimated incurred costs for historically underserved participant program payments. The Act also allowed for the inclusion of forgone income for implementing certain conservation practices approved by the Natural Resources Conservation Service (NRCS) that resulted in a change in land use or land taken out of production associated with the adoption of a conservation practice: (Note: Forgone income is a one-time cost not the estimated loss over the lifespan of the practice).

To meet this 2008 Farm Bill requirement, NRCS established "payment schedules" as the basis for NRCS's determination of incurred costs and income foregone associated with practice implementation. These payment schedules afford the agency the ability to:

- Justify program payments to assure compliance with World Trade Organization (WTO) treaties and agreements;
- Make payments for certified practices based upon NRCS determination of cost estimates without need to collect receipts or verify actual cost; and
- Document costs for typical practice application in payment schedules.

Beginning in Fiscal Year 2009, the agency has used payment schedules to document the costs of practice implementation, and provide public transparency in determination of payment rates to support certain program payments administered through NRCS's ProTracts contracting software. The methods for development of payment schedules must include assurances that payments meet program authority, reduce potential for improper payments, and provide adequate financial assistance to encourage adoption of practices.

Source: "Payment Schedule Handbook (Title 300), Payment Schedules (Part 600)", NRCS General Manual (300-600-H 1st Ed., October 2016).



Landscape-Scale Conservation Rises Again

2010 - 2019

“The quality of our environment depends on the quality of the decisions made by the men and women who own and operate our private lands.”

Dave White, Chief, USDA Natural Resources Conservation Service, 2009-2012.

LANDSCAPE-SCALE CONSERVATION RISES AGAIN

2010 - 2019

“No matter what program, we want to be sure it’s tailored to address the needs of a farmer.”

“Farm Progress”, Bill Northey, Under Secretary, USDA Farm Production and Conservation Mission Area, May 9, 2018 in an article by Brad Robb.

Water quality continued as a high priority in 2010 and later for the U.S. Department of Agriculture’s (USDA) private lands conservation efforts, with a number of new initiatives implemented. The Natural Resources Conservation Service (NRCS) developed two new conservation practice standards that enabled financial assistance to be provided to farmers and ranchers for the strategic implementation of “edge-of-field” water quality monitoring through the Environmental Quality Incentives Program (EQIP), first in select watersheds in the Mississippi River Basin Healthy Watersheds Initiative. This monitoring served to support the ongoing quest to better quantify the efficacy of conservation systems on varying landscapes. Stronger emphasis also was placed in the Upper Midwest on helping producers to improve their management of agricultural drainage waters, recognizing both the production and environmental benefits of this conservation measure. The NRCS also developed and implemented, in concert with many partners, a number of new landscape-scale conservation initiatives, such as the Mississippi River Basin Healthy Watersheds Initiative, with strong water quality improvement emphasis. In 2012, the new small watershed-focused National Water Quality Initiative was implemented in cooperation with the U.S. Environmental Protection Agency and State water quality agencies. USDA, principally through NRCS, also collaborated with a number of states on the development of water quality “certainty” programs, with Minnesota implementing a program in 2012. And the technical synthesis and lessons learned from the Conservation Effects Assessment Project’s watershed studies were released to help improve the management of agricultural landscapes for enhanced water resource outcomes.

This decade also saw the passage of two Farm Bills, in 2014 and 2018. The 2014 Farm Bill consolidated a number of Title II conservation programs and created a “four-sided pyramid” with attention to environmental enhancements on working lands, support for partnerships to address regional environmental issues, opportunities for the retirement of environmentally sensitive lands, and continuing conservation easement assistance. Through the 2014 Farm Bill, some funding was shifted toward the regional partnership efforts and overall authorized funding for USDA’s conservation programs grew again as compared to baseline from the 2008 Farm Bill. The 2018 Act reauthorized and amended portions of most conservation programs. Importantly, the Regional Conservation Partnership Program from the 2014 Farm

Landscape-Scale Conservation Rises Again

2010 - 2019

Bill was reauthorized and amended to become a standalone program and no longer draw funds from other conservation programs. The 2018 Farm Bill also required a number of conservation programs to focus a dollar amount or percentage of a program's funding to resource-specific initiatives, issues, or subprograms.

In December of 2014, NRCS first deployed the Conservation Client Gateway (CCG) to provide farmers, ranchers, and forest stewards easy electronic web access to their conservation plans and conservation program financial assistance contracts. As the first component of the major Conservation Delivery Streamlining Initiative (CDSI) to become operational, CCG provided secure transactional functionality, including the ability for customers to electronically sign documents, manage their documents, report completed conservation practices, and track payments. In 2019, the centerpiece of CDSI, the Conservation Desktop, became fully operational, and work continued on Farmers.gov to move the CCG functionality to a new software platform. Work also was initiated in 2019 toward the development of a single Modernized Common Conservation Contracting System to replace the aging and stove-piped separate systems that supported contract obligations, management, and payments for USDA's conservation financial assistance programs.

From 2015 to 2017, there were important developments with the core conservation partnership. The first-ever national-level Memorandum of Agreement (MOA) between the National Association of Conservation Districts, the National Association of Resource Conservation and Development Councils, the National Association of State Conservation Agencies, the National Conservation District Employees Association, and NRCS was signed in February 2015. The purpose of this MOA was to encourage strong national, Tribal, regional, State, and local-level partnerships, as well as strengthen cooperation among the partners to result in coordinated interagency delivery of conservation assistance to private landowners, communities, and others to sustain the health, diversity, and productivity of the nation's natural resources. In April 2015, the same core conservation partners formed the National Conservation Planning Partnership to reinvigorate the partnership's commitment to conservation planning with farmers, ranchers, and forest stewards as the decision-makers for private lands conservation. In Lincoln, Nebraska in June of 2017, these same partners held a national leadership development symposium titled "Improving the Delivery of Conservation." This symposium highlighted the accomplishments of over 80 years of an effective partnership in support of the nation's private lands conservation movement, and highlighted the premier of the new USDA-produced documentary - - "Hugh Hammond Bennett: The Story of America's Private Lands Conservation Movement."

The decade of the 2010's continued to see the advancement of numerous other efforts important to private lands conservation. In 2011, NRCS formed three regional Tribal Advisory Committees to establish a direct line of communication between Tribes and NRCS leadership at the State, regional, and national levels, and to provide a standing venue for NRCS to gather input on Tribal conservation issues. In 2014, NRCS formed a Soil Health Division to support

through science, technical knowledge transfer, and education/training the growing efforts to integrate soil health as a central tenant of effective private lands conservation on farm and ranch working lands. In 2017, the new Farm Production and Conservation (FPAC) Mission Area was formed, bringing together the Farm Service Agency, NRCS, the Risk Management Agency, and the Business Center under one Under Secretary to improve the focus on domestic agricultural and conservation issues, and to provide enhanced service and responsiveness to the needs of the men and women farming, ranching, and practicing forest management across America. It was January of 2018 when the Optimally Productive Office (OPO) Study was launched to analyze the needs and locations of customers relative to the FPAC geographic footprint, workload, and productivity. The OPO Study has resulted in a data-driven tool for leaders to assess office productivity as a means to inform optimal staffing determinations and the FPAC office footprint.

Chronology

April 27, 2010 - The Secretary of Agriculture proclaims April 27, 2010, the 75th anniversary of the Natural Resources Conservation Service (formerly Soil Conservation Service) as "Natural Resources Conservation Service Day." The proclamation encourages the people of the United States to celebrate the agency's outstanding service to the Nation with appropriate observances and activities.

Source: Copy of the Secretary of Agriculture's Natural Resources Conservation Service Day Proclamation, April 27, 2010.

November 17, 2010 - The Farm Service Agency (FSA) amended regulations as required by the Food, Conservation, and Energy Act of 2008 (the 2008 Farm Bill) to implement a new Emergency Forest Restoration Program (EFRP). EFRP provided financial assistance to owners of nonindustrial private forestland to restore land that was damaged by a natural disaster on or after January 1, 2010. This interim rule also reorganized existing Emergency Conservation Program (ECP) regulations to incorporate EFRP and made minor technical amendments to the existing regulations for ECP, including general regulations to apply to both ECP and EFRP. EFRP, similar to the ECP, provides funding to restore privately-owned forests damaged by natural disasters.

Source: Federal Register, Vol. 75, No. 221, November 17, 2010.

2010 - The Natural Resources Conservation Service (NRCS) began to offer financial assistance for producers through the Environmental Quality Incentives Program (EQIP) to establish edge-of-field (EoF) water quality monitoring through the Mississippi River Basin Healthy Watersheds Initiative (MRBI) in fiscal year 2010. The purpose of the EoF monitoring was to evaluate conservation system performance, validate and calibrate NRCS's water quality models, and assist producers to make the best conservation investments possible, especially for adaptive management of their applied nutrients to cropland.

In 2013, NRCS expanded the areas in which EoF water quality monitoring was offered for financial assistance to the watersheds of the National Water Quality Initiative.

Source: Personal Knowledge and Involvement as NRCS Regional Conservationist for Central Region from 2009 - 2013, Thomas W. Christensen, FPAC Business Center Deputy Chief Operating Officer for Business Services, November 2019.

2010 - Following the Deep Water Horizon oil spill in the Gulf of Mexico, NRCS accelerated its already strong efforts to work side-by-side with landowners to get conservation on the ground. NRCS created landscape-level efforts, like the Migratory Bird Habitat Initiative (MBHI) and Gulf of Mexico Initiative (GoMI), as part of the agency's effort to provide landusers the tools they needed to be stewards of the land. Just weeks after the spill, NRCS launched MBHI, an effort to aid landowners in creating alternative habitat for migratory birds. Landowners in an eight-state area created 470,000 acres of habitat for the millions of migratory birds, including ducks, geese and shorebirds, that traveled the Mississippi Flyway each year to winter in Gulf of Mexico-area ecosystems, or in the case of many shorebirds, Central and South America.

Source: " USDA and Landowners Work Together to Overcome Oil Spill in the Gulf of Mexico", USDA NRCS, J. Fitscher, 2017.

April 15, 2011 - The U.S. Army Corps of Engineers (Mississippi Valley Division) (Corps) and the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) signed a Regional Memorandum of Understanding to provide a foundation for collaboration related to the protection, restoration, and management of water resources and related natural resources within authorities, policies, and procedures of the Corps and NRCS. The geographic scope of the MOU was the Mississippi River and its floodplains, from its headwaters to its delta--including tributaries and distributaries that were located in the Corps Mississippi Valley geographic boundaries.

The MOU had eight major objectives and was signed by the Corps' Major General Michael J. Walsh, Commander of the Mississippi Valley Division, and NRCS Regional Conservationists

Leonard Jordan (East) and Thomas W. Christensen (Central). It was signed at an event on the Corps' Mississippi River vessel in New Orleans, Louisiana.

Source: April 15, 2011 Regional MOU Between the Corps and NRCS.

July 2011 - Release of the U.S. Department of Agriculture (USDA) 2011 RCA Appraisal, as called for under the Soil and Water Resources Conservation Act (RCA) of 1977, which was reauthorized in the 2008 Farm Bill (Public Law 110-246) by the U.S. Congress. The USDA conducted a series of listening sessions, focus groups, and nationwide surveys in 2009 and 2010 to gain input for the Appraisal, in addition to collecting comments and ideas from the public. The focus of input was on the most pressing natural resources concerns, the workability of the existing USDA program of soil and water conservation, and new program and policy needs. The 2011 RCA Appraisal provided an overview of land use and the U.S. agricultural sector; of the status, condition, and trends of natural resources on non-federal lands; and USDA's program for soil and water resources conservation. The Appraisal also examined interrelated issues that had implications for U.S. agriculture and forestry: climate change, biofuels production, and the quality and availability of water.

Source: "RCA Appraisal 2011, Soil and Water Resources Conservation Act", U.S. Department of Agriculture, July 2011, 100 pages.

2011 - In response to the Natural Resources Conservation Service (NRCS) Conservation Effects Assessment Project (CEAP) analysis and the findings of the U.S. Environmental Protection Agency's (EPA) Science Advisory Board (SAB) regarding nutrient contributions to the Gulf of Mexico hypoxic zone, NRCS formed an Agricultural Water Management Team (AGWAMT) in 2011 to focus efforts on increasing producer adoption of drainage water management and the associated practices to reduce nutrient losses through new and existing subsurface drainage systems. Study results found that conservation practices and systems applied under USDA conservation programs were far more effective in reducing nitrogen losses associated with surface water runoff as compared to losses associated with subsurface water.

The USDA AGWAMT was charged with working closely with nonfederal partners to develop innovative conservation practices targeted at reducing nutrient loads from subsurface drainage systems; using the latest science and technology to identify priority areas where these practices would be most effective and have the greatest impact; developing incentives, outreach, and training materials to encourage greater adoption of these practices; revising Farm Bill conservation program processes to streamline how producers implement these practices; and, removing administrative burdens for both producers and USDA staff. The Team's principle area of focus was the Upper Mississippi River Basin (Illinois, Indiana, Iowa, Ohio, Michigan, Minnesota, Missouri, North Dakota, South Dakota, and Wisconsin). A

Landscape-Scale Conservation Rises Again

2010 - 2019

representative from Canada's counterpart to NRCS also was on the team, plus three leading experts on drainage water management from outside NRCS.

The AGWAMT also helped to develop and conduct an October 2011 National Summit on agricultural drainage water management for conservation benefits in Minneapolis, Minnesota. The USDA Summit was co-sponsored by the Sand County Foundation and brought together about 200 partners and stakeholders. The AGWAMT implemented its action plan in December 2011.

Sources: 1) "USDA's Effort to Improve Water Quality from Subsurface Drainage Systems", Briefing Paper for NRCS Chief and FSA Administrator, Paul J. Sweeney, Senior Project Leader, USDA NRCS, August 8, 2013; 2) "Ag Drainage Water Management", Briefing Paper for NRCS Leadership, Paul J. Sweeney, Senior Project Leader, USDA NRCS, February 21, 2013; 2 pages.

2011 - NRCS Tribal Advisory Committees were first authorized in the 1996 Farm Bill as advisory bodies on Tribal issues to USDA agencies including NRCS. In 2011, NRCS solicited members from federally recognized Tribes to serve on three regional Tribal Advisory Committees. These Committees were designed to establish a direct line of communication between Tribes and NRCS leadership at the State, regional and national levels and provide a venue for agency leadership to gather input on Tribal issues.

February 17, 2012 - Based on successful collaborative efforts in the Mississippi River Basin, Great Lakes, Chesapeake Bay, and other geographic initiatives, the National Water Quality Initiative (NWQI) began as a partnership effort between Natural Resources Conservation Service (NRCS), the U.S. Environmental Protection Agency, and state water quality agencies to identify and address impaired water bodies through voluntary conservation. NRCS provided targeted funding for technical and financial assistance in small watersheds for the planning and implementation of conservation systems designed to reduce erosion, lessen nutrient runoff, and enhance agricultural productivity and profitability. State water quality agencies and other partners contributed additional resources for watershed planning, implementation, water quality monitoring, and outreach. From 2012 to 2019, the NWQI had provided targeted assistance to apply conservation systems on over 825,000 acres in priority watersheds.

Sources: 1) Email Status Report on the National Water Quality Initiative from NRCS Regional Conservationist Thomas W. Christensen to USDA Natural Resources and Environment (NRE) Deputy Under Secretary Ann Mills dated April 3, 2012; 2) "Voluntary Conservation Works, and Further Water Quality Gains Can Be Achieved", Water Resources Impact, Volume 14, Number 6, Thomas W. Christensen, USDA NRCS, November 2012, pages 10-14.

March 8, 2012 - The Natural Resources Conservation Service (NRCS), in coordination with the U.S. Department of Interior's Fish and Wildlife Service (FWS), announced the beginning of the Working Lands for Wildlife (WLFW) partnership as part of the "America's Great Outdoors Initiative." WLFW enabled NRCS and the FWS to work with partners and private landowners to focus on voluntary conservation on working landscapes, using target species as the barometer for success. Since its formation in 2012, WLFW has assisted more than 4,700 producers to voluntarily improve habitat and productivity on more than 8.4 million acres of working lands amid 24 different working landscapes in 50 states. WLFW has used a conservation model of building on trust and credibility, a shared vision, a science-based strategic approach, accountability, the use of leveraging to bring investors together, and regulatory predictability through the Endangered Species Act. To date, successes have been shown with fluvial arctic graylings, Oregon chubs, sage grouses, lesser prairie chicken, New England cottontail, Louisiana black bear, and certain species of darter.

Sources: 1) Working Lands for Wildlife 2018 Fact Sheet, USDA Natural Resources Conservation Service; 2) "Working Lands for Wildlife: A Partnership for Conserving Landscapes, Communities & Wildlife", USDA Natural Resources Conservation Service, June 2016; 3) Presidential Memorandum - America's Great Outdoors, White House Archives, April 16, 2010.

May 15, 2012 - The U.S. Department of Agriculture's (USDA) National Institute for Food and Agriculture (NIFA) released the Synthesis Report on the Conservation Effects Assessment Project's (CEAP) NIFA Competitive Grant Watershed Studies, as part of the CEAP Watershed Assessment Studies. From 2004 to 2011, NIFA and the Natural Resources Conservation Service jointly funded 13 projects to evaluate the effects of cropland and pastureland conservation practices on spatial and temporal trends in water quality at the watershed scale. In some projects, participants also investigated social and economic factors that influence implementation and maintenance of practices.

