THE HISTORY OF THE SOIL CONSERVATION SERVICE IN WATAUGA COUNTY, NORTH CAROLINA

A Thesis

Presented to

the Faculty of the Graduate School

Appalachian State Teachers College

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

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by

Ruth McKibben Williams

August 1961

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The purpose of this study was (1) to survey the situation in Watauga County as it was in 1949; (2) to determine what progress has been made from March, 1950, when the Soil Conservation Office was opened and the technicians began work, to 1960; (3) to evaluate the work that has been done; and (4) to formulate anhypothesis for future land use in the county.

Most of the factual information was taken from records in the office of the Soil Conservation Service, the county agent's office, and from personal interviews. The writer has observed the progress in permanent conservation as practices have been applied to the land during this ten-year period.

Progress has been steady. Basic conservation plans have been written on farms totaling 37,977 acres. Crop yields have increased; land value has risen; and total farm income has increased from $2,031,290.00 in 1950 to an estimated $3,809,791.00 in 1960.

Farms in the county are fewer and larger than they were ten years ago. Living conditions in the rural area are improving. There are a growing number of people who are part-time farmers.

Trends indicate that in the future less land will be used for crops and pastures and more will be planted in trees. Urban development, highways, and factories will take other acres out of cultivation. Intensive cultivation of the remaining crop land will be practiced.

The various agencies that work in Watauga County cooperate in an outstanding way.

Through an educational program, publicity, and demonstrations the public is becoming better acquainted with the many services offered by the Soil Conservation Service. The difference between scientific knowledge and practice in land use is gradually decreasing.

PREFACE

The purpose of this study was to prepare a history of the Soil Conservation Service in Watauga County, North Carolina.

Most of the factual information was taken from records in the Boone office of the Soil Conservation Service. Records from the county agent's office and personal interviews were also used. The writer, along with her family, moved to Watauga County in 1950 and has watched the progress and changing pattern of agriculture with a great deal of interest.

This thesis was possible because of the cooperation and contributions of a large number of people to whom the writer is deeply grateful. Special thanks go to Howard Williams, work unit conservationist; Billy Foutz, conservationist; Edgar Greene, conservation aide; Staton McIver, area conservationist; L. E. Tuckwiller, county agent; the members of the thesis advisory committee, Dr. Julian C. Yoder and Dr. Ina Van Noppen; librarians, William Eury and Allie A. Hodgin; Mr. John Pritchett for help with illustrations; and Mrs. H. H. Hughes, typist.

R.M.W.

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CHAPTER I

INTRODUCTION

The most valuable natural resource is soil. Only one person in seven in the United States lives on a farm, but the rest of us depend on farmers for the necessities of life. In America during the colonial period wasteful exploitation was condoned in the midst of abundance. It was easier to move and settle on new farms than to save old ones.[1]

Soil erosion became a serious problem during colonial days. Benjamin Franklin tried to combat it by practicing scientific farming. Thomas Jefferson seeded grasses on eroded land and practiced horizontal or contour plowing. George Washington used soil-conserving practices on his farm at Mount Vernon.[2]

In 1797 George Washington wrote:

> Instead of improving a little ground well, we attempt much and do it ill. A half, a third, or even a fourth of what we mangle, well wrought, and properly dressed, would produce more than the whole under our system of management.3

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[1]Soil Conservation Society of America, Through the Centuries! The Story of Land, Its Use and Misuse (New York: William C. Popper and Company, n.d.), pp. 1-2.

[2]Ibid., p. 8.

[3]Soil Conservation Society of America, Down the River (Des Moines, Iowa: Published under the auspices of the Business and Organization Relations Committee, n.d.).

It was not until the twentieth century that the United States awoke to realize that soil is not as free as air, nor as rugged as rock, nor capable of holding up under the onslaught of years of unwise grazing, cropping, and timber cutting. When storms of dust began to choke the Middle West, when floods swept over the fields of fertile valleys, burying them deep with gravel and silt, and when whole hillsides and croplands and homes slid into swift moving rivers, then Americans began to realize that soil could not be kept under lock and key. It took a series of catastrophes to teach the American public the value of the soil and the urgent need for keeping it on the fields and under the grasslands and forests where it belonged.[4]

During the time Theodore Roosevelt was president, there was an increased interest in conservation. Under his sponsorship a national conservation commission was formed in 1909 to make an inventory of natural resources, and in 1910 all countries were invited to consider the problem of conservation at The Hague. After his administration, however, the popular appeal of conservation subsided for many years.[5]

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[4]E. G. Cheney and T. Schantez Hansen, This Is Our Land (Itasca: The Webb Publishing Company, 1946), p. 47.

[5]Hugh Bennett (ed.), The Hugh Bennett Lectures (Raleigh: The Agricultural Foundation, Inc., North Carolina State College, 1959), p. 7.

During the depression Franklin D. Roosevelt was a conservation-minded executive, and land planning may be said to have begun during his administration. The Soil Conservation Service was authorized by Congress in 1935.[6] The district plan of erosion control was offered to the states by the federal government. By passing a soil conservation act, the states could obtain federal aid in erosion control. North Carolina enacted the North Carolina Districts Law in 1937, and the Brown Creek Soil Conservation District was organized that same year.[7] In 1949 the Watauga County Soil Conservation District was formed.[8]

I. THE PROBLEM

Statement of the problem. The purpose of this study was (1) to survey the situation in Watauga County, North Carolina, as it was in 1949; (2) to determine what progress was made from March, 1950, when the Soil Conservation Service Office was opened and the technicians began work, to 1960; to evaluate the work that has been done; and (4) to formulate an hypothesis for future land use in Watauga County.

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[6] Ibid., p. 23.

[7] Bryce R. Younts (ed.), Soil Conservation Districts in Action (Raleigh: North Carolina State College, 1960), p. 3.

[8] Record, Soil Conservation Office, Boone, North Carolina.

Importance of the study. History contains many records of nations that have risen to great heights only to sink into obscurity when the soil was exhausted. In America more land was ruined more quickly than in any other country in the world. When white men came to America, the United States was covered with an average of nine inches of productive topsoil (as indicated by still existing virgin areas). Erosion surveys show that this has been reduced to an average of about six inches.[9] Grave errors in treating resources and in land use were common practices. The basic objective in soil and water conservation is to assist land owners and operators, through soil conservation districts, to make sound land use adjustments, to apply needed land improvements, and to install watershed protection and flood prevention work.[10] An intensive study of the program in one of these districts shows areas of progress, of weakness, and trends for the future.

II. ASSUMPTIONS AND LIMITATIONS

In the course of the study materials, facts, and figures were studied with these assumptions in mind:

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[9]The Hugh Bennett Lectures, op. cit., p. 44.

[10]Don A. Williams, National Records and Report Handbook, United States Department of Agriculture, Soil Conservation Service (Washington: Government Printing Office, July, 1954).

1. Conservation practices raise farm income.
2. Conservation practices increase the value of farm land.
3. Land and water resources are conserved for future generations.

