NPS Form 10-900
(January 1992)
Wisconsin Word Processing Format (Approved 1/92)

OMB No. ~~10024-0018~~

United States Department of Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in *How to Complete the National Register of Historic Places Registration Form* (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900A). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Fifield Fire Lookout Tower
other names/site number Forest Service CRIF No. 09-02-01-035

2. Location

street & number 5 miles east of Fifield, STH 70 N/A **not for publication**
city or town Town of Fifield x **vicinity**
state Wisconsin **code** WI **county** Price **code** 099 **zip code** 54524

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this X nomination request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property X meets _ does not meet the National Register criteria. I recommend that this property be considered significant _ nationally statewide X_ locally. (_ See continuation sheet for additional comments.)

Sandra Jo Forney, Regional Federal Preservation Officer 4/19/07
Signature of certifying official/Title Date

U.S. Forest Service, Eastern Regional Office
State or Federal agency and bureau

In my opinion, the property _ meets _ does not meet the National Register criteria.
(_ See continuation sheet for additional comments.)

[signature], SHPO 5/16/07
Signature of commenting official/Title Date

State Historic Preservation Officer - Wisconsin
State or Federal agency and bureau

Fifield Fire Lookout Tower	Price County	Wisconsin
Name of Property	County and State	

4. National Park Service Certification

I hereby certify that the property is:

✓ entered in the National Register. ___ See continuation sheet.	Edson H. Beall	7.3.07
___ determined eligible for the National Register. ___ See continuation sheet.		
___ determined not eligible for the National Register. ___ See continuation sheet.		
___ removed from the National Register.		
___ other, (explain:)	for Signature of the Keeper	Date of Action

5. Classification

Ownership of Property (check as many boxes as as apply)

- ___ private
- ___ public-local
- ___ public-State
- x public-Federal

Category of Property (Check only one box)

- ___ building(s)
- ___ district
- x structure
- ___ site
- ___ object

Number of Resources within Property (Do not include previously listed resources in the count)

contributing	noncontributing	
0	0	buildings
0	0	sites
1	0	structures
0	0	objects
1	0	total

Name of related multiple property listing:
(Enter "N/A" if property not part of a multiple property listing.

N/A

Number of contributing resources is previously listed in the National Register

0

6. Function or Use

Historic Functions (Enter categories from instructions)	**Current Functions** (Enter categories from instructions)
Government/ fire station	Vacant/ Not in use

7. Description

Architectural Classification (Enter categories from instructions)	**Materials** (Enter categories from instructions)	
	Foundation	Concrete
Other: Fire Lookout Tower	walls	Steel
	roof	asphalt
	other	wood

Narrative Description

(Describe the historic and current condition of the property on one or more continuation sheets.)

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for the National Register listing.)

x A Property is associated with events that have made a significant contribution to the broad patterns of our history.

_ B Property is associated with the lives of persons significant in our past.

_ C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.

_ D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

_ A owned by a religious institution or used for religious purposes.

_ B removed from its original location.

_ C a birthplace or grave.

_ D a cemetery.

_ E a reconstructed building, object, or structure.

_ F a commemorative property.

_ G less than 50 years of age or achieved significance within the past 50 years.

Areas of Significance
(Enter categories from instructions)

Conservation

Period of Significance

1932-1957 [1]

Significant Dates

1932 [1]

Significant Person
(Complete if Criterion B is marked)

N/A

Cultural Affiliation

N/A

Architect/Builder

unknown

Narrative Statement of Significance
(Explain the significance of the property on one or more continuation sheets.)

9. Major Bibliographic References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous Documentation on File (National Park Service):
- _ preliminary determination of individual listing (36 CFR 67) has been requested
- _ previously listed in the National Register
- X previously determined eligible by the National Register
- _ designated a National Historic landmark
- _ recorded by Historic American Buildings Survey #
- _ recorded by Historic American Engineering Record #

Primary location of additional data:
- X State Historic Preservation Office
- _ Other State Agency
- _ Federal Agency
- _ Local government
- _ University
- Other

Name of repository:

10. Geographical Data

Acreage of Property less than one acre

UTM References (Place additional UTM references on a continuation sheet.)

	Zone	Easting	Northing
1	1/5	7/0/7/6/0/0	5/0/8/4/7/3/0
2			
3			
4			

☐ See Continuation Sheet

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet)

11. Form Prepared By

name/title	Joyce McKay, Ph.D., Cultural Resource Consultant				
organization	Private consultant			**date**	March 13, 1996
street & number				**telephone**	
city or town		**state**		**zip code**	
Form Revised By					
name/title	Mark Bruhy, Heritage Program Manager				
organization	USDA Forest Service, Chequamegon-Nicolet National Forest			**date**	August 25, 2006
street & number	68 South Stevens Street			**telephone**	(715) 362-1361
city or town	Rhinelander	**state**	WI	**zip code**	54501

Fifield Fire Lookout Tower	Price County	Wisconsin
Name of Property	County and State	

Additional Documentation

Submit the following items with the completed form:

Continuation Sheets

Maps A USGS map (7.5 or 15 minute series) indicating the property's location.
A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs Representative black and white photographs of the property.

Additional Items (Check with the SHPO or FPO for any additional items)

Property Owner

Complete this item at the request of SHPO or FPO.)

name/title	Federal Government				
organization	USDA Forest Service, Chequamegon-Nicolet National Forest			**date**	August 16, 2006
street&number	68 South Stevens Street			**telephone**	(715) 362-1361
city or town	Rhinelander	**state**	WI	**zip code**	54501

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.).

Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects, (1024-0018), Washington, DC 2050

Property Description:

The Fifield Fire Lookout Tower is located five miles east of the community of Fifield, Price County, Wisconsin. It is located on land administered by the USDA Forest Service, Medford-Park Falls District, Chequamegon-Nicolet National Forest.[1] It sits 200 feet north of State Highway 70 in the southeast quarter of the southwest quarter of section 2, Township 39 North, Range 1 East. The property includes one contributing structure, the Fifield Fire Lookout Tower denoted by the Forest Service as building project No, 441. This resource occurs within a circular drive or loop, which surrounds the approximately .5 acre property and forms its boundary. The property lies along a knob, the highest point in a hilly area drained by the South Fork of the Flambeau River. The tower itself is located in a small clearing within a low growth of young hardwoods. The poured concrete foundations of the associated dwelling and garage/woodshed occur to the southwest and southeast of the tower along the tower drive within the forest cover of hardwoods. Evidence of the privy, which stood north of the tower drive, is no longer extant. These building remains were not assessed for their archaeological significance. Although the dwelling, garage/woodshed, and privy no longer stand, the tower remains intact.

The Wisconsin Conservation Commission, now the Wisconsin Department of Natural Resources, erected the Fifield Fire Lookout Tower in 1932. The tower follows a standard fire tower type denoted as the Wisconsin Standard Ladder Protected (WSLP) (Wisconsin DNR, Fire Protection Headquarters 1931-73 [file: towers, lookout memorandum, 1933, 1935]). The Conservation Commission designed and used this type of fire tower in 1932. Although specific plans for this tower were not located, standard plans for ladder towers dating to 1932 were located at the Supervisor's Office, Chequamegon-Nicolet National Forest, and similar plans dating to 1935 were found at the Fire Protection Headquarters of the Wisconsin Department of Natural Resource in Tomahawk. Although materials describing the tower, located at the Forest Service's Park Falls office, list tower parts from the Aermotor Company of Chicago, the list itself was undated and not specifically marked with the tower's name (USDA Forest Service, Chequamegon National Forest 1931-85 [standard exterior ladder tower plans, 1932, rev. 1933-34; Aermotor exterior ladder plans, 1932]; 1933-95b [list of tower parts, Park Falls District]; Wisconsin DM1, Fire Protection Headquarters 1931-73 [Wisconsin Standard Plans and specs., 1935, rev. 1936]). The major element which distinguishes the WSLP steel tower design from other steel towers types in the Chequamegon-Nicolet National Forest, was its exterior ladder surrounded by a protective cage. Although operated by the Forest Service since 1935, the Wisconsin Department of Natural Resources has held a special use permit since at least 1973 probably for operation of the tower site. However, currently, the State does not appear to be actively using the tower for this purpose (USDA Forest Service, Chequamegon National Forest 1928-95 [special use permit renewal, 1976, 1978; inspection for special use permits, 6/6/1973 filed to Iron River Tower]; Peterson 1994).

The Fifield Tower is composed of a galvanized steel structure, which stands on four, poured concrete, and rubble stone piers. The piers define a square 19 feet on each side. The four tower legs support a seven-foot square, steel observation cab with wood floor. Tower height is traditionally measured from the top of the tower piers or footings to the base of the cab floor (Jones 1939: 2). The total tower height is about 100 feet (stenciled

[1] In 1998 through Act of Congress, the Chequamegon and Nicolet national forests were merged into the Chequamegon-Nicolet National Forest.

on tower; USDA Forest Service, Chequamegon National Forest 1933-61; Wisconsin DNR, Fire Protection Headquarters 1931-73 [file: towers, lookout memorandum, 1933, 1935]). Therefore, the tower legs probably rise about 94 feet, and the cab is approximately six feet high. The tower is anchored to the four piers by steel anchor rods. The main tower structure, the legs, is composed of a series of sections, which decrease in height between the piers and the cab. Each section along each side includes a main horizontal strut at the base connecting the two legs and two diagonal braces crossing at a stiffener strut to form an x-shaped construction. The hanger is suspended between the center of every other main strut and stiffener strut above. Sections are added to the base to create a tower of the desired height.

