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Soil
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20013

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NATIONAL BULLETIN NO. 260-3-26

SUBJECT: PUBL INF - THE IMPORTANCE OF THE CIVILIAN CONSERVATION CORPS
TO THE SOIL CONSERVATION SERVICE

Purpose. To transmit copies of "The Importance of the Civilian Conservation Corps to the Soil Conservation Service."

Expiration Date. November 30, 1983.

More than 1,000 people attended the 50th Anniversary meeting of the National Association of the Civilian Conservation Corps Alumni in Eagle River, Wisconsin, September 20-24. The enclosed article was available for distribution at the SCS exhibit areas.

Requests for additional copies should be referred to Douglas Helms, Historian, SCS, Washington, DC. (FTS: 382-0042)

HUBERT W. KELLEY
Director
Public Information

Enclosure

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THE IMPORTANCE OF THE CIVILIAN CONSERVATION CORPS TO THE SOIL CONSERVATION SERVICE

Douglas Helms, Historian, Soil Conservation Service

In 1932, during the Great Depression, one-fourth of the men in the United States between the ages of 15 and 24 could not find work. Another 29 percent had only part-time employment. In the emergency employment act of March 31, 1933 (48 Stat.22), Congress authorized public funds to employ these young men on conservation projects. This act led to the establishment of the Civilian Conservation Corps (CCC) as a temporary government agency designed to fulfil a need and to be disbanded when the need no longer existed.

Although the outbreak of World War II in 1942 ended the CCC, the Corps' accomplishments were long-lived. Some of the Corps' work is still visible; other benefits are not so recognizable today, but they are nonetheless real. In reflecting on the importance of the Corps, historian Arthur Schlesinger, Jr., said that the CCC "left its monuments in the preservation and purification of the land, the water, the forests, and the young men of America."

Another of the Federal agencies born in the 1930s, the Soil Conservation Service, we regard as permanent. The technicians in its approximately 3,000 field offices work with farmers and other landowners to conserve soil and water in 2,932 soil and water conservation districts that include more than 1 billion acres of farmland.

The predecessor to the Soil Conservation Service, the Soil Erosion Service, also began as a temporary agency with the goal of conserving soil and water while providing useful employment. That it managed to demonstrate the need for providing continuing technical assistance and information on soil and water conservation to private landowners was partially attributable to the work of the Civilian Conservation Corps.

A number of Civilian Conservation Corps camps first worked on soil erosion control projects under the supervision of the Forest Service. But soil conservation work in the CCC was destined to expand when the Public Works Administration allotted \$5,000,000 on August 25, 1933, for that purpose. On September 19, 1933, a U.S. Department of Agriculture soil scientist, Hugh Hammond Bennett, moved to the Department of the Interior as head of the Soil Erosion Service (SES). A labor supply was crucial to what he hoped to accomplish, and he immediately set about having some CCC labor allotted to the new Service.

To understand the role of the CCC in the history of the Soil Conservation Service, it is necessary to understand Bennett's beliefs about the nature of soil erosion and his plans for soil conservation on agricultural lands. The accepted practices of farming clean-cultivated fields and overgrazing range and woodland had left the soil bare and vulnerable to erosion. Not only was he concerned about the more obvious evidences of erosion such as gullies, but also a process he called "sheet erosion" in which each rain washed away a thin, imperceptible layer of topsoil. The gullies hindered farming operations and the insidious sheet erosion reduced productivity. Furthermore, their cumulative effects were not confined to the individual farm. Sediment from farms clogged stream channels, causing intense and frequent flooding of valuable agricultural bottomland.

To Bennett's thinking, erosion had to be reduced through a coordinated effort that allowed farmers to continue farming without reducing their incomes. Surely some land that was too steep and erodible would have to be converted to pastureland or woodland to provide ground cover throughout the year. But on

cultivated land, a mixture of mechanical, structural, and vegetative means could be used. Stripcropping--alternating strips of row crops with strips of a close growing crop such as a small grain or hay crop--would slow runoff and reduce erosion. Terraces or other diversions could intercept runoff and direct it through outlets and waterways to the nearby streams. The conservation measures would be tailored to the needs of each farm. Bennett did not believe reliance on a single method would work. One approach often mitigated one problem but created several new ones.

Although Bennett did not plan to drastically change the types of crops each farmer grew, his ideas about farming land according to its capabilities entailed rearrangement of fields to follow contour lines, alternative planting methods, and use of cover crops. It was going to be difficult enough to sell the new system of conservation farming without asking farmers, during the depth of the Depression, to borrow money for seed, fertilizer, equipment, and labor to install terraces, waterways, improved pasture, fences, and other conservation measures. In this situation the Civilian Conservation Corps camps would be invaluable. Furthermore, Bennett wanted to demonstrate the values of conservation on an area larger than the individual farm. He would use watersheds of about 25,000 acres in some of the worst eroded areas. The concentration of labor in a CCC camp would be ideal.

On April 1, 1934 the Soil Erosion Service received authorization for 22 CCC camps. The Corps built the camps on the SES watershed-based demonstration projects. SES technicians fanned out into the project areas to explain the new program. Interested farmers signed 5-year cooperative agreements with the Service detailing the obligations of each party. The farmer, for instance,

might agree to rearrange his field so as to carry out contour farming. He might agree to retire some areas particularly susceptible to erosion to pasture or woodland. Cattle grazing on steep woodland produced rapid runoff and erosion on the fields below. Thus, fencing off woodland was often another item in the cooperative agreement. When stripcropping was a major element in the conservation plan, the farmers often agreed to a longer crop rotation that would keep some strips in long enough to increase the water-absorbing capacity of the fields. The CCC could plant shrubs for permanent contour guides.

The government also had certain obligations. In the earliest days of the demonstration projects, they might supply the seed, fertilizer, and lime for establishing permanent pasture or for establishing hay strips in the strip-cropping system. The same applied to seedlings for reforesting erodible areas. CCC labor could be used to fence off woodland from grazing, although the farmers might be expected to provide the fence posts. SES technicians surveyed and laid off the terraces and contour lines.