The greatest limitation was the fact that with so many agencies working together, it is difficult to ferret out and to give the exact amount of credit due to any one group. Some practices give immediate results; others are long range and take years to realize dollar values. It is very hard to evaluate the constant program of conservation education.

III. ORGANIZATION OF REMAINDER OF THESIS

The study included a survey of Watauga County as it was when the district was organized in 1949. The different types of soil, the erosion that had already occurred, the amount of forest, pasture, and cropland at that time, and contrasts between 1950 and 1960 were shown. The various practices recommended by the Soil Conservation Service were described and their application to the land noted. Trends in land use for the ten-year period have been traced. Productivity of the land and farm income were checked. General acceptance of the purpose of the program was found, but practice lagged far behind knowledge.

It was necessary to study the work of the Soil Conservation Service in cooperation with the Agricultural Extension Service, the Agricultural Stabilization and Conservation, vocational agriculture teachers, Farmers Home Administration, and the Department of Conservation and Development.

Watauga County was chosen as a pilot area in the Rural Development Program; and this accelerated and, in some respects, changed the emphasis of the work. Major activities included technical assistance to farmers, conservation education, soil stewardship, watershed program, publicity, and special activities.

Factual information for this study was made available from the work unit records in the local Soil Conservation Service Office, from interviews, newspaper accounts, and progress reports. The Extension Service furnished data on the cooperating agricultural agencies participating in the Rural Development Program, on the Tennessee Valley Authority land program, and some farm statistics.

CHAPTER II

WATAUGA COUNTY LAND USE--PAST AND PRESENT

According to available records the first white men to see the land that is now Watauga County were a group of Moravians led by Bishop August Gottlieb Spangenberg in 1752. They were surveying land that had been bought from the Earl of Granville for Moravian settlements. They did not plant a settlement in the mountains but did in the piedmont.[1]

The next visitor that we know of to this area was Daniel Boone, for whom the town of Boone is named. Benjamin Howard, a resident of Wilkes County, pastured his cattle in the Boone Valley during the summer and built a cabin, where his herders slept and kept their supplies, on the land that is now the campus of Appalachian State Teachers College. Daniel Boone used this cabin on his numerous trips hunting and exploring in the mountains.[2]

It is impossible to say who the first permanent white settler of Watauga County was, but records show that Samuel Hix and James Holtsclaw built cabins in the Valle

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[1]Adelaide L. Fries (ed.), Records of the Moravians in North Carolina (Raleigh: Edwards and Broughton Printing Company, 1922), I, 55.

[2]Daniel J. Whitener, History of Watauga County (Boone: n.n., 1949), p. 28.

Crucis area about 1780. In 1781 Thomas Hodges came up from Surry County. In 1783 families from the Jersey settlement in Rowan County came across Cook's Gap and penetrated the wilderness to Howard's Creek. The lower Meat Camp valley became an important settlement because it was an excellent location for a mill. By about 1800 the log dam that had been built first had been replaced by a rock dam, and one of the finest grain mills in the mountains had been established there. A sash sawmill, a wool carding machine, and a linseed oil mill were built in this section.[3]

Immigrants of English, German, and Scotch-Irish ancestry continued to come over the Blue Ridge into the valleys of the rivers into what is now Watauga County. A law creating Watauga County out of parts of Ashe, Wilkes, Caldwell, and Yancey counties was ratified by the General Assembly of North Carolina, January 27, 1849. In 1861 a part of Watauga was included in Mitchell County when it was created. In 1870 a part of Grandfather Mountain was taken from Caldwell County and given to Watauga County. In 1911 Avery County was created almost entirely of territory taken from Watauga County. The last change in the boundary line was made in 1915. The town of Todd had been in Watauga and Ashe counties and was, from that date,

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[3]Ibid., pp. 31-32.

entirely in Ashe County.[4]

Watauga County contains 320 square miles or 204,800 acres of land. The elevation ranges from about 1800 feet to 5,964 feet above sea level.[5] This is the highest average elevation of any county in North Carolina. There are eight peaks more than 5,000 feet high. Forests and grass covered this region when the settlers came. The tops of some of the mountains were bald, being covered with grass. Scientists have found this fact interesting, but they are unable to decide definitely why these bald peaks exist below the timber line.[6]

A divide crosses Watauga County, and four great rivers have their headsprings within a few miles of each other and flow north, south, east, and west. Watauga River rises on Grandfather Mountain and flows westward to the Holston, Tennessee, Ohio, and Mississippi rivers and the Gulf of Mexico.[7]

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[4]David Leroy Corbett, The Formation of the North Carolina Counties, 1663-1943 (Raleigh: State Department of Archives and History, Division of Publications, 1950), pp. 221-222.

[5]Records, Soil Conservation Service, Boone, North Carolina.

[6]Whitener, op. cit., pp. 25-26.

[7]Jule B. Warren and L. Polk Denmark, North Carolina Atlas (Raleigh: Warren Publishing Co., 1952), p. 8.

New River drains the central part of the county. It starts near Blowing Rock and flows northward to the Kanawha, Ohio, and Mississippi rivers and the Gulf of Mexico.

The Yadkin River drains that part of the county east of the Blue Ridge Mountains and flows east through the piedmont. In Stanley County, North Carolina, it joins the Uharrie and is then called the Pee Dee as it flows southeast across South Carolina and empties into the Atlantic Ocean.

John's River begins near Blowing Rock and flows east to join the Catawba River and on to South Carolina, where it is known as the Wateree. The Wateree and Congaree join, and the river is called the Santee from there on to the Atlantic.

The river valleys were settled first, and as the population increased the clearings extended higher and higher up the slopes of the mountains. Trees were considered a nuisance to be girdled and killed as rapidly as possible. Crops were grown that did not require a long growing season or hot nights. The average growing season is 155 days. For the year 1960 at the weather station in Boone 54.93 inches of rainfall was measured; and the average temperature was 49.6 degrees, with a range from a high of 85 degrees to a low of 4 degrees below zero.[8]

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[8]Climatological Data, North Carolina, Annual Summary, 1960.

Natives like to tell of unusually late or early frosts, the big flood of 1940, or other extraordinary bits of information. The weather can change rapidly in Watauga County and varies widely from one community to another on the same date. The weather has been a topic of conversation from the time of Bishop Spangenberg's trip to the present time. He wrote in his diary while camped near Blowing Rock in December, 1752, that a blizzard came. They expected it to last for weeks as the blizzards did in Switzerland, but the next morning the sun was shining and it was much warmer.[9]

In 1960 Watauga County weather was headline news when 96.25 inches of snow was recorded officially at the Boone Weather Station.[10] Conservationists have to consider the average weather expected, but the hours and days of unusual conditions have to be considered also. Many anxious hours were spent during the big snow, because a warm rain and a fast thaw could have done untold damage to the crop land in the county.

The amount of rain, erosion, and weather conditions generally in this county are so important that as little as .01 of an inch of rain must be reported to the Tennessee

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[9]Fries, op. cit., I, 56.

[10]Record of River and Climatological Observations, Boone, North Carolina, station, Joe Minor, observer, 1960.