The seven foot square cab is composed of a wood floor; an approximately three foot high wall covered with galvanized steel; two side-by-side, approximately three foot high metal sash windows along each of the four walls; and a pyramid-shaped, galvanized steel roof with a ventilator at its apex. Each window contains spaces for nine lights, which are no longer present. Normally, one window pivots while the other one remains stationary. The base of the lightning rod is attached to the center of the east side. An antenna is mounted on the roof of the tower. Its exterior ladder climbs from 20 feet above a concrete step along the center of the east side of the tower to the bottom strut of the top section under the cab. Here, the ladder reaches a short platform which projects outside the leg of the tower and runs underneath the cab to a second, short ladder. This ladder rises underneath the cab to a wood trap door in the floor of the cab. An original vertical bar cage surrounds the ladder to the center of the top tower section. The interior contents of the cab which once held a heavy wood, fire finder stand with a 30 inch square top in the middle of the cab floor, the fire finder or alidade, stool, and telephone is probably no longer present (Nelson 1995; USDA Forest Service, Chequamegon National Forest 1931-85 [fire finder stand, 1935]; Gagner 1995; Murnik 1995).

The initial building date of the tower piers, 1932, is inscribed on the top of the northeast pier. The words "100' FOR PARK FALLS" are stenciled along several of the main struts. Part numbers are still visible on some of the tower components. A 1934 USGS benchmark is placed underneath the tower.

The 13.6 by 16.3 foot poured concrete dwelling foundation lies about 80 feet southwest of the tower while the few remains of the garage/woodshed lie 16 feet southeast of the tower (Wisconsin DNR, Fire Protection Headquarter 1931-73 [photographs showing buildings, n.d.]). No longer visible, the site of the privy was located about 40 feet northeast of the tower.

Although the fire tower has undergone some deterioration and loss, most of its elements remain intact. The bottom approximately 20 feet of ladder was removed about 1973 when the Forest Service was complying with the safety standards set for its fire towers (USDA Forest Service, Chequamegon National Forest 1933-95a [correspondence, 1973-76). The interior elements of the cab are probably no longer present, and the cab window lights are gone. The wood floor of the cab is deteriorated. The fire tower site has also suffered building loss. The circular drive around the property remains.

Significance Statement:

Introduction

The Fifield Fire Lookout Tower possesses National Register significance under criterion A in the area of conservation. The property remains as tangible evidence of the cooperative effort by the National Forest Service and the Wisconsin Conservation Commission to conserve and manage northern Wisconsin's timber resources. The two agencies developed the fire detection and suppression program to preserve the remaining timbered areas left undisturbed by logging and protect the forest restoration projects. The fire tower served as the central link of the fire detection system. By permitting the development of selective cutting, this conservation approach significantly contributed to the resuscitation of the northern Wisconsin economy.

Although the Civilian Conservation Corps (CCC) did not erect the structure, CCC Camp Riley Creek did operate the tower for a significant period of time between at least 1935 and 1941 as part of its fire protection program. Forest protection from fire was one of the major roles of the CCC on Forest Service and state lands during the Depression Era. The CCC was a part of the first successful nation-wide relief program devised by the American government. This program involved the development of a bureaucratic government at the federal level and the organization of the work relief projects by federal agencies, in this case the Forest Service. The property gains significance between 1932, the construction date of the property complex and 1957, the end date of its historical use at the beginning of the modern era. The significant date of 1932 represents the completion date of the fire tower. Because it represents a typical resource which once existed at multiple locations within the Chequamegon-Nicolet National Forest, the fire tower has significance at the local level.

Historical Background

Although logging in northern Wisconsin began as early as the 1830s, the significant exploitation of the pine forests did not occur along the Chippewa River watershed in northern Price County until the 1880s. Timber cruising in the Park Falls-Fifield area occurred as early as 1873. Cornell University received large land grants in the county along the Flambeau River as part of the Morrill Act of 1862. Because the university held these lands until the early to mid-1880s when the price of timber had risen significantly, logging and settlement were delayed until that period. Henry Sherry purchased large tracts in northern Price County from Cornell University in 1885. He centered his operation in Park Falls located just to the north of Fifield. Connecting Stevens Point to Ashland, the Wisconsin Central Railroad had completed its north-south line through the county in 1877. This access to markets made rapid and extensive logging of Price County feasible. This line connected the sites of Phillips, Fifield, and Glidden, which initially developed slowly until the 1880s lands sales in the area. By the late 1880s, lumber mill production contributed significantly to the economy of the Park Falls-Fifield area. The logging of pine peaked in the area in 1892. A pulp mill, and in the 1890s a paper mill, was established by the Park Falls Lumber and Pulp Company at Park Falls.

In the 1880s and 1890s, the lumber companies cut primarily white pine during the winter months and floated timber downstream along the tributaries of the Chippewa to local mills. Pine sawmills operated in Fifield by 1886. During the settlement period to at least 1890, rough lumber composed one of the few marketable products sold from the area to national markets. Much of this lumber supplied building materials for the western prairies, which were then being rapidly settled. By the mid-1890s, most of the pine had been removed,

and hemlock and then hardwoods became the focus of logging activities about 1906. Hardwood mills appeared in Fifield by 1907. Most of these mills ceased operation in Fifield by 1929 when many of the marketable stands had been cut (Goc 1989: 4-8, 14, 39-42; Lessard 1976: 7-10).

Settlement in the area became sufficient to form Price County from Chippewa County in 1879. The Town of Fifield then encompassing the northern third of Price County was established in 1880. The government granted to the Wisconsin Central Railroad every alternate section adjacent to its right of way in 1864 to support railroad construction in Price County. After lumber companies cut the lumber, they frequently also transferred their lands to land developers. These companies in turn sold the lands to private owners. The railroad, lumber companies, and land developers produced pamphlets to attract settlers, which they distributed in the United States and later in Europe, especially Germany, by the 1880s. The pamphlets offered such claims as the presence of fertile, cleared lands and incentives such as low railroad fares to the cutover lands.

Agricultural settlement in Price County east of the Wisconsin Central line between Fifield and Park Falls began in the early 1880s. Much of this land was sold by such development companies as the Good Land Company of Phillips which ran an office in Fifield. The agricultural settlement expanded as the cutover lands extended away from the tracks in the 1890s. The rocky, unfertile soils and harsh climate restricted crops to grains such as clover, oats, and timothy, which were fed to livestock including dairy cattle and sheep. Potatoes and other root crops also sustained settlers. However, reliable outlets were not easily accessible, and the logging camps and milling communities composed the major markets of the area. Limited income from farming required that settlers supplement their income by working in logging camps or mills. Farmers also logged their lands and sold their timber to local mills. However, despite the efforts of land companies, the expansion of farm settlement remained limited (Goc 1989: 9, 22, 106, 112-14; Klueter and Anderson 1977: 132-33; Anderson 1961: 2; Lessard 1976: 8, 46, 73; Brown 1986; Garfield 1986; Western Historical Company 1881: 764).

With long distance access to the area provided by the railroads, hotels began to appear in Fifield by the 1880s. Along with other guests, they boarded sportsmen attracted by the numerous small lakes in Price County. Resorts created solely to serve tourists were first established in the area east of Fifield by the 1880s at Pike Lake along the Flambeau River. Additional resorts were built along the chain of five lakes adjacent to Pike Lake and the Mason Lake Chain to the west of Fifield. These resorts contributed significantly to the local economy by the turn of the century (Goc 1989: 158-59; Lessard 1976: 47).

Platted along the railroad line by the Wisconsin Central in 1876, Fifield began to expand as the pine attracted lumber companies and settlers to the South Fork of the Flambeau River in the late 1870s. By the 1880s until the early 1890s, the community served approximately twenty logging camps in its vicinity and attracted a population of about 1,600. Pine mills were first established in the community in 1886. Although they ceased cutting pine by the mid-1890s, hardwood mills remained in the community until 1929. In the 1880s and early 1890s, in addition to its retail stores, its four-block business district included five hotels, which provided lodging for area tourists. After the turn of the century, the community also provided a small market for area agricultural products. Surrounding farmers supported a pickle factory in the 1920s and a cheese factory by 1921 (Goc 1989: 7; Lessard 1976: 8, 49).