The lessons learned from this synthesis strengthened the knowledge base for evaluating the impacts of conservation practices on water quality, helping to improve the management of agricultural landscapes for enhanced water resource outcomes, and also informed conservation policy. The consistent themes and lessons learned through the NIFA watershed studies included:

- Assess and plan conservation practice implementation at the watershed scale (in addition to the field or farm scale) for more effective water quality outcomes.
- Identify the pollutants of concern and the source of those pollutants before selecting conservation practices. Prioritize conservation practices in the critical areas of the watershed -- those areas that generate the most pollution -- to ensure the most effective use of resources.

Landscape-Scale Conservation Rises Again

2010 - 2019

- Select and apply practices that not only are effective in addressing the identified pollutants of concern but that also will be adopted and maintained on the landscape.
- Keep track of conservation practice implementation and land management activities to help assess accomplishments and additional treatment needs.
- Where conservation practice effectiveness is assessed scientifically, establish water quality monitoring protocols that are designed specifically to evaluate the change in water quality resulting from conservation treatment on the land.

Source: "Synthesis Report: CEAP-NIFA Competitive Grant Watershed Studies", USDA Natural Resources Conservation Service, Website, November 2019.

September 6, 2012 - The Natural Resources Conservation Service (NRCS) Regional Conservationists issued written guidance to State Conservationists on the U.S. Department of Agriculture's (USDA's) approach to helping States develop what were broadly known as "certainty" programs. This guidance was not intended to be the final word on how USDA viewed certainty programs given the newness of the concept and recognizing that understanding would grow with experience and interaction with States and stakeholders. The guidance made clear that USDA supported States' efforts to adopt, develop, or explore certainty programs and identified nine specific considerations for State Conservationists as they worked with States on these efforts. Certainty programs were intended to give producers a guarantee that if they implemented specific conservation practices on their land, and maintained those practices, they would be in compliance with State and Federal regulations and would not be asked to do more by a regulatory authority for a set period of time.

Source: "ECS-Water Quality Certainty", Memorandum to State Conservationists from the Four Regional Conservationists, September 6, 2012, 2 pages.

June 2013 - New Cover Crops Termination Guidelines issued by the Natural Resources Conservation Service prompted the Risk Management Agency (RMA) to develop a special provisions statement to incorporate the new cover crop management and termination guidance into their insurance coverage of cover crops. This defined cover crops as being generally recognized by agricultural experts as agronomically sound in the area of erosion control, conservation, or soil improvement. Cover crops work hand-in-hand with crop insurance policies to improve water use efficiency, maintain erosion control, boost soil health improvement and nutrient cycling.

New termination period guidance was laid out based upon planting times and duration of cover crop. RMA as always permitted the use of cover crops prior to planting the subsequent insured crop. Following this new adoption, RMA dropped the stage of growth termination

requirement while incorporating the NRCS Guidelines into its insurance provisions (with exception of the summer fallow practice). The NRCS Guidelines vary by region as to when the cover crop must be terminated in relation to planting the insured crop.

Source: "2016 Cover Crops Crop Insurance, Cover Crops and NRCS Cover Crop Termination Guidelines", USDA Risk Management Agency Website, August 3, 2016.

2013 - In response to the President's Climate Action Plan of June 2013, the Natural Resources Conservation Service established a series of U.S. Department of Agriculture (USDA) Regional Climate Hubs. The mission of USDA's Regional Climate Hubs was to develop science-based, region-specific information and technologies for agricultural and natural resource managers to enable climate-smart decision-making and to provide assistance to help farmers, ranchers and forest stewards to adapt to climate change and weather variability for their operations.

Source: "USDA Climate Hubs", U.S. Department of Agriculture, USDA Website, Retrieved on December 16, 2019.

February 7, 2014 - The Agricultural Act of 2014 (Public Law 113-79; 2014 Farm Bill), formerly the Federal Agricultural Reform and Risk Management Act of 2013, was signed into law by the President on February 7, 2014. The consolidation of Title II conservation programs was a key feature of this Farm Bill. It created a four-sided pyramid, consisting of: 1) retirement of environmentally sensitive land from agricultural production, 2) environmental enhancements on working lands, 3) purchase of easements to protect natural resources and the agricultural nature of the land, and 4) partnerships to address regional environmental issues.

Funding was shifted from the retirement of environmentally sensitive land from ag production and environmental enhancements on working lands to the purchase of easements and regional partnerships to address regional environmental issues. The increased emphasis on regional partnerships continued the trend of the more recent previous Farm Bills of emphasizing working lands conservation over land retirement.

While the Conservation Reserve Program's (CRP) maximum allowable acres remained at 24 million, CRP's objective changed from an initial emphasis on supply control to a focus on conservation. Also, in making eligibility for the crop insurance premium dependent on Conservation Compliance (highly erodible lands and wetlands), the 2014 Farm Bill reflected the emergence of crop insurance as a core farm safety net program while acknowledging the Congressional expectation that U.S. agriculture participate in improving environmental quality in exchange for the provision of subsidies to farmers. Priority for technical assistance from the U.S. Department of Agriculture was to be given to producers seeking to meet Conservation Compliance for crop insurance eligibility. Conservation Compliance included requiring producers to farm according to an approved conservation system or plan if they planted an

annually tilled crop, and prohibited producers from planting on converted wetlands or converting wetlands for crop production.

The 2014 Act repealed 11 conservation programs administered by the Farm Service Agency or the Natural Resources Conservation Service and merged 9 separate programs into 4 programs. It also provided “bridge” administrative funding, and funding for contracts, agreements, and easements that existed in 2014 under the repealed conservation programs.

Whereas the 2008 Farm Bill increased estimated spending on Title II conservation programs by \$4 billion over the previous 2007 Farm Bill baseline year, the 2014 Farm Bill was estimated to be \$0.2 billion less than the 2013 Farm Bill baseline year.

December 19, 2014 - First deployed as an “Early Adopter Release” on December 19, 2014, NRCS’ innovative Conservation Client Gateway (CCG) provided farmers and ranchers easy electronic web access to their conservation plans and financial assistance conservation program contracts. Through this secure web application with transactional functionality, farmers and ranchers could electronically sign documents, manage their documents, report completed conservation practices and systems, and track payments that they received through NRCS conservation programs, such as the Environmental Quality Incentives Program (EQIP), for successfully implementing the practices and systems. As of December 11, 2019, CCG had 8,116 E-authenticated users and cumulative submitted customer assistance requests of 11,099.

Sources: 1) “IRM-Request for Designation of Client Gateway State Points of Contact”, USDA NRCS Memorandum to Regional Conservationists, June 23, 2014; 2) “Conservation Client Gateway Status Report 12-11-2019”, USDA FPAC Business Center, Tim Carney, December 19, 2019; 9 pages.

2014 - The Natural Resources Conservation Service (NRCS) established the Soil Health Division within the Science and Technology Deputy Chief Area. While the earliest references to soil health date to over 100 years ago, it was not a frequent topic in the literature prior to the 1990s. Discussion of soil health increased considerably in the 2000s. It has since become a concept that is widely recognized by farmers, scientists, and conservationists and is now a central tenant in the private lands conservation movement. A number of organizations now exist to promote soil health, including the Soil Health Institute and the Soil Health Partnership, among others.

Also, the National Association of Conservation Districts (NACD) received a three-year NRCS Conservation Innovation Grant (CIG) to promote the adoption of soil health practices across the United States. By 2019, more than 150 landowners and land managers in 37 States were Soil Health Champions in the Soil Health Champions Network.

Source: "Soil Health Division Contacts", NRCS Website Under "Home/ Soils/ Soil Health/ Soil Health Division Contacts", Retrieved on December 16, 2019.

February 3, 2015 - The first ever national-level Memorandum of Agreement (MOA) is signed by the National Association of Conservation Districts (NACD), the National Association of Resource Conservation and Development Councils (NARC&DC), the National Association of State Conservation Agencies (NASCA), the National Conservation District Employees Association (NCDEA), and the U. S. Department of Agriculture's Natural Resources Conservation Service (NRCS). The purpose of the MOA was to encourage strong national, Tribal, regional, State, and local-level partnerships, as well as to strengthen cooperation among the parties to result in coordinated interagency delivery of conservation assistance to private landowners, communities, and others to sustain the health, diversity, and productivity of the nation's natural resources. The MOA reaffirmed that the signatories share a long-term commitment to the voluntary federal, Tribal, State and local government conservation delivery system to help landowners, communities and others conserve natural resources across the national. This delivery system supports local level and private landowner decision making and capacity for conservation planning and implementation assistance, which results in sound science solutions that are practical and economical, and lead to wise use and management of natural resources.

In this MOA, the partnership pledged to support locally-led natural resources conservation that also addresses national, Tribal, regional, and State priorities while optimizing efficiency and effectiveness. Furthermore, the partners agreed to put quality first, enable people to make sound conservation decisions, demonstrate professionalism and dedication, and strive for continuous improvement.

The February 2015 MOA supported the Secretary of Agriculture's February 1, 1962 Memorandum 1488 outlining U.S. Department of Agriculture cooperation with soil and water conservation districts, implemented through a modernized framework of State-level Memorandums of Understanding (MOU), local-level MOUs, and cooperative and contribution agreements with conservation districts and Tribal partners.

Sources: 1) Memorandum of Agreement Signed February 2015 by NACD, NARC&DC, NASCA, NCDEA, and NRCS; 2) "CPA - Conservation Delivery System of the Future", Memorandum from Chief Jason Weller to NRCS Leadership Transmitting the Memorandum of Agreement, June 5, 2015.

April 13 and 14, 2015 - The initial meeting of the National Conservation Planning Partnership (NACD, NASCA, NARC&DC, NCDEA, and NRCS) was held in Atlanta, Georgia to reinvigorate the partnership's commitment to conservation planning with farmers, ranchers, and forest stewards as the decision-makers for private lands conservation. The National Conservation

Landscape-Scale Conservation Rises Again

2010 - 2019

Planning Partnership (NCP) has been working together since 2015 to reinvigorate conservation planning; improve the partnership's capacity to deliver one-on-one conservation planning assistance; ensure the delivery of technically sound, science-based assistance; and, build a workforce of strong conservation planners.

The NCP established a unified commitment among the five partner entities that was based on a multi-year comprehensive action plan to include: partnerships, leveraging, and capacity building; technical processes, tools, and their integration; communication and messaging; performance, goals, outcomes, and accountability; and, training, development, and certification.

"There is no virtue in planning merely for the sake of planning. Unless plans can be translated into action, planning becomes a profitless mental exercise." (Hugh Hammond Bennett, 1939)

Sources: 1) "Conservation Planning", National Conservation Planning Partnership (NARC&DC, NACD, NASCA, NCDEA, and NRCS), 18 pages, 2016; 2) "National Conservation Planning Partnership", Memorandum from NCP Co-Chairs to NRCS Leaders Formally Announcing the NCP Establishment; April 20, 2015, 2 pages.

July 19, 2016 - Through a cooperative agreement with the National Association of Conservation Districts (NACD), the Natural Resources Conservation Service (NRCS) provided Conservation Technical Assistance Program funding to help NACD award \$2 million in grants to 42 conservation districts in 25 states to boost technical assistance capacity for urban agricultural conservation projects in July 2016. NACD's Urban Agriculture Conservation Grants Initiative helped conservation districts and their partners to provide technical assistance for land conservation in urban and urbanizing areas. The 2016 NACD grants helped urban farmers, community gardens, and other agricultural partnerships to implement conservation practices that supported food production, promoted stewardship, and protected natural resources. The initiative was expanded in 2017 by another \$1 million, awarding 19 more grants to conservation districts in 14 states to boost technical assistance capacity for urban agricultural conservation projects.

Sources: 1) "NACD, NRCS Announce \$2 Million for Urban Ag Conservation" National Association of Conservation Districts Official Release, July 19, 2016; 2) "NACD Announces \$1 Million in Urban Agriculture Conservation Grants", National Association of Conservation Districts' Official Release, July 16, 2017.

2016 - The Natural Resources Conservation Service (NRCS), within its Soil Survey Program, initiated the Science of Soil Health Project to develop and implement a statistically robust dynamic soil properties and soil health indicators assessment protocol to provide nationwide soils and management data for evaluating the effects of conservation practices on soil health, soil erosion, carbon sequestration, and other natural resource issues. The Project includes the

development of an appropriate database infrastructure that allows USDA to collect, compile, store, and disseminate field- and farm-scale soil carbon and related data received through focused soil survey projects, state-based assessment and monitoring activities, and the NRCS Resource Stewardship Evaluation Tool. Original plans called for full implementation of this network within five years of its 2016 initiation.

Source: 2020 USDA Explanatory Notes - Natural Resources Conservation Service, page 27-4.

2016 - The NRCS Soil Health Monitoring and Enhancement Network (SHMEN) was initiated to develop and implement a statistically robust soil carbon monitoring network to provide nationwide soil data to support ongoing "greenhouse-house gas" monitoring. The network is a key component of USDA's Climate Strategy as it will provide USDA with a farm-scale database to house soil carbon data received through the agency's Resource Stewardship Evaluation Tool.

2016 - The Natural Resources Conservation Service (NRCS) established the Conservation Innovations Team in 2016 in response to growing interest in environmental markets and conservation finance. NRCS's work in this emerging area was viewed as complementing NRCS's traditional conservation planning and program implementation approaches for private lands conservation. The NRCS vision was "developing new revenue streams and sources of private capital for agricultural producers and rural economics by attracting non-federal funding to private lands conservation." NRCS's role was defined as incubating and supporting the development of promising environmental markets and conservation finance approaches in their early stages, when entities looking for returns would be less likely to invest.

Source: "Environmental Markets and Conservation Finance", Technical Resources, USDA NRCS, NRCS Website, Retrieved on December 11, 2019.

January 12, 2017 - The Natural Resources Conservation Service's (NRCS's) Hugh Hammond Bennett Conference Room (room number 5006) in the U.S. Department of Agriculture (USDA) South Building is officially opened for use at the farewell event for NRCS Chief Jason Weller (2013-2017). The room serves to recognize the many contributions to private lands conservation by Bennett, the "Father of Soil Conservation." A plaque in the room reads as follows: *"From every conceivable angle—economic, social, cultural, public health, national defense—conservation of natural resources is an objective on which all should agree."* Hugh Hammond Bennett, 1959.

Landscape-Scale Conservation Rises Again

2010 - 2019

Source: "Dedication of the New Hugh Hammond Bennett Conference Room", Jon D. Vrana, Natural Resources Manager, USDA NRCS, February 6, 2017.

May 11, 2017 - Secretary of Agriculture Sonny Perdue announced the establishment of the new Farm Production and Conservation (FPAC) Mission Area. Realigning the Farm Service Agency (FSA), Natural Resources Conservation Service (NRCS), and Risk Management Agency (RMA), was intended to allow the U.S. Department of Agriculture to improve focus on domestic agricultural issues. It also was to provide for improved service and responsiveness to U.S. Department of Agriculture's primary customers: the men and women farming, ranching, and practicing forest management across America.

Secretary of Agriculture Sonny Perdue also directed the Farm Service Agency (FSA) and the Natural Resources Conservation Service (NRCS) to examine their mission support functions and identify streamlining opportunities. In his May 11, 2017 letter to Senator Pat Roberts, Chairman of the Committee on Agriculture, Nutrition, and Forestry, Secretary Perdue wrote, *"There are better ways to deliver the support functions to our field staff. I would rather utilize our scarce funding on direct program delivery than fund redundant administrative functions. Therefore, as part of this realignment I have directed FSA and NRCS to review their office locations and administrative functions to determine the opportunity for office co-locations and the sharing of administrative services."*

"We have engineers, agronomists, soils men and technical men of all varieties visiting the projects, but the only point where the field is weak is on administration. If this can be straightened out, I think our burden will be lightened 50%."

(William Stephenson, Chief of Operations, Soil Erosion Service. Memorandum to Chief Hugh Hammond Bennett, June 18, 1934)

Sources: 1) "Secretary Perdue Announces Creation of Undersecretary for Trade", USDA Press Release No. 0038.17, May 11, 2017; 2) Letter from Secretary of Agriculture, Sonny Perdue, to the Honorable Pat Roberts, Chairman of the Committee on Agriculture, Nutrition and Forestry; dated May 11, 2017, 2 pages.

June 22, 2017 - The National Association of Conservation Districts (NACD), National Association of State Conservation Agencies (NASCA), National Association of Resource Conservation and Development Councils (NARC&DC), National Conservation District Employees Association (NCDEA), and the Natural Resources Conservation Service (NRCS) held a National Conservation Partnership Leadership Development Symposium on June 22, 2017 in Lincoln, Nebraska titled "Improving the Delivery of Conservation." The Symposium brought focus to the over 80 years of an effective partnership in support of the nation's private lands conservation movement and how the principles applied by Hugh Hammond Bennett and other

leaders of the past could be applied to the next generation of conservation planning and implementation.

The 2017 Symposium highlighted the accomplishments and approaches of Hugh Hammond Bennett and the evolution of the National Conservation Partnership, followed by panels and dialogue on the future: leadership in partnering and capacity building, generational learning and communication, the value of conservation technical assistance, and emerging issues and future challenges.