Overall it was a cooperative job with contributions from all parties. This resulted in part from the attitudes about the proper role of the Civilian Conservation Corps. By the time SES started, officials of the Civilian Conservation Corps had tried to set up some guidelines to distinguish work that benefitted the public from work that benefitted an individual. On public lands such as National Forests and National Parks and even on state, county, or municipal lands, there was usually little difficulty in making this distinction. On privately owned farms, it became more difficult. The CCC officials took the position, for example, that the enrollees could work on streambank stabilization and construct terrace outlets to the stream, but that they could not build terraces on a farm.

Actually, most operations on private land were cooperative and endured through the years. In some cases the farmers provided horses and mules to build terraces, while the CCC provided terracing equipment and labor. In many cases the county government lent road graders, bulldozers, and other equipment to SCS and the Corps, who then built terraces and waterways. As one looks back and assesses CCC accomplishments, especially on private lands, it is necessary to remember the contributions to the program by state and local governments and by individuals.

The first and one of the most successful of the demonstration projects was the Coon Creek watershed in Wisconsin. CCC Company 1697 arrived on May 4, 1934. This area of dairy farms located in the Driftless area of narrow steep valleys was perfectly suited to a demonstration of soil-conserving measures, especially the stripcropping that still dominates the landscape today. Enrollees worked on various wing dams along Coon Creek to stop the bank erosion that clogged the stream. They shaped the banks, built willow mats to be placed on the banks, and planted willow shoots. They fenced off woodland, built terrace outlets, and plugged up gullies. Today the area is a showplace for conservation. A recent study of the watershed revealed that the rate of erosion is less than one-fourth that in 1934. Last August the town of Coon Valley held a celebration in honor of the CCC enrollees, farmers, and SCS technicians who helped start the project.

The impressive start led to additional demonstration projects and 19 more CCC camps. The largest expansion came with the move of the Soil Erosion Service to the Department of Agriculture. The Soil Conservation Act of April 27, 1935 made the Soil Conservation Service a permanent agency. SCS assumed supervision of more than 150 CCC camps from the Forest Service. Allocation of new camps

raised the number of SCS-supervised camps to 498 by December 1935. Many of the new camps were not attached to demonstration projects but did similar work under the direction of an SCS technical staff. Service policy restricted a camp work area to about 15,000 acres. In 1937, 90 percent of SCS's camps were located outside the demonstration project areas. Of the 4,500 CCC camps operated during the life of the Corps, SCS provided the technical supervision to more than 800.

WORK IN HUMID AREAS

CCC camps in humid areas had to contend with erosion from rainfall on hillside farms. Many of the camps were located in the Piedmont in the South and the unglaciated part of the Upper Mississippi Valley. Some camps in the Northeast concentrated on helping farmers lay out new orchards on the contour and provided terraces and outlets for existing orchards. They also emphasized use of cover crops on orchard land.

Dairying areas fit the conservation program well because the technicians could argue convincingly for stripcropping to provide the needed hay. Fencing off woodland from grazing helped reduce erosion, increased wildlife, and provided a supply of timber for on-farm use or sale.

Thinning trees and other aspects of timber improvement held a major place in the conservation program in the East. Camps in the Southeastern States engaged in reforestation projects on wornout cotton lands. In fiscal year 1941, SCS nurseries in the Southeastern States that had CCC labor available produced 46 million seedlings for planting. Some of these were used for revegetating gullies. In Georgia, some of the gullies were so deep and the sides so steep that CCC boys with their bundles of seedlings had to be lowered into them by ropes.

Terracing played a large part in the program in the South, but there was also a great emphasis on the use of vegetation for soil conservation. Southern farmers had long used terraces, but in an area where clean-tilled crops such as cotton and tobacco predominated, it required persuasion to get farmers to accept new grasses for improved pastures and grassed terrace outlets.

Although terracing was well-known in the South, the CCC camps introduced terracing to other areas where the practice was needed. An SCS engineer visiting a CCC camp at Columbus, Nebraska, reported back to his office that "the terracing prompted by the camp is the first that has been done in this county."

WORK IN SEMI-ARID AREAS

Camps in semi-arid areas had to contend with wind erosion and water scarcity as well as erosion from rainfall. Reseeding overgrazed native rangelands was not new, but most of the work had been research. The CCC camps provided an opportunity to put the method into practice. Large stocks of planting materials were not available, so the CCC boys collected native grass seed. In addition to seeding, SCS emphasized range management to control grazing and allow the seeded area to become established and the range to be regenerated naturally. Again, work performed by CCC enrollees was invaluable in fencing for grazing distribution, developing springs, and building stockwater dams. Personnel in Camp SCS-4 at Huron, South Dakota, spent their time during 1938-39 building stockwater ponds. They also collected, classified, and mounted approximately 300 grasses and weeds for a herbarium that could be used for training.

Work provided by CCC camps also provided the enrollees an opportunity to experiment with the concentrated use of contour furrows and waterspreading systems. SCS-supervised CCC camps built 134,167 miles of contour furrows and ridges. These contour furrows halted erosion by water and, by retaining the water for range improvement, also reduced wind erosion.

A large waterspreading system consisting of an impoundment structure, dikes, diversions, and furrows provided some flood control, recharged groundwater supplies, and spread water for pasture improvement and irrigated agriculture. SCS built some of the largest waterspreading systems on Indian reservations with Indian CCC labor. A dam at the lower end of Mexican Springs, New Mexico, cost \$12,900 and spread water over 6,000 acres at a cost of \$2.15 per acre.

