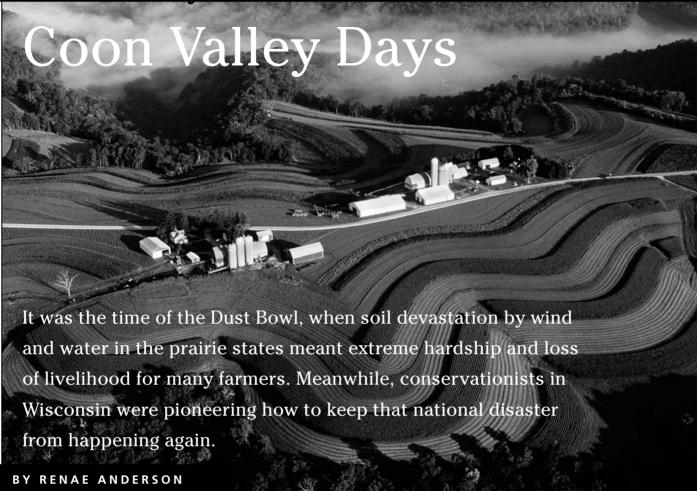
# United States Department of Agriculture Natural Resources Conservation Service

## **Coon Valley Days**

A short history of the Coon Creek Watershed Demonstration Project and the creation of a new agency to conserve American land, the Soil Erosion Service. Renamed the Soil Conservation Service in 1935, this USDA agency was the forerunner to today's Natural Resources Conservation Service.

by Renae Anderson, USDA Natural Resources Conservation Service, Madison, Wisconsin

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Made in Coon Valley: An aerial photo of the Manske farm taken in 1995 shows how anti-erosion contouring strips pioneered in the 1930s have been preserved to this day.

> Photo by Jim Richardson © Richardson Photography

T TOOK ONLY 70 YEARS, from the time of the first infusion of white settlers to the early 1930s, for traditional farming methods to reduce the land around Coon Creek from pristine to the brink of agricultural uselessness. It took nearly 70 years to revive Coon Creek, as measured by the barometer of native brook trout, and it is still on the mend. With the horsepower and intense cropping abilities we now have, we could rappel back down that slope in much less than 70 years, were it not for the ethic and the knowledge gained from a short-lived, wildly successful erosion-control demonstration project—the first in the nation—in Coon Creek Watershed.

From 1847 to 1870, nearly every reasonably suitable acre around Coon Valley, Wisconsin, was turned to farmland. Wheat was a rich crop at a dollar a bushel, and land was cheap at two dollars an acre. After 20 boon years, fascination with wheat faded as soil lost its fertility, rust assaulted the crop, and wheat growers moved on westward to the Plains. New settlers came in with livestock, particularly dairy cattle, but the land was wearing out. Erosion claimed much of the topsoil and left a trail of gullies, some too big to cross

<u>coon valley</u>

with a wagon. Cattle grazed higher and higher up the steep wooded hillsides, and pastures were turned to crop fields.

The chronic insult to the land cover perturbed the natural overland flow and absorption of rainwater, channeling it down until it became a scouring flush off the hillsides. The beauty of the coulee passed away with the soil and the trees. Coon Creek grew wide and shallow with sediment, and too warm for trout.

"One time back in the late '20s we had three floods in one week," recalled Adolph Lee, one of the Coon Valley pioneers, in a 1969 interview when he was still living on his farm. When he had moved there as a boy in 1898, he could jump Coon Creek wherever he chose. A few years later, farmers could no longer store their hay on the creek banks; and roads washed out regularly.

As Aldo Leopold noted in his 1935 essay, "Coon Valley: An Adventure in Cooperative Conservation" (American Forests magazine), Coon Valley "is one of the thousand farm communities which, through the abuse of its originally rich soil, has not only filled the national dinner pail, but has created the Mississippi flood problem, the navigation problem, the overproduction problem, and the problem of its own future continuity."

All over the country, gullies, floods, dust storms, and droughts were driving people off the farm. These troubles were sadly accepted by many as a necessary part of feeding the nation, but they raised a blaring alarm for those few with an eye and an understanding of soils. Hugh Hammond Bennett, a soil surveyor with the USDA, had spent 20 years investigating soils in every state in the nation. He despaired at the abuse of land that was ruining the soil, piling it in drifts of dust and choking the riverways. He began a crusade, as zealous as any missionary, to stop the potential apocalypse that had fed the decline of other great civilizations.