The premier of the U.S. Department of Agriculture-produced documentary "Hugh Hammond Bennett: The Story of America's Private Lands Conservation Movement" took place at the Symposium. Also, presented were plans for the Hugh Hammond Bennett Center for Conservation and Soil Science in Lincoln, Nebraska. Development of the Center with GSA continues today (December 2019), with anticipated completion in 2022. The Center will include the NRCS and FSA State offices, the NRCS National Soil Survey Center, the NRCS National Soil Survey Laboratory, and the NRCS National Soil Mechanics Lab. It will be the first known federal facility to carry the name of Hugh Hammond Bennett, "Father of Soil Conservation." (In the Summer of 1963, the then Soil Conservation Society of America, which Bennett helped to found, dedicated its headquarters building to the memory of Hugh Hammond Bennett. Betty Brown Bennett, widow of Dr. Bennett, attended the ceremony and a bronze plaque is fixed to the wall in the entryway, inscribed with the dedication.)

Source: Joe Otto, Historian, Soil and Water Conservation Society, Ankeny, Iowa, November 12, 2019 email to Jon Vrana, USDA FPAC Business Center.

September 16, 2017 - The formalized participation of the Natural Resources Conservation Service (NRCS) in "Field to Market" was established via a Memorandum of Understanding (MOU). "Field to Market" is composed of producer organizations, agribusinesses, food and retail companies, conservation associations, and universities. The goals of "Field to Market" are to identify supply chain strategies to define, measure, and promote continuous improvement for agriculture. "Field to Market" strives to attain sustainable agriculture that meets the needs of the present while improving the ability of future generations to meet their own food and fiber demands, enhance the environment, improve human health, and further the social and economic well-being of agricultural communities.

The NRCS, as an ex-officio member and through the September 2017 MOU, is involved in the Fieldprint Calculator Project and the use of technical tools, including the Revised USLE2, the Soil Conditioning Index, the Water Quality Index, and the Wind Erosion Prediction System. The September 16, 2017 MOU governs the use of NRCS technical tools and models in the Fieldprint Calculator through September 2021.

Landscape-Scale Conservation Rises Again

2010 - 2019

Sources: 1) "Field to Market: The Alliance for Sustainable Agriculture", Field to Market, July 12, 2014; 2) "Field to Market and USDA-NRCS Announce MOU for Use of NRCS Models," Field to Market Release, September 16, 2017.

January 2018 - The Optimally Productive Office Study was launched in January 2018. The objective of the study is to analyze customers' needs and locations relative to Farm Production and Conservation's (FPAC) geographic footprint, workload, and productivity. From this study, FPAC developed a data-driven tool for leaders to assess office productivity as a means to inform optimal staffing determinations and office footprint. Office productivity is based on core workload measures at the county level. Because workload and output rates vary greatly across physiographic regions as based on their unique agricultural settings, productivity is analyzed and benchmarked for similarly sized offices within 13 modified farm and ranch production regions. As of December 2019, FPAC continues to update and refine its productivity metrics, modeling, and dashboards. It is also working to "institutionalize" the OPO Tools by integrating data with existing systems of records (for example, EmpowHR) to provide for real-time and automatic information. It is also expanding the modeling to use customers' geographic locations and needs (workload) to inform distribution and optimization of additional federal assets, such as Fleet vehicles.

Source: Thomas W. Christensen - Personal Leadership from January 2018-December 2019 of the Overall FPAC Optimally Productive Office Study as FPAC Deputy Chief Operating Officer for Business Services.

December 20, 2018 - The 2018 Farm Bill (Agricultural Improvement Act of 2018, Public Law 115-334, Title II) provides support, certainty, and stability to the nation's farmers, ranchers, and forest stewards by enhancing farm support programs, improving crop insurance, maintaining disaster programs, and promoting and supporting voluntary conservation. The 2018 Act built upon many of the existing programs that serve America's agricultural producers.

The 2018 Act reauthorized and amended portions of most conservation programs. The greatest focus was on the largest programs—the Agricultural Conservation Easement Program (ACEP), the Conservation Stewardship Program (CSP), the Environmental Quality Incentives Program (EQIP), and the Conservation Reserve Program (CRP).

Title II (Conservation) is budget neutral over its 10-year baseline. CSP was reauthorized but with reduced program enrollment, while a new incentive contract was created in EQIP. The enrollment ceiling for CRP was increased from 24 million to 27 million acres, while reducing payments to participants to offset the cost of the increased enrollment. Additionally, the Regional Conservation Partnership Program (RCPP) was reauthorized and amended to become a standalone program and not draw funds from other conservation programs. The ACEP was reauthorized and amended to provide additional flexibilities for eligible entities, and was authorized for increased funding. The 2008 Farm Bill also requires a number of the

conservation programs to focus a dollar amount or percentage of a program's funding to resource-specific initiatives, issues, or subprograms.

Section 2408 of the 2018 Act authorized the Feral Swine Eradication and Control Pilot Program. The program is to be implemented by the Natural Resources Conservation Service and the Animal and Plant Health Inspection Service to respond to the threat feral swine pose to agriculture, native ecosystems, and human and plant health.

Source: 1) Public Law 115-334, December 20, 2018; 2) 2020 USDA Explanatory Notes - Natural Resources Conservation Service, page 27-8.

March 4, 2019 - NRCS releases an executive summary of the Plant Materials Program. Since the founding of the Plant Materials Program, NRCS has released or cooperated in the release of 745 separate plant materials, including Mandan Canada Wildrye in 1946. Commercial growers of conservation seeds and plants, many who are in rural communities, grow about 600 of these NRCS conservation plant releases, with an 80 percent success rate. This, in turn, produces enough seeds and plants each year to plant over 2.5 million acres, and the seeds and plants have an estimated \$100 million annual commercial value. A 2008 analysis of the long-term benefits of NRCS conservation plants showed that the Plant Materials Program returns \$3.65 in commercial and ecological benefits for every \$1.00 invested.

Source: "NRCS Plant Materials Centers Executive Summary", USDA Natural Resources Conservation Service, March 4, 2019.

November 6, 2019 - The U.S. Department of Agriculture and the U.S. Department of Interior's Bureau of Indian Affairs (BIA) signed a Memorandum of Understanding (MOU) to improve Tribes' and Tribal members' access to farm conservation programs to advance conservation in Indian Country. The MOU was signed in Catoosa, Oklahoma on November 6, 2019 at the National Tribal Conservation Districts Conference, organized by the Indian Nations Conservation Alliance. The MOU signified the mutual commitment of the BIA, the Farm Service Agency (FSA), and the Natural Resources Conservation Service (NRCS) to promote conservation systems for Indian lands, including the development of rural business opportunities, the management of farm and ranching operations, infrastructure development, and stewardship of environmental, cultural, and natural resources.

Source: USDA Press Release, Catoosa, Oklahoma, November 6, 2019.

December 2019 - The new conservation portion of the Farmers.gov web application is being designed and developed to improve upon the current Natural Resources Conservation Service

Landscape-Scale Conservation Rises Again

2010 - 2019

(NRCS) Conservation Client Gateway's (CCG) features and functions, with enhanced features for business entities, (such as limited liability corporations) to access their information. Partial functionality for conservation program use will be made available to E-authenticated users in early 2020. Full functionality of the conservation portion of Farmers.gov is slated for release in later 2020. It is anticipated that the NRCS's CCG will be deprecated in 2020 once the conservation functionality in Farmers.gov achieves its intended scope and performance requirements.

Source: Thomas W. Christensen, Personal Leadership in Fiscal Year 2017-2019 as FPAC Deputy Chief Operating Officer for Business Services.

December 2019 - An umbrella data sharing memorandum of understanding (MOU) was routing for final approval by all four agencies in the Farm Production and Conservation (FPAC) Mission Area as of December 23, 2019. The MOU signified a common understanding about the importance of data sharing to enhance and improve customer service; increase the effectiveness and efficiency of program delivery and operational efficacy; and ensure compliance with data accessibility, confidentiality of sensitive data, and protection of data repositories and systems. The MOU is supported by an FPAC Data Sharing Work Group, intended to facilitate data sharing and provide a basic level of supporting governance. This December 2019 MOU expanded on an existing one between the Farm Service Agency (FSA) and the Natural Resources Conservation Service (NRCS) approved on August 8, 2017. The 2017 FSA/NRCS MOU was the mechanism that enabled NRCS affiliates (who had proper clearance) to access certain FSA data to help NRCS more efficiently and effectively manage conservation contracts in ProTracts.

Source: USDA FPAC MOU between FSA, NRCS, RMA, and the Business Center; December 2019.

2019 - The Farm Service Agency (FSA), the Natural Resources Conservation Service (NRCS), and the Business Center in the U.S. Department of Agriculture's Farm Production and Conservation (FPAC) Mission Area initiated joint work to develop a Modernized Common Conservation Contracting System to replace aging and stovepiped information systems that supported contract obligations, management, and payments for conservation financial assistance programs. The result will be one common, streamlined, efficient system that will enable FSA and NRCS to service customers more timely, reduce improper payments, and help resolve repeated financial audit findings effectively. The initial version will support contracting for FSA's Conservation Reserve Program and NRCS's Agricultural Conservation Easement Program, Conservation Stewardship Program, and Environmental Quality Incentives Program.

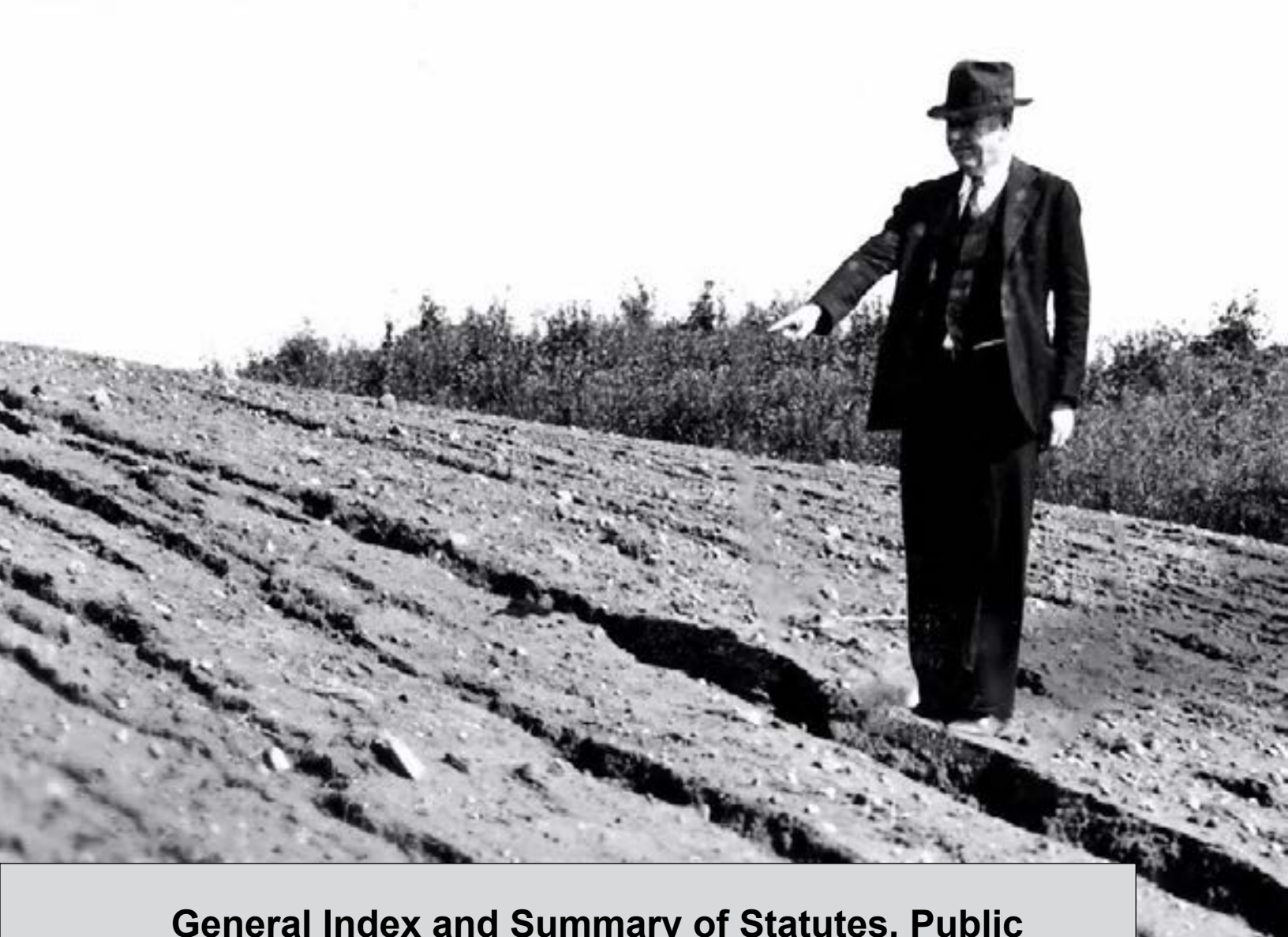
The Modernized Common Conservation Contracting System was initiated with a loan from the General Services Administration's Technology Modernization Fund. It will allow FSA and NRCS

to retire legacy information technology systems that are cumbersome to use and costly to maintain, and enable the development of conservation contracts across FPAC conservation programs that have a common "look and feel" for both customers and employees.

Source: Thomas W. Christensen, Personal Leadership in Fiscal Years 2018 and 2019 with the Initiation of this FPAC Multi-Year Project as FPAC Deputy Chief Operating Officer for Business Services.

"In conservation, the motto should always be 'never say die.'"

--Gerald Durrell, "The Aye-Aye and I", July 12, 1944
British Naturalist, Zookeeper, Conservationist, Author, and Television Presenter



General Index and Summary of Statutes, Public Laws, Executive Orders, and USDA Memoranda, Regulations, Policies, and Other Publications

"We have the knowledge of how to do the job; the conservation tools have been perfected and tested; we have an organization equipped not only with the necessary technical skills, but with the knowledge and understanding to work with the local people – individual farmers, community groups, organized districts and associations, city people, and industries as well. As a Nation we have no excuse for not doing the job of conserving our basic soil and water resources; indeed, we dare not shirk it, because our individual and national security, peace, and prosperity depend on it."

"The Complete Watershed Program in Flood Control", Address by H.H. Bennett, Chief, U.S. Soil Conservation Service, Newspaper Editors' Flood Control Meeting, Lincoln, Nebraska, August 11, 1951; page 10.

A

| | |
|---|--|
| Acreage Reserve Program | 51 |
| Agricultural Air Quality Task Force | 101, 115 |
| Agricultural Conservation Easement Program..... | 156, 158 |
| Agricultural Conservation Program..... | 3, 13, 27, 38, 41, 43, 46, 49, 50, 67, 78, 85, 114 |
| Agricultural Water Enhancement Program | 136 |
| Agricultural Water Management Team..... | 145, 146 |
| Agricultural Water Quality Protection Program | 100, 105 |
| Agriculture Conservation Experienced Services Program | 136 |
| Air Quality, Climate Change, and Energy (ACE) Integration Working Group | 135 |
| Alternative Conservation Systems | 56, 61, 81, 93 |
| America’s Great Outdoors Initiative | 147 |
| Anaerobic Digester..... | 128 |
| Area Conservationist | 63 |
| Assistant State Conservationist for Field Operations | 63 |

B

| | |
|-------------------------------|---|
| Backyard Conservation | 118 |
| Bennett, Hugh Hammond..... | 3, 4, 5, 6, 7, 8, 10, 11, 12, 17, 18, 23, 26, 29, 32, 36, 37, 41, 42, 44, 55, 56, 124, 153, 154, 155 |
| Benson, Ezra Taft..... | 46 |
| Berg, Norman A. | 64, 72, 124 |
| Bjerke, Keith D..... | 103 |
| Block, John..... | 87 |
| Block, John R. | 89 |
| Boy Scouts of America..... | 56, 63 |
| Brannan, Charles F..... | 43, 44, 45 |
| Bromfield, Louis | 41 |
| Bureau of Indian Affairs..... | 5, 6, 14, 17, 83, 157 |

C

| | |
|--|---------------------------------------|
| Certainty Programs | 148 |
| Certified Professional Agronomists..... | 119 |
| Certified Professional Crop Scientists | 119 |
| Certified Professional Soil Scientists..... | 119 |
| Chief Information Officer | 86, 115 |
| Christensen, Thomas W. | 104, 156, 158, 159 |
| Civilian Conservation Corps | 2, 4, 5, 6, 8, 10, 11, 14, 15, 26, 31 |
| Camp Roosevelt..... | 4 |
| Civilian Public Service Camps | 26, 29 |
| Clean Water Action Plan | 101, 118 |