The 85-mile-long Orabi wash was a constant threat to Indian agriculture near the Tolani Lakes. It flowed south from the Black Mesa through Hopi country and created a fan or delta of several thousand acres just north of the Leupp Indian Agency. Flash floods made farming on the delta a capricious enterprise. Indian CCC boys and other workers built a dike across the wash that not only protected the delta, but provided water for 4,000 acres of irrigated land. As in other sections of the country, SCS's CCC camps occasionally worked on nonagricultural projects. At the Chaco National Monument they controlled streambank erosion to protect historical ruins.

The Rio Grande watershed above Elephant Butte Reservoir in New Mexico included both public and private lands. The reservoir, a Bureau of Reclamation project, had a capacity of 2,638,860 acre-feet of water when completed in 1917. In the fall of 1935, SCS had begun deploying CCC camps to work on conservation

measures to slow siltation of the reservoir. By 1937 silt had reduced the reservoir capacity 20 percent. Enrollees from seven camps worked above the dam while those from three camps below the dam concentrated on flood control for the towns. Within a year the ten camps built 14 large impounding dams and 49 smaller ones for stockwater and flood control, six miles of fence, and 900 miles of contour furrows. They dug 123,000 feet of ditches to divert water from gully heads. To further control gullies they built 30,000 check dams, seeded or sodded 19,633,000 square yards on banks, and planted 407,000 trees.

PACIFIC COAST

The Mediterranean climate makes the Pacific Coast a prime area for vineyards and orchards. Unfortunately, from a soil conservation standpoint, much of the land suitable for such crops is on steep hillsides. As it did for orchards of the Northeast, SCS promoted contour planting and cover crops. Winter cover crops are particularly important in Pacific areas because much of the rain falls during those months.

The CCC camps participated in the structural phases of promoting contour planting of hillside orchards. On many hillsides the CCC boys built grade ditches, terraces, and outlets. At the bottom of hillside orchards, they often built concrete structures to conduct the water to streams.

On the Corralitos Creek Demonstration Project at Watsonville, California, the enrollees worked on 29 miles of terraces and grade ditches and constructed 33 major outlet structures. Today, the establishment of vineyards and orchards on California hillsides is an expensive enterprise. To protect the large

investment from erosion, contour planting, terraces and waterways are accepted as necessary. The work performed by CCC enrollees played no small part in making the need for such conservation obvious.

PLANT NURSERIES

The efforts of the CCC, WPA, and natural resource agencies to heal the land with vegetation created a demand for planting materials unprecedented in American history. Commercial nurseries supplied some of the seed and seedlings, but they could not expand rapidly enough to meet the urgent demand.

Most of the early SCS demonstration projects established nurseries. In 1935, the agency assumed control of the Bureau of Plant Industry nurseries specializing in the selection and propagation of conservation plant materials. In 1936, SCS had 48 major nurseries. CCC camps supplied much of the labor for producing the 130,000,000 trees and shrubs seedlings that the nurseries supplied to demonstration projects and CCC camp work areas. Since large quantities of seed for nursery stock production were not available commercially, the CCC boys and other workers took to pastures, ranges, and woods on collecting expeditions. In fiscal year 1936, they collected 664,973 pounds of native grass seed and 1,647,064 pounds of conifer and hardwood seed.

In addition to supplying the immediate needs for plant materials, the CCC boys and the nurseries provided a valuable research function. They shipped seeds of plants native to one area cross country to another nursery or demonstration project to determine whether it was adaptable to the region for a conservation or erosion control purpose. In 1936, the nurseries made observational plantings of 2,945 species for conservation purposes. Today, the Soil

Conservation Service operates 22 plant materials centers. These centers evaluate plants for conservation uses and release useful selections to commercial seeders and nurserymen for large-scale production. A number of plant material releases are derived from seed collected when the CCC was working with the nurseries in the 1930s. This is particularly true of grasses collected in the Western States.

WILDLIFE

The plant materials program was closely tied to the wildlife program of the demonstration projects and CCC camp areas. Although the Soil Conservation Service began with a major emphasis on soil conservation, it quickly added wildlife as a desirable and achievable objective. Many aspects of the soil conservation program naturally benefitted wildlife, such as the emphasis on more hay and cover crops. Fencing wooded hillsides from grazing provided more habitat for wildlife. Reduction of sediment in streams increased fish populations.

But there were other measures that could be taken. The trees and shrubs that CCC boys planted on streambanks, in gullies, on fields susceptible to erosion, and on areas convenient to farms were often varieties that foresters and biologists had selected for the dual purposes of soil conservation and wildlife enhancement. These were the long-range, enduring factors in the wildlife program.

The availability of CCC labor allowed SCS to carry out some temporary, emergency measures. In an attempt to increase the wildlife population, all of the fourteen demonstration projects and CCC camps in Minnesota built and supplied feeding stations during the winter of 1935-36. The 4-H clubs assisted

in the winter feeding program. The Corps also, upon request, assisted farmers in managing their wildlife against unauthorized hunting and trapping. Signs supplied by the Minnesota Conservation Department were posted on 9,000 farms covering 14,657 acres.

The winter feeding program ended with the CCC and WPA programs. Special feeding patches that required annual planting were not popular with farmers. But the other aspects of the program such as using shrubs as permanent guides for contour stripcropping, planting small areas that could not be conveniently farmed, reforesting areas highly susceptible to erosion, and protecting woodland from grazing continued to benefit wildlife.

LAKES

The conservationists of the 1930s were already looking toward the use of dams on the upper reaches of streams as a part of a total watershed treatment program. But until SCS received authorization in 1944 to work on 11 flood prevention projects and to begin work on "small watersheds" in 1954, activities in building large structures were limited.