Bennett campaigned with conviction that soil erosion was among the most urgent of world problems in the 1920s. His countless fiery speeches, articles, and lobbying paid off in 1929 with the creation of 10 federal-state Agricultural Research Stations, one in La Crosse, to experiment with erosion control under Bennett's hard-driving leadership. La Crosse was wisely chosen to study ero-

sion, as it was located among some of the most severely suffering agricultural lands in the nation. This land, with its long history of tribes prior to the plow, has no memory of the glacier itself, but the heavy layer of silty loess blown in upon it made it rich and fertile. Over 10,000 years, 8 to 10 inches of topsoil formed in the windblown silt, making it one of the best soils in the world for agriculture—naturally fertile, but with a particular weakness to erosion.

The Congress of 1933 appropriated \$5 million for erosion control. Bennett convinced Franklin D. Roosevelt that vegetation, with minimal engineering, could check the runaway erosion that was ruining America's breadbasket, and put a lot of people to work as well. FDR appointed Bennett as director and first employee of a new New Deal agency, the Soil Erosion Service (SES). Bennett assembled a fired-up crew of believers with a wide range of scientific and practical experience to work on the whole of the problem. He purposely sidestepped the elixir promises that had scammed many down-and-out farmers, such as single-purpose soil treatments, miracle plants, and log structures to cure erosion. The new agency focused on the whole farm and all its resources. Later the Soil Erosion Service was renamed with a more positive spin—the Soil Conservation Service (SCS)-and transferred to the Department of Agriculture, with Bennett as its chief.

Bennett called on R. H. Davis, then superintendent of the La Crosse Erosion Experiment Station, to help him pick a site for a conservation demonstration project. FDR had advised them to pick a site large enough to produce spectacular (and speedy) results. Dozens of watersheds in the 12-million-acre unglaciated valley of the Upper Mississippi were in bad shape. But Coon Creek Watershed had a good location and seemed to have the best potential for cooperation, or, in other words, the least hostility. Bad Axe watershed, just over the line from Coon Creek and also a likely candidate, took itself out of the running when rabid anti-FDR, shoot-therevenuers sentiments led residents to literally kick the first brave surveyors out of the area.

Davis, and the leading thinkers on land use at the University of Wisconsin—Noble Clark, E. R. Jones, Otto Zeasman, Warren Clark, and Aldo Leopold—proposed the Coon Valley location, marked out along watershed lines. Bennett designated it "Project No. 1," and it became the first watershed project in the nation. It was 22 miles long and nine miles wide, encompassing 92,000 acres straddling three counties, with outlet directly to the Mississippi River.

#### RAISING COON

The watershed was divided into four units, with a conservation planner assigned to each. The four planners



### <u>coon vallev</u>

Each farm was an experiment. No one knew what type of planting would best stabilize a streambank or halt a gully, but the fervor of saving the countryside carried the staff on to the next idea.

were Herb Flueck, later the SCS state conservationist for Minnesota; Marvin Schweers, who became state conservationist for Wisconsin; John Bollinger; and Joe Schaenzer.

Davis and the four planners sat down in late 1933 to figure out from scratch how this conservation project would work. They had to prove that conservation would build farm income while restoring the soil and water. Crop yields would need to increase to make up for the acres that would be fenced, seeded, or planted to trees instead of crops.

In January 1934, they devised this general land use plan:\*

**Open pasture with slopes** >40 percent *Fence out cattle and plant trees* 

Woods with slope >25 percent Fence out cattle; plant cover in critical spots (gullies)

**Crop fields with slope** >20 percent Seed to pasture or hay

**Ridge top fields with slope** < 10 percent *Terrace and contour strips* 

**All other fields with slope** >3 percent *Contour strips* 

### All flat fields

Use crop rotations

\* Second Annual Report, Coon Creek Demonstration Area, 1934–1935, SCS

The planners worked with a circle of young, hopelessly dedicated "technicians"—agronomist I. K. Landon, forester Eric ("The Swede") Quistgaard, engineer Gerald Ryerson, economist Melville Cohee, soil expert Alex Robertson, and Ernest Holt, wildlife biologist, who was brought in at Leopold's urging.

They took some of the research from the university and the experiment station, interpreted it, and applied it to the Coon Valley situation. They decided what should go into a farm plan, which conservation practices would be best and how to implement them, what the government role should be, and what the farmer would have to do.