Not infrequently, the land companies and lumber companies lacked buyers and allowed the land to become tax

delinquent. This solution placed a greater tax burden on those farmers who tried to work the cutover lands. Much of the cutover provided poor thin, acid soils and stump-ridden lands. Some initially succeeded because of the market provided by lumber companies. However, many farms in northern Price County failed to take hold in the cutover lands. As farm prices began to drop in the l920s, area farmers were forced to abandon their lands. The drought of 1931 and the mid-1930s escalated farm failure. Settlers became unable to cope with the growing tax burden, their markets vanished as lumber companies departed, and inadequate roads slowed the hauling of products to trade centers. By 1931, one in every six persons in the northern part of the county had requested public relief (Wallar 1986 (1): 2; Brown 1986 (4): 1; Goc 1989: 31).

Beginning in the late 1920s, the pulp and paper industry, which supported most of the logging in the area, began to consider forest management as an alternative to clear cutting. The 1927 Forest Crop Law, which taxed the land and the timber only at harvest, and the significant improvement of the fire prevention and protection system by the Wisconsin Conservation Commission beginning in the early 1930s, was intended to permit the development of selective cutting. However, by 1930 much of the area's land was cutover and burned over. Extensive fires along the Flambeau River Valley, which not only burned the timber but also scorched the earth, raged in northern Price County by the 1890s. Fifield was destroyed by fire in 1893, and Phillips burned in 1894. Most of the pulp and paper operators lacked the finances to restore and manage such lands. Without a market, large lumber mills in Park Falls, such as the Hines Mill, closed in the early 1930s (Goc 1989 :31, 168). In the late 1920s, the Forest Service began the acquisition of cutover lands in northern Wisconsin, including Price County by the early 1930s, to establish such a forest management program. Beginning in 1935, the Forest Service also initiated the development of the forest's recreational resources in part to bolster the service economy of the area.

Rapid improvement of the Wisconsin Conservation Commission's fire protection program began in the late 1920s. The Commission established its headquarters for Fire Protection District 6 at Park Falls in 1926. District 6 included Ashland, Price, and part of Taylor counties. In that year, this office began to establish fire protection improvements including fire towers, telephone lines, fire lanes, and fire equipment depots in the adjacent forests. For example, it erected the Fifield Fire Tower located between Fifield and the Riley Creek Guard Station in 1926. As part of its reforestation and watershed protection program, the Conservation Commission also began acquiring cutover lands to create the nearby Flambeau River State Forest in 1930. The Commission created a cooperative program with the counties to manage their reverted cutover lands. Price County started to enter its tax delinquent properties into the forest program in 1927 (Goodman 1939: 751-52; Brown 1986; Goc 1989: 168-69).

Area of Significance: Conservation

Development of the Conservation Movement
and Establishment of the National Forest Service

The Fifield Fire Lookout Tower property gains significance in the area of conservation within the more specific context of the Development of the Conservation Movement in the United States, and the Establishment of the

National Forest Service, which includes forest protection. Between 1932 and 1935, the Wisconsin Conservation Commission owned and operated several towers, including the Fifield tower, on what became Forest Service lands. By 1930, the Forest Service and Wisconsin Conservation Commission carried out a cooperative program of fire detection within and adjacent to the national forest lands as specified by the Clark-McNary Act of 1924. The property represents the establishment and operation of the conservation efforts of the Forest Service within its local administrative districts in the Park Falls District of the Chequamegon National Forest after 1935. The Park Falls Ranger District was established in 1928 as the Flambeau Purchase Unit. The unit was incorporated as a district into the Chequamegon National Forest when it was created in 1933 (USDA Forest Service, Nicolet National Forest 1933-95 [correspondence, Regional Forester to Conservation Commission, 2/7/1935, file: Laona Tower); USDA Forest Service, Chequamegon National Forest 1984-95 [data from Frank Fixmer and Don Ball]; Park Falls Herald 1932 [9/9: 1/1]; 1933 [7/7: 1/6; 10/13: 1/5; 11/10: 1/6]; 1934 [3/2: 1/3-4]; Goc 1989: 39; Ashland Daily Chronicle 1983: 4-5).

The National Forest Service had its origins in the nineteenth century American conservation movement. This movement traces its beginnings to the Romantic Movement, which appeared in literary and other artistic forms by the early nineteenth century. Writers such as Ralph Waldo Emerson and Henry David Thoreau eulogized nature, questioning the ethical basis of the emerging industrialized and urbanized world.

George Perkins Marsh's 1864 Man and Nature Or, Physical Geography as Modified by Human Action advanced a more specific and scientific discussion of the on-going exploitation of natural resources. Until the second and third decades of the twentieth century, the general public believed its forest resources to be inexhaustible. Particularly concerned with the ecology of forests and the consequences of deforestation, Marsh argued even by this early date that human activities did harm the environment. He warned that the clear cutting of forests led to severe fires and that denuded slopes permitted rapid runoff, soil erosion, and stream siltation. Becoming an international classic within a decade, the work tremendously influenced the growth of a favorable public climate toward the role of the federal government in forest conservation during last quarter of the century. Thus, scholars and scientists rather than Congress expressed initial concern for the preservation of future timber supplies. Much of the forward movement in forestry in the last quarter of the century remained in the area of public education about forestry concerns rather than the legislative arena (West 1992: 1-2; Nash 1967: 44-66, 84-95; 1990: 13-18; Huth 1957: 30-57, 193; Clepper 1971: 6, 14-15; Steen 1976: 8; Robbins 1985; 2).

Additional spokesmen for conservation called attention to the rapid forest destruction and impending timber exhaustion. In 1867, Increase Lapham prepared an equally significant report on the condition of Wisconsin forests. Authorized by a special conservation commission created by the legislature, his Report on the Disastrous Effect of the Destruction of Forest Trees Now Going on so Rapidly in the State of Wisconsin clearly stated the potential for serious environmental and economic consequences if lumbering continued uncontrolled in the state (Carstensen 1958: 6-9; Lapham and Knapp 1967 [1867]). Lapham went unheeded. The rising incidence of disastrous forest fires predicted by Lapham was soon confirmed by such destructive fires as the October, 1871 Peshtigo fire. This fire spread across northeastern Wisconsin burning 13 million acres and taking 1500 lives (West 1992: 3). In 1866, Joseph Wilson, then commissioner for the United States General Land Office predicted forest exhaustion in the United States within fifty years at the current rate of timber exploitation (Clepper 1971: 135).

The extensive forest fires, such as the one at Peshtigo, led many of the nation's public leaders to call for government action concerning American forest lands. In 1873, Franklin B. Hough, a scientist and physician, spoke at the 1873 meeting of the American Association for the Advancement of Science about the duty of governments to protect forests by regulating their use to halt timber exhaustion. In response to a request by the association, the United States Congress appointed Hough as the Commissioner of Forestry to prepare a study on the conditions of American forests in 1876. The findings of Hough's nearly four-volume study, produced between 1878 and 1884, contained much of the known data on the nation's forests. They confirmed the growing concerns over the rapid forest depletion and heightened public pressure for federal control of forests. Hough advocated the need for ownership of public forests maintained under forestry management in which new growth replaced harvested timber. The on-going study resulted in the creation of the Division of Forestry in the Department of Agriculture with Hough as its chief in 1881 (Huth 1957: 174; Clepper 1971: 17-19; Williams 1989: 277-78, 376-77, 400, 449-50; Kylie, Hieronyinus, and Hall 1937: 39; Steen 1976: 9, 15, 18; Robbins 1985; 3; Davis 1983 [1]: 297-98). Despite its formation, Congress failed to take measures against the devastation of timber lands. It did release lands in the Yosemite Valley and Mariposa Grove to California in 1864 and created the first national park, the Yellowstone, in 1872. However, the action was intended to secure the areas for public recreation and close them to settlement rather than ensure timber preservation (Robinson 1975: 154).

In 1886, Bernhard E. Fernow became the chief of the Division of Forestry. A Prussian professional forester, he was active in American forestry since his arrival in the United States in 1876. Without federally designated forest lands, this office served as a clearing house for information and statistics until 1891. From analysis of this data, Fernow became one of the first federal officials to recognize that the lumber industry did not practice forest conservation because it failed to yield a profit. The tax burden of timber land ownership with the attendant costs of long-term investments for forest renewal and the risk of timber loss through fire necessitated the liquidation of lands immediately after harvest (West 1992: 27-29; Williams 1989: 409-12; Davis 1983: [1]: 234; Robbins 1985: 7, 25; Clepper 1971: 23-28; Kylie, Hieronymus, and Hall 1937: 39-40).

Advocating government protection of the forests, Fernow and his colleagues in the American Forestry Association achieved a central piece of conservation legislation with the 1891 Forest Reserve Act. Passed as a rider to a bill revising land laws, the act gave the President authority to create forest reserves from the public domain but not through land purchase. However, Congress made no provision for the management or protection of these reserved lands. Within weeks, President Benjamin Harrison set aside the first forest reserve, the almost 1,240,000 acre Yellowstone Forest Reserve, later known as the Shoshone and Teton national forests, adjacent to Yellowstone National Park which was set aside in 1872. By the end of his term, President Harrison had ordered the withdrawal of 13 million acres for forest reserves. President Grover Cleveland added over 27 million acres before the close of his term in 1897. Permitting federal retention and administration of lands, this act represented a major departure from the current land policy of public land dispersal.