Nonetheless, the CCC provided some opportunities to work on large dams. When the CCC program began, the Kansas Forestry, Fish, and Game Commission announced that they wanted to construct a series of lakes on state parks with CCC camps. They met objections that large structures were out of the purview of the CCC by agreeing to pay for materials and the design work. While the SES was in the Department of the Interior, the Forest Service commenced work in late 1934. Most of the construction work fell to SCS when it became part of the Department of Agriculture in the spring of 1935. The construction of each dam

required the full-time work of a CCC camp. Company 729 arrived at Kingsdown in Clark County, Kansas, on November 1, 1934. Before they departed in 1941, the enrollees had built a 74-foot-high dam that created a 336-acre lake. Camps SCS-15 and SCS-16 at Seneca in Nemaha County raised a 2,500-foot-long, 43-foot-high dam that impounded a 356-acre lake. Other CCC companies erected dams that created lakes larger than 100 acres in Woodson, Sheridan, Marion, Douglas, and Crawford counties.

FLOOD PROTECTION FOR TOWNS

Another type of CCC work combined the conservation of agricultural lands with flood protection for towns. The towns were surrounded by high ground in semi-arid areas where fire and overgrazing had stripped off ground cover that could have slowed the runoff from rainfall. At Las Cruces, New Mexico, the CCC boys built check dams in the small arroyos and large detention structures at the lower end of larger arroyos. At the head of the drainage area they built contour terraces. Part of the flood problem came from flow developing in the Organ Mountains. Thus, they diverted the water eastward and spread it on a mesa north of the drainage area.

Similarly, Camp SCS-4-N built a 2,400-foot-long wire-bound rock diversion structure across Angel Canyon to protect El Rito, New Mexico, from flooding. The water was diverted along a 10,000-foot long dike where waterspreaders carried it to cultivated lands and improved pasture.

Company 560 arrived at Pocatello, Idaho, (Camp SCS-6) on October 26, 1935 to work on flood problems. The hills surrounding Pocatello had long been used as a trail by sheep headed for grazing on the Forest Service and General Land

Office lands. The annual trek of sheep through the area depleted the grass, reducing the water-absorbing capacity of the soils. Flash floods during thunderstorms frequently flooded the town. The CCC enrollees set about hand building closely spaced contour furrows on the hills surrounding the town. They also seeded some crested wheatgrass. Another major element in the work was fencing off a lane for the sheep to pass through. The idea was to prod the sheep by the town rapidly and not allow them to graze the recovering hillsides. The native perennial grasses began to return. After the CCC camp closed in 1939, the citizens of Pocatello continued to protect the hillside from over-grazing and participated in a coordinated fire protection program with the Forest Service, the Bureau of Land Management, and state agencies.

SAND DUNE STABILIZATION

The enrollees of Camp SCS-7 at Warrenton, Oregon, participated in a project that was to become internationally known to experts on coastal sand dunes. The project focused on the beach from the Columbia River south to Tillamook Head in Clatsop County, Oregon. Grazing of the grass-covered foredune destroyed much of the dune as winds carried the sand inland. A jetty built at the mouth of the Columbia River in the late 19th century resulted in scouring of the channel bottom. The sand moved down the coast to be driven inland by the strong southwesterly winds. This combination of events caused a wide sand flat, much of it covered with water at high tide. At low tide the wind piled sand around homes and threatened to fill Coffenbury Lake.

CCC enrollees logged and split fire-killed timber, donated by the county, to build a picket fence along the beach. As the sand, driven inland by winds,

accumulated around the fence to form a dune, it was necessary to establish cover for the dune with grass. In the early 1900s, the U.S. Department of Agriculture had imported European beachgrass to Coos Bay, Oregon. Enrollees from the Warrenton Camp established a spike (or side) camp at Coos Bay where they collected sprigs of grass and shipped them to Warrenton for planting. As the foredune was being established, enrollees set about revegetating the inland sand flat areas.

The work restored the coastal area as a popular recreational area. Around the once-threatened Coffenbury Lake, the state established Fort Stevens State Park where visitors can enjoy both salt and freshwater recreational activities. Residents of the coastal area understood the importance of the work, and in 1941, formed the Warrenton Dune Conservation District to protect and continue the rehabilitation. In 1948, the district established land-use regulations and zoning of the area. Peter Plyter, chairman of the district, spoke of the value of the property in 1966, "Those of us who were fortunate enough to be here when the CCC boys first began the task of halting the Warrenton Dune erosion have seen a miracle take place before our eyes as once worthless and ravaging sand dunes were changed to rolling mounds of grass and pine."

DEMONSTRATION OF ROADSIDE EROSION CONTROL

Many of the SCS demonstration projects signed cooperative agreements with state highway departments that allowed CCC enrollees to work on roadside erosion problems. Before the close of the CCC camps, the Corps worked on 841 miles of demonstrations. As was true for much of the conservation work, the roadside

demonstrations combined elements of research and experimentation with the immediate rewards of installation. Many techniques used today to prevent roadside erosion originated in the work of the CCC camps.

GULLY CONTROL

Practically all farmers accepted the SCS's CCC help in controlling gullies. Gullies interrupted farming operations and damaged farm equipment. Since uncontrolled gullies carried sediment directly to streams, CCC officials classified control work as being in the public benefit. Thus, there was not so much emphasis requiring a contribution from farmers. Between 1934 and 1941, the CCC enrollees built 3,537,582 check dams.

But SCS did not want the program to be dominated by such work. The emphasis was to be on applying conservation farming practices that would prevent gullyng. Merely controlling gullies was no insurance against the creation of new ones. Early in the program SCS officials decided that the CCC camps would work on gully control only on the lands of farmers who signed a cooperative agreement and installed soil conservation measures.

Also, SCS officials realized that after the Depression the labor provided by the CCC and SCS would no longer be available. Thus, they tended to emphasize conservation work each farmer could do. In gully control, this led to more emphasis on using vegetation instead of structural controls.

But some of the gullies in the Southeast and on the West Coast were beyond the means of one individual to control. Often these were a problem for a community rather than an individual farmer. At the Las Posas Demonstration Project near Santa Paula, California, some gorgelike "barrancas" were 75 feet deep. In this area where one third of 13 inches of annual rainfall could fall

in a single storm, the barrancas created a problem for the community. On this project the workers built an earth-filled dam to control a 33-foot deep and 150-foot-wide barranca. Within 6 weeks the dam impounded 30 acre-feet of water. The capacity of the silt pool created by the dam was 60 acre-feet of water.