A farmer had to agree to follow the farm plan, which he himself helped write, for five years. The government would provide free seed, fertilizer, lime, fencing supplies, and much of the labor. The first signers also got a 50-cent-peracre payment. Most early cooperators later admitted that they signed the agreements expecting to go back to their old ways after the five years were up. They did not.

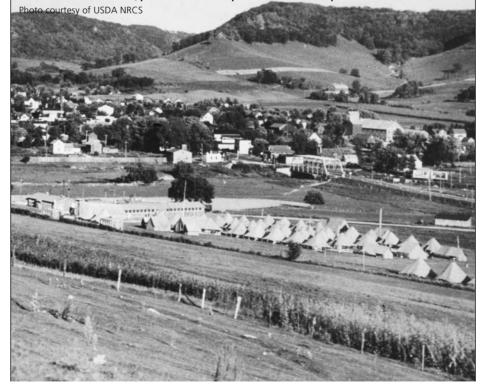
Each farm was an experiment. No one knew what type of planting would best stabilize a streambank or halt a gully. Sometimes seedings failed, a drought hurt, or check dams blew out, but the fervor of saving the countryside carried the SCS staff on to the next idea. The all-

star lineup of "technicians," each arguing with his own expertise and learning from the others, helped put a balanced menu of ideas on the table.

Herb Flueck, one of the four farm planners, or contact men, years later recalled the heady, hearts-on-fire atmosphere: "We developed some know-how and I want to tell you we developed it quick. We were hungry. We went there to work. We didn't take vacation the first year. Everybody worked—we had 227 farms planned the first year."

The farm planner and an assistant went to the farm, armed only with an air photo and a hand level. Said Flueck, "Two people can get all the contour lines you need with a good hand level. We marked the contours, the new fence lines, the terraces, and drew up the plan. Manske Ridge, that I had planned, was the first showpiece in the area, and now it's the most-used picture showing original conservation work." Nearly 40 years later, in 1973, Elmer Manske still remembered and welcomed Herb Flueck back to his farm, and they looked over the contour strips that were still farmed by his son, with a nip and a tuck here

Conservation boot camp: The Civilian Conservation Corps camp in Coon Valley, 1934. Nearly 200 young men, supervised by the military and directed by Soil Conservation Service staff, provided labor to implement conservation practices.



and there to further strengthen the erosion control.

Aldo Leopold was no doubt pleased to see wildlife biology on equal footing with agronomy, engineering, and the other specialties, and this was only through his own coaching and influence. Herb Flueck recollected that Leopold "went out with the farm planners and R. H. Davis, and we came to some conclusions that we wanted to incorporate wildlife in the farm planning."

Leopold pointed out in his Coon Valley essay that the SES offered to each farmer "a re-organized system of land use, in which not only soil conservation and agriculture, but also forestry, game, fish, fur, flood-control, scenery, songbirds, or any other pertinent interest were to be duly integrated. It will probably take another decade before the public appreciates either the novelty of such an attitude by a bureau, or the courage needed to undertake so complex and difficult a task."

By 1935, more than 300 farmers were "genuinely interested" wildlife cooperators, with 329 food patches and 161 winter feeding stations tended by farmers. One optimistic group formed a

"It will probably take another decade before the public appreciates either the novelty of such an attitude by a bureau, or the courage needed to undertake so complex and difficult a task," wrote Aldo Leopold about Coon Valley.

shooting cooperative in anticipation of the day their efforts would literally come home to roost.

### FARMERS AND FEDS

In early 1934 a Civilian Conservation Corps (CCC) camp landed in Coon Valley, staking their tents on 12 acres of flat valley floor owned by Lewis Brye and his cousin. By late fall, the barracks had been constructed, housing 190 CCC boys who moved down from the Long Lake CCC camp to provide the strong backs needed for conservation work.

It was a delicate matter to persuade farmers to sign an agreement with the government. Even though many were in dire straits, a hearty distrust of the federals held them back. Two letters were mailed to all farmers in the watershed assuring them that simply visiting with a soil conservationist would not, popular opinion to the contrary, oblige them to anything.

Adolph Lee was among the first to sign up for help. I. N. Knutson, the banker in the village of Coon Valley, encouraged Lee and pressed many of his other farmer-borrowers to get into the program. He had sound business reasons—the steep, bare landscape allowed ever more frequent floods, which washed out roads or buried them in sediment. The milk trucks couldn't get through to pick up milk for the dairies. Farmers didn't get paid, and loans would default. Tenancy, as opposed to farm ownership, had



# Coon Creek Memories

For many farmers, working with "the government" meant ostracism.