Because the Forest Reserve Act failed to define the purpose, it frequently barred potential users from their resources. Rising opposition to the rapid growth of the forest reserves between 1891 and 1897, by western mining and logging interests, led to the passage of an appropriations bill amendment known as the Forest Management Act or Organic Act. Although this bill was intended to halt the creation of forests by empowering

the president to revoke their establishment or diminish their area, McKinley eventually chose to retain the reserves. The act specifically excluded lands more valuable for agriculture or minerals from the reserves. The Secretary of the Agriculture clarified this policy in 1910 by excluding lands, which did not naturally produce trees from the forests, but including cutover lands more valuable for the production of trees. Importantly, the 1897 bill also defined the purpose of the 1891 act as watershed protection, fire prevention, and the provision of a timber source for the nation. This act thus authorized logging on the reserves. The 1897 act omitted such potential uses as livestock forage, recreation, and wildlife management.

The 1897 act gave congressional authority for the organization and management of federal forest reserves to the General Land Office in the Department of the Interior, in existence since 1849. The General Land Office administered the forest reserves by grouping them into eleven districts and appointing a superintendent for each district, a supervisor for each reserve, and rangers for work within the reserves. The Division of Forestry in the Department of Agriculture, which became the Bureau of Forestry in 1901, provided the technical expertise for their operation. The 1897 Organic Act remained the basis for forest management by the federal government until the passage of the Multiple Use-Sustained Yield Act of 1960. This act finally sanctioned the additional uses of the national forests, which had emerged since 1891 (Williams 1989: 414-16; Steen 1976: 103-45; West 1992: 30-32, 51; Clepper 1971: 6, 27-28, 102-34; Davis 1983 [1]; 106, 222; Robbins 1985: 7-8; Smith 1930; 20-22, 67; USDA 1915; Kylie, Hieronymus, and Hall 1937: 40).

Gifford Pinchot became the head of the Division of Forestry in 1898. Since the Department of the Interior relied increasingly on his division for the technical advice concerning the reserves, Pinchot was able to develop more efficient policies for their management. He recognized that the national reserves possessed many resources vital to the nation's industries. Each of these uses required their proper management to fill current and future needs of both the adjacent local economy and the nation. In his Use Book, Pinchot stated that (USDA 1915: 2):

> All land is to be devoted to its most productive use and not for the temporary benefit of individuals or companies...All the resources of the forest reserves are for use...under such restrictions as will insure the permanence of these resources.

Reflecting a utilitarian view of society, Pinchot's approach to forest management did not necessarily imply forest preservation but the achievement of continued forest production to enable stabilization of the lumber industry and maintenance of the most appropriate uses. Remaining a cornerstone of Forest Service policy, this view of forest use conflicted with more aesthetically oriented views of such conservationists as John Muir. Muir advocated preservation careful management of portions the nation's diminishing wilderness by the 1890s (Wolfe 1973 [1945): 268, 273, 276-77; Stanley 1992: 237, 246; Clepper and Meyer 1960: 83; Steiner 1970 [1933]: 40; Robinson 1975: 155; Steen 1976: 75). Pinchot's emerging policies received strong support from his close friend and fellow conservationist, Theodore Roosevelt, who entered the presidency in 1901 after the McKinley assassination.

Shortly after his arrival to the division in 1898, Pinchot developed "Circular Number 21" for public distribution. The circular offered technical advice through the Division of Forestry to owners of timber lands for the cost of expenses. The division developed forest management plans, which specified a method by which

the owner harvested his timber for profit but preserved the forest. These plans indicated minimum tree size for logging, specified the seed trees to promote reforestation, developed a system of timber cutting which retained a healthy forest, and produced a fire protection plan. Issued in 1899, Circular 22 provided a similar technical assistance program for tree planting. State agencies also received similar assistance from federal foresters. These programs became immensely popular among timber owners and served as early examples of cooperative forestry intended to promote proper forestry techniques. The Forest Service maintained the assistance program until 1909 when direct administration of the national forests engaged a majority of its resources. Between 1898 and 1909, it prepared plans covering eight million acres held primarily held in large tracts (Steen 1976: 54-56, 74; Robbins 1985: 13-14).

The Transfer Act of February 1, 1905 transferred the forest reserves from the General Land Office in the Department of the Interior to the Bureau of Forestry in the Department of Agriculture. The designation of the Bureau of Forestry as the United States Forest Service occurred on March 3, 1905. In 1907, the forest reserves were renamed national forests, indicating that their function had altered from one of land reservation to one of use. The new agency gained responsibility for the administration of 63 million acres in sixty forests, all located in the western United States. Additionally, in 1908, Congress directed the Forest Service to transfer to each state, which included national forests $.25 from each dollar collected for the sale or use of forest resources for disbursement to the affected counties. This payment compensated the local units of government for lost tax revenue. Forest expansion continued. By 1909, Roosevelt and Congress added over 147 million acres to the 1905 transfer acreage of 63 million acres. The creation of national forests by the president required congressional approval after 1907 (Nash 1968: 59; West 1992: 30-32, 37-39; Steen 1976: 69-103; Smith 1930: 27-34; Elliot 1977: 35; Pinkett 1970; Otis et al. 1986: 5, 40-45; Wirth 1980: 17, 43; Kylie, Hieronymus, and Hall 1937: 40; Ashland Daily Press 1983: 3; U.S. Department of Agriculture 1933: 1098-99; Davis 1983: 246, 799).

As the new head or Chief Forester of the Forest Service responsible to the Secretary of Agriculture, Gifford Pinchot established a decentralized structure to place personnel in each forest and provide them the authority to manage their charge. Pinchot's Use Book laid out the administrative structure and established the rules and regulations to guide management decisions in the field. The regional and local forest administration system established by the Department of Interior in 1897 and continued and elaborated by Pinchot in 1908, remains the basis of Forest Service management system to the present. To ensure effective operation of this decentralized organization, Pinchot divided the country into seven forest districts headed by a district Forester responsible to the Chief Forester of the Forest Service. The regional headquarters oversaw the inspection and review of individual forest management techniques and plans. The districts were subdivided into national forests, each headed by a forest supervisor, and forests were divided into districts supervised by district rangers. The larger districts, which became regions in 1930, played a central role in the supervision of Civilian Conservation Corps activities. The districts or regions guided policy and the forests and ranger districts executed forest protection, development, and improvements following the established guidelines (Pinkett 1970: 67; Steen 1976: 76-81; Smith 1930: 39, 75; West 1992: 39; USDA 1915: 13-19, 21; Davis 1983: 246).

At the first national Conservation Conference of Governors of 1908, Theodore Roosevelt stressed the need to coordinate the management of all natural resources, expressly soil, water, forest, and mineral resources with national demand to avoid wasteful exploitation. Importantly, the conference publicized these conservation

concerns to a nation-wide audience. At this early date, he advised the creation of a national resources plan and appointed a National Conservation Commission to investigate the condition of the nation's resources. The December, 1908 recommendations of the commission urged fire protection in the nation's forests, provisions to halt reckless cutting of timber and wasteful destruction of other natural resources, and the addition of national forest lands. Growing opposition to conservation halted further work by the commission. During the second decade of the century, primarily western timber and mining interests blocked funding and legislation for conservation in Congress. The Progressive Party, the source of major political support for conservation, had lost its influence in Congress (Clepper 1917: 39-47; Clepper and Meyer 1960; 5).

Because of Pinchot's conflict with Richard A. Ballinger, an official in the Department of the Interior, President Taft removed him from his position in January 1910 and appointed Henry S. Graves to head the Forest Service. The central issue in the Pinchot as well as the Forest Service conflict with the Department of Interior was and remained through the 1930s the administration of recreational activities in the national forests. Recreational use rose rapidly after 1910 as the government increased accessibility to and through the national forests. Both professional organizations and the public directed the government to create a parks bureau to administer recreation on federal lands. In response, Congress passed the Special Use Permit Act in 1915, which authorized the Secretary of Agriculture to issue permits for summer homes and other recreational buildings in the forest. And, in 1916, Congress provided recreational oversight for public lands by the creation of the National Park Service (Steen 1976: 113-22; West 1992: 51-54; Williams 1989: 456-58; Clepper 1971: 3; Davis 1983: 800).

The national forests were created from Lands located entirely in the public domain of the western states. To protect forested watersheds and meet the recreational needs of an expanding urban population in the East, influential political groups pressed the federal government to create forests in their states. Popular support for this movement also grew from a desire for government involvement in forest fire protection. However, since the East lacked significant areas of public domain, the creation of eastern forests could be achieved only through federal land purchase. Because the federal land policy had been one of land disposal rather than acquisition, the Constitution did not provide Congress explicit authority for purchase. Passed in March 1911 after a decade of unsuccessful attempts, the Weeks Act authorized federal land purchase at the upper headwaters of navigable streams.