General Index

| | |
|---|---|
| Climate Action Plan | 149 |
| Collier, John..... | 5, 6, 14 |
| Colorado River Basin Salinity Control Program | 74, 112, 114 |
| Commodity Credit Corporation..... | 7, 32, 115, 126 |
| Community Planning | 56 |
| Comprehensive Nutrient Management Plans..... | 125, 127, 128, 129 |
| Concentrated Animal Feeding Operations..... | 122, 123, 127, 128, 131 |
| Conquest of the Land Through 7,000 Years | 42, 45 |
| Conscientious Objectors..... | See Civilian Public Service Camps |
| Conservation and Production Research Laboratory | 20, 47 |
| Conservation Buffers | 101, 116 |
| Conservation Client Gateway..... | See IT Systems, Tools, and Databases, Conservation Client Gateway |
| Conservation Compliance | |
| Delineations..... | 95, 110 |
| Sodbuster | 81, 90 |
| Swampbuster | 81, 90, 105 |
| Conservation Delivery Streamlining Initiative | See IT Systems, Conservation Delivery Streamlining Initiative |
| Conservation Desktop..... | See IT Systems, Tools, and Databases, Conservation Desktop |
| Conservation Districts.3, 13, 16, 17, 18, 23, 27, 32, 34, 35, 37, 44, 49, 55, 56, 57, 64, 73, 78, 87, 93, 107, 115, 116, 133, 151 | |
| "Swords into Plowshares" | 35 |
| National Association of Conservation Districts..... | 18, 27, 35, 142, 152 |
| Parker County Soil and Water Conservation District..... | 53, 77, 79 |
| State Conservation District Laws..... | 3, 16, 17 |
| Tribal Conservation Districts | 17, 74, 76, 157 |
| Conservation Effects Assessment Project..... | 123, 129, 130, 133, 134, 141, 145, 147, 148 |
| Conservation Innovation Grants | 123, 131, 150 |
| Conservation Innovations Team..... | 153 |
| Conservation Needs Inventory..... | See National Resources Inventory |
| Conservation Planning 3, 4, 14, 26, 29, 41, 44, 49, 56, 61, 71, 73, 94, 106, 114, 132, 133, 134, 135, 151, 152, 155 | |
| Conservation Activity Plans | 123 |
| Conservation Planning Boot Camp | 123, 133 |
| Conservation Reserve Enhancement Program | 114 |
| Conservation Reserve Program | 42, 51, 52, 90, 95, 96, 105, 111, 114, 115, 126, 149, 156, 158 |
| Conservation Security Program | 123, 125, 126, 136 |
| Conservation Stewardship Program..... | 136, 156, 158 |
| Conservation Technical Assistance Program | See Technical Assistance |
| Conservation Technology Information Center..... | 83, 87, 88 |
| Conservation Tillage..... | 23, 56, 59, 87, 89 |
| Coon Creek Project | 7 |

Cooperative Conservation Partnership Initiative 136
 Cooperative Farm Forestry Program.....34
 Cooperative Pilot Recreation Projects.....58
 Cooperative Soil SurveySee Soil Surveys
 Council on Environmental Quality69
 County Agricultural Committees 27, 38
 Cover Crops.....148, 149
 Crop Insurance20, 30, 111, 112, 148, 149, 156
 Cropping Systems.....50

D

Data Sharing 91, 94, 158
 Deep Water Horizon Oil Spill 144
 Demonstration Projects..... 2, 4, 5, 6, 15, 26, 27, 32, 38, 49, 58, 85, 97, 106, 109
 District Conservationist49, 56, 63
 Drainage.....15, 22, 26, 30, 43, 52, 73, 75, 141, 145, 146
 Dunlop, George91
 Dust Storm 8, 9, 10

E

Earth Day.....67, 70, 123, 130
 Earth Team Volunteers 82, 91
 Easements..... 105, 126, 149, 150
 Ecosystem-Based Assistance..... 109
 Edge-of-Field Water Quality Monitoring 141
 Eisenhower, Milton17
 Emergency Conservation Program 68, 78, 143
 Emergency Conservation Work.....See Civilian Conservation Corps
 Emergency Forest Restoration Program..... 143
 Emergency Watershed Protection Program.....110, 138
 Environmental Credit Trading Work Group 128
 Environmental Quality Incentives Program 43, 52, 74, 106, 114, 123, 125, 126, 127, 129, 130, 131, 136,
 139, 141, 144, 150, 156, 158
 Erosion Control Nurseries.....10, 11, 15

F

Family Forest Projects.....58
 Farm Bill.....5, 13, 43, 52, 70, 73, 76, 81, 82, 85, 90, 91, 93, 100, 105, 114, 115, 123, 125, 126, 131, 134,
 138, 141, 145, 149, 150, 156
 Farm Home Loan Program 111
 Farm Production and Conservation..... 143, 154, 156, 158
 Farmers.gov 142, 157, 158
 Farmland Protection Program..... 126

General Index

| | |
|---|---|
| Fechner, Robert..... | 4, 11, 12 |
| Federal Acreage and Production Reduction Program..... | 5 |
| Federal Budget and Financial Management..... | 88 |
| Federal Highways..... | 56, 62 |
| Feed Management | 126, 127 |
| Feral Swine Eradication and Control Pilot Program | 157 |
| field office | See Offices; Tribal Offices |
| Field Office Computing System..... | See IT Systems, Field Office Computing System |
| Field Office Technical Guide | 93 |
| Field to Market | 155, 156 |
| Flood Control | 3, 13, 15, 23, 26, 27, 33, 34, 35, 42, 48, 110, 126 |
| Flood Prevention..... | 5, 15, 37, 45, 52 |
| Food Distribution Administration | 31, 32 |
| Food Production Administration | 31, 32 |
| Forest Lands of the United States | 30 |
| Forest Legacy Program | 105 |
| Forest Stewardship Program..... | 105 |
| Forestry Incentives Program..... | 78, 112 |
| Freeman, Orville L..... | 56, 58, 64 |

G

| | |
|--|-------------------------|
| Glickman, Daniel..... | 119 |
| Global Conservation..... | 27, 36, 46, 87 |
| Grassland Reserve Program | 123, 126 |
| Grasslands..... | 18, 42, 46, 52, 58, 126 |
| Grazing Lands Conservation Initiative..... | 102, 106 |
| Great Lakes | |
| Canada-U.S. Agreement..... | 68, 72, 106 |
| Great Plains Conservation Program | 42, 52, 86, 114 |
| Guam and Pacific Islands | 18, 87 |
| Gulf of Mexico Initiative..... | 144 |

H

| | |
|-----------------------------|-----------------|
| Highly Erodible Lands | 81, 90, 93, 149 |
| Hugh Hammond Bennett..... | 152 |
| Hydrologic Unit Areas | 97, 101, 105 |
| Hypoxia..... | 101, 117 |
| Hypoxia Task Force..... | 117 |

I

| | |
|--|-----|
| Ickes, Harold | 9 |
| International Certified Crop Advisers..... | 119 |
| IT Systems, Tools, and Databases | |

| | |
|---|---------------------|
| Agriculture Microcomputer Productivity System..... | 91 |
| Automated Geospatial Watershed Assessment Tool | 133 |
| Automatic Data Processing | 57 |
| Chemicals, Runoff, and Erosion from Agricultural Management Systems (CREAMS)..... | 84 |
| Computer Assisted Management and Planning System | 82, 91, 94, 97, 112 |
| Conservation Client Gateway..... | 137, 142, 150, 158 |
| Conservation Delivery Streamlining Initiative | 102, 122, 137, 142 |
| Conservation Desktop..... | 137, 142 |
| Conservation Reporting and Evaluation System | 88 |
| Customer Service Toolkit..... | 116, 122, 124 |
| Desktop Computers | 82 |
| ESRI ArcView GIS | 124 |
| Field Office Communications and Automation System..... | 91, 92 |
| Field Office Computing System..... | 102, 112, 117, 118 |
| Field Office Software Support Team | 91 |
| Geographic Resources Analysis Support System (GRASS) | 82, 94, 97 |
| Geospatial Resource Data Gateway | 122, 125 |
| Grazing Land Application | 82, 98 |
| Harris Remote Computer Terminals..... | 79 |
| LAN/WAN/Voice Project..... | 116 |
| Land Evaluation and Assessment System..... | 82, 86 |
| Mobile Planning Tool | 137 |
| Modernized Common Conservation Contracting System | 142, 158 |
| National Soil Information System..... | 73, 102, 112 |
| National Soils Database | 68 |
| Nitrogen Loss and Environmental Assessment Package..... | 135 |
| Nitrogen Trading Tool | 122, 135 |
| Object-Modeling System..... | 134 |
| PLANTS | 102, 112 |
| ProTracts | 122, 127, 139, 158 |
| SNOTEL..... | 69, 74 |
| Soil and Water Assessment Tool | 131 |
| Soils Interpretation Record Database (Soils-5 Database)..... | 73 |
| Technical Service Provider Registry | 122, 127 |
| TR-20 | 56, 60 |
| TR-55 | 68, 74, 75 |
| Web Soil Survey | 122, 133 |
| Wind Erosion Prediction System..... | 61, 122, 132, 134 |

J

| | |
|---------------------|----------|
| Johnson, Paul | 103, 115 |
|---------------------|----------|

General Index

K

Kennedy, John F.55, 58, 64

L

Land Capability Classes 4, 23
Land Improvement Contractors of America43
Land Treatment Practices..... 129
Land Utilization Program..... 18, 46
Landscape-Scale Conservation Initiatives.....138, 139
Leopold, Aldo.....7, 22, 38
Limited Resource Farmers102, 106
Livestock..... 19, 20, 53, 123, 125, 126, 127, 129, 130
Livestock Emphasis Action Plan 130
Local Working Groups 81, 91
Logo - Soil Conservation Service71
Lowdermilk, Walter C. 7, 12, 42, 45, 46
Lower Colorado River Indian Tribes 53, 77

M

Management Systems Evaluation Area Program.....101, 104
Mandan Canada Wildrye See Plant Materials Program, Mandan Canada Wildrye
Manure and Wastewater Handling and Storage 129
Memorandum of Agreement See Memorandum of Understanding
Memorandum of Understanding 17, 83, 91, 100, 103, 144, 155, 157
Midwest Flood of 1993102, 110
Migratory Bird Habitat Initiative 144
Mississippi River 144
Mississippi River Basin 117
Mississippi River Basin Healthy Watersheds Initiative141, 144
Modernized Common Conservation Contracting System See IT Systems, Tools, and Databases;
Modernized Common Conservation Contracting System
Morgan, Robert J.12
Musgrave Equation.....28
Myers, Peter C.81, 89, 90

N

National Aerial Photography Program.....82, 85, 92
National Alliance of Independent Crop Consultants 119
National Association of Conservation Districts17, 27, 30, 35, 83, 87, 98, 107, 118, 150, 151, 154
National Association of Resource Conservation and Development Councils See Resource Conservation
and Development Program, RC&D Councils
National Association of Soil and Water Conservation Districts..... See Conservation Districts, National
Association of Conservation Districts

National Association of Soil Conservation Districts.... See Conservation Districts, National Association of Conservation Districts

National Association of State Conservation Agencies 93, 142, 151, 152, 154

National Conservation Buffer Initiative.....101, 116

National Conservation District Employees Association 102, 107, 151, 154

National Conservation Planning Partnership 142, 151, 152

National Cooperative Soil Survey20

National Crop Residue Management Survey87

National Erosion Reconnaissance Survey3, 8

National Grazing Lands Coalition 106

National High Altitude Photography See National Aerial Photography Program

National Information Resources Management Committee.....86

National Inventory of Soil and Water Conservation Needs.....51

National Irrigated Lands Water Quality/Quantity Initiative 108

National Pollutant Discharge Elimination System..... 128

National Resources Inventory..... 9, 77, 96, 117

 Conservation Needs Inventory 9

National Runoff and Soil Loss Data Center.....47

National Soils Database73

National Technical Centers.....74, 111

National Water Quality Initiative141, 146

National Watershed Coalition 83, 98

Natural Resources Conservation Service Day 143

Navajo Project See Tribal Participation, Navajo Project

New Deal..... 2, 7, 19

No Net Loss of Wetlands..... 130

Nonpoint Pollution Sources.....67, 68, 72, 77, 101, 106

Nonpoint Source Hydrologic Unit Areas See Hydrologic Unit Areas

Nutrient Management 117, 118, 123, 125, 127, 128, 129, 131

O

Offices

 Closures 111

 Collocation 41, 43

 Optimally Productive Office Study143, 156

 Tribal Offices79

 Tribal Reservation Offices..... 105

 USDA Agricultural Service Centers 69, 74

Overland Flow Profile.....97

P

Payment Schedules.....124, 139

Pilot Watershed Program of 1953 33, 124

General Index

| | |
|--|---------------------------|
| Plant Materials Centers..... | 11, 36, 42, 47 |
| Plant Materials Program | 27, 35, 157 |
| Mandan Canada Wildrye | 27, 35, 157 |
| Progressive Conservation Planning..... | See Conservation Planning |
| Progressive Planning | See Conservation Planning |

R

| | |
|---|--|
| Radiological Monitoring..... | 53 |
| RC&D Councils | See Resource Conservation and Development Program, RC&D Councils |
| RCA Appraisal | 145 |
| Reconstruction Finance Corporation | 15 |
| Regional Conservation Partnership Program..... | 138, 141, 156 |
| Regional Equity | 126 |
| Regional Offices (SCS/NRCS)..... | 42, 46, 94, 111 |
| Resource Conservation and Development Program | 55, 58, 59, 63, 82, 151, 154 |
| RC&D Councils..... | 58, 83, 95, 104, 142, 151, 154 |
| Resource Stewardship Evaluation Tool..... | 153 |
| Revised Universal Soil Loss Equation | 29, 108, 112 |
| Richards, William..... | 108 |
| Roosevelt, Franklin D..... | 3, 4, 5, 7, 12, 16, 26 |
| Root Zone Water Quality Model | 113 |
| Rural Abandoned Mine Program..... | 68, 76 |
| Rural Clean Water Program..... | 68, 77, 78, 84 |
| Rural Development Projects..... | 58, 59 |
| Rural Environment Conservation Program | 73 |

S

| | |
|--|---|
| Sammy Soil Saver..... | 56, 63 |
| Sandstone Creek Watershed..... | 33 |
| Scaling, Wilson | 81, 93, 97, 103 |
| Science and Education Administration | 79, 84 |
| Science of Soil Health Project..... | 152 |
| SCS Liaisons with EPA | 94 |
| Senior Information Resource Management Officer..... | See Chief Information Officer |
| Shelterbelt Project | 21 |
| Shepard, Ward | 9 |
| SNOpack TELelemetry | See IT Systems, SNOTEL |
| SNOTEL | See IT Systems, SNOTEL |
| Snow Survey and Water Supply Forecasts | 22, 74 |
| Soil and Water Conservation Advisory Committee | 50 |
| Soil and Water Conservation Society | 26, 30, 87, 133, 134, 155 |
| Soil Conservation Society of America | See Soil and Water Conservation Society |
| Soil Conservation Survey | 14 |

| | |
|---|---|
| Soil Health Champions..... | 150 |
| Soil Health Institute..... | 150 |
| Soil Health Partnership..... | 150 |
| Soil Survey Center..... | See Soil Surveys, National Soil Survey Center |
| Soil Survey Laboratory..... | See Soil Surveys, Soil Survey Laboratory |
| Soil Surveys..... | 4, 14, 19, 20, 31, 41, 45, 47, 55, 62, 64, 71, 77, 87, 112, 133 |
| "Once Over" Mapping..... | 71, 72 |
| National Soil Survey Center..... | 112, 155 |
| National Soil Survey Laboratory..... | 155 |
| Soil Survey Program..... | 62, 102, 152 |
| Special Areas Conservation Programs..... | 86 |
| State and County War Boards..... | 30 |
| State Offices (SCS/NRCS)..... | 42, 46, 92, 111, 155 |
| State Reclamation Coordinating Committee..... | 76 |
| State Rural Development Councils..... | 103, 104 |
| State Technical Committees..... | 81, 90, 91 |
| Statement of Involvement..... | 128 |
| Stewardship Incentives Program..... | 105 |
| Suburban Development..... | 49 |

T

| | |
|---|---|
| Targeting Resources..... | 86, 88 |
| Technical Assistance..... | 3, 4, 12, 14, 16, 27, 32, 33, 36, 38, 41, 43, 48, 50, 60, 73, 78, 82, 85, 87, 88, 89, 97, 98, 105, 106, 114, 115, 123, 131, 132, 136, 149, 152, 155 |
| Technical Cooperation - Bureau of Indian Affairs..... | 14, 17 |
| Technical Service Provider..... | 127, 136 |
| Technology Modernization Fund..... | 158 |
| Temple, D.M. | 103 |
| Texas Agricultural Experiment Station..... | 20, 98 |
| Third-Party Vendors..... | 119 |
| Timber Production War Project..... | 30 |
| Total Resource Management..... | See Ecosystem-Based Assistance |
| Tribal Advisory Committees..... | 142, 146 |
| Tribal Conservation Districts..... | See Conservation Districts; Tribal Conservation Districts |
| Tribal Participation..... | 67, 78, 83, 105 |
| Harmony Workshops..... | 107 |
| Memoranda of Understanding/Agreement..... | 103, 157 |
| Navajo Experiment..... | 6 |
| Navajo Project..... | 78 |
| Navajo Reservation..... | 5 |

U

| | |
|--|----------|
| Unified National Strategy for Animal Feeding Operations..... | 101, 118 |
|--|----------|

General Index

| | |
|--|-------------------------|
| Universal Soil Loss Equation | 26, 28, 29, 47, 61, 108 |
| Urban Agriculture Conservation Grants Initiative | 152 |
| Urban Resources Partnership | 109 |
| Urbanization..... | 56, 62, 64, 68, 152 |