### BY JACK DENSMORE

Bill Steenberg sat perched on a bar stool enjoying a morning beer in a tavern in Cashton. Bill, I had been told, was the first farmer to use contour stripcropping in the Coon Creek Project and, perhaps, in Wisconsin. I had come to ask Bill how he happened to be a soil conservation pioneer.

In southwestern Wisconsin's coulee country, this first erosion-control demonstration project included all of the 92,000 acres of the Coon Creek watershed. Initiated in 1933, it was one of several such projects started across the country under the leadership of Hugh Hammond Bennett, first chief of the Soil Conservation Service.

When I looked up Bill Steenberg in 1964, he was then 84 years old, but he still remembered the night more than 30 years ago when he made the decision for soil conservation:

"I was milking cows one evening when Marv Schweers, one of the erosion boys, stopped in to see me. Marv said, 'I suppose you feel like your neighbors, they want to wait a year before signing up with the soil erosion project.' I said, 'No, I want to sign up now!'

"Before Marv left that evening we had worked out the new pattern for my fields. I was desperate, my wife had died, my five children were hungry, I didn't have enough feed for my 12 cows, and my fields suffered from drought and erosion. I knew I had to give up or change."

Even Bill wasn't prepared for the reaction of his neighbors. He was ostracized. In their view, he had given his farm to the government. Even his brothers who farmed nearby refused to exchange work with him. Bill worried all summer about how he would handle the grain harvest that fall. Fortunately, when the time came for threshing, his brothers relented and gave him a hand.

As Bill returned his attention to his morning beer, he said, "I am most proud of the way my sons are carrying on with the farm plans we started 30 years ago."

Jack Densmore started working for the Soil Conservation Service in the summer of 1935, after graduating from the University of Minnesota. He was first assigned as a forester to the La Valle CCC camp and was then promoted to the Coon Creek Project in the second wave of technicians stationed there. Densmore's responsibilities were in forestry and wildlife management, working in a team with an agronomist, an economist, an engineer, a soil scientist, and a farm planner. They learned from each other, becoming well-rounded soil conservationists. Densmore, now retired, lives with his wife, Betty, in Madison.

jumped in the previous 10 years. In 1931, the property tax delinquency rate was 32 percent.

The burning vision of Hugh Hammond Bennett launched a thousand missionaries against erosion. They were confidant or arrogant enough—they were, after all, young college grads—to try to convince a farmer, born and raised to the land, to try a whole new way to till and plant. This is not a small thing. Those farmers were working without a safety net—no crop insurance, no commodity support price, not even food stamps to fall back on. Just hungry children to think about, and scorn from neighbors distrustful of the government.

In 1934, the SES staff hauled their generator and their glass slide projector to every one-room schoolhouse in the watershed to put on a play, "Old Man Erosion Gives Up," which drew standingroom-only crowds every night-22 performances with a total audience of 1,310. The play pits the destructive abilities of Old Man Erosion against the handsome young Mr. Conservation (Mel Cohee, the SES economist) in a battle for farms and topsoil. In the morning, there would be a line of farmers waiting to get conservation plans for their farms. Nationally, Hugh Hammond Bennett continued the drumbeat with national radio broadcasts and speeches on "Soil Erosion, Our National Menace."

The initial wave of farmers, although leery of the government, adopted conservation practices rapidly because they were so desperate. Their farms no longer produced enough grain for their few cows, pastures were overgrazed, cash crops were low. In the first year and a half, 418 of 800 farmers signed up, bringing 40,000 acres into the program.

But not all farmers jumped on the bandwagon. Sometimes the conservation staff couldn't even get a hearing and were dismissed politely at best. Other times they were threatened or run off the road. Even Lewis Brye, who hosted the CCC camp on his farm, wouldn't sign the paper to be a cooperator. But like many others who were too independent-minded to get in league with the government, he tried to mirror the contour strips that he saw and built fences to keep the cattle off the steep wooded hill-sides. Once it was pointed out, the cause and the solution of the ecological dys-

function seemed obvious to most people.

In January 1935, with interest dying down, a Farmers Advisory Committee of eight elected conservation farmers traveled around on their own dime to help their neighbors see the light. They brought in 68 more signed cooperators.

How did they convince the hard cases? They didn't. Even after the hubbub of success, SCS forester Jack Densmore still served witness to antierosion-control sentiments. To some farmers soil erosion was just an inevitable aspect of farming, a natural phenomenon.