The Weeks Act created the National Forest Reservation Commission to determine the locations of new forests and forest expansion. The National Forest Service advised the commission on the location of land purchases, and the Geological Survey examined the lands to confirm their location along the headwaters of navigable streams. The commission included secretaries of agriculture, interior, and war; two senators; and two congressmen. The first instance of federal funding of non-federal programs, the law also provided matching funds to create state forestry agencies who became involved in fire control programs. The 1922 General Exchange Act allowed the National Forest Service to trade federal lands within the forest boundaries for private and state lands to create a solid block of federal land ownership (Steen 1976: 122-31, 147; Robbins 1985: 50-84; West 1992: 41-43; Shands 1991: 8, 13-14; Kylie, Hieronymus, and Hall 1937: 40).

The Clarke-McNary Act of 1924 expanded the areas of forest purchase and improved the management of the national forests. The act permitted the acquisition of forest lands within the watersheds of navigable streams rather than just at their upper headwaters as specified under the Weeks Law of 1911. The broadening of areas

affected by the act resulted in the rapid creation of purchase units in Wisconsin, Michigan, Florida, and Louisiana. Because most of the commercial forests were privately owned, the act also established the principle of federal cooperative assistance to the states, which then affected private forest owners. The law authorized federal appropriations for cooperative, voluntary state programs fostered proper timber management and protection. The Forest Service, which administered the act, required that states organize an approved forestry agency, which guaranteed fire protection for all state and private lands to receive funding. The funding supported forest research and the study of the forest tax policy, fire control, farm forestry extension, the establishment of nurseries for production and distribution of forest planting stock in the federal-state cooperative program, and the enlargement of the national forest system. This approach permitted each state to establish the specifics of their own program including the formation of regulations for timber use.

Acts passed in the late 1920s further supported the activities specified in the Clark-McNary cooperative program. The McNary-Woodruff Act of 1928 authorized funds to purchase lands under the Clark-McNary and Weeks acts. The 1928 McSweeney-McNary Act secured additional support for a ten-year program of forest research and directed forest surveys to provided information on forest conditions. And, the Knutson-Vandenbery Act of 1930 allotted funds for planting on the national forests and cutover lands. Thus, by the late 1920s, Forest Service policies regarding multiple-use of the forest lands were based on its understanding of the available resources, the environmental circumstances, and local and national needs at any given time. The decentralized administrative structure permitted sensitivity to local conditions and needs (Smith 1930: 63, 90; Steen 1976: 173, 185-5; Davis 1983: 86; West 1992: 54; Shands 1991: 14; Owen 1983: 107; Kylie, Hieronymus, and Hall 1937: 40; Clepper and Meyer 1960: 10, 477; Robbins 1985: 85-103).

By the 1930s when much of the lumber industry faced bankruptcy, timber owners lacked the resources to engage in any timber harvesting method but the clear cutting of forests. This traditional method made no provisions for new forest growth, and further, it left slash, which dried and tremendously increased the potential for forest fires. Severely burned-over areas were not susceptible to natural forest regeneration. An alterative to the clear cutting of forests, sustained yield management required long-term ownership of lands to manage the replacement of the yield harvested with new growth. The threat of timber loss through forests fires and the cost of taxes levied annually both on the land and its timber discouraged long-term ownership of forests. Until 1930, few states had enacted legislation to protect the forests from fire, or created a tax structure taxing the value of the land but not the timber until its harvest yielded income. For these reasons, private companies removed the timber from their lands and either quickly liquidated their interests or rapidly abandoned their lands adding to the counties' tax delinquency. These practices produced the expansive cut-over regions in timber producing areas such as northern Wisconsin and Michigan and Minnesota (Clepper 1971: 146-47).

The federal government once again considered the deterioration of American natural resources just prior to the Roosevelt era. The Hoover Administration's 1930 Timber Conservation Board examined the causes of forest devastation by lumber companies. In early 1932, the board provided eighteen recommendations, which not only included the need for equitable land taxation and greater fire protection, but also for the expansion of public forests. It advocated the coordination of private and public timber supply to achieve a stable timber products market. Sustained yield now acquired a new meaning referring not only to the botanical balance of timber growth and yield but also to the maintenance of a market supply at the level of demand by withholding public timber when private resources proved adequate. When private reserves diminished, public forests

supplied the necessary timber as private forests were rejuvenated (Steen 1976: 224).

In 1932, a senate resolution presented by Senator Royal S. Copeland requested the Department of Agriculture to prepare a study of the state of American natural resources including timber supplies. It included the preparation of a coordinated federal-state program for forest utilization. The resulting Copeland Report or A National Plan for American Forestry, the most comprehensive survey of American forests to date, provided detailed recommendations to reverse the deterioration of American forests. The most significant points, which guided future action, directed a tremendous increase in the public ownership of forest lands which placed a larger forest area under federal regulation and called for more intensive management of federal and state forests. It also strongly encouraged states to establish legislation controlling forest devastation and developing appropriate forest management techniques in cooperation with the depressed lumber industry.

Forest regulation had remained a hotly debated issue since the Pinchot period. One group of conservationists including Pinchot and later Robert Marshall, who assisted with the preparation of the Copeland report, favored public ownership and regulation of forests. They found private forestry interests even with subsidy and regulation incapable of rejuvenating American forests. The opposing group, including the Forest Service, favored a policy of federal-state cooperation to encourage and support state, local, and private forest management. They recognized that resistance to conservation measures stemmed from the financial risks of long term management, and strove to reduce these uncertainties. Although the Senate never embodied the study's recommendations in a bill, Franklin Roosevelt, who probably received the Copeland Report by January 1933, incorporated many of its recommendations into his recovery program. The report indicated that sufficient work existed in the National Forests to employ 135,000 men for one year at a cost of $160,000,000. This recommendation at once provided a means of work relief and a means to reverse the deterioration of the nation's natural resources (Ermentrout 1982: 4-5; Clepper 1971: 146-47; Clepper and Meyer 1960: 11, 463, 467).

Beginning in 1933, the rapid creation of work relief programs to cope with rising unemployment required the creation of new agencies and vastly expanded existing ones to plan and guide the work. To avoid the disaster which might result from hastily conceived measures intended to relieve wide-spread distress, appraise the effectiveness of the programs, and work toward the creation of permanent government programs and policies, the administration stressed research and planning. In 1933, Roosevelt created the National Planning Board to oversee regional studies and long-term planning of the development of natural resources as well as many other issues concerning the economy. The Wisconsin land use studies of the early 1930s were a by-product of this research. In 1934, Roosevelt replaced this board with a permanent agency known as the National Resources Board, later known as the National Resources Committee. This strong commitment to government planning led the Forest Service to produce numerous master plans for conservation and use of natural resources and recreation in the 1930s. It also resulted in the enactment of legislation relating to such issues as soil erosion, flood control, and reduction of wasteful use of national resources in the mid to late 1930s (Owen 1983: 86-89, 91-97, 146-49).

An early piece of New Deal legislation, the National Industrial Recovery Act passed June 16, 1933, allowed the implementation of many of the recommendations made by Hoover's Timber Conservation Board and Roosevelt's National Planning Board. Intended to speed economic recovery from the Depression, the act

established the National Recovery Administration, which approved codes of fair competition written by representatives of each industry. Becoming effective June 1, 1934, the Code of Fair Competition for Lumber and Timber Products Industry, or the Lumber Code, contained ten articles covering uniform labor, production controls, prices, and conservation measures. Article X established the minimum standards for forest management on private lands including the harvesting of timber under permanent sustained-yield production. Although found unconstitutional in May 1935, members of the lumber industry gradually adopted many parts of Article X of the Lumber Code.

Despite this voluntary shift toward conservative logging practices, members of the Roosevelt administration sought more rapid compliance with the guidelines first set by the Lumber Code. Under the guidance of Chief Forester Ferdinand Silcox, the Forest Service pursued a program, which rapidly increased federal, and state forest ownership, resulted in sustained-yield management of these lands through the preparation of management plans, cooperated with private timber owners to achieve forest protection, a favorable land tax structure, and timber management through state programs. By the 1930s, the Forest Service set an example for the states and private concerns by operating its 150 national forests in 39 states under a sustained-yield management program. Since their creation in 1907, the management of the national forest had been intended to benefit the quality of economic and social life of the local communities. During the Depression Era, the work to resuscitate and manage the forests significantly bolstered local economies (Shands 1991: 3; Clepper 1971: 148-50; Clepper and Meyer 1960: 13, 70; Steen 1976: 224-29; Cohen 1980: 89; Smith 1930: 69).

The Acquisition and Administration of the Wisconsin National Forests

The Development of the Land

The Chequamegon National Forest was created from the cutover forests left by the 19th and early 20th century logging era. Logging in the northern part of the forest began in the 1870s adjacent to the rivers to facilitate the movement of the logs. By the 1860s, the Lake States were becoming the major source of lumber in the nation as settlement of the Prairies and Upper Midwest urban areas increased demand for lumber products. By the 1880s, the scale and thoroughness of the method of exploitation had increased immeasurably. New methods of timber exploitation based on new forms of transportation such as the railroad, and cutting and milling improved by the use of steel and steam, permitted the cutting of large areas as opposed to the removal of individual trees. Such exploitation capabilities led to uncontrolled overproduction, fierce competition, and unstable markets. This technology rapidly accelerated lumber production in the Lake States between 1869 and 1889 from 3.5 million to 10 million board feet per year.