V

| | |
|-------------------------|----------------|
| Volunteer Program | See Earth Team |
|-------------------------|----------------|

W

| | |
|--|---|
| Wallace, Henry..... | 5 |
| War Food Administration..... | 32, 34 |
| Water Bank Program | 71 |
| Water Conservation and Utilization Programs | 34 |
| Water Erosion Prediction Project..... | 96 |
| Water Facilities Program | 21, 48 |
| Water Quality Demonstration Projects..... | 105, 106 |
| Water Quality Incentive Program..... | 136 |
| Water Quality Initiative | 105, 144, 146 |
| Water Quality Program Plan..... | 105 |
| Water Resources Council..... | 61 |
| Watershed Protection and Flood Prevention Operations Program..... | 138 |
| Watershed Rehabilitation Program | 138 |
| Watersheds... 3, 4, 5, 7, 9, 12, 14, 15, 26, 27, 33, 34, 35, 37, 42, 45, 48, 53, 56, 60, 61, 63, 64, 68, 69, 72, 74, 77, 83, 84, 88, 98, 100, 101, 104, 105, 106, 117, 123, 124, 126, 129, 130, 131, 132, 133, 138, 141, 144, 146, 147 | |
| Assessment Studies | 147 |
| Small Watershed Program..... | 42, 48, 58 |
| Wetlands | 67, 68, 70, 71, 73, 75, 79, 81, 90, 110, 114, 123, 126, 130, 149, 150 |
| Jurisdictional Wetlands..... | 95, 110 |
| Wetlands Reserve Program | 71, 100, 105, 112, 114, 126 |
| Whitaker, Ernest "Howard" | 63 |
| White House Conference on Conservation | 55, 58 |
| Whole-Farm Conservation Planning..... | 113 |
| Wildlife Habitat Incentives Program | 114, 126, 136 |
| Williams, Donald | 49 |
| Wind Erosion Equation..... | 56, 61 |
| Wind Erosion Prediction System..... | See IT Systems, Tools, and Databases, Wind Erosion Prediction System |
| Wischmeier, Walter H..... | 28, 47 |
| Work Unit Conservationist | See District Conservationist |
| Working Lands for Wildlife | 147 |

Z

| | |
|----------------------|----|
| Zingg, Austin W..... | 28 |
|----------------------|----|

Statutes

49 Stat. 115, ch 48: Emergency Relief Appropriations Act (Date: April 8, 1935).....13
50 Stat. 188: Cooperative Farm Forestry Act (Date: May 18, 1937)..... 21, 34
54 Stat. 1234: Reorganization Plan No. IV of 1940 (Date June 30, 1940)26, 27, 28, 53, 76
63 Stat. 203: Reorganization Plan No. 2 of 1953 (Date: June 20, 1949).....46, 47, 57

Public Laws

P.L. 100-4: Water Quality Act of 1987 (Date: February 4, 1987)..... 106
P.L. 101-624: Food, Agriculture, Conservation, and Trade Act of 1990 (Date: November 28, 1990). 100,
105
P.L. 103-354 (Title I): Federal Crop Insurance Reform Act of 1994 (Date: October 13, 1994)111, 112
P.L. 103-354 (Title II): U.S. Department of Agriculture (USDA) Reorganization Act (Date: October 13,
1994)..... 101, 111, 112
P.L. 104-106: National Defense Authorization Act for 1996 (Clinger-Cohen Act encompasses Division
D: Federal Acquisition Reform Act and Division E: IT Management Reform Act) (Date: February 10,
1996)..... 115
P.L. 104-127 (Title I): Agricultural Marketing Transition Act (Date: April 4, 1996)..... 114
P.L. 104-127: Federal Agricultural Improvement and Reform (FAIR) Act of 1996 (Date: April 4, 1996)
..... 100, 101, 114, 117, 123, 146
P.L. 106-472: Small Watershed Rehabilitation Amendments of 2000 (November 9, 2000)..... 124
P.L. 107-171: Farm Security and Rural Investment Act of 2002 (Date: May 13, 2002)..... 125
P.L. 110-246: Food, Conservation, and Energy Act of 2008 (Date: June 18, 2008).....91, 123, 124, 135,
136, 138, 139, 141, 143, 145, 150, 156
P.L. 111-5: American Recovery and Reinvestment Act of 2009 (February 17, 2009)..... 138
P.L. 113-79: Agricultural Act of 2014 (Date: February 7, 2014)..... 141, 142, 149
P.L. 115-334: Agricultural Improvement Act of 2018 (Date: December 20, 2018).....142, 156
P.L. 73-10: Agricultural Adjustment Act of 1933 (Date: May 12, 1933)..... 5, 8, 13
P.L. 73-5: Emergency Conservation Work Act of 1933 (Date: March 31, 1933).....2, 4, 11
P.L. 73-67: National Industrial Recovery Act of 1933 (Date: June 16, 1933).....2, 7
P.L. 74-46: Soil Conservation Act of 1935 (Date: April 27, 1935)..... 2, 12, 85, 132
P.L. 74-461: Soil Conservation and Domestic Allotment Act of 1936 (Date: February 29, 1936) 3, 12, 85,
136
P.L. 74-738: Flood Control Act of 1936 (Date: June 22, 1936)..... 3, 33
P.L. 75-210: Bankhead-Jones Farm Tenant Act (Date: July 22, 1937) 18, 19, 21, 70
P.L. 75-399: Water Facilities Act (Pope-Jones Act) (Date: August 28, 1937) 19, 21, 48, 52
P.L. 75-430: Agricultural Adjustment Act of 1938 (Date: February 16, 1938).....20
P.L. 76-159: Agricultural Appropriations Act of 1940 (Date: June 30, 1939)22
P.L. 76-783: Selective Training and Service Act of 1940 (Burke-Wadsworth Bill) (Date: September 16,
1940)..... 26, 29
P.L. 76-848: Water Conservation and Utilization Act (Case-Wheeler Act) (Date: August 11, 1939).....34
P.L. 78-425: USDA Organic Act of 1944 (Date: September 21, 1944).....33

**Summary of Statutes, Public Laws, USDA Memoranda, USDA Departmental Regulations,
Policies, Manuals, and Other Federal Publications**

P.L. 78-534: Flood Control Act of 1944 (Pick-Sloan Act) (Date: December 22, 1944)..... 33, 34, 45, 124
P.L. 79-724: Foreign Services Act of 1946 (Date: August 12, 1946)36
P.L. 79-731: Farmers Home Administration Act of 1946 (Date: August 14, 1946).....37
P.L. 80-806: Commodity Credit Corporation Charter Act of 1948 (Date: June 29, 1948)..... 8
P.L. 81-146: USDA Appropriations Act of 1950 (Date: June 29, 1949) 27, 38
P.L. 81-729: Cooperative Forest Management Act (Date: August 25, 1950).....43
P.L. 83-566: Watershed Protection and Flood Prevention Act of 1954 (Date: August 4, 1954).33, 42, 47,
52, 124
P.L. 83-591: Internal Revenue Code of 1954 (Section 175, Subtitle A; Date: August 16, 1954)..... 42, 48
P.L. 83-597: An Act to Amend the Water Facilities Act of 1937 (Date: August 17, 1954).....48
P.L. 84-102: Great Plains Act of 1956 (Date: August 7, 1956)..... 42, 52
P.L. 84-540 (Title I): Soil Bank Act (Date: May 28, 1956) 42, 51
P.L. 84-540: Agricultural Act of 1956 (Date: May 28, 1956) 42, 51
P.L. 85-624: Watershed and Flood Prevention Act of 1958 (Date: August 12, 1958)53
P.L. 87-128: Consolidated Farmers Home Administration Act of 1961 (Date: August 8, 1961) 19
P.L. 87-195: Foreign Assistance Act of 1961 (Date: September 4, 1961) 36, 37
P.L. 87-27: Area Redevelopment Act (Date: May 1, 1961)57
P.L. 87-703: Food and Agriculture Act of 1962 (Date: September 27, 1962)..... 58, 59
P.L. 87-732: Drainage Referral Act (Date: October 2, 1962)..... 55, 59
P.L. 89-560: Community Planning and Resource Development Act of 1966 (Date: September 7, 1966)
..... 61, 64
P.L. 89-574: Federal-Aid Highway Act of 1966 (Date: September 13, 1966)62
P.L. 89-665: National Historic Preservation Act of 1966 (Date: October 15, 1966)62
P.L. 89-80: Water Resources Planning Act of 1965 (Date: July 22, 1965)61
P.L. 91-190: National Environmental Policy Act (Date: January 1, 1970) 67, 69, 72, 75
P.L. 91-224: Environmental Quality Improvement Act of 1970 (Date: April 3, 1970)69
P.L. 91-343: Bankhead-Jones Farm Tenant Act (amended) (Date: July 18, 1970).....70
P.L. 91-524: Agricultural Act of 1970 (Date: November 30, 1970).....70
P.L. 91-559: Water Bank Act (Date: December 19, 1970)67, 70, 71
P.L. 92-419: Consolidated Farm and Rural Development Act of 1972 (Date: August 30, 1972)77
P.L. 92-500: Federal Water Pollution Control Act of 1972 (Clean Water Act) (Date: October 18, 1972)
..... 68, 72, 77, 94
P.L. 93-320: Colorado River Basin Salinity Control Act (Date: June 24, 1974) 68, 73
P.L. 93-638: Indian Self-Determination and Education Assistance Act of 1975 (Date: January 4, 1975)
..... 74, 76
P.L. 93-86: Agriculture and Consumer Protection Act of 1973 (Date: August 10, 1973).....73
P.L. 95-113: Food and Agriculture Act of 1977 (Date: September 29, 1977).....76
P.L. 95-192: Soil and Water Resources Conservation Act (Date: November 18, 1977)..23, 68, 77, 86, 89,
145
P.L. 95-217: Clean Water Act of 1977 (Date: December 27, 1977).....77, 110
P.L. 95-313: Cooperative Forestry Assistance Act of 1978 (Date: July 1, 1978).....78
P.L. 95-334: Agricultural Credit Act of 1978 (Date: August 4, 1978)78

P.L. 95-85: Surface Mining Control and Reclamation Act of 1977 (Date: August 3, 1977).....76
P.L. 96-213: Agricultural Appropriations Act of 1980 (Date: March 18, 1980).....84
P.L. 96-597: Appropriations Act for Certain Insular Areas of the United States (December 24, 1980)...87
P.L. 97-98: Agriculture and Food Act of 1981 (Date: December 22, 1981)..... 86, 91
P.L. 99-198: Food Security Act of 1985 (Date: December 23, 1985)..... 24, 75, 77, 81, 82, 90, 91, 93, 94,
103, 110
P.L. 99-514: Tax Reform Act of 1986 (Date: October 22, 1986)92

Executive Orders

Executive Order 10229 (Date: March 30, 1951)44
Executive Order 11282 (Date: September 7, 1966).....62
Executive Order 11990: Protection of Wetlands (Date: May 25, 1977)..... 67, 75
Executive Order 6101 (Date: April 5, 1933) 4
Executive Order 6340 (Date: October 16, 1933)..... 8
Executive Order 7027 (Date: May 1, 1935) 13
Executive Order 9069 (Date: February 23, 1942).....30
Executive Order 9280 (Date: December 5, 1942).....31
Executive Order 9334 (Date: April 19, 1943).....32
Executive Order 9577 (Date: June 29, 1945)..... 32, 34

USDA Memoranda

SCS Memorandum 72 (Date: January 28, 1955)49
SCS Memorandum 81 (Date: June 19, 1956).....49
USDA Memorandum 1010 (Date: October 20, 1994)..... 111
USDA Memorandum 1010-1 (Date: October 20, 1994)..... 112
USDA Memorandum 1278 (Date: February 15, 1951)..... 38, 41, 43, 44
USDA Memorandum 1318 (Date: November 15, 1952).....45
USDA Memorandum 1320, Supplement 4, (Date: November 2, 1953)..... 46, 47
USDA Memorandum 1325 (Date: April 1, 1953)45
USDA Memorandum 1390 (Date: October 18, 1955).....50
USDA Memorandum 1396 (Date: April 10, 1956).....51
USDA Memorandum 1399 (Date: June 13, 1956).....52
USDA Memorandum 1408 (Date: December 10, 1956).....52
USDA Memorandum 1430 (Date: May 22, 1959).....53
USDA Memorandum 1448, Supplement 1 (Date: February 13, 1962).....57
USDA Memorandum 1488 (Date: February 1, 1962)..... 55, 57, 151
USDA Memorandum 1515 (Date: November 2, 1962).....59
USDA Memorandum 1573 (Date: April 23, 1965).....60
USDA Memorandum 1600 (Date: September 7, 1966).....62
USDA Memorandum 1665 (Date: October 9, 1969).....59

Summary of Statutes, Public Laws, USDA Memoranda, USDA Departmental Regulations, Policies, Manuals, and Other Federal Publications

USDA Memorandum 2006, "Conservation Assistance to Indians on Tribal Lands" (Date: January 18, 1980).....83
USDA Memorandum 665 (Date: March 27, 1935).....10
USDA Memorandum 673 (Date: April 27, 1935).....12
USDA Office of General Counsel, Interagency Memorandum #28 (Date: July 1, 1977)..... 28, 76

USDA Regulations, Policies, Manuals, and Other Publications

Agricultural Research Service, "Management Systems Evaluation Area (MSEA) Program Progress Report" (Date: August 1995)..... 104
Agricultural Stabilization and Conservation Service, "National Summary Evaluation of the Agricultural Conservation Program" (Date: November 24, 1980).....85
Christensen, Thomas. "Plan of Action to help improve the representation of minorities and females on Soil and Water Conservation Districts Boards, Councils, and Committees." (Date: January 19, 1988)93
Departmental Regulation 1042-126: "Task Force on Agricultural Air Quality" (Date: April 4, 1996)... 115
Departmental Regulation 9500-3: "Land Use Policy" (Date: March 22, 1983) 82, 88
Natural Resources Conservation Service, "Comprehensive Nutrient Management Planning (CNMP) Technical Guidance" (Date: December 2000)..... 125
Natural Resources Conservation Service, "Conservation Assistance Streamlining through Process Reengineering (CASPeR)" (Date: November 2007)..... 137
Natural Resources Conservation Service, "Costs Associated with Development and Implementation of Comprehensive Nutrient Management Plans (Part 1)" (Date: June 2003)..... 129
Natural Resources Conservation Service, "Data Rich and Information Poor" (Date: November 1995)102, 113, 114, 116
Natural Resources Conservation Service, "Environmental Quality Incentives Program Livestock Emphasis Action Plan (EQIP-LEAP)" (Date: July 2004) 123
Natural Resources Conservation Service, "Field Office Technical Guide"50
Natural Resources Conservation Service, "Future Directions: A Vision of Information Technology for Field Conservationists" (Date: August 1997) 102, 116, 117
Natural Resources Conservation Service, "National Agronomy Manual (Circular No. 2)" (Date: 1997)..61
Natural Resources Conservation Service, "Technical Guidance for Developing Comprehensive Nutrient Management Plans" (Date: December 2000)118, 123
Natural Resources Conservation Service, Air Quality, Climate Change, and Energy (ACE) Integration Working Group, "Final Report" (Date: April 14, 2018) 135
Natural Resources Conservation Service: "America's Private Land: A Geography of Hope" (Date: December 1996).....115, 116
Natural Resources Conservation Service/Risk Management Agency, "Cover Crops Crop Insurance, Cover Crops and NRCS Cover Crop Termination Guidelines" (Date: August 2016) 148
NRCS Soil Survey Manual.....4, 19, 20
SCS National Bulletin No. 290-9-5 (Date: July 14, 1989).....96
Soil Conservation Service, "A Framework for a Better America" (Date: 1970)71

Soil Conservation Service, "Basic Policies and Functions of the Soil Conservation Service" (Date: August 1945)34

Soil Conservation Service, "Water Quality and Quantity Initiative Plan" (Date: October 1, 1989).....97

Soil Conservation Survey Handbook (Date: August 1939).....23

Soil Taxonomy: A Basic System of Soil Classification for Making and Interpreting Soil Survey (1975) ..68, 75

U.S. Department of Agriculture Handbook 537 (Date: May 1965, updated 1978).....28

U.S. Department of Agriculture, "National Animal Agriculture Conservation Framework" (December 2003)..... 123, 129

U.S. Department of Agriculture, "RCA Appraisal 2011, Soil and Water Resources Conservation Act" (Date: July 2011)..... 145

U.S. Department of Agriculture, "The Conservation Reserve Program: Progress Report and Preliminary Evaluation of the First Two Years" (Date: February 9, 1989).....95

Urban Hydrology for Small Watersheds74

USDA/EPA, "Unified National Strategy for Animal Feeding Operations" (Date: March 1999)..... 118



Timeline of Agency Leaders

1933 - 2019

**The U.S. Department of Agriculture's Role in America's
Private Lands Conservation Movement:**
A Chronology of Key Developments (1933 - 2019)

Thomas W. Christensen
January 1, 2020

Introduction

The Farm Service Agency has a long history of providing financial assistance to America's farmers, ranchers, and forest stewards. This document summarizes agency leaders since the first predecessor agencies (Agricultural Adjustment Administration and Resettlement Administration). This is a companion document to "USDA's Role in America's Private Lands Conservation Movement: A Chronology of Key Developments (1933 - 2019)."