Valley Authority. If two inches of rain falls in a twenty-four hour period, the United States Geological Survey, Statesville, North Carolina, is called; and immediately workers come to the county to observe bank cutting and other damage.[11] In general the mass of mountain ranges protects the county from northern blizzards in the winter and from heat waves from the south and west in the summer. Its nearness to the piedmont tempers the extremes of temperature both winter and summer.

The soil is quite porous and the freezes in the winter make it even spongier. This, in part, accounts for its high permeability. There is far less runoff from a rain in the mountains than from a similar rain in the other sections of the state.

In the 1930's, both nationally and locally, there was a great deal of publicity about farm problems, erosion, submarginal farmers, and flood control. A wide variety of experimental programs whose general objective was to improve the living conditions of the rural population were launched during the Roosevelt administration. The Tennessee Valley Authority was a many-faceted program. Its primary purpose was to furnish rural electrification; but recreation, erosion

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[11] Joe Minor, weather observer, personal interview, June 8, 1961.

control, and reforestation were important aspects of the total program. Fifteen counties in the mountains of western North Carolina were in the Tennessee Valley Authority area, and a land program was begun in 1935.

This land program was centered around Test-Demonstration Farms. Families applied and were screened. If chosen they were given fertilizer, lime, seed, and pine tree seedlings, and technical advice on new farming methods. Each of the fifteen counties received one or more additional assistant county agent to help with the Test-Demonstration Farms. Mr. W. B. Collins was Test-Demonstration Farm Supervisor for the entire area, and Mr. George Farthing was in charge of the educational part of the area program. Both were specialists. The farmers were able to make rapid progress. The main objective was to stop erosion in the drainage area behind the Tennessee Valley Authority Dam. If sedimentation continued, it would not be many years before the lake would be filled with silt and would no longer be useful for the production of electricity. The Parker Branch Land Use Experiment Station was established in Buncombe County, and its findings have proved to be important and helpful to all agencies working with farmers, especially those in the mountains.[12]

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[12]L. E. Tuckwiller, county agent, personal interview, June 16, 1961.

In 1949 Watauga County farmers began to talk about establishing a Soil Conservation District so they could ask for technical assistance from the Soil Conservation Service. The county had been organized one hundred years. Progress had been remarkable, but there was some type of soil problem on every acre of farm land in the county. With modern highways, trucks, and markets, the farms had changed from subsistence units to the commercial type. The crops that had previously been grown for home use were desired on the market. The pressure on the land became greater and greater. Tobacco, cabbage, potatoes, apples, and green beans were the biggest money crops. Beef and dairy cattle and sheep were grown on pastures that needed to be improved. The fact that the sheet erosion which occurs in the mountains is not nearly so dramatic as the gullies that cover acres and acres of land outside this area gave some people a false sense of security. Records of conservation research which began in 1929 without question showed that most farmers needed help to solve their more complex soil and water problems.

It had taken a long time for the conservation movement to reach Watauga County. In 1908 the Conference of Governors in the White House dealing with conservation had stimulated a little interest in conserving forests, wildlife, and, finally, the land. In 1929 a national soil conservation

research program was started. In 1933 the Soil Erosion Service, a temporary emergency relief agency, was added to the Department of the Interior. This agency was transferred to the United States Department of Agriculture on March 25, 1935. Dr. Hugh H. Bennett, "the father of soil conservation," internationally known scientist and first chief of the United States Soil Conservation Service from Anson County, North Carolina, was interested in having this work continued as a regular agency. The Soil Conservation bill was approved by President Franklin D. Roosevelt on April 27, 1935, and the name of the agency was changed from the Soil Erosion Service to the Soil Conservation Service by this act of Congress. From 1935 to 1949 the use of conservation practices on land had moved ahead at a constantly accelerating pace on the nationwide job.[13]

Mr. Dudley Greene, Mr. Avery Greene, and Mr. W. W. Mast, Sr., prominent Watauga County farmers, were appointed to a conservation committee in 1949. Information meetings were held in every community in the county. Letters were written to Raleigh and Washington to the Soil Conservation Service offices there. J. Frank Doggett, extension conservationist, and A. A. Cone, administrative assistant, Soil Conservation Service, from Raleigh, met with interested groups

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[13]Hugh Bennett (ed.), The Hugh Bennett Lectures (Raleigh: The Agricultural Foundation, Inc., North Carolina State College, 1959), pp. 22-23.

to explain the program and to answer questions. There was organized opposition to the establishment of the district. The Agricultural Extension Service felt that the Tennessee Valley Authority land-use program could take care of the erosion problems; however, when the district was organized, the working relationship between the two groups of workers was excellent. The vocational agriculture teachers and their assistants, who were teaching veteran farmers, worked diligently to get out the vote in favor of organizing the district. When the election was held late in 1949, farmers endorsed the establishment of a Soil Conservation District by the biggest vote that had ever been recorded in North Carolina up to that time. Watauga was the first of the mountain counties in the Tennessee Valley Authority land-use area to ask for assistance from the Soil Conservation Service.[14]

For administrative purposes the states are divided into areas made up of units (counties or watershed developments). The technician in charge of one of these is known as a work unit conservationist. Howard Williams was the work unit conservationist transferred to the new district in March, 1950. He was a graduate of Mississippi State University with a major in agricultural engineering. He

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[14]Edgar Greene, conservation aide, Watauga County Soil Conservation District, personal interview, June 8, 1961.

had worked previously with the Soil Conservation Service in Spartanburg, South Carolina, and in Cabarrus and Davie counties in North Carolina. Edgar Greene, conservation aide in Ashe County, was detailed to the Boone office from March to May, 1950, when he was transferred to the Watauga County work unit. He was a native of the Beaver Dam community and knew the people in Watauga County and their farm problems. His practical experience in Ashe County proved most valuable in planning and carrying out conservation practices in the county. Ashe County borders Watauga on the north and conditions in the two counties are very similar.

Watauga made the seventh county in the North Wilkesboro area, of which Staton McIver was, and still is, area conservationist. H. S. Byrd was area soil scientist. Soon after this T. J. Hossley was assigned to the North Wilkesboro office as area engineer. Soil conservation districts and supervisors will be discussed more fully in Chapter III.

The basic concept in soil conservation is to use land within its capability and to protect it according to its needs. This will assure its continued productivity.[15] Land capability classifications were designed by the Soil Conservation Service to focus attention on the need and place for soil conservation practices, to reduce losses from

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[15]The Hugh Bennett Lectures, op. cit., p. 14.

erosion, to protect land from floods, and to improve drainage. They are a soil survey interpretation, and the results are shown on maps. There are eight land capability classes. The higher the number the more limitations there are on the use of the land, and the practices required for soil protection are increasingly expensive.[16]

Watauga County does not have any Class I land. There are 1,990 acres in Class II. This is deep, productive soil, but it has a slight erosion problem or is subject to overflow. There are 10,766 acres in Class III, and these acres are steep and severely eroded or have a serious water problem with imperfect drainage or frequent overflows. In Class IV there are 22,684 acres, of which 16,535 are deep soil, well drained, strongly sloping to steep, with a severe erosion problem. The remainder of the soil in this class is shallow, stony, or poorly drained. Properly managed, the first four classes are considered suitable for cultivation.[17]

In Class V there are 7,125 acres of very stony bottom land or cove land not practical for crops. The 28,776 acres in Class VI are strongly sloping to moderately steep and are

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[16]Land, the Yearbook of Agriculture, 1958 (Washington: Government Printing Office, 1958), p. 363.