CONCLUSION

American agriculturists in the early 20th century who sought to improve farming methods often relied on demonstrations. Many believed that the quickest, most efficient way to transfer new technology from the laboratory to the farm was to provide field demonstrations to farmers who would then go forth and do likewise. Coming from this tradition in the U.S. Department of Agriculture, Hugh Bennett chose this method--but on a concentrated basis where he could demonstrate the value of conservation to an entire watershed. The demonstration method worked on many of the projects. Cooperating farmers in the Coon Creek Demonstration Project, for example, saw 5,000 visitors trek through the area. A study of aerial photographs showed that during the forties, fifties, and sixties, stripcropping spread from this project area into the surrounding area.

The demonstration concept had limitations, however. The project areas were small dots on the map. Through field experience and experiments, the early conservationists realized that specialized knowledge in several sciences and disciplines was necessary to install a successful farm conservation system.

But the Corps' work, which made concentrated conservation treatment of the watershed possible, demonstrated the validity of Bennett's ideas. The conservation successes played a large part in Congress passing the Soil Conservation Act of 1935.

Another revelation of the Corps' value lay not too far in the future. The President, on February 27, 1937, sent a letter to all the governors suggesting that states enact laws to allow communities to organize soil conservation districts. The districts would sign cooperative agreements with USDA and receive technical assistance on conservation matters from the Soil Conservation Service. Since the 1930s, the district members have provided the support that maintained the SCS and its technical staff. Where were the first soil conservation districts? It came as no surprise to the SCS field force that communities in demonstration projects and CCC camp work areas organized many of the first districts.

Work by CCC enrollees allowed the conservationists to experiment. Few of the conservationists' techniques were new, but the trial and error process of fitting them together was. The work led to refinement and improvement of conservation measures still used today.

The Civilian Conservation Corps profoundly affected the SCS technical staff. In 1937, SCS staff attached to CCC camps and paid from CCC funds, constituted 45 percent of the Service's force. The technical staff held classes in conservation subjects for the enrollees at night. Enrollees particularly interested in conservation as a career had an opportunity to join the Service. More than 1,000 farmer enrollees joined SCS in 1937-38. The agronomists, foresters, engineers, and other technical specialists on CCC camp staffs formed the core of SCS for years afterward.

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(Reproduction of document in the National Archives)

CIVILIAN CONSERVATION CORPS

James J. McEntee, Director

A Brief Summary of Certain Phases of The CCC Program
Period April 5, 1933 - June 30, 1942*

THE CIVILIAN CONSERVATION CORPS made an outstanding record in the conservation of human and natural resources. Jobs and health and work training were given to about 3,000,000 young men, war veterans, Indians and territorials. The CCC advanced natural resource conservation in such fields as reforestation and erosion control by from twenty-five to thirty-five years, completing work on an estimated present and potential value of more than \$1,750,000,000. In addition to training idle young men and advancing conservation, the CCC demonstrated its great usefulness as a training and national preparedness agency. Graduates of the CCC made splendid soldier material and excellent war production workers. The work completed materially strengthened the Nation economically. Note work accomplishments below:

TOTAL ENROLLMENTS (some individuals enrolled more than once)..3,465,766

AGGREGATE NUMBER OF INDIVIDUALS RECEIVING EMPLOYMENT..... 3,190,393

This includes:
Juniors, veterans and Indian enrollees..... 2,876,638
Territorial enrollees (Est.)..... 50,000
Non-enrolled personnel (camp officers, work supervisors, educational advisers, etc.) 263,755

The average number of barrack camps operating in the United States during the life of the Corps..... 1,643

Total number of different camps operated..... 4,500

The CCC work program was nationwide in scope. Enrollees worked in virtually all the national forests and parks, in state forest and park areas, on farm lands, on the public domain, in wildlife refuges, along stream beds and in the arid areas of the west. Major work items and accomplishments include:

Forest trees planted, number..... 2,356,000,000
Trails and minor roads constructed, miles..... 126,000
Telephone lines laid, miles..... 89,000
Man-days expended fighting forest fires..... 6,459,000
Erosion control check dams, number..... 6,660,000
Acreage covered in tree, plant disease and pest control 21,000,000

TOTAL OBLIGATIONS (Est.)..... \$2,969,000,000
(includes obligations for food, shelter, construction of camps, transportation, personal; services.)

ALLOTMENTS TO DEPENDENTS BY ENROLLEES (Est.)..... \$ 662,895,000

*Corps discharged enrollees and ceased active operations on June 30, 1942, in conformity with Public Law 647 - 77th Congress.