The agency has undergone several name changes and reorganizations since its origin, which are summarized below:

| | |
|--|---|
| Subsistence Homesteads Division (within the Department of the Interior) <i>August 23, 1933, E.O. 6209</i> | Agricultural Adjustment Administration² (within the U.S. Department of Agriculture) <i>May 12, 1933, P.L. 73-10</i> |
| Resettlement Administration¹ <i>April 30, 1935, E.O. 7027.</i> | Production and Marketing Administration <i>August 20, 1945; Secretary's Memorandum 1118</i> |
| Farm Security Administration² <i>September 1, 1937, P.L. 75-210</i> | Commodity Stabilization Service <i>November 2, 1953; Secretary's Memorandum 1320, Supplement 4</i> |
| Farmers Home Administration <i>August 14, 1946, P.L. 79-731</i> | Agricultural Stabilization and Conservation Service <i>June 5, 1961; Secretary's Memorandum 1458</i> |
| Consolidated Farm Service Agency <i>October 20, 1994, Secretary's Memorandum 1010</i> | |
| Farm Service Agency (January 16, 1996; 61 FR 1109) | |

¹Originally established as an independent agency. Transitioned to USDA via E.O. 7530 dated December 31, 1936.

²The Farm Security Administration, Agricultural Adjustment Administration (renamed Agricultural Administration Agency), Soil Conservation Service, and other USDA agencies were transitioned several times during World War II. However, the agencies retained their names throughout this time. Movements are summarized below:

- Consolidated under the Agricultural Conservation and Adjustment Agency (E.O. 9069 dated February 23, 1942)
- Consolidated under the Food Production Administration (E.O. 9280 dated December 5, 1942)
- Consolidated under the Food Production and Distribution Administration (E.O. 9322 dated March 26, 1943)
- The Food Production and Distribution Administration was renamed the War Food Administration (E.O. 9334 dated April 19, 1943)
- The War Food Administration was abolished and its functions were reverted back to the Secretary of Agriculture (E.O. 9577, June 29, 1945)

Subsistence Homesteads Division

Established on August 23, 1933 via E.O. 6209 to execute all provisions of Section 208 under Title II of the National Industrial Recovery Act (P.L. 73-67).

This authorized up to \$25 million to purchase farms for the purpose of relocating individuals living in overcrowded urban areas and allowing them to raise crops.

Milburn L. Wilson served as Director from 1933-1935.

Resettlement Administration

Established on April 30, 1935 via E.O. 7027 under the authority of the Emergency Relief Act (49 Stat. 115, April 8, 1935). Concurrently, E.O. 7028 of April 30, 1935 transferred the Land Program Unit of the Federal Emergency Relief Administration (FERA) to the newly established Resettlement Administration (RA).

The RA had four divisions - Rural Rehabilitation, Rural Resettlement, Land Utilization, and Suburban Resettlement.

The RA was established as an independent agency, then was transitioned to USDA via E.O. 7530 dated December 31, 1936.

Rexford Tugwell served as Head of the Agency from 1935 - 1937.

Farm Security Administration

The RA's name was changed to the Farm Security Administration on September 1, 1937 via Secretary's Memorandum 732.

The Secretary of Agriculture charged the Farm Security Administration with administering farm loans authorized by the Bankhead-Jones Farm Tenant Act (P.L. 75-210; July 1, 1937). Secretary's Memorandum 785 transitioned administration of the Land Utilization Program to the Soil Conservation Service on October 16, 1938.

The following served as Administrators:

Will W. Alexander, 1937 - 1940
Calvin Baldwin, 1940 - 1943
Frank Hancock, 1943 - 1945
Dillard B. Lasseter, 1946

Farmers Home Administration

Established on August 14, 1946 under the authority of the Farmers Home Administration Act of 1946 (P.L. 79-731). This Act consolidated the Farm Security Administration and Emergency Crop and Feed Loan Division of the Farm Credit Administration.

Throughout its existence, the Farmers Home Administration (FmHA) extended credit for agriculture and rural development, including insuring loans made by other lenders. Loans were authorized for rural housing, rural business enterprises, water and waste disposal, and emergency relief. Loans and grants were awarded for rural development.

The following served as Administrators:

Dillard B. Lasseter, 1946 - 1953
R.B. McLeaish, 1954 - 1956
K.H. Hansen, 1956 - 1961
Howard Bertsch, 1961 - 1969
James V. Smith, 1969 - 1973
Frank B. Elliott, 1973 - 1976
Gordon Cavanaugh, 1977 - 1981
Charles W. Shuman, 1981 - 1985
Vance Clark, 1985 - 1989
La Verne Ausman, 1989 - 1993

Agricultural Adjustment Administration

Established on May 12, 1933 under the authority of the Agricultural Adjustment Act of 1933 (P.L. 73-10).

The Agricultural Adjustment Administration (AAA) offered rent payments to farmers in exchange for implementing soil conservation and improved farm management practices, primarily through the Agricultural Conservation Program. The AAA determined acreage allotments and marketing quotas, and extended Commodity Credit Corporation loans and price-supporting commodities purchases. Its Field Branch also acted as local premium-collecting representatives of the Federal Crop Insurance Corporation.

The Agricultural Adjustment Administration was renamed the Agricultural Adjustment Agency and transitioned to the Agricultural Conservation and Adjustment Administration on April 19, 1943 via E.O. 9069.

The following served as Administrators:

George N. Peek, 1933
Chester Davis, 1933 - 1936
Howard R. Tolley, 1936 - 1938
R.M. "Spike" Evans, 1938 - 1942
Fred Wallace, 1942 - 1943
Norris E. Dodd (Chief), 1943 - 1945

Production and Marketing Administration

Established via Secretary's Memorandum 1118 (signed August 18, 1945, effective August 20, 1945).

The Production and Marketing Administration (PMA) was responsible for production, marketing, distribution, price support and supply programs. In addition to commodities (e.g., cotton, dairy, sugar, poultry), it administered the Agricultural Conservation Program and absorbed the former AAA's extensive network of field offices. The PMA Administrator served as the President of the Commodity Credit Corporation.

The following served as Administrators:

Norris E. Dodd, 1945 - 1946
Robert Shields, 1946 - 1947
Jesse Gilmer, 1947 - 1948
Ralph S. Trigg, 1948 - 1951
Gus F. Geissler, 1951 - 1953

Commodity Stabilization Service

The PMA was renamed on November 2, 1953 via Secretary's Memorandum 1320, Supplement 4.

The subject memorandum changed the name of the Production and Marketing Administration to the Commodity Stabilization Service (CSS). This name reflected a greater emphasis on preserving farm income. Conservation programs (e.g., Soil Bank) were introduced to bring production in line with demand. The CSS Administrator served as the Executive Vice President of the Commodity Credit Corporation.

The following served as Administrators:

James McConnell, 1954
Earl Hughes, 1955
Walter Berger, 1956 - 1961

Agricultural Stabilization and Conservation Service

Established by Secretary's Memorandum 1458 of June 14, 1961, effective June 5, 1961. The Agricultural Stabilization and Conservation Service (ASCS) was established in accordance with Reorganization Plan No. 2 of 1953, effective June 4, 1953.

The ASCS administered agricultural price support, production adjustment, conservation assistance programs, and international commodity agreements. The Commodity Stabilization Service was renamed to reflect its greater focus on conservation efforts.

The ASCS Administrator served as the Executive Vice President of the Commodity Credit Corporation.

The following served as Administrators:

Horace D. Godfrey, 1961 - 1969
Kenneth E. Frick, 1969 - 1977
Ray Fitzgerald, 1977 - 1981
Everett Rank, 1981 - 1986
Milton Hertz, 1986 - 1989
Keith Bjerke, 1989 - 1993
Bruce Weber (Acting), 1993 - 1994

Consolidated Farm Service Agency

Established on October 20, 1994 via Secretary's Memorandum 1010, which implemented Section 226 of the Federal Crop Insurance Reform and Department of Agriculture Reorganization Act of 1994 (P.L. 103-354, October 13, 1994).

The subject Memorandum and Act abolished the Agricultural Stabilization and Conservation Service and Farmers Home Administration.

The Agricultural Stabilization and Conservation Service's stabilization programs and the Conservation Reserve Program were transferred to the newly established Consolidated Farm Service Agency (CFSA). Remaining conservation programs were transferred to newly established Natural Resources Conservation Service.

The Farm Home Loan program of the Farmers Home Administration was transitioned to the CFSA. Non-farm financial programs for rural housing, community facilities, water and waste disposal, and rural businesses were transitioned to the Office of Rural Development.

The CFSA was also responsible for supervision of the Federal Crop Insurance Corporation. The CFSA Administrator served as the Executive Vice President of the Commodity Credit Corporation.

Grant Buntrock served as Acting Administrator from 1994-1996.

Farm Service Agency

Established on January 16, 1996 via 61 FR 1109.

The CFSA was re-designated as the Farm Service Agency without change of organization or functions.

Supervision of the Federal Crop Insurance Corporation was transferred to the newly established Risk Management Agency on April 4, 1996. FSA's commodities operations were transitioned to the Agricultural Marketing Service in 2017.

The FSA Administrator served as the Executive Vice President of the Commodity Credit Corporation until 2018. Its bylaws were revised on May 4, 2018 to delegate the Chief Operating Officer of the FPAC Business Center as Executive Vice President.

The following served as Administrators:

Grant Buntrock, 1996 - 1997

Keith Kelly, 1998 - 2000

Jim Little, 2001 - 2005

Teresa Lassiter, 2006 - 2009

Doug Caruso, 2009

Jonathan Coppess, 2009 - 2011

Bruce Nelson, 2011-2012

Juan Garcia, 2012 - 2014

Val Dolcini, 2014 - 2017

Richard Fordyce, 2018 - present



Timeline of Agency Leaders

1933 - 2019

**The U.S. Department of Agriculture's Role in America's
Private Lands Conservation Movement:**
A Chronology of Key Developments (1933 - 2019)

Thomas W. Christensen
January 1, 2020

Introduction

The Natural Resources Conservation Service (NRCS) has a long history of “helping people help the land.” This document summarizes agency leaders since the first predecessor agency (Soil Erosion Service) was established in 1933. This is a companion document to “USDA’s Role in America’s Private Lands Conservation Movement: A Chronology of Key Developments (1933 - 2019).” The agency has undergone several name changes since its origin, which are summarized below:

Soil Erosion Service (1933-1935)

The Soil Erosion Service (SES) was established on September 19, 1933 as a temporary “New Deal” agency within the Department of Interior under then Secretary Harold L. Ickes. The SES was charged to carry out the provisions of the National Industrial Recovery Act of 1933 relating to the prevention of soil erosion.

On December 18, 1934, a committee appointed by Secretary Ickes assessed and reported on the soil erosion problem. The committee recommended a permanent coordinated program of soil erosion control. Because this was primarily an agricultural problem involving farming methods and lands used for farming, the committee further recommended the SES be transferred to the U.S. Department of Agriculture (USDA). President Franklin D. Roosevelt approved transition of the SES to the USDA on March 25, 1935.

Soil Conservation Service (1935 - 1994)

The Soil Conservation Act (P.L. 74-46) enacted on April 27, 1935 renamed the SES to the Soil Conservation Service (SCS) and established it as a permanent agency within the USDA. The name change from the Soil Erosion Service to the Soil Conservation Service was a conscious effort to give the new agency’s name a more positive ring and to invest this agency with a conservation charge broader than erosion control.

The SCS was formed as an “action agency,” charged with development and prosecution of a continuing nationwide program of soil conservation to help farmers and ranchers apply what research scientists learned about soil erosion. Under the leadership of Chief Bennett, and the authorities delegated by the Secretary of Agriculture, there was latitude on how this nationwide program was to be implemented.

Natural Resources Conservation Service (1994 - present)

The SCS was renamed the Natural Resources Conservation Service (NRCS) as part of the USDA Reorganization Act of 1994 (P.L. 103-354; Title II). The new name reflects the agency’s broader mission in conserving and improving the quality of America’s natural resources through partnerships and in collaboration with farmers, ranchers, and forest stewards.

The 1994 Act directed the Secretary of Agriculture to streamline and reorganize the USDA to achieve greater efficiency, effectiveness, and economies of scale in its organization and management of programs and activities. As part of this reorganization, NRCS was given greater responsibility for administering financial assistance for conservation programs (e.g., Environmental Quality Incentives Program). Subsequent Farm Bills have further diversified the suite of NRCS-administered conservation programs and generally increased or maintained programmatic funding.



“Father of Soil Conservation”



Hugh Hammond Bennett
Chief, 1933 - 1951

“From every conceivable angle - economic, social, cultural, public health, national defense - conservation of natural resources is an objective on which all should agree.”

The Hugh Hammond Bennett Lectures, North Carolina State College, June 1959.

Hugh Hammond Bennett served as the first Chief of the Soil Erosion Service (renamed Soil Conservation Service in 1935) until 1951. He became a Special Assistant to the Secretary of Agriculture in 1951, later retiring in 1952.

Mr. Bennett is commonly referred to as the “Father of Soil Conservation.” He was a pioneer in the development of a national soil and water conservation program. He believed that effective and lasting soil conservation was based on the application of sound science and data to practical conservation measures implemented voluntarily by farmers, ranchers, and forest stewards.

When Bennett started his career with the USDA Bureau of Soils in 1903, there was very little awareness of soil erosion. Much of the available literature was “observational” and data was based on limited soil types and geographies.

“The soil is the one indestructible, immutable asset that the Nation possess. It is the one resource that cannot be exhausted; that cannot be used up.” --USDA Bureau of Soils, Bulletin 55, “Soils of the United States,” 1909

This was a common mindset at that time and there was limited scientific research to prove otherwise. Mr. Bennett strongly disagreed with such statements and believed that farmers urgently needed more robust soil erosion data and research on rural American lands.

Mr. Bennett authored and published several scientific and research-based articles throughout the 1920s. In April 1928, he published “Soil Erosion: A National Menace” which is largely considered one of his most influential works. In 1929, he secured \$160,000 from Congress to set up a national network of erosion research stations. The stations were set up across the country, representing a wide range of soil across the country, representing a wide range of soil and climate types. The objectives were to measure the rates of soil and water losses, make surveys to determine the extent and location of damage by erosion, and develop methods for controlling erosion. He also produced scientific proof of sheet erosion and its significant impacts on agriculture and the American landscape.

It was Mr. Bennett’s 1933 testimony to Congress that convinced lawmakers to make soil conservation a national policy. The Soil Erosion Service (SES) was established as a temporary, emergency agency within the Department of Interior. Mr. Bennett also played a key role in influencing critical legislation, including the Soil Conservation Act of 1935. This Act also renamed SES to the Soil Conservation Service and established it as a permanent agency within the U.S Department of Agriculture. When Mr. Bennett was sworn in as Chief of the SES on September 19, 1933, he was the agency’s first and only employee. By 1937, the Soil Conservation Service had over 13,000 employees, with nearly 5,000 Civilian Conservation Camp members¹.





“One of the best, and certainly the most promising, of the devices yet invented by man for dealing democratically and effectively with maladjustment in land use, as well as for carrying forward positive programs of desirable conservation, and for maintaining the work, is the soil conservation district.”

H. H. Bennett. "Adjustment of Agriculture to Its Environment." *Annals of the Association of American Geographers* XXXIII (December 1943), Page 194.

When the Soil Erosion Service was first established, Mr. Bennett organized large-scale farm demonstrations to prove that the science and applied conservation practices would work. He quickly recognized that federal control would not yield the desired results efficiently or effectively. Under Mr. Bennett's leadership, the Soil Conservation Service had a clear mission and objectives. "He wanted but one role for government: to supply scientific research, technical assistance, and leadership. These services would have to be of top quality and dispensed strictly by request."¹

Mr. Bennett was convinced that lasting and effective soil conservation would need to be initiated, controlled, and managed by farmers and the communities in which they live. On February 27, 1937, President Franklin D. Roosevelt sent the "Standard State Soil Conservation District Law" to state governors. By March 3, 1937, the first state soil conservation district law was enacted by Arkansas. By August 4, 1937, the first conservation district was organized in parts of North Carolina's Anson and Union Counties (the Brown Creek Watershed), where Mr. Bennett was born and raised. Today, the Natural Resources Conservation Service continues to maintain close, essential partnerships with the conservation districts to drive their shared mission of "helping people help the land."

Mr. Bennet is considered the "greatest soil evangelist of all time [and a] true conservationist, whose teaching is now basic in sound agriculture throughout the world." Through great persistence and tenacity, he helped shape the field of soil conservation, as well as key federal legislation and policy. It was the sound basis in scientific research and data that the Soil Conservation Service, in partnership with other USDA agencies, conservation districts, states, and the voluntary actions of local farmers, ranchers, and forest stewards, was able to transform the American agricultural landscape after the Dust Bowl era.

¹Brink, Wellington. "Big Hugh, the Father of Soil Conservation." New York, Macmillan, 1951. p106.