In the 1870s and 1880s, railroads advanced into northern Wisconsin allowing logging operations to penetrate beyond the timber-depleted waterways, stimulating the growth of permanent communities. Lines such as the Minneapolis, St. Paul and Sault St. Marie across northern Wisconsin, the Wisconsin Valley Railroad in the 1870s and 1880s, and the Wisconsin Central in the 1880s carried lumber, pulpwood, and minerals. Wisconsin led the nation in the production of lumber and forest products between 1890 and 1899. Although Wisconsin

lumber production peaked in 1892, Wisconsin produced more lumber than any other state between 1899 and 1904. Until the turn of the century, the logging industry cut almost exclusively white pine. After 1900, the output of white pine decreased rapidly as sources became depleted. As the supply of pine declined, the industry began to harvest hemlock and cedar as well as hardwoods such as basswood, elm, and ash. The cutting of hemlock-hardwoods increased steadily after 1895 until 1920, but not sufficiently to reach the level of pine production in the previous decade (Lusignon 1986 (5): 15; Fay 1986 (6): 1, 6; (7): 1; Elliot 1977 [1989]: 35; Williams 1989: 193-95, 200; Mitchell and LeMay 1952: 10; Krog 1986: 11-13).

The technology of the late nineteenth century made clear cutting of timber the most profitable approach to harvesting. Since logging companies received low prices for harvested timber from the lumber companies, they could not afford to remove the small timber much less the slash, which eventually covered broad areas of cutover lands. Widespread forest fires feeding on the dried slash and timber followed the logging. Destroying mature timber, young growth, and soil humus, the fires left broad expanses of soils "biologically impoverished" (Shands 1991:15). But, until the 1920s when legislation and funding provided the Wisconsin Conservation Commission the means to create an effective system, fire protection remained extremely limited. By 1923, fires and uncontrolled cutting left less then two million acres of commercially valuable timber from the almost thirty million acres of forests which had covered the state in the mid-nineteenth century.

Although Wisconsin remained among the five largest lumber producers between 1904 and 1909, the state dropped to fourteenth place by 1929. The number of lumber mills in the state dropped precipitously from 215 in 1929 to about 100 in 1932. Nation-wide, production of lumber fell from 39 to 13.5 billion board feet between 1929 and 1932. The Lakes States were among the hardest hit in the early Depression. However, the manufacture of wood pulp and paper and the consumption of pulpwood in Wisconsin rose steadily in the early 1900s. The pulp and paper industry first became established in the early 1870s in the Fox River Valley. By 1930, Wisconsin ranked second only to Maine in the consumption of pulpwood which was produced primarily from extensive stands of spruce. While the demand for lumber had generally fallen since 1900 because of the introduction of new materials, the consumption of some wood products, especially paper, rose rapidly. But, Wisconsin forests were unable to supply the demand for both pulpwood and saw logs in the state by 1930. Forest growth did not replace the timber harvested (Wisconsin Conservation Department 1955: 3; Committee on Land Use and Forestry 1932: 38-41, 48-51; Wisconsin Interim Committee on Forestry and Public Lands 1929: 7-8; Clepper and Meyer 1960: 461).

In 1929, the Wisconsin Interim Committee on Forestry and Public Lands estimated a sufficient stand of lumber and pulpwood to supply only twelve years without forest replacement. And, these stands were often located on scattered forest remnants making them uneconomical to log. Although logging had removed much of the standing timber, it was the logging followed by fires across cutover land and the retardation of natural reforestation which destroyed such large areas of forest (Wisconsin Committee on Land Use and Forestry 1932: 17-18; Wisconsin Interim Committee on Forestry and Public Lands 1929: 8-10; Becker 1952; Shands 1991: 6-7; Krog 1986: 14).

Many, including the College of Agriculture of the University of Wisconsin, assumed that the Wisconsin cutover lands were adaptable to farming as were many of the heavily logged lands in eastern states. Striving to rapidly liquidate their lands to avoid carrying costs, lumber companies established land companies in the 1890s and

early 20th century to sell the cutover lands at low prices to potential farmers and land speculators. Since the vast areas of inexpensive western prairies had disappeared from the market, agricultural settlers were attracted to the less fertile regions such as the cutover. The gaudy and sentimental advertising of the land companies and speculators highlighted the possibilities of land ownership and minimized the intractable surroundings. Advertising their lands widely, speculators did sell considerable acreage to settlers. However, both lumber companies and their land companies and speculators were unable to sell large tracts and soon abandoned them to avoid further losses.

Attempts to farm the cutover failed more often than not because the land was sub-marginal for agriculture, the climate proved too severe, farm to market roads were inadequate, and demand for agricultural goods markedly declined after World War I. In the 1920s, the creation of farms halted and land companies failed. A 1932 study by the Wisconsin Committee on Land Use and Forestry considered only about 22% of the land in 27 northern counties as good agricultural land, and 37.2% could sustain only forests. The land economic survey completed in the early 1930s in Bayfield County to the north found only 35 to 40% of the lands susceptible to agriculture. The unregulated sale of cutover lands to settlers resulted in the placement of many on sub-marginal lands. Periods of rising agricultural prices coupled with the existence of part-time work in the lumber industry to supplement low farm incomes enabled farmers to sustain themselves on these lands.

As agricultural prices dropped during the deepening agricultural depression of the 1920s and the part-time employment evaporated as the lumber companies departed, farmers were unable to maintain themselves and pay property taxes. The rapidly rising acreage of unsold cutover coupled with increasing farm abandonment resulted in a quickly escalating acreage of tax delinquent properties. The declining number of landholders increased the tax burden to maintain government services, particularly roads and schools. The unit cost of such services rose as abandonment created scattered settlements. In 1927, nearly 25% of the land in the northern 17 Wisconsin counties had become tax delinquent. The growing rate of unemployment, high tax delinquency, the declining timber supply which did not satisfy the growing market for pulpwood, the potential for recreational development of northern Wisconsin, and active lobbying by northern Wisconsin communities finally led the state to enact legislation to encourage protection and restoration of the forests (Mitchell and LeMay 1952; 10-11; Wisconsin Committee on Land Use and Forestry 1932; 30-32; Kane 1957: 91-95; Carstensen 1958: 21, 91, 99; Rhinelander Daily News 1983: 29; Chittenden and Irion 1911: 7, 13-14; Clepper 1971: 256).

The task of rejuvenating the northern Wisconsin forests began with the passage of a Wisconsin constitutional amendment in 1927, which authorized the state to participate in and expend funds for forestry. In 1927, Wisconsin voters also approved an amendment to the tax clause of the state constitution, the Forest Crop Law, which permitted a taxation method differentiating between forest and non-forest property. It distinguished between land as capital and timber as income, deferring tax on the timber until it was sold at ten percent of the stumpage value. Tax on the land was limited to ten cents per acre to which the state contributed a like acreage share. Since tax delinquent property reverted to the county in Wisconsin, these lands effectively created a new public domain administered by the counties (Brown 1986 (4): 3; West 1992: 3; Wisconsin Committee on Land Use and Forestry 1932: 84-95). Further legislation passed in 1927 permitted counties, municipalities, and school boards to create, manage, and gain income from their own forests. The 1929 modifications to an earlier bill allowed counties to participate in rural zoning distinguishing agricultural, forest, and recreational lands and effectively barring agricultural settlement of lands unsuitable for cropping. The economic land surveys of the

early 1930s, which classified the lands, provided the data to permit such zoning. Such legislation provided a favorable climate for investment in forest lands (Becker 1952; Mitchell and LeMay 1952: 11; Wisconsin Committee on Land Use and Forestry 1932: 31-32; Carstensen 1958: 107-108).

Creation of the Wisconsin National Forests

By the late 1920s, many northern Wisconsin communities strongly favored forest ownership by the National Forest Service. Its arrival meant not only restoration and protection of vast acreage so that the resources once again provided income for the local area, but direct employment opportunities and the building of roads. The local governments would receive 25% of the gross receipts from the sale of resources in the forests, and an additional 10% would support road construction. Initially low because of the condition of the forests, these federal funds were intended to replace tax revenues lost through extensive federal land ownership.

Section 6 of the Weeks Act of 1911 and the Clarke-McNary Act of 1924 provided the authority for the Forest Service land purchases. The presence of the Eastern Continental Divide within the proposed areas of the forest clearly qualified the lands for acquisition under the 1924 act. In the 1930s, the acquisition process for the National Forest Service included examination by the Geological Survey to confirm compliance of the tract with the specifications of the Weeks Act, appraisal of purchase areas by the Forest Service, recommendations for purchase by the Secretary of Agriculture to the National Forest Reservation Commission, approval of the purchase by the later, and survey, title work, and purchase contracts by the Forest Service.