CIVILIAN CONSERVATION CORPS
CONTINENTAL UNITED STATES AND OUTLYING POSSESSIONS
TOTAL WORK COMPLETED DURING THE PERIOD-

Page 2

April 1933 - June 30, 1942

ALL SERVICES

CLASS NO.	TYPE OF JOB OR PROJECT CLASSIFICATION	UNIT	NEW WORK	MAINTENANCE
STRUCTURAL IMPROVEMENTS (100 Series)				
101	(Foot and horse	Number	8,304.0	1,060.0
104	Bridges (Vehicle	Number	38,550.0	9,510.0
105	(Barns	Number	1,162.0	633.0
106	(Bathouses	Number	395.0	116.0
107	(Cabins, overnight	Number	2,496.0	220.0
108	(Combination buildings	Number	519.0	270.0
110	(Dwellings	Number	4,249.0	6,548.0
111	Buildings, (Equip. & sup. stor. houses	Number	3,359.0	1,812.0
112	other than (Garages	Number	2,484.0	844.0
113	CCC Camp (Latrines and toilets	Number	12,086.0	4,405.0
114	(Lodges and museums	Number	204.0	117.0
115	(Lookout houses	Number	1,187.0	928.0
116	(Lookout towers	Number	3,116.0	1,884.0
119	(Shelters	Number	2,290.0	508.0
120	(Other buildings	Number	29,699.0	16,139.0
121	Cribbing, including filling	Cu.yd.	561,470.0	24,042.0
122	Impounding and large diversion dams	Number	7,622.0	3,405.0
131	Fences	Rods	28,717,304.5	7,119,518.9
132	Guard rails	Rods	263,824.2	10,951.0
133	Levees, dykes, jetties, and groins	Cu.yd.	21,195,138.2	3,097,142.0
134	Power lines	Miles	877.5	1,070.1
137	Incinerators	Number	606.0	89.0
139	Sewage and waste-disposal systems	Number	5,935.0	1,282.0
140	Telephone lines	Miles	88,883.5	271,615.3
141	(Fountains, drinking	Number	1,865.0	76.0
142	Water (Open ditches	Lin. ft.	13,128,471.4	475,809.0
143	supply (Pipe or tile lines	Lin. ft.	9,560,557.7	922,934.0
145	systems (Storage facilities (in thous)	Gallons	308,260.1	8,995.0
146	(Wells, incl. pumps & p'houses	Number	8,065.0	5,345.0
147	(Miscellaneous	Number	43,464.0	8,834.0
148	(Camp stoves or fireplaces	Number	31,196.0	5,058.0
149	(Cattle guards	Number	5,319.0	426.0
150	Other struc- (Corrals	Number	1,509.0	261.0
152	tural im- (Seats	Number	21,951.0	405.0
153	provements (Signs, markers & monuments	Number	405,037.0	25,775.0
154	(Stone walls	Rods	39,101.6	6,694.0
155	(Table & bench combinations	Number	60,599.0	13,533.0
156	(Tool boxes	Number	15,671.0	125,690.0
157	(Miscellaneous	Number	392,769.0	17,778.0
158	Radio stations	Number	116.0	282.0
159	Springs	Number	12,346.0	3,398.0
160	Waterholes	Number	3,311.0	3,299.0
161	Small reservoirs	Number	9,805.0	1,778.0
1	Landing docks and piers	Number	532.0	18.0

TOTAL WORK COMPLETED BY THE CCC DURING THE PERIOD - April 1933 - June 30, 1942

Page 3

CLASS NO.	TYPE OF JOB OR PROJECT CLASSIFICATION	UNIT	NEW WORK	MAINTENANCE
FOREST PROTECTION (600 Series)				
601	Fighting forest fires	Man-days	6,459,403.1	--
602	Fire breaks	Miles	68,882.6	57,384.1
603	Fire hazard reduction (Road- & Trailside	Miles	80,399.5	4,089.5
605	(Other	Acres	2,158,946.6	6,796.7
606	Fire presuppression	Man-days	5,750,311.0	27,603.0
607	Fire prevention	Man-days	725,556.5	1,412.0
608	Tree and plant disease control	Acres	7,955,707.8	718,059.7
609	Tree insect pest control	Acres	13,099,701.0	178,973.3
LANDSCAPE AND RECREATION (700 Series)				
701	Beach improvement	Acres	3,462.5	313.9
703	General clean-up	Acres	515,990.2	46,328.8
705	Landscaping, undifferentiated	Acres	233,793.8	14,793.0
706	Moving and planting trees and shrubs	Number	44,927,339.0	4,940,812.0
710	Parking areas and parking overlooks	Sq.yd.	8,152,529.0	397,745.0
711	Public camp ground development	Acres	52,319.6	49,457.5
712	Public picnic ground development	Acres	10,398.7	3,431.0
713	Razing undesired struct. & obliterations	Man-days	2,094,713.0	2,065.0
714	Seed collection, other than tree	Pounds	3,729,443.0	--
715	Seeding or sodding	Acres	195,338.4	38,207.9
716	(Soil prep'n (t. soiling, fertil., fitg., etc.	Acres	207,599.5	3,152.3
717	Vista or other selective cutting	Acres	31,248.7	92.6
718	Walks, concrete, gravel, cinder, etc.	Lin. ft.	1,410,634.0	191,615.0
RANGE (800 Series)				
801	Elimination of predatory animals	Number	370,953.0	--
802	Range revegetation	Acres	814,323.0	21,086.5
803	Stock driveways	Miles	3,298.1	645.5
804	Pasture sodding	Acres	288,318.5	19,788.1
805	Pasture and range terracing	Acres	3,528.6	806.2
WILDLIFE (900 Series)				
901	Fish rearing ponds	Number	4,622.0	1,171.0
902	Food and cover planting & seeding	Acres	112,912.6	7,423.3
903	Lake and pond development	Man-days	933,507.0	10,477.0
904	Stocking fish	Number	972,203,910.0	--
905	Stream development (wildlife)	Miles	6,966.7	491.5
906	Other wildlife activities	Man-days	1,301,945.0	12,594.0
907	Wildlife feeding	Man-days	116,384.0	37.0
908	Wildlife shelters	Number	32,148.0	690.0
OTHER ACTIVITIES (1000 Series)				
1001	Educ., guide, cont. station work	Man-days	767,079.0	123.0
1003	Emergency work	Man-days	2,079,440.0	--
1004	Erad. of pois., weed, or exotic plants	Acres	1,023,155.4	--
1005	Experimental plots	Number	57,965.0	7,950.0
1006	Fighting coal fires	Man-days	201,739.0	--
1007	Insect pest control	Acres	6,161,742.7	47,400.6
1009	Maps and models	Man-days	620,345.0	1,844.0
1010	Marking boundaries	Miles	35,442.1	3,529.6