Robert Salter
Chief, 1951-1953

"There's more to conservation farming than controlling erosion. It involves the prevention of all forms of soil deterioration, including erosion, more productive use of the rain that falls on the land, proper drainage and irrigation, rebuilding eroded soil, building up soil fertility, and increasing yields and farm income - all at the same time."
Annual Meeting of the Friends of the Land, September 29, 1952



Donald Williams
Administrator, 1953 - 1969

"The emphasis given to the interrelationship of soil and water management with more attention to water was my greatest contribution." SCS Historical Interview, June 14, 1981



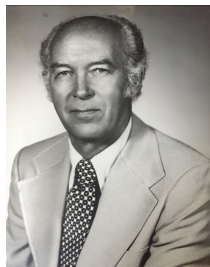
Kenneth Grant
Administrator, 1969-1975

"One of the things that I have been probably as proud of as anything in the service is what we did in career development for a lot of people. The strength of an agency such as SCS with its many different programs and responsibilities, with its presence in so many locations, is entirely dependent on the excellence of its personnel." SCS Historical Interview, January 29, 1988.



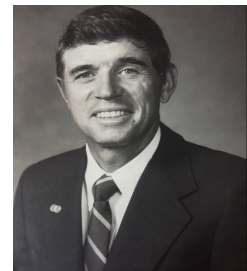
R.M. (Mell) Davis
Administrator, 1975 - 1979

"My basic push as Administrator was to do what some people would later tag as 'get back to basics.' We couldn't do everything for everybody." SCS Historical Interview, July 20, 1993.



Norman Berg
Chief, 1979 - 1982

"I believe that we must strive to pass on to those not yet born the renewable natural resource base and the options for its use that we have enjoyed by continual reviewal of the Soil Conservation Service as the finest corps of dedicated, responsive professional conservationists in the world." SCS Historical Interview, May 1993.



Peter C. Meyers
Chief, 1982 - 1983

"The 1985 Farm Bill represents a road map for the future that we very much want to have in place this year. It also represents a revolutionary development. I am truly excited and optimistic about the outlook for greater soil and water conservation achievement. There has never been a better time to be a conservationist." Outlook Conference, December 4, 1985.





Wilson Scaling
Chief, 1985 -1990

"All administrative and technical support should be focused on helping field offices get their job done." Current Developments, March 1989.



Mack Gray
Acting Chief,
July - December 1990

"Soil conservation sustains the productivity of the land and keeps our streams, lakes, and reservoirs clean. I believe I speak for all of us in expressing appreciation to everyone involved in this effort to conserve our natural resources." Soil and Water Conservation, September-October 1990.



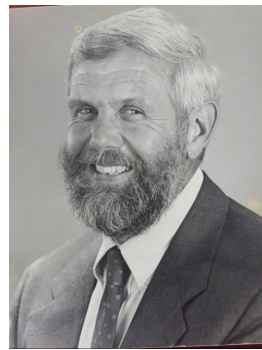
William I. Richards
Chief, 1990 - 1993

"In the final analysis, conservation compliance may well mark the beginning of the third 'revolution on the land'. . . The new revolution enlists producers who are changing farming practices and embracing new technology because it is good for the environment and it is economically sound." Farm Journal, December 1992.



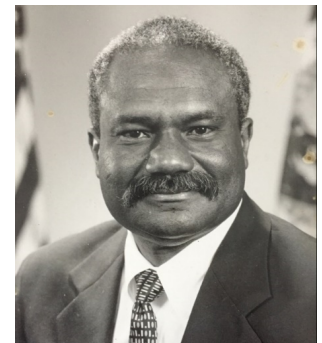
Galen Bridge
Acting Chief, 1993 - 1994

"Let us all understand that if we are to make headway in reconciling environmental and economic values [...], then we need to treat each other as part of the solution, not part of the problem." Journal of Soil and Water Conservation, July-August 1993



Paul W. Johnson
Chief, 1994 - 1997

"NRCS employees and their conservation partners are a national treasure."



Pearlle S. Read
Chief, 1998 - 2002

"The soil survey and the NRCS local conservation district partnership are the deoxyribonucleic acid for land husbandry in America." Earth Day, Madison, Wisconsin, April 22, 2002.





Bruce I. Knight
Chief, 2002 - 2006

"When I drive across the countryside and see filter strips, terraces, and small wetlands, I recognize the conservation signature on the land. But I also see how much remains to be done to fulfill our mission of helping people help the land."



Arlen L. Lancaster
Chief, 2006 - 2009

"Good conservation is good business, and when we make conservation more accessible - getting the right information in the right hands at the right time - great stewardship is inevitable."



Dave White
Chief, 2009 - 2012

"The quality of our environment depends upon the quality of the decisions made by the men and women who own and operate our private lands."



Jason Weller
Chief, 2013-2017

"The Conservation Technical Assistance (CTA) Program is the backbone for conservation planning and the Agency's conservation delivery system. Conservation planning is a proven, science-based process to support land managers' decision-making on conservation systems that will meet their natural resources and economic objectives." Before the House Appropriations Subcommittee on Agriculture, Rural Development, Food and Drug Administration, and Related Agencies, February 26, 2016.



Leonard Jordan
Acting Chief, 2017-2018

"God has made us stewards of our natural resources. I desire to nurture and improve them".



Matthew Lohr
Chief, 2018 - present

"As a fifth generation farmer, my forefathers instilled in me a passion for protecting our natural resources. As Chief, it has been the greatest honor to see that passion replicated all across the nation through the actions of our dedicated employees. Their ability to provide expert advice, collaborate with partners and deliver exceptional customer service will ensure the legacy of our agency for generations to come."





Historical Conservation Funding

Fiscal Years 1936 - 2019

The U.S. Department of Agriculture's Role in America's Private Lands Conservation Movement: *A Chronology of Key Developments (1933 - 2019)*

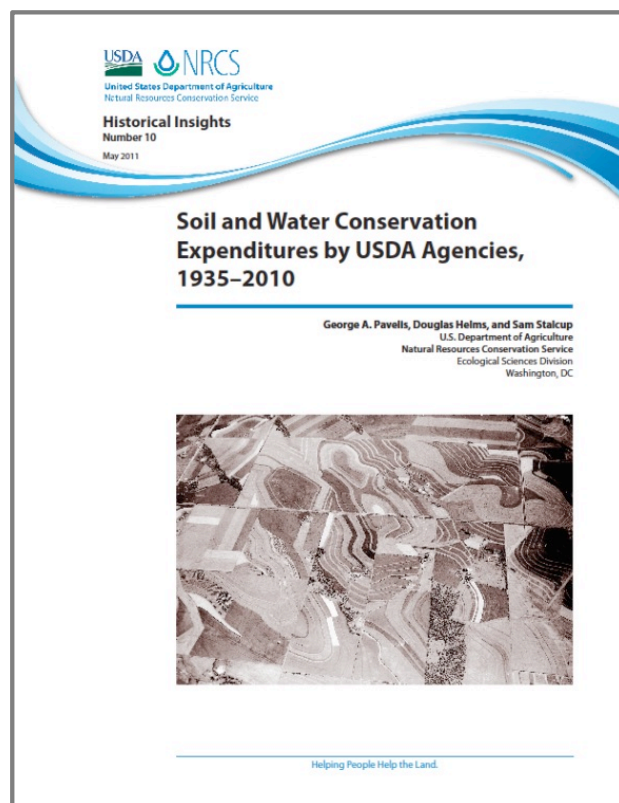
Thomas W. Christensen
January 1, 2020

Introduction

This document summarizes historical expenditures for 41 conservation programs administered by the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), Farm Service Agency (FSA), and their predecessor agencies. It provides a summary history of the development of USDA conservation programs with respect to the use of funds for technical assistance (TA) and/or financial assistance (FA).

Historical funding² from fiscal years 1936 through 2010 are from "Soil and Water Conservation Expenditures by USDA Agencies, 1935 - 2010."¹ The subject document details the methodology for identifying and estimating the numbers presented. Historical funding from FY2011 - 2019, as well as the distribution of technical and financial assistance dollars, are based on actual appropriations. The Consumer Price Index (CPI) inflation was applied to "then year" dollars to calculate estimated expenditures in equivalent 2019 dollars.

This is a companion document to "USDA's Role in America's Private Lands Conservation Movement: A Chronology of Key Developments (1933 - 2019)," issued on January 1, 2020.



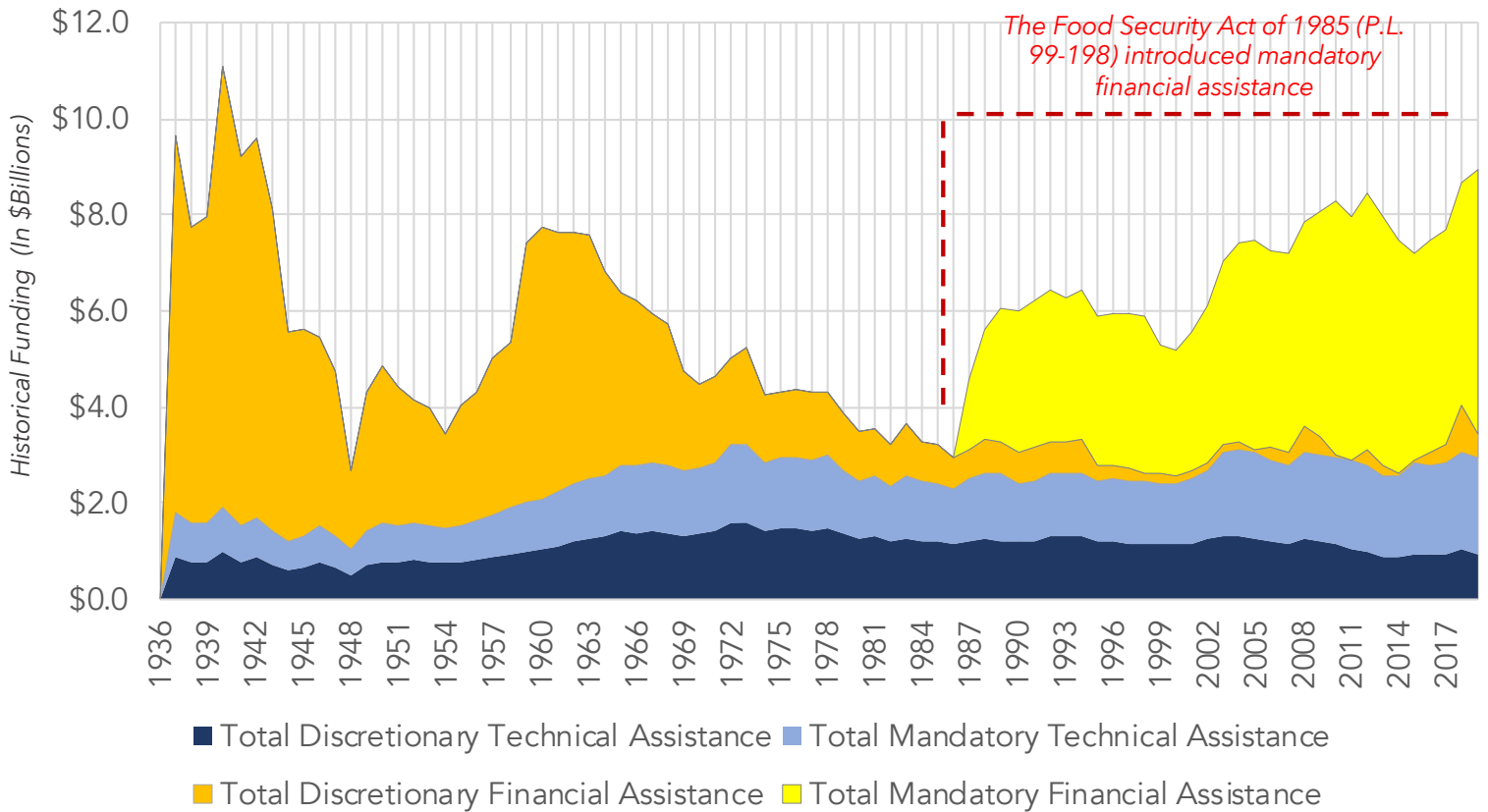
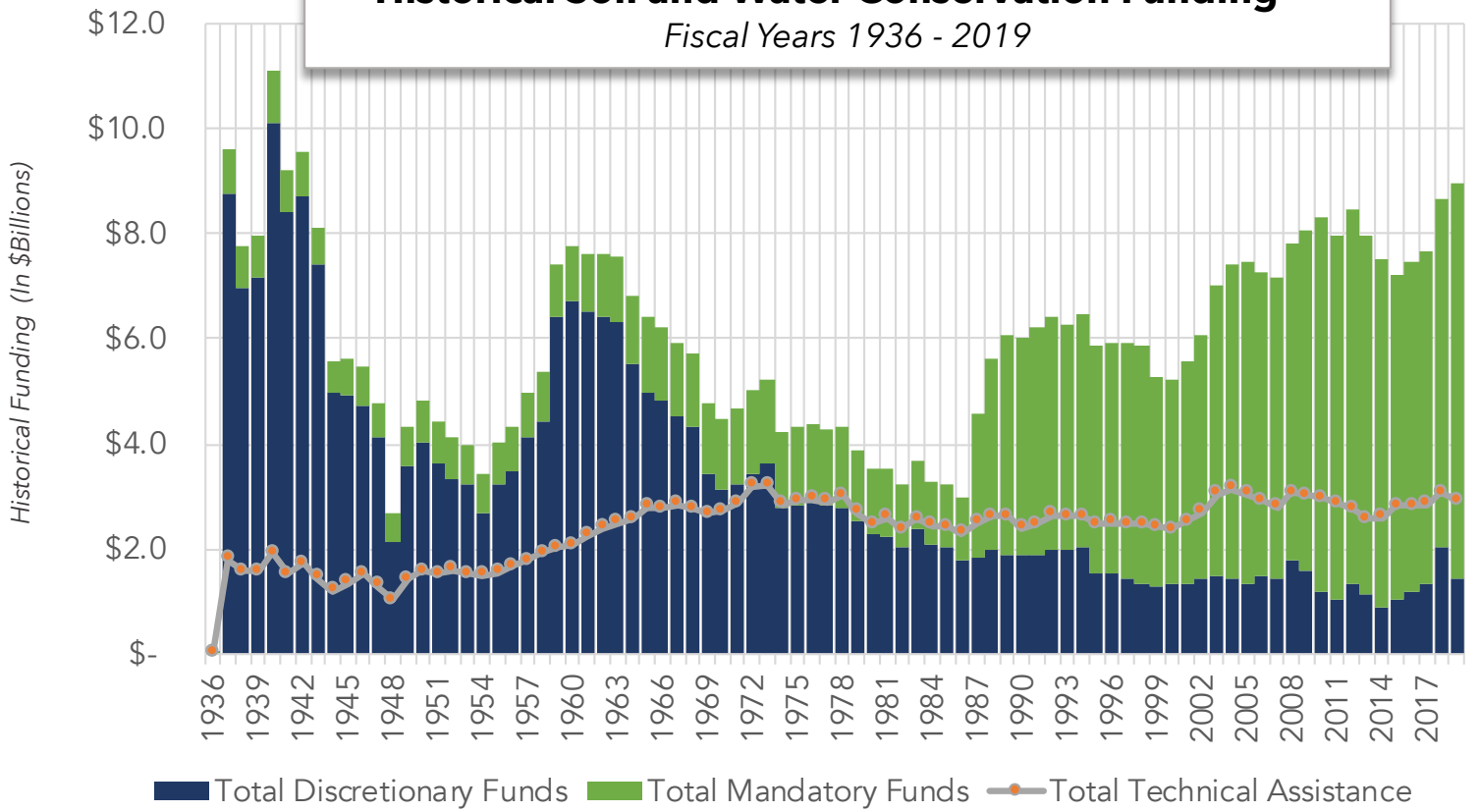
File embedded. Double click to open.

¹Pavelis, George; Helms, Douglas; Stalcup, Sam. "Soil and Water Conservation Expenditures by USDA Agencies, 1935-2010" USDA Natural Resources Conservation Service Historical Insights, Number 10. May 2011.

²The federal fiscal year from 1936 through 1976 were July 1 through June 30 of the following year. The Congressional Budget and Impoundment Control Act of 1974 shifted the fiscal year from October 1 through September 30 of the following year. July 1 - September 30, 1976 is known as the "transitional quarter."