Prior to the Forest Service land purchase, the Weeks Act specified that the affected state pass enabling legislation permitting the purchase and stating any conditions relating to the size of the parcel or the approval process of the selected lands. The Wisconsin legislature approved the land acquisition in 1925, but limited the area to 100,000 acres. The legislature increased this area to 500,000 acres in 1927 and to two million acres in 1933. It further required that selected purchase units, the areas within which the lands were to be bought, receive approval by the governor, commissioners of public lands, the conservation commissioner, and the affected counties (Smith 1930: 90-91; Wisconsin Interim Committee on Forestry and Public Lands 1929: 33-34; Park Falls Herald 1933 [1/22: 1/4]; 1936 [12/25: 1/6, 7/5]; Shands 1992: 16-17).

Selected in 1927, the proposed purchase units received state approval by May 1928. Most affected counties except Forest County, which eventually accepted the proposal, strongly supported the sale of the land to the Forest Service. Although local county leadership had, 25 years before, strongly advocated the defeat of state forest conservation legislation, some counties now lobbied for Forest Service presence within their borders. The National Forest Reservation Commission accepted the boundaries of the Oneida, Flambeau, and Moquah units on December 12, 1928 to facilitate timber production, the establishment and demonstration of the most appropriate forest management techniques, and the stabilization of water flow. Acquisition crews began to examine and purchase lands immediately after final approval of these units. Acquired from the Thunder Lake Lumber Company of Rhinelander, the Oneida Purchase Unit became the first purchase within the Nicolet National Forest in December 1928. The Forest Service located its headquarters for purchasing activities at Park Falls in 1929. By 1930, these purchases equaled 115,606 acres. Land acquisition remained a major focus of Forest Service activities during the 1930s. The Commission approved the creation of the Oconto,

Chequamegon, and Mondeaux or Medford units, and a 68,000-acre addition to the Oneida Purchase Unit on March 10, 1932. About November 8, 1932, the Oneida Unit was designated the Argonne Unit.

National forests were not formerly created until sufficient land purchase within them, at least 50 percent of the area, allowed their efficient management. The Forest Service unofficially designated the Nicolet in November 1932, and President Hoover signed legislation creating the Nicolet National Forest from the Flambeau, Moquah, and Argonne units on March 2, 1933 (USDA Forest Service 1933). The forest's headquarters remained in Park Falls. Rapid land purchase supported by the Economic Conservation Work Act [2] acquisition program resulted in the separate administration of the National Forest lands in Wisconsin beginning about August 1, 1933. Nicolet West included the Moquah, Chequamegon, and Flambeau units, while Nicolet East contained the Oconto, Argonne, and Mondeaux units. On November 13, 1933, the Oconto and Mondeaux units were formally added to the Nicolet. On the same day, President Roosevelt established two new forests. The Nicolet, formerly Nicolet East, included the Argonne Unit in Vilas, Oneida, and Forest counties; the Mondeaux Unit in Taylor County; and the Oconto Unit in Oconto and Langlade counties. The newly created supervisor's office was located in Rhinelander. The Chequamegon, formerly Nicolet West, contained the Flambeau Unit in Price County; the Chequamegon Unit in Sawyer and Ashland counties; and the Moquah units in Bayfield County. Its supervisor's office remained at Park Falls.

By the spring of 1934, the Forest Service formed acquisition crews to examine lands for purchase. The Forest Service acquired 104,462 acres in the Nicolet National Forest by 1934. The National Forest Reservation Commission approved extensions to the Nicolet in Vilas, Forest, Florence, and Oconto counties on March 26, 1934. The Mondeaux Unit was transferred from the Nicolet to Chequamegon on October 27, 1934 by executive order. However, the Forest Service did not affect the transfer of the Mondeaux or formally add the additional area approved in March 26, 1934 to the Nicolet until December 31, 1936. And, the Peshtigo Unit was formally placed in the Nicolet on March 26, 1934. The Forest Service also added lands acquired under the Farm Security Administration to the Nicolet in 1938. Between 1933 and 1943, the forest almost quadrupled in size: the Chequamegon reached 802, 718 acres (USDA Forest Service, Region 9 1937: 34; Taylor County Star News 1934 [6/28: 1/6]; Rhinelander Daily New 1931 [2/28: 1/2]; Iron River Pioneer 1930 [5/22: 1/4]; 1937 [1/14: 1/4]; Sawyer County Record 1933 [7/14: 1/3]; Park Falls Herald 1933 [1/22: 1/4]; USDA Forest Service 1929-1943 [1933, 1943]; USDA Forest Service, Nicolet National Forest 1984-95 [memoranda dating 1938-39]; Elliot 1977 [1989]: 37-38).

The Forest Service administrated the forests in the Lake States area from District One headquartered at Missoula, Montana until 1913. The agency then transferred this responsibility to District Two headquartered at Denver. As more eastern forests were created under the Weeks Act of 1911 and the Clarke-McNary Act of 1924, the Forest Service formed additional regions, then designated as districts. On January 1, 1929, the agency established District 9, the North Central District. Temporary district headquarters were located at the Forest Products Laboratory in Madison until March 20, 1929 when permanent offices were placed in Milwaukee, Wisconsin.

The North Central District, which became the North Central Region or Region 9 in 1930 initially, contained

[2] The Economic Conservation Work Act created in 1933 established the Civilian Conservation Corps

only Michigan, Minnesota, and Wisconsin. The forests in Minnesota then included the Superior National Forest established from public domain in 1908 and the Chippewa National Forest created in 1928 from the former Minnesota National Forest formed in 1908. The Michigan and Marquette National Forests created in 1908 and the Huron National Forest established in 1928 composed the forests in Michigan, Region 9 grew with the creation of new national forests in the early 1930s including the Hiawatha and Ottawa national forests in Michigan established in 1931, and the Cheguamegon and Nicolet national forests of Wisconsin created in 1933. The Forest Service gradually added states to the North Central Region, including Illinois in 1930, Missouri in 1934, and Indiana, Iowa, North Dakota, and Ohio in 1935. In 1942, the agency combined Region 9 with Region 7, the Eastern Region which roughly encompassed the eastern half of the United States (Smith 1930: 56, 112; USDA Forest Service, Region 9 1937: 33; USDA Forest Service 1929-43; Otis et al. 1986: 55-56; United States Department of Agriculture 1933: [1]: 570).

The introduction of improvements in the Wisconsin forests to facilitate transportation, fire suppression, and reforestation in the purchase units in 1930 necessitated the development of an administrative system across the two forests. Reforestation on the cutover began by 1930, resulting in the planting of 520 acres in the Moquah Unit. Early improvements included roads and fire lanes, fire towers, telephone lines, tool caches, and buildings to store fire fighting equipment and tools relating to forest development. Somewhat later, the CCC and other Depression Era relief workers erected many of although not all of the administrative sites and guard stations beginning in 1934. By this date, each of the ranger district offices directly supervised the work of the CCC camps within its district. The CCC frequently used the facilities of the ranger stations for repair work and CCC enrollees worked in the ranger station and guard station offices (e.g., Vilas County News-Review 1936 [3/5: 1/2]; Pot O'Gold 1937 [1/28: 1]; Iron River Pioneer 1930 [5/22: 1/4]; Elliot 1977 [1989]: 38; Park Falls Herald 1937 [1/1:1/1]).

The area administrated by the Chequamegon National Forest remained associated with the Nicolet National Forest until 1933. The National Forest Reservation Commission created the Flambeau and Moquah purchase units on December 12, 1928. In 1929, Park Falls was chosen as the headquarters for national forest purchasing activities. In November 1930, the Drummond and Delta purchase units were added to the Moquah Unit. The commission approved the creation of the Chequamegon Unit, later the Moose River and Mineral Lake units, and the Mondeaux units on March 10, 1932. On March 2, 1933, President Hoover signed legislation creating the Nicolet National Forest, which then included the Flambeau and Moquah units (USDA Forest Service 1933). By August 1933, the area known as Nicolet West, including the Moquah, Chequamegon, and Flambeau units, became administratively separated from Nicolet East. On November 13, 1933, the president officially designated these units as the Chequamegon National Forest whose supervisor's office was located at Park Falls in rented quarters, first above the Superior District Power Company and in November, 1933 in the city hall. The forest supervisor gained offices with the post office in the Federal Building after its completion in late 1935.

The Forest Service established the ranger districts in the Chequamegon by March 1934. They included the Flambeau District in Price County, Moquah District primarily in Bayfield County, Mineral Lake District in Ashland and Sawyer counties, and Moose River District in Sawyer and Bayfield counties. The Mondeaux Unit in Taylor County was first placed in the Nicolet National Forest in 1933 and transferred to the Chequamegon on October 27, 1934 by executive order. The names of the districts were altered in 1939 so that the Moquah

became the Washburn Ranger District, the Mineral Lake became the Glidden Ranger District, Moose River became the Hayward Ranger District, Flambeau became the Park Falls Ranger District, and Mondeaux became the Medford Ranger District. During 1929 and into the early 1930s, the Forest Service focused on land acquisition in the boundaries approved by the Chequamegon and engaged in few improvements until 1931-1932 (Park Falls Herald 1932 [9/9: 1/1]; i933 [7/7: 1/6; 10/13: 1/5; 11/10: 1/6]; 1934 [3/2:1/3-4]; 1935 [4/5: 1/3-4; 8/23: 1/6]; Ashland Daily Chronicle 1983: 4-5; Washburn Times 1939 [5/25: 5/1-2]; Goc 1989: 39; USDA Forest Service, Chequamegon National Forest 1984-95 [data from Frank Fixmer and Don Ball]).