[17]Watauga County Conservation Needs Inventory, Soil Conservation Service Office, Boone, North Carolina.

generally not suitable for crops. They are best suited to pasture and trees. Class VII has 119,328 acres of mountain upland soils that are too steep, shallow, or severely eroded to cultivate or to produce good hay or pasture. This land is best suited to trees. The 220 acres in Class VIII are suitable only for wildlife or recreation. Rock outcrops, mountain cliffs, ledges, and river wash are included.[18]

The conservation problem in the mountains was complex. As the soil, slope, climate, susceptibility to depreciation by erosion, overcropping, and other processes of man accelerated erosion had to be considered. When a farmer desired help, the conservation technician had to choose one of the hundred or more conservation measures that had already proved effective in the work. Measures are chosen to meet a particular need or to produce the desired result on the kind of land the farmer has. In most cases a combination of measures are used together.[19]

If a farmer uses technical assistance on only part of his farm, he is called a district cooperator. If he and the technician work out a basic conservation plan for each acre of his land, he signs an agreement for a basic farm plan. During the first year after the district was

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[18] Ibid.

[19] The Hugh Bennett Lectures, op. cit., p. 49.

organized, ninety-three basic plans were written. Watauga was small and got a late start, but it led the state in 1950 in the number of farms planned.[20]

Practices reported on Watauga County farms in 1960 and the total number of acres being treated in each manner form an important part of this study. The facts on practices in this section were taken from the 1960 annual report of the Watauga County Soil Conservation Service. This gave the report for 1960 and the totals for the period from 1950 to 1960. The definitions and explanation of practices were taken from The National Handbook, United States Department of Agriculture, Soil Conservation Service.

A conservation cropping system was used on 233 additional acres in 1960, which made a total of 5,150 acres on which this practice has been applied. A rotation is worked out according to the land capability. Figure 1, page 21, shows a rotation with a meadow waterway.

Contour farming is being practiced on 1,801 acres. Contouring is considered the most fundamental principle of conservation engineering. It is an old practice and was described by the Roman historian Pliny (23-79 A.D.) in his writings.[21]

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[20]Soil Conservation Service Annual Report, Boone, North Carolina.

[21]The Hugh Bennett Lectures, op. cit., p. 20.

Figure 1. Meadow waterway showing corn, small grain and red clover in rotation on the farm of D. F. Greene, Bethel. (Soil Conservation Service Photo)

In 1960 an additional 300 acres were planted in cover crops. This makes a total of 8,167 acres protected with a stabilizing cover of vegetation.

Crop residue use was prescribed for 275 acres in 1960. This involves incorporating plant material into the top few inches of soil. This has been done on 2,165 acres in the ten-year period the report covers. This also adds to the organic content of the soil, increases the fertility, and the ability to absorb, store, and release moisture for crops.

Altogether strip cropping has been advised for 3,107 acres. This practice has been called the signature of the Soil Conservation Service. It furnishes a fine example of working with, instead of against, nature to preserve the soil. Tourists take many pictures of fields that are strip cropped against a background of mountains because of the beauty of the landscape. Alternate strips of row crops and sod make it possible to cultivate fairly steep land without serious damage from erosion. Figure 2, page 23, shows this practice.

Originally a large portion of the county was covered with luxuriant wild grasses. The climate and soil are well suited to plants of this kind. Certain new, or improved, grasses make higher yields or make better hay than the old, wild varieties. The use of improved perennial grasses and

Figure 2. Six-year rotation in contour strips on Class III and IV land on the farm of Charlie Taylor, Route 1, Boone, North Carolina. (Soil Conservation Service Photo)

legumes in rotation has become a popular practice. In a ten-year period 12,500 acres have been planted in these crops.

Improved herds of dairy and beef cattle and improved pastures have changed the county. Pasture improvement (an established pasture is limed, fertilized, mowed, or sprayed, or treated with a combination of these) on 13,867 acres is the most widely accepted practice in Watauga County. The closely associated practice of pasture planting (cultivated land is seeded to pasture and approved practices are used) adds another 6,201 acres that are being used to the maximum but whose productivity is being maintained.

According to the Watauga County Conservation Needs Inventory there are 119,328 acres of Class VII land in the county whose best use would be to grow trees. The early farmers cleared many acres of land that should have been left in forests because they felt the trees were a nuisance. Later in 1917 when the Eastern Tennessee and Northwestern North Carolina Railroad was built from Johnson City to Boone, lumbering became an important business in the county. Heavy cutting was practiced, and hundreds of acres of cut-over land was unprotected and erosion was accelerated.[22]

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[22] Whitener, op. cit., p. 48.

In 1951 there was little interest in tree planting, and the technicians with the Soil Conservation Service found it difficult to give away white pine seedlings. By 1959 demand exceeded the supply, even though farmers had to pay $6.50 per 1,000 for white pine seedlings and $10.50 per 1,000 for poplar seedlings. Poplar lumber is used as a base for veneer furniture. The many furniture factories in North Carolina are encouraging the planting of poplar trees. The plants are grown in the North Carolina Department of Conservation and Development nurseries. There have been 878 acres of trees planted on farms planned by the Soil Conservation Service since 1950, and 173 acres of this total were planted in 1960. In 1959 blister rust was found in white pine near Stony Fork. This disease requires gooseberry plants to complete a cycle, and specialists think it is being eliminated. Chestnut trees killed by blight stand as silent reminders of the devastation a disease can bring to a forest. A threat to the pines was serious, and action to halt the spread of the disease was started immediately.

Some type of woodland improvement has been carried out on 5,049 acres of land. Harvest cutting on 1,021 acres means that mature trees have been selected and cut, leaving younger trees to grow. Weeding has been practiced on 1,928 acres. Undesirable trees, vines, and underbrush have been

cut so the good trees have a better chance to grow. Intermediate cutting is the practice of thinning trees past the sapling stage for the purpose of improving the composition of the stand and the growth condition of the remaining trees. This practice is easier to introduce in an area where there is a market for pulpwood. Sale of pulpwood in Watauga County is impractical because of transportation costs. Of the 1,823 acres that have had intermediate cutting, 1,015 were treated in 1960. Farmers are beginning to accept the idea.