Historical Soil and Water Conservation Funding^{1,2}

Fiscal Years 1936 - 2019

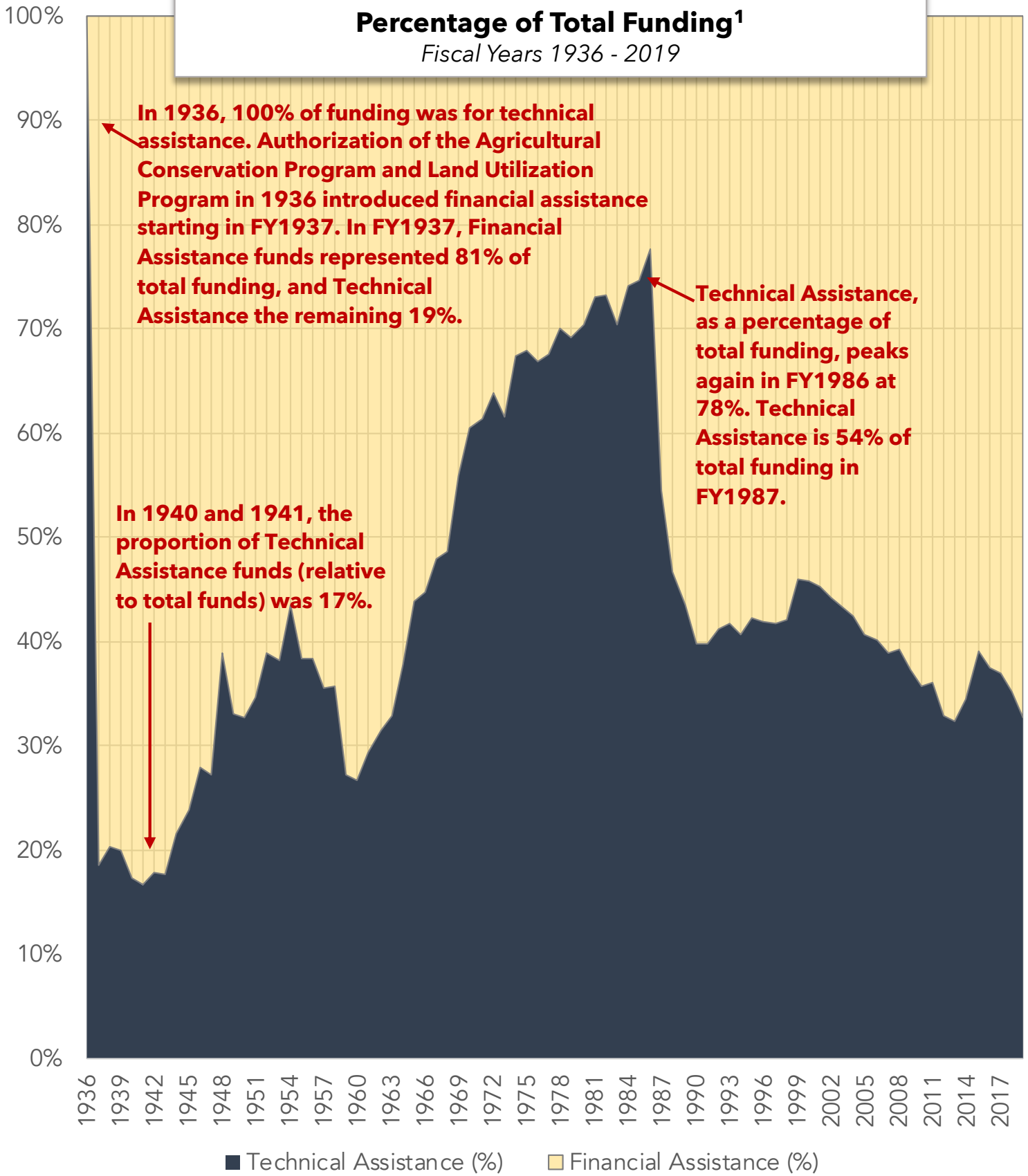


¹Includes both technical and financial assistance for FSA and NRCS Conservation Programs (inclusive of their predecessor agencies).

²Historical funding levels are escalated to equivalent FY2019 dollars.

Historical Breakout of Technical Assistance Funds as a Percentage of Total Funding¹

Fiscal Years 1936 - 2019



¹Includes both technical and financial assistance for FSA and NRCS Conservation Programs (inclusive of their predecessor agencies).

| HISTORICAL DISCRETIONARY PROGRAMS | Agency | Technical Assistance | Financial Assistance | Project Assistance |
|---|--------|----------------------|----------------------|--------------------|
| Conservation Operations <i>Includes Conservation Technical Assistance, Soil Survey, Snow Survey and Water Supply Forecasting, and Plant Material Centers</i> | NRCS | x | | |
| Emergency Conservation Program ¹ | FSA | | x | |
| Grassroots Source Water Protection Program (transitioned from NRCS to FSA) | FSA | | x | |
| Watershed Flood Prevention Operations <i>Includes the Emergency Watershed Protection Program</i> | NRCS | x | x | x |
| Watershed Rehabilitation Program | NRCS | x | x | x |
| Water Bank Program* (transitioned from FSA (ASCS) to NRCS) | NRCS | x | x | |
| Agricultural Conservation Program ¹ | FSA | x | x | |
| Colorado River Salinity Control Program (transitioned from FSA (ASCS) to NRCS) | NRCS | x | x | |
| Emergency Erosion Control | NRCS | x | | |
| Forest Incentives Program ¹ | FSA | x | x | |
| Great Plains Conservation Program | NRCS | x | x | |
| Land Utilization Program | NRCS | | x | |
| Resource Conservation and Development Program | NRCS | x | x | x |
| River Basin Surveys and Planning | NRCS | x | | |
| Soil Bank Program ¹ | FSA | x | x | |
| Water Conservation and Utilization Projects | NRCS | x | x | x |
| Watershed Planning | NRCS | x | | x |
| Watershed Surveys and Planning | NRCS | x | | x |

| HISTORICAL MANDATORY PROGRAMS | Agency | Technical Assistance | Financial Assistance | Project Assistance |
|---|----------------------------|----------------------|----------------------|--------------------|
| Agricultural Conservation Easement Program | NRCS | x | x | |
| Agricultural Management Assistance Program | NRCS (+AMS, RMA) | x | x | |
| Biomass Research and Development | FSA (transitioned to NIFA) | x | | |
| Chesapeake Bay Watershed Program | NRCS | x | x | |
| Conservation Reserve Program ¹ | FSA | x | x | |
| Conservation Stewardship Program | NRCS | x | x | |
| Emergency Forestry Conservation Reserve | FSA | | x | |
| Environmental Quality Incentives Program (financial assistance transitioned from FSA to NRCS) | NRCS | x | x | |
| Feral Swine Eradication and Control Pilot Program | NRCS | x | x | x |
| Regional Conservation Partnership Program | NRCS | x | x | x |
| Small Watershed Rehabilitation Program | NRCS | x | x | x |
| Voluntary Public Access and Habitat Incentive Program | NRCS | x | x | |
| Voluntary Public Access Incentive Program | FSA | | x | |
| Watershed Protection and Flood Prevention | NRCS | x | x | x |
| Agricultural Water Enhancement Program | NRCS | x | x | x |
| Conservation Farm Option | FSA | | x | |
| Conservation Security Program | NRCS | x | x | |
| Farm and Ranch Lands Protection Program | NRCS | x | x | |
| Grassland Reserve Program (FSA managed rental payments; NRCS managed easements) | FSA/NRCS | x | x | |
| Healthy Forests Reserve Program | NRCS | x | x | |
| Wetland Reserve Program | NRCS | x | x | |
| Wetlands Mitigation Banking Program | NRCS | x | x | x |
| Wildlife Habitat Incentives Program | NRCS | x | x | |

Notes:

¹NRCS (or its predecessor agencies) provides technical assistance

²Does not include reimbursable programs from other agencies (e.g., Environmental Protection Agency (Great Lakes Restoration Initiative), U.S. Army Corp of Engineers (Coastal Wetlands Planning, Protection, and Restoration Act))



Image is from a copy of the mid-century SCS artwork catalog preserved in the Douglas Helms Collection in the Special Collections Division of the USDA's National Agricultural Library in Beltsville, Maryland

AW-81

**MEMORANDUM TRANSFERRING THE SOIL
EROSION SERVICE FROM THE DEPARTMENT
OF INTERIOR TO THE DEPARTMENT OF
AGRICULTURE
MARCH 25, 1935**

-AND-

**FULL TEXT OF PUBLIC LAW 74-46
ESTABLISHING THE SOIL CONSERVATION
SERVICE
APRIL 27, 1935**

FEDERAL EMERGENCY ADMINISTRATOR
OF PUBLIC WORKS
WASHINGTON

INTERIOR DEPT
RECEIVED
MAR 25 1935
OFFICE OF
THE SECRETARY.

March 23, 1935.

Pursuant to the authority delegated to me in Executive Order No. 6252, August 19, 1933 and Executive Order No. 6259, December 26, 1934, I hereby transfer the funds, personnel, property and equipment of the Soil Erosion Service, heretofore established as a branch of the Department of the Interior, to the Department of Agriculture, to be under the supervision and control of the Secretary of Agriculture, who for this purpose shall have all authority and power over this service heretofore possessed by me.

Harold G. Peltus
Federal Emergency Administrator
of Public Works

Approved:

Franklin D. Roosevelt

The White House

March 25, 1935.

PUBLIC LAW No. 46 - 74th CONGRESS
(H. R. 7054)

AN ACT

To provide for the protection of land resources against soil erosion, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it is hereby recognized that the wastage of soil and moisture resources on farm, grazing, and forest lands of the Nation, resulting from soil erosion, is a menace to the national welfare and that it is hereby declared to be the policy of Congress to provide permanently for the control and prevention of soil erosion and thereby to preserve natural resources, control floods, prevent impairment of reservoirs, and maintain the navigability of rivers and harbors, protect public health, public lands and relieve unemployment, and the Secretary of Agriculture, from now on, shall coordinate and direct all activities with relation to soil erosion and in order to effectuate this policy is hereby authorized, from time to time --

(1) To conduct surveys, investigations, and research relating to the character of soil erosion and the preventive measures needed, to publish the results of any such surveys, investigations, or research, to disseminate information concerning such methods, and to conduct demonstrational projects in areas subject to erosion by wind or water;

(2) To carry out preventive measures, including, but not limited to engineering operations, methods of cultivation, the growing of vegetation, and changes in use of land;

(3) To cooperate or enter into agreements with, or to furnish financial or other aid to, any agency, governmental or otherwise, or any person, subject to such conditions as he may deem necessary, for the purposes of this Act; and

(4) To acquire lands, or rights or interests therein, by purchase, gift, condemnation, or otherwise, whenever necessary for the purposes of this Act.

Sec. 2. The acts authorized in section 1 (1) and (2) may be performed --

(a) On lands owned or controlled by the United States or any of its agencies, with the cooperation of the agency having jurisdiction thereof; and

(b) On any other lands, upon obtaining proper consent or the necessary rights or interests in such lands.

Sec. 3. As a condition to the extending of any benefits under this Act to any lands not owned or controlled by the United States or any of its agencies, the Secretary of Agriculture may, insofar as he may deem necessary for the purposes of this Act, require --

(1) The enactment and reasonable safeguards for the enforcement of State and local laws imposing suitable permanent restrictions on the use of such lands and otherwise providing for the prevention of soil erosion;

(2) Agreements or covenants as to the permanent use of such lands; and

(3) Contributions in money, services, materials, or otherwise, to any operations conferring such benefits.

Sec. 4. For the purposes of this Act, the Secretary of Agriculture may --

(1) Secure the cooperation of any governmental agency;

(2) Subject to the provisions of the civil-service laws and the Classification Act of 1923, as amended, appoint and fix the compensation of such officers and employees as he may deem necessary, except for a period not to exceed eight months from the date of this enactment, the Secretary of Agriculture may make appointments and may continue employees of the organization heretofore established for the purpose of administering those provisions of the National Industrial Recovery Act which relate to the prevention of soil erosion, without regard to the civil-service laws or regulations and the Classification Act, as amended; and any persons with technical or practical knowledge may be employed and compensated under this Act on a basis to be determined by the Civil Service Commission; and

(3) Make expenditures for personal services and rent in the District of Columbia and elsewhere, for the purchase of law books and books of reference, for printing and binding, for the purchase, operation and maintenance of passenger-carrying vehicles, and perform such acts, and prescribe such regulations, as he may deem proper to carry out the provisions of this Act.

Sec. 5. The Secretary of Agriculture shall establish an agency to be known as the "Soil Conservation Service", to exercise the powers conferred on him by this Act and may utilize the organization heretofore established for the purpose of administering those provisions of sections 202

and 203 of the National Industrial Recovery Act which relate to the prevention of soil erosion, together with such personnel thereof as the Secretary of Agriculture may determine, and all unexpended balances of funds heretofore allotted to said organization shall be available until June 30, 1937, and the Secretary of Agriculture shall assume all obligations incurred by said organization prior to transfer to the Department of Agriculture. Funds provided in H. J. Res. 117, "An Act making appropriation for relief purposes" (for soil erosion) shall be available for expenditure under the provisions of this Act; and in order that there may be proper coordination of erosion-control activities the Secretary of Agriculture may transfer to the agency created under this Act such functions, funds, personnel, and property of other agencies in the Department of Agriculture as he may from time to time determine.

Sec. 6. There are hereby authorized to be appropriated for the purposes of this Act such sums as Congress may from time to time determine to be necessary.

Approved, April 27, 1935.



WINDBREAK

AW 160

Image is from a copy of the mid-century SCS artwork catalog preserved in the Douglas Helms Collection in the Special Collections Division of the USDA's National Agricultural Library in Beltsville, Maryland

**"OUR CONSERVATION SONG"
USDA SOIL CONSERVATION SERVICE,
COLUMBIA, SOUTH CAROLINA**

DECEMBER 1, 1960

OUR CONSERVATION SONG



U. S. Department of Agriculture
Soil Conservation Service
901 Sinter St.
Columbia, S. C.
Dec. 1, 1960

By
Theo Hartin, Principal
Arden and John P. Thomas
Elementary Schools
Columbia, S. C.

WSP-568



AW-48

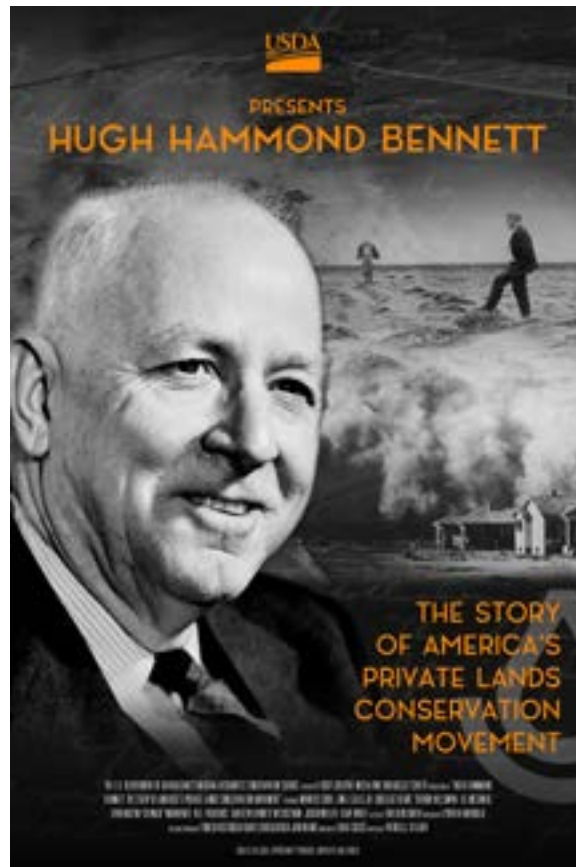
Image is from a copy of the mid-century SCS artwork catalog preserved in the Douglas Helms Collection in the Special Collections Division of the USDA's National Agricultural Library in Beltsville, Maryland

LINKS TO:

**"HUGH HAMOND BENNETT:
THE STORY OF AMERICA'S PRIVATE LANDS
CONSERVATION MOVEMENT"**

-AND-

**"PAST, PRESENT, AND FUTURE OF
CONSERVATION DISTRICTS"**



**"Hugh Hammond Bennett: The Story of America's Private
Lands Conservation Movement",**

Video Produced by USDA and Released on June 22, 2017

<https://www.youtube.com/watch?v=7kyQIXAjnQI>

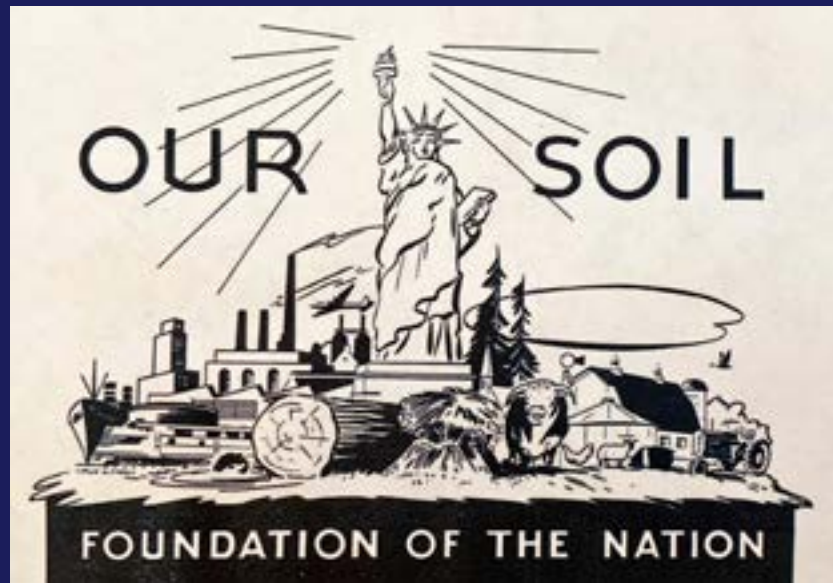


**National Association of
Conservation Districts**

"Past, Present, and Future of Conservation Districts"

Video Produced by NACD and Released on April 17, 2018

<https://www.youtube.com/watch?v=LU-PdpT-2v4>



Images are from a copy of the mid-century SCS artwork catalog preserved in the Douglas Helms Collection in the Special Collections Division of the USDA's National Agricultural Library in Beltsville, Maryland

USDA is an equal opportunity provider, employer, and lender.