CLASS NO.	TYPE OF JOB OR PROJECT CLASSIFICATION	UNIT	NEW WORK	MAINTENANCE
OTHER ACTIVITIES (1000 Series) Continued				
1011	Mosquito control	Acres	248,904.0	97,843.5
1012	Preparation and transp. of materials	Man-days	9,005,407.0	17,636.0
1014	Reconnaissance and (Archaeological	Man-days	230,296.0	--
1015	investigation (Other	Man-days	1,067,300.0	4,763.0
1016	Restoration of historic structures	Number	3,980.0	10.0
1017	Rodent and predatory animal control	Acres	39,732,356.3	761,191.0
1023	Surveys	Man-days	4,827,421.0	285,713.0
1024	Timber estimating	Acres	35,495,621.7	65,170.9
1025	Tree preservation	Man-days	389,852.0	64,845.0
1026	Equipment, repair of construction	Man-days	1,627,995.0	--
1027	Hydraulic research	Man-days	179,159.0	14,229.0
1028	Warehousing	Man-days	430,253.0	6,660.0
1029	Technical service cp bldg.	Number	96,477.0	33,843.0
1030	Central repair shop labor	Man-days	232,921.0	10,022.0
1031	Gas pipe lines	Man-days	105,245.0	11,050.0
1035	Unclassifiable	Man-days	26,646.0	10,830.0
133A*	Dykes, water-spreading	Lin.Ft.	26,684.0	--
313A*	Planting, for bank protection	Lin.Ft.	6,780,500.0	22,016.0
318*	Miscellaneous erosion control work	Man-days	1,019,117.0	12,096.0
402A*	Clearing and cleaning - channel	Lin.Yds.	494,027.8	200.0
711A*	Other public camp ground facilities	Number	46,683.8	5,194.5
1009A*	Model and relief maps	Sq.Ft.	32,510.0	--
1011A*	Mosquito control, ditching	Lin.Yds.	2,096,799.0	1,206,141.0
1011B*	" " , Staking	Lin.Yds.	1,461,670.0	--
1013*	Railroads, narrow gauge	Man-days	2,838.0	7,170.0

* No longer reported under this heading, or work discontinued on this type of project.

CLASS NO.	TYPE OF JOB OR PROJECT CLASSIFICATION	UNIT	NEW WORK	MAINTENANCE
TRANSPORTATION IMPROVEMENTS (200 Series)				
201	Airplane landing fields	Number	80.0	88.0
202	Truck trails or minor roads	Miles	126,230.5	580,995.5
206	Trails (Foot	Miles	13,172.3	41,270.2
207	" (Horse or stock	Miles	14,915.5	72,743.0
EROSION CONTROL (300 Series)				
301	Stream and lake bank protection.	Sq.Yd.	154,620,149.0	12,470,789.0
303	(Bank sloping	Sq.Yd.	10,781,749.5	2,872,912.6
304	Treatment (Check dams, permanent	Number	318,076.0	31,080.0
305	of (Check dams, temporary	Number	6,341,147.0	148,791.0
306	gullies (Seeding and sodding	Sq.Yd.	478,499,555.0	22,332,119.0
307	(Tree planting, gully	Sq.Yd.	464,830,313.0	125,862,616.0
308	(Ditches, diversion	Lin.ft.	67,285,388.7	7,188,850.0
309	Terracing	Miles	33,087.2	4,703.5
310	(Channel construction	Lin.ft.	45,351,549.0	2,311,353.0
311	Terrace (Outlet structures	Number	431,321.0	27,448.0
313	outletting (Planting, seed., or sodding	Sq.Yd.	139,447,648.0	30,430,052.0
314	Sheet erosion planting	Acres	638,473.4	37,660.2
315	(Quarrying) For	Tons	2,622,513.7	726.0
316	Limestone (Crushing) Liming	Tons	1,485,215.8	214.0
317	(Hauling) soil	Tons	805,859.3	806.0
319	Contour furrows and ridges	Miles	156,923.9	27,340.6
320	Preparation for strip cropping	Acres	218,075.9	2,156.1
321	Road erosion demonstration	Miles	1,073.7	183.1
322	Wind erosion area treated	Acres	26,028.5	615.8
323	Water spreaders (rock, brush, wire)	Lin.ft.	7,521,032.0	273,685.0
324	Water spreaders (terrace type)	Lin.ft.	7,293,175.0	522,199.0
FLOOD CONTROL, IRRIGATION, AND DRAINAGE (400 Series)				
401	Clearing (Channels and levees	Sq.Yd.	76,502,776.0	50,638,443.0
402	and cleaning (Res., pond & lake sites	Acres	206,994.0	5,512.9
403	Lining of waterways	Sq.Yd.	2,225,119.0	1,731,353.0
404	Excav., chan., canals, & ditches (Earth	Sq.Yd.	29,316,403.0	74,786,964.0
405	(Rock	Cu.Yd.	1,224,517.0	85,832.0
406	Pipe lines, tile lines, and conduits	Lin.ft.	3,057,772.0	2,032,375.0
407	(Rock or concrete	Sq.Yd.	4,121,694.0	106,096.0
408	Riprap or paving (Brush or willows	Sq.Yd.	1,219,072.0	177,858.0
411	Water Control structures other than dams	Number	50,802.0	6,713.0
412	Concrete core walls other than dams	Cu.Yd.	9,981.0	12.0
414	Leveling of spoil banks	Cu.Yd.	1,942,764.0	13,204,633.0
FOREST CULTURE (500 Series)				
501	Field planting or seeding (trees)	Acres	2,355,587.5	288,213.0
502	Forest stand improvement	Acres	4,094,003.0	16,755.0
503	Nursuries	Man	6,111,258.2	516,921.0
504	(Conifers (cones)	Busheis	875,970.7	--
505	Tree seed collection (Hardwoods	Pounds	13,634,415.0	--
506	Collection of tree seedlings	Number	14,623,074.0	--