In 1960 Edgar D. Greene, soil conservation aide in Watauga County, received the 300-Board-Footer Award presented by the Tennessee Valley Association of Test-Demonstration Farm Families in Cooperation with the North Carolina State College Agricultural Extension Service, North Carolina Department of Conservation and Development Division of Forestry, and Tennessee Valley Authority. He qualified for this award by growing an average of 309 board feet per acre annually on his twenty acres of woodland. He inherited the farm from his father, D. F. Greene, who first got technical forest management aid from the state extension forester and the county agent in the winter of 1937-1938. The Greenes avoided heavy cuttings, protected the woods from grazing and fire, and were selective when they did cut. The best and fastest growing trees have been retained to improve the quality and volume of the stand. The Greenes' woodland

has long been used in connection with farm tours and demonstrations. The Soil Conservation Service used the Greene farm for a two-day farm forestry management school in 1958. Figure 3, page 28, shows woodland improvement cutting on this farm, the only certified Tree Farm in Watauga County.[23]

The practices relating to fish ponds are among the most popular in the southern area of the United States. In this county most farms have springs or streams that can be used for stock water; therefore, the necessity for building ponds is not so great as in other sections of the state. There are two major problems commonly encountered in the mountains. Because of the slope of the draw too much fill is required for the amount of water one gets; and second, it is hard to find enough fill dirt of the right type that will not allow seepage. There have been sixty-eight ponds built and stocked with Soil Conservation Service aid in ten years. Figure 4, page 29, shows a farm pond being used for recreation purposes. Fish used for stocking are secured free of charge from the Fish and Wildlife Service of the U. S. Department of the Interior. Usually bass and bluegill are used, but some trout are being tried. In most ponds the water is too warm for trout and a little too cold for the

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[23] Edgar D. Greene, Watauga County, North Carolina, A 300-Board-Footer (Tennessee Valley Authority, 1960).

Figure 3. Woodland improvement cutting on the farm of E. D. Greene, Bethel (Soil Conservation Service Photo)

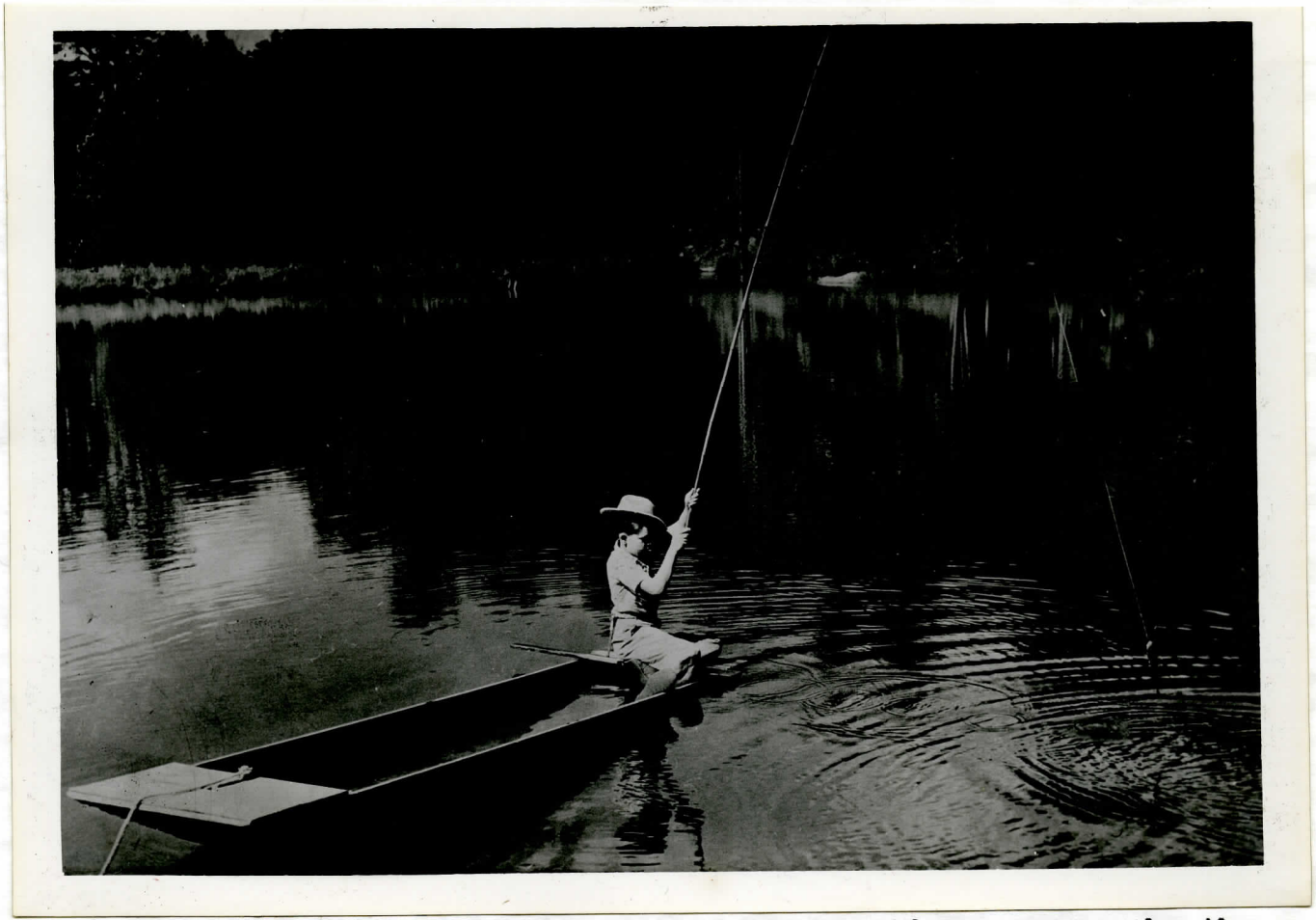

Figure 4. A farm pond being used for recreation purposes by the young son of Frank Lewis, Route 3, Boone, North Carolina (Soil Conservation Service Photo)

bass and bluegill. The latter varieties grow about half as fast in Watauga County as they do in warmer climates.

Only twenty-two ponds have been fertilized. It has proved hard to explain convincingly that sprinkling fertilizer on the water will make the fish grow faster. A mineral fertilizer with an 8-8-2 analysis is usually recommended. When algae color the water so one cannot see a white disk on a stick twelve inches below the surface of the water, the pond is sufficiently fertile.[24]

There have been thirty-nine ponds treated or improved to create an environment suitable for fish production. This may include stocking, fertilization, controlling undesirable pond weeds, and adequate fish harvest.

The fish pond on the Diamond X Ranch, owned by B. W. Stallings, was one of the first constructed in the county. It was stocked with bass and bluegill and is used as stock water for a herd of polled Hereford cattle. Mr. Stallings permits selected groups such as Boy Scouts and Sunday School classes to fish in the pond. For ten seasons he has held a fishing rodeo for children under ten years of age. A feature story on the pond, its uses, and the rodeo for small children was written by Joe C. Minor and was printed with pictures in

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[24]U. S. Department of Agriculture, Managing Farm Fishponds for Bass and Bluegills (Washington: Government Printing Office, 1955), p. 9.

a number of daily papers and magazines.[25]

Four thousand twenty-nine rods of hedgerow have been planted, and eighteen wildlife areas have been treated (Figure 5, page 32). Ninety-eight grassed waterways have been developed.