#### KEEPING THE FAITH

The Soil Conservation Service has now morphed into the Natural Resources Conservation Service (NRCS). Eventually, 95 percent of the watershed has come under a conservation plan. Jim Radke, NRCS district conservationist for Vernon County, points with confidence at some of the few sure signs of recovery since the environmental bottoming out of 1930, but acknowledges that we will never return to pristine conditions:

Soil erosion reduced 75 percent on sloping cropland

"I see good farmers who are angry that we are losing the contour strips to corn and soybeans.

They say it shouldn't happen, and they are right," says Jim Radke.

Gullies reduced 77 percent by 1978 Grazed woodlands decreased by 85 percent

Coon Creek is much less flashy now; flooding is rare and relatively subdued when it does occur. Stream baseflow, which measures the core amount of water in a stream without the enhancements of weather events, continues, even now, to increase. That means the land is able to absorb its rain and slowly, steadily release it through springs to the creek. Radke has seen dry creek beds begin flowing again as the springs have more water to feed them. Recuperation will go on for decades more, as the creek adjusts to its new floodplain, and the health and structure of the soil slowly rebound.

Radke, with 20 years on conservation guard in Vernon County, worries. "I see

good farmers who are angry that we are losing the contour strips to corn and soybeans. They say it shouldn't happen, and they are right. Five years ago we had 1,200 dairy herds, now only 700. Without dairy we don't need hay, without hay, the contour strips don't work to control erosion. At least we have the technology of no-till planting to offset the loss of the strips."

Gullies were and still are a tricky problem. In 1933, Alex Robertson, with the immodest job title of "soil expert," came to Coon Valley after doing soil survey on the Little Missouri River Badlands and was shocked. "The erosion in the Valley was unbelievable; we mapped deep gullies in practically every sloping field. Twenty years later, after the project was successful and over, new surveyors came in and figured we had overstated the case."

However, gullies continue to cut and creep into ridgetop fields, although they are much smaller than the gaping maws of 70 years ago. Radke guesses there are 4,000 small active gullies nibbling at the field edges in this watershed alone. Conservation plans, with contour strips and reduced tillage, have essentially beaten the sheet-and-rill erosion that filled the stream with sediment. But with no crew of CCC boys anymore, the staff time and dollars needed forbids much in the way of gully control.

The Coon Creek Project was as spectacular and short-lived as a firework. Started in late 1933, with huge results seen after barely a year, it proved too successful to take on any more cooperators after March 1935. The CCC camp buildings were dismantled in 1937. A parade of a thousand visitors came through to either gawk or marvel, mostly marvel, at the contour strips, the terraces, and the healing gullies.

Seventy years later, 93-year-old Mel Cohee, the original economist and actor, remained as passionate as ever right to

A farm in Coon Valley, Wisconsin in its 10th year of using stripcropping, 1944. Photo courtesy of USDA NRCS

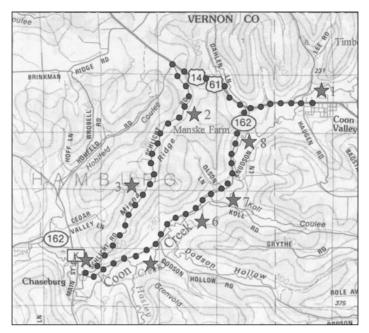


### <u>coon valley</u>

the day he died, still planning a conference in celebration of the hero of soil conservation, Hugh Hammond Bennett. The fervor of these conservationists is a legacy that inspires.

The lesson of Coon Creek is that conservation on private land is a public-private partnership. The interests of the community are best served when the caretakers of the land have the means to do the best they can through technical assistance right there on the farm, not advice given from behind a desk, plus a reasonable program to bridge the economic barriers. As Congress continues to tinker with the recipe for the role of government, wrangling over technical, educational and financial assistance, the adventure in cooperative conservation continues.  $\mathbf{w}$ 

Renae Anderson, a native of Sauk County, is the state public affairs specialist for the Natural Resources Conservation Service in Wisconsin. She is also involved in Waters of Wisconsin, the Wisconsin Academy's statewide initiative on water use and conservation.



### Coon by Car

For a firsthand look at the Coon Valley watershed, consider taking a self-guided driving tour. Easy-to-follow instructions are located at the Natural Resources Conservation Service website: http://www.wi.nrcs.usda.gov/news/publications.asp as Coon Creek Driving Tour (cooncrtour.pdf).