Officially established as a district in 1933 the Park Falls or Flambeau ranger district, which operated the Riley Creek Guard Station initially, rented quarters at the Park Falls City Hall. The Forest Service purchased a site along STH 13 near the Omaha Railroad Depot in 1934 and planned to construct a warehouse toward the end of that year. Workers supported by the Emergency Relief Appropriations Act funds may have constructed a ranger district office at this downtown site in the fall of 1935. After several years of planning, the agency finally purchased a seven to eight acre lot at the corner of 8th Street South and STH 13 in 1937 to build the remainder of its administrative site. The Forest Service sold the administrative site to the State of Wisconsin for occupation by the Department of Natural Resources in ca. 1987-1988 (Park Falls Herald 1933 [9/22: 1/1]; 1934 [6/22: 1/3-4; 11/2: 1/4]; 1935 [8/23: 1/2]; 1937 [4/2: 1/1; 5/7: 1/5; 8/20: 1/3]; USDA Forest Service, Chequamegon National Forest 1984-95; 1966-80).

Forest Protection

The Fifield Fire Lookout Tower illustrates the development and operation of the cooperative fire protection program by the Wisconsin Conservation Commission who erected the tower under a special use permit in 1932 (see end note 1), and the Forest Service who acquired the land as part of a larger tract in 1931 (USDA Forest Service, Chequamegon National Forest Service 1928-95 [entry, 4/9/31)). The tower played a central role in the fire protection program. By placing lookouts above the forest level, the fire tower enabled the operation of the fire detection and suppression system prior to the advent of aircraft detection. By providing such protection, this fire detection system led to the significant reduction of destructive forest fires. This program enabled the survival of forests reforested by natural means or by a planting program such as the one carried out by the Civilian Conservation Corps in the 1930s.

Forest Fires in the Northern Wisconsin Forests

Forest Service purchases of cutover and forested lands in the late 1920s and 1930s and increasing support of a forest program by the Wisconsin legislature, which included land purchase, eventually enabled the federal and state governments to jointly introduce a forest protection program. Protection of existing resources was critical to the rebuilding of forests across northern Wisconsin during this period. Forest protection through the mid-1930s focused primarily on fire prevention, detection, and suppression activities. Such physical reminders as the fire towers and guard stations as well as the regenerated forests continue to represent these efforts. Although this section emphasizes this phase of forest protection, this activity also involved, for example, the control of insect infestation and disease. The Forest Service and Wisconsin Conservation Commission, now the

Department of Natural Resources, increasingly became involved in the control of diseases and other forest improvement programs through the 1930s (Wisconsin Interim Committee on Forestry and Public Lands 1929: 23; Smith 1930: 80).

Forest fires not only depleted the existing forest but killed seedlings, scarred the bark of standing trees permitting the spread of disease, and in some cases scorched the earth, burning the humus and degrading the soils. Denuded watersheds considerably increased soil erosion. These processes substantially delayed forest rejuvenation and produced timber of low commercial quality. Early pine logging in northern Wisconsin cut the best pine, often leaving smaller pines and less valuable species. This approach to logging did permit natural reforestation, Large-scale logging of the late 19th century clear-cut all the timber leaving a heavy liter of slash. The slash ignited in extremely dry weather or in the presence of sparks from mechanical equipment such as railroad locomotives and machinery used in logging. Fires beginning in clear-cut areas burned thousands of acres yearly (Goodman 1930: 1073; Butcher 1935; Shands 1991: 6-7; Wilson 1982: 19).

Several studies of the amount of area burned by fires annually, by Bough and Charles Sergeant in 1880, indicated the extent of destruction. However, further studies concerning the extent of fires, their causes, or the manner in which they spread were not attempted until the early 1900s. Serious conflagrations in southwest Washington in 1902-1903, the Adirondack fire of 1903, and Idaho in 1910, which coincided with a growing concern over the diminishing timber supplies, spurred the Forest Service and private logging and lumber concerns to examine the manner in which forest fires spread. By the second decade, it had become clear to these agencies that one means of preserving a portion of the rapidly disappearing timber supply was the elimination of forest fires. By 1910, the fire destroyed approximately 10 million acres of national forest each year, consuming the annual growth of timber nation-wide (Clepper and Meyer 1960: 447-49).

In northern Wisconsin, large-scale fires in logging areas began as early as the mid-1860s. In 1864, scattered fires within the St. Croix, Black, Chippewa, Wisconsin, and Wolf watershed consumed considerable timber. The Peshtigo fire of 1871 burned over 1.28 million acres and claimed between 1200 and 1500 lives in northeast Wisconsin. The 1881 fires in Michigan consumed one million acres and 138 deaths occurred. Much of Marshfield burned in 1887, and 64,000 acres were consumed in Barron County in 1891. In 1894, the Phillips fire burned more than 100,000 acres in Price County and resulted in 300 deaths, and the Hinckley fire in Minnesota burned millions of acres, killed 418, and destroyed twelve communities. Devastating fire occurred in the Lakes States as well as western states in 1910. The Baudette, Minnesota fire destroyed 300,000 acres. The 1918 fire, which destroyed the mill town of Cloquet, burned a broad area and claimed 400 lives. In each of the following years, 1880, 1897, 1908, 1909, 1923, and 1925, over 100,000 acres burned in Wisconsin (Clepper and Meyer 1960: 449; Wisconsin Interim Committee on Forestry and Public Lands 1929: 10-11; Mitchell and LeMay 1952: 12; USDA Forest Service, Region 9 1937: 46; Chittenden and Irion 1911: 6).

The notion that timber supplies were finite, that fire was a threat to these supplies, and that fire could be controlled became accepted only slowly. Nor, was the cessation of forest fires which involved controlling many factors easily or quickly achieved. Settlers of forested areas had used fire to clear the undergrowth from their crop and pasture lands and burn larger trees removed by cutting. Such use of fire was then a well-accepted means by which settlement progressed. And, since the supply of timber appeared inexhaustible in the 19th century, there was no reason to suppress fires unless they threatened settlements. Lumbermen regarded fires in

regions undergoing heavy logging as inevitable and found the risks involved in reforestation too great to consider. A 1911 study of northern Wisconsin forests lands noted the complete disregard by settlers for the state's fire laws (Clepper and Meyer 1960: 448; Mitchell and LeMay 1952: 11; Chittenden and Irion 1911: 50; Steen 1976; 173-74; Wilson 1982: 18).

Early Forest Conservation Efforts in Wisconsin

As elsewhere, forest conservation in Wisconsin began slowly and suffered numerous obstacles. In 1867, a state commission chaired by I.A. Lapham examined the inroads on Wisconsin forests through the clearing of land. It expressed concern for the depletion of northern forests and advocated the regulation of timber harvest and support of tree culture, which went mostly unheeded. After the 1871 Peshtigo fire, the legislature prohibited the burning of timber between August and November. In 1885, the legislature gave the towns the authority to enforce the law. Although not enforced, it did recognize the need to establish a closed season for burning.

Following the Phillips fire of 1894, the state enacted and revised forestry laws in 1895 and 1897. The two acts established the chief clerk of the land office as the state forest warden. It enabled the warden to appoint town fire wardens with the authority to prohibit burning during the dangerously dry periods. Burning without a permit during dry season was also prohibited. However, the law limited expenditures for time spent enforcing the law and combating fires to $100 in each town. It provided for the appointment of a commission to design a forest protection and utilization program. This commission hired forester Filbert Roth to assess the condition of the forests. Roth reported that only seventeen million board feet of the original 130 million board feet of pine remained in the late 1890s. He estimated that at least 40 percent of the forest lands were unsuited to agriculture. Based on his study, the committee recommended the creation of a state forestry department, the organized protection of forest property by the state, and the creation of forest reserves. None of these directives received action, and the 1895-97 legislation had little effect on forest protection efforts. In the same year, the supporters of the settlement of north lands persuaded the legislature to appropriate funds for a pamphlet discussing farming opportunities in this area.

About five other states had attempted to create a forestry department as early as the mid-1880s. However, these departments were generally short-lived. At the turn of the century, these agencies requested Forest Service assistance in the survey of their forest resources and the preparation of forest fire detection and suppression legislation. As in Wisconsin, fire protection became the main focus of the small number of state forestry programs then in existence in Minnesota, New Jersey, New York, and Pennsylvania, for example (Shands 1991: 11; Wisconsin Interim Committee on Forestry and Public Lands 1929: 11-12; Robbins 1985: 35-37, 83; Clepper 1971: 48, 58, 82-83; Mitchell and LeMay 1952: 15-16; Carstensen 1958: 7, 21-22, 28).

The Creation of the Wisconsin Forestry Board: 1903-05

In 1903, the Wisconsin legislature created a five man Forestry Commission, provided for the employment of a superintendent of forests, and established a state forest reserve. The five-person commission included the attorney general, secretary of state, state treasurer, and two members appointed by