For land with a severe water problem, drainage improvements have been made on 746 acres. Twenty-seven miles of tile drains have been laid, and 10.9 miles of open ditches have been constructed.

These are the practices that have been used on farms in Watauga County, 1950-1960. There were 616 district cooperators who used one or more conservation practices. Basic conservation plans have been written on 492 farms totaling 37,977 acres. On the latter each acre was considered according to capability and need and its use figured from that standpoint.

Agricultural Stabilization and Conservation makes available certain materials and funds for each farmer who carries out approved conservation practices. Federal money is allowed for payments for tree planting, woodland weeding, seed, lime, and fertilizer for pastures and hay land, and for ditching, both open and tile. To be approved, clay tile

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[25]Joe C. Minor, reporter, Watauga Democrat, Boone, North Carolina, personal interview, June 10, 1961.

Figure 5. Multiflora rose fence showing contour strip farming in background on farm of Johnny P. Greene, Bethel. Work Unit Conservationist H. J. Williams in photo. (Soil Conservation Service Photo)

must be used. The high acidity of the soil causes concrete tile to deteriorate rapidly.[26]

After a basic plan is written, the Soil Conservation Service technicians try to keep in touch with the farmer to offer information, help, and encouragement as he applies conservation practices to his land. Often after a few years the plan needs revision. Plans are cancelled when a farmer sells his land or dies. Records must be kept up to date. The technicians must continue working with those who are already conservation farmers and at the same time must be reaching as many new people as possible. As progress is made, the technicians' work load increases proportionately.

Watauga conservationists help the one worker assigned to Avery County when he has a job that requires two persons.

In 1959 David Bynum was transferred from Watauga County to Yancey County. Billy L. Foutz, an agronomy major from North Carolina State College, came to Watauga as a farm planner.[27]

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[26]Billy Foutz, work unit conservationist, personal interview, June 16, 1961.

[27]Records, Soil Conservation Service Office, Boone, North Carolina, 1959.

CHAPTER III

THE SOIL CONSERVATION DISTRICTS AND THE SUPERVISORS

> I consider the soil conservation districts movement one of the most important developments in the whole history of agriculture. It has proved even more effective than we had dared to expect.

Dr. Hugh Bennett, chief of the United States Soil Conservation Service, used these statements repeatedly in speeches and in the material he wrote.[1]

The district idea made farmers active participants in the work of safeguarding the nation's limited supply of land. Increased progress, better means for the maintenance of conservation measures applied to the land, and greater utilization of the advantages of neighbors working together were immediate and continuing results of the formation of districts. The districts belong to the farmers who voted them in, and they remain under farmer direction.[2]

The Watauga County Soil Conservation District is the central source of help and information about soil and water conservation, as it is in nearly every community in the United States. These districts are legally constituted

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[1]Hugh Bennett (ed.), The Hugh Bennett Lectures (Raleigh: The Agricultural Foundation, Inc., North Carolina State College, 1959), p. 28.

[2]Ibid., pp. 28-29.

units of state government. Each soil conservation district is directed by a board of local people. In Watauga County this governing board consists of five men. Three are elected by the people, and two are appointed. They prepare the district program, which describes the problems and conditions affecting land-resource conservation and states the district's water and soil conservation goals. Then it gives a plan by which the district hopes to reach these goals. This makes the federal program of soil and water conservation unique in that its leadership is in the hands of local people.[3]

After the district program is prepared, state law authorizes the board of supervisors to arrange for assistance from public or private sources to put this program into effect. Under a formal working agreement the Soil Conservation Service provides, without charge, the services of soil conservationists to help plan and apply conservation measures. The Soil Conservation Service has been the principal supporting agency of the districts by way of furnishing technical assistance, although other agencies, state and federal, have helped. Federal funds for the Soil Conservation Service are appropriated with the understanding that they are to be

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[3]B. L. Foutz, "Working of Soil Group Explained by Official," Watauga Democrat, Boone, North Carolina, June 8, 1961.

used for supplying technical aid to districts.[4]

D. F. Greene served as chairman of the supervisors from 1949 to his death in 1957. He was influential in the formation of the district, and his farsighted ideas about conservation goals and practices were important to the progress of the conservation work in the county. On the state level he was held in high regard by professional conservationists and other supervisors. Only two weeks before Mr. Greene's death his son, Edgar, and Howard Williams took him to Asheville to the State Soil Conservation Supervisors' Convention, though he was confined to a wheel chair. He was recognized and given a standing ovation by the group.

In 1949 before the election for the establishment of the district, D. F. Greene, Avery Greene, and W. W. Mast, Sr., were appointed supervisors. After the election for the district D. F. Greene, Will Wellborn, and Henry Taylor were elected. Others who have served are Hayes Wellborn, Tom Jackson, A. C. Moretz, J. F. Michael, Harvey Trivette, and Sanford Creed.[5]

Supervisors were replaced when it became necessary for them to resign. Will Wellborn resigned because of

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[4]Ibid.

[5]Supervisors' Records, 1950-1960.

employment at North Wilkesboro. Hayes Wellborn of Deep Gap resigned to manage a store at Millers Creek. Henry Taylor's farm operations expanded to the point that he felt he did not have sufficient time to devote to the district conservation work.

A. C. Moretz, Deep Gap, is chairman for 1961; Sanford Creed, Sugar Grove, vice-chairman; and Tom Jackson, Route 2, Boone, secretary-treasurer. Ferd Michael and Harvey Trivette were recently appointed to the committee. Mr. Trivette is manager of the Winn-Dixie Store, and his appointment marks the new emphasis on town and country interdependence and cooperation.

The men who have served as supervisors were leaders in their own communities and in the county. They have met regularly with agency representatives, district cooperators, and other interested persons to plan, coordinate, and facilitate the district program. As sworn public officials they have accepted their numerous responsibilities in connection with the operation of the Watauga County Soil Conservation District and its program.

By bringing the conservation plans and practices to the attention of the landowners of the county, they have made it possible for the technicians to make much more rapid progress than they would have been able to otherwise.

CHAPTER IV

ASSOCIATED SERVICES AND ACTIVITIES

The technicians with the Soil Conservation Service are often thought of only as farm planners in connection with their work with individual farmers; but they also provide a wide variety of other services that are educational or that help to establish good public relations.

They have an unusual opportunity to influence a wide area through their contact with future teachers who are students at Appalachian State Teachers College in Boone. They are available for lectures to classes and clubs on the campus. For example, Howard Williams used a soil profile and spoke on soils to Professor Imre Sutton's geography class in conservation. Two students from that one section decided to teach units on conservation when they did student teaching. From the Soil Conservation Service they secured "Teaching Soil and Water Conservation, A Classroom and Field Guide," poster materials, pictures, and a number of free bulletins and booklets, and a list of films and filmstrips available on a free-loan basis to use in the classroom. Quarter after quarter this help with teaching units is as close to students as a telephone.[1]

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[1]Howard Williams, conservationist, personal interview, June 1, 1960.