Summary of major work unit accomplishments of SCS-CCC program, 1934-August 1941

Impounding and diversion dams-----number-----2,216

Fence construction-----rods-----15,443,808

Gully control:

Check dams-----number-----3,537,582

Gully banks sloped-----square yards-----83,294,377

Gullies seeded or sodded-----square yards-----381,954,175

Trees planted for gully control-----number-----147,522,738

Diversion ditches-----linear feet-----538,278,320

Terracing-----miles-----28,858

Terrace outletting:

Channel construction-----linear feet-----40,704,467

Outlet structures-----number-----343,795

Planting, seeding, and sodding-----square yards-----124,682,895
outlets

Limestone quarried-----tons-----2,226,707

Preparation for stripcropping-----acres-----207,116

Contour furrows and ridges-----miles-----134,167

Field plantings of trees-----number-----285,042,500

Roadside erosion-control-----miles-----841

Soil conservation nurseries-----man-days-----1,929,057

Drainage work:

Clearing and cleaning channels-----square yards-----394,372,287
and reservoirs

Excavation of channels-earth-----cubic yards-----70,120,859
and rock

(Source: Report of the Chief of the Soil Conservation Service, 1941, page 72.)

HISTORY OF THE BENTON COUNTY SOIL CONSERVATION
DISTRICT

1945 - July 30 - The District Conservationist was W. J. B. Boatman. Commissioners were Herman Franzenburg from Keystone, and Harold Miller and Horace Thompson from Vinton. Assistants were George Faabe and Arvin Schogren. The first four farm plans were completed and were for Henry J. Carr, A. C. Shipley, Frank Hatfield, and Dr. Stookay, respectively.

November - The District worked with work unit conservationist George Sumner.

1946 - May 15 - District Conservationist Emerson Wolfe was assigned from Marion. The District sponsored contouring demonstrations.

November 20 - Work unit conservationist Glenn Heady was assigned to the Benton District and remained for many years as a District Conservationist.

1947 - The Benton District office moved to the basement of the Courthouse in Vinton. The District was assigned conservation aid Kenneth Glass who remained until April, 1948.

1948 - June - Mr. McNelly joined the staff as a conservation aid.

October - John Sefranek joined the staff as an aid.

1949 - September 30 - Mrs. Marjorie Pierce was employed as the District secretary and Clyde Merchant as an aid.

December - Henry Grunewald was installed as a District Commissioner.

1950 - May 2 - Norma Jean Stickney was employed as a clerk for the commissioners' meetings. Mr. Tyler was the District Conservationist assigned from Marion, and Clyde Graden and Gene McBride were conservation aids.

1951 - January - Bill Maynard was employed as an aid.

February - Earl Wallace and G. M. McQuilken were elected as commissioners.

March - Clarence Beyers joined the staff as an aid.

May - Mr. Race joined the staff as an aid.

November - Mrs. Shirley was employed as secretary.

December - Walter Heineman, Harry Horak, Lyle Olson, Merle Brunch were all installed as commissioners.

Also, the District office moved to the Farm Bureau building sometime in 1951 or 1952.

1952 - October - Floyd Welch was employed as a conservation aid.

1953 - February - Mr. Backhaus was the District Conservationist assigned from Marion.

November - W. K. Oliver joined the staff as an aid.

Return to Jim

22m
JB

Vinton

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service

IA-MGS-4
(Rev.)
8-1-83
OP MGMT-0

ROUTING SLIP

MIDWEST NTC, Lincoln, Nebraska

- ___ Director
- ___ Administrative Office
- ___ ADP
- ___ Ecological Sciences Staff
- ___ Economics, Soc. Sci., & Eval. Staff
- ___ Engineering Staff
- ___ National Soil Survey Lab
- ___ Programs Staff
- ___ Records & Communications Center
- ___ Soil Mechanics Lab
- ___ Soils Staff

SOUTH NTC, Fort Worth, Texas

- ___ Director
- ___ Cartographic Staff
- ___ Employee Development Staff
- ___ Information Resource Management Staff
- ___ Public Information Staff

AREA OFFICES

- | | | | | | |
|--------|----------------|-----|--------|------------|-----|
| Area 1 | Sioux City | ___ | Area 5 | Des Moines | X |
| Area 2 | Fort Dodge | ___ | Area 6 | Fairfield | ___ |
| Area 3 | West Union | ___ | Area 7 | Shenandoah | ___ |
| Area 4 | Council Bluffs | ___ | | | |

OTHERS

- ___ Soils Office, Ames
- ___ Foundation Investigation Unit, Des Moines
- ___ Plant Materials Specialist, Columbia, Missouri

REMARKS: Keith We were sent the attached info from Washington files. Doesn't tell much, but could confer dates of CCC camps for field offices who may want to publicize 50 Years of Soil Cons. (over) Suggest you send to FO's for whatever use they can make of it.

DATE: 12/5/84 REFERRED BY: Lynn Betts

Iowa Benton County, Belle Plaine.

Belle Plaine - Shipping Point

SCS-33 Thirteenth Period Camp. April 1, 1939 to September 30, 1939.

New Location Third Congressional District. Congressman John W. Gwynne. (R)

Occupied - Advance detail July 8, 1939 - Main body September 18, 1939

Company No. 2726 Veteran White

Field work began October 23, 1939

Approved for Fourteenth Camp Period in place. Oct. 1, 1939 to March 31, 1940.

Approved for Fifteenth Camp Period in place. April 1, 1940 to Sept. 30, 1940.

Approved for Sixteenth Camp Period in place. Oct. 1, 1940 to March 31, 1941.

Approved for Seventeenth Camp Period in place. Apr. 1, 1941 to Sept. 30, 1941

Approved for Eighteenth Camp Period in place. Oct. 1, 1941 to March 31, 1942.

Approved for Abandonment Revised Eighteenth Period to reduce general program
to 600 camps not later than March 15, 1942.

Date Field Work Ceased: March 6, 1942

Date Discontinued: March 11, 1942