On numerous occasions the technicians have been invited to speak to the science club, to participate in panel discussions and forums, and to go on field trips. In the county they have helped the club set out wildlife borders, plant trees, study good and poor land use, and see the relationship between all conservation, whether land, water, or wildlife.[2]

The Garden Club of North Carolina, Inc., and the General Federation of Woman's Clubs both stress conservation; therefore, the local garden clubs and the Worthwhile Woman's Club have used Soil Conservation Service personnel on programs and have used program materials provided by the service. These groups of women are unusually well informed and interested, but often their main concern is the matter of saving some special plant or shrub from extinction. Professional conservationists are especially glad to explain the broad implications of a complete conservation program to such groups. The Soil Conservation Service helps with the conservation display at the flower shows. They furnish educational material to be given to the visitors. Other civic clubs and organizations use them as guest speakers.

In the public schools of the county, individual teachers obtain materials and teaching aids from the

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[2]Ibid.

district office in Boone. In some schools they have carefully filed conservation materials gathered through the years; these materials are made available to the teachers for use. Often a technician is invited to teach one day during a unit on conservation. He will usually distribute booklets on conservation to each pupil. The most popular one this year was "Dennis the Menace and Dirt," written and published in comic book style. Because of his keen interest in conservation Hank Ketcham, creator of Dennis the Menace of television fame, offered the services of his staff in preparing this book for the Soil Conservation Society of America in 1959.[3]

In the lower grades in school one tends to think in terms of long-range objectives, but there are often immediate results. Mrs. Sarah Horton was teaching such a unit to a third grade class at Valle Crucis School. The grandfather of one of the little boys called the conservationist to help him with a farm plan because the child talked about conservation farming so much.[4]

The vocational agriculture teachers in Cove Creek High School and in Appalachian High School work and plan often with the professional conservationists, both in

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[3] Ibid.

[4] Mrs. Sarah Horton, teacher, personal interview, August, 1959.

classroom activities and extra-class projects. Their students spend a great deal of time in the study of soil and in soil judging. In 1959 and 1960 the Cove Creek soil judging team advanced to the state contest. For several years the Appalachian Chapter of Future Farmers of America has had tree planting as its money-making project. Persons who work some distance away and own farm land in this county arrange for the boys to set out seedlings at the proper season and pay them for the work. The agriculture teacher and the conservationist supervise. It is a valuable learning and work experience for the boys, a good business deal for the absentee landowner, and a good conservation practice for the land.[5]

On a number of occasions groups of foreign students have toured western North Carolina. They usually want to see banks and government agencies at work, particularly those connected with the United States Department of Agriculture and the health department. In 1956 Susano Alquezo, an ICA student from the Philippine Islands, was sent to Watauga County to study mountain conservation practices. He was the second Filipino to have conservation training. He was a brilliant student and quickly discovered differences and

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[5]R. L. Tait, vocational agriculture teacher, Appalachian High School, Boone, North Carolina, personal interview, March 6, 1961.

similarities in farming methods in America and his home country. To him permanent pasture meant banana and coconut trees on hog farms with a yard boy to chop enough each day for the animals to eat. He insisted that in some respects a water buffalo was more dependable than some of the tractors he saw farmers working with. One question of his final report to the national Soil Conservation Service, Philippine Embassy, and ICA was to tell the one thing in the United States that impressed him most. He wrote: "The high dignity of labor. Nobody seems ashamed to work. People take pride in doing anything they can do well." The poverty of the masses in his country was a major concern, and he hoped to teach conservation farming on his return to the islands.[6]

In 1960 Jeim Huang from Formosa was assigned to this district. He was especially interested in forestry and all the practices concerning trees and tree farming. The brilliant colors of the foliage in the mountains in October impressed him. He was a keen observer and learned new and different methods rapidly.[7]

Experimentation and research are important parts of the general conservation program. Christmas tree farming

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[6]Susano Alquezo, student from Philippine Islands, personal interview, May 20, 1956.

[7]Jeim Huang, student from Formosa, personal interview, October 10, 1960.

has proved to be profitable in some areas, but the more desirable types of trees seem to do best at about 4,000 feet elevation. At the present two test plots of five varieties of trees are being grown in Watauga County at 2,000 feet elevation. Both plots are at the same elevation but have different soil types and different exposures. These are being watched carefully and compared with similar test plots in neighboring counties at 2,500, 3,000, and 3,500 feet elevation.[8]

During 1961 three varieties of bird's foot trefoil will be tested to determine whether it can be grown successfully for hay and pasture in this locality.[9]

Every year materials for the observance of Soil Stewardship Sunday are obtained for the county ministerial association. Some of the ministers use this in their individual churches. A group of churches (about six) of five denominations celebrate Rogation Sunday in a union service on the fifth Sunday after Easter. They are following an old custom that began in Vienne, France, in 470. In that community there had been crop failures, caused by earthquakes and bad weather conditions, for several years; the results

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[8]Billy Foutz, conservationist, personal interview, June 16, 1961.

[9]Ibid.

had been famine, looting, and rioting. The Bishop of Vienne, St. Mamertus, ordered prayer and penance by the people. The clergy and the people made penitential processions through the village and fields reciting litanies and calling upon God for help in their time of trouble. Other communities took up the custom, and for almost fifteen hundred years this custom has been observed.[10] In the Protestant ceremony in this county the service begins in a church; then the ministers, the choir, and the congregation, in that order, go marching and singing all the way to a field, where God's blessing is asked for the soil, the seed, and the sower. Afterward the congregation eat a picnic lunch together. This special Sunday service gives added status to the matter of using the soil wisely.

For nine years Howard Williams has been in charge of conservation activities for Boy Scout Troop 109, sponsored by Boone Methodist Church. He has been, during the same period of time, chairman of the conservation committee for all Watauga County Boy Scouts. He has worked with individuals who wanted conservation merit badges, and has planned camping activities with special emphasis on experiences to teach conservation. In 1960 he was detailed to

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[10]"Rogation Days," The Encyclopedia Americana (1959 ed.), XXIII, 626.

Raven Knob Scout Reservation, Old Hickory Council, to work with the scouts at camp on conservation.

The federal government created the Rural Development Program in 1956. Three pilot counties were selected in North Carolina; one on the coast, one in the piedmont, and Watauga in the mountains. Factors considered included a low average income; the cooperation among the agricultural agency workers themselves and with the farm people; and the type of farm population. The first planning meeting of the Watauga County Rural Development Program was held February 29, 1956, with all agricultural workers attending. All phases of rural life were to be studied, problems identified, and solutions sought with the aid of all the technical knowledge available. On February 1, 1957, two additional assistant county agents and one additional home demonstration agent began work.[11]

The primary responsibility of the Soil Conservation Service was to write more farm plans and to encourage farmers to apply conservation practices to as many acres as possible as quickly as possible. To facilitate this action an additional full-time farm planner was assigned to this district and an additional part-time aide. David

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[11]Minutes, Watauga County Rural Development Program, 1956-1957.

Bynum, Iron Station, North Carolina, was sent as farm planner, and Henry Taylor, a local farmer from Valle Crucis, was employed on a part-time basis.[12]

In addition to the stepped-up program of soil and water conservation, the workers went to community meetings at night. Ordinarily they went in pairs representing two different agencies. They encouraged the development of local leadership in the group meetings. Some of the projects chosen were clean-up campaigns, garbage disposal, and rural telephone systems. At Elk a community house has been completed, and the Timbered Ridge and Matney communities are now building. The Upper Beaver Dam community is remodeling an old school building to use for meetings. Youth programs, both general recreation and a baseball league, were planned and carried out. Picnic areas were developed and tables were built for public use.

Churches and cemeteries were improved. In 1958 L. E. Tuckwiller, county agent, Howard Williams, conservationist, and a group of rural people went to Virginia to tour some Lord's Acre projects. They attended the big sale of the products. Since that time some of the churches in this county have adopted this plan and have plots of beans, cabbage, or potatoes to raise money for the church.

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[12]Records, 1957, Soil Conservation Service Office, Boone, North Carolina.

Prizes of money are awarded the community making the most progress each year. These awards are made at the annual Town and Country Dinner at Cove Creek School. This dinner is sponsored by the agriculture agencies, the Boone Chamber of Commerce, and members of the Northwestern North Carolina Development Committee. The agriculture workers barbecue chicken; the vegetables are cooked at Cove Creek School; and about four hundred people attend, eat, and listen to the reports of what has been done in the various sections of the county to improve living conditions. Children and adults have grown in the understanding of community life, in the skills of community participation, and in the desire to assume their share of responsibility for community welfare.

Progress Day is another cooperative enterprise that has considerable teaching potential. Booths for displays are set up in the tobacco warehouse. Factories, businesses, farmers, clubs, and the agriculture agencies fix displays; and the public comes by hundreds to view the displays which are open for two days. The Soil Conservation Service showed good woodland practices in 1960; in 1959 they used a model of conservation practices built by Larry Curle, soil engineer, assigned to this area office at that time. One year they made a scale model of a conservation farm in this county. The tiny fish in a small farm pond were attention stealers.

An exhibit like this can reach more people much more quickly than person-to-person day-to-day work. After a farmer sees and knows something about the program, it is easier for him to ask for professional help.

In all the work Mr. R. C. Rivers, editor and publisher of the Watauga Democrat, has been generous with space for news items, has written editorials, and has picked up items of interest and used them in his "King Street" column. The county paper has been an important factor in telling the conservation story.

Thousands of pamphlets and booklets have been distributed in the county by the Soil Conservation Service. Some of these were free; others were bought for students in the schools by interested businessmen.

CHAPTER V

SUMMARY AND CONCLUSIONS

The purpose of this study was (1) to survey the situation as it was in 1949; (2) to determine what progress had been made from March, 1950, when the Soil Conservation Service Office was opened and the technicians began work, to 1960; (3) to evaluate the work that has been done; and (4) to formulate an hypothesis for future land use in the county.

Ten years have passed since the Watauga County Soil Conservation District was an actuality and the office was opened in the Courthouse Annex in Boone. Every acre of land in the county was in need of attention. The principle of using land according to its capabilities and treating it according to its need has proved as sound as Dr. Hugh Bennett thought it was when he first used the terms in writing a soil survey report in Lauderdale County, Mississippi, in 1910. Farms in Watauga County look different today because many of them bear the unmistakable stamp of conservation practices. Farms totaling 50,923 acres have received some conservation treatment. This figure does not include what is known in the Soil Conservation Service as spread-of-practice. A farmer copies contour plowing, strip cropping, or some other practice because he notices that it works

well on his neighbor's farm but does not sign an agreement with the Soil Conservation Service. This acreage does not appear on any report, but permanent conservation is taking place just the same. Basic conservation plans have been written on 37,977 acres. Twice in the ten-year period Watauga County has led the state in the number of plans written, 1950[1] and 1958.[2]

Crop yields have increased, farm land has increased in value, and annual farm income has gone up from $2,031,290.00 in 1950 to $2,252,791.00 in 1954 and to an estimated total of $3,809,791.00 in 1960. The first two figures are based on the 1950 and 1954 Censuses of Agriculture. As stated in Chapter I it is impossible to determine the factors that provided each dollar of the increased value of the land or of farm income.

The farms in the county are fewer and larger. According to the 1959 Census of Agriculture, from 1954 to 1959 the average farm size increased from 58.6 acres to 63.4 acres. The average size farm in the state is 83.4 acres.

If present trends continue, some changes in land use by 1975 will show a decrease from 30,000 acres to 18,372 acres in crops; pasture and range lands will drop from 50,000 acres to 44,488. Forests and woodlands operated

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[1]Annual Report, Soil Conservation Service, 1950.

[2]Annual Report, Soil Conservation Service, 1960.

for the production of forest products will probably increase from 97,000 to 121,302 acres. Other farm land will decrease from 5,000 to 4,423 acres. Road building, urban development, and similar projects will continue to take some of the very best land out of cultivation each year.[3]

Though many of the crops grown in Watauga County require a large amount of hand labor, there is considerable mechanization; and each year more farmers are taking jobs in industry and are fitting farm work in after an eight-hour work day off the farm.

The cooperation among the various agencies is outstanding. This was a factor in the choice of Watauga County as a pilot county in the Rural Development Program. Working together on the solution of common problems and pride in the progress of the county as a whole are contributing factors to the understanding and cooperation among all the people of Watauga County.

The first week that Soil Conservation Service technicians were assigned to this district, a local businessman was introduced to one of the men. He said: "I sure am glad you are here. I worked real hard to get this thing voted in. What in the world are you folks supposed to do?" Today, in

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[3]Conservation Needs Inventory, 1958, Land Use, Present and Expected Changes, 1975, Soil Conservation Service Office, Boone, North Carolina.

addition to his business in town, he has a farm where the best conservation practices are being carried out. He has done a fine job of letting the world know what the Soil Conservation Service is here for. The gap between technical knowledge and practice in care of the land is gradually decreasing.

It is estimated that land in the United States suffers 750 million dollars worth of damage from erosion each year. Add to this the damage from floods and sediment deposit, and one gets a staggering 2,338 million dollar loss from moving water every year in the United States. This figures a cost of $1.23 an acre for all the land surface in this country annually.[4]

The public and the Soil Conservation Service must continue the soil-saving program until every possible acre of land is treated.

At a meeting of conservationists, soil scientists, and engineers, general problems had been discussed, progress had been noted, and goals and objectives had been given some attention. Mr. E. B. Garrett, state conservationist in North Carolina, asked each work unit conservationist to tell what he was trying to do in his county. Howard Williams said,

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[4]Land Agricultural Yearbook, 1958 (Washington: Government Printing Office, 1958), p. 349.

"I'm preparing for the worst, but hoping for the best." Conservationists want to encourage the scientific treatment of every acre according to need and use according to capability, so that even the weather factors that cannot be predetermined will not rob Watauga County of any of its topsoil. That is permanent soil conservation and assures continued productiveness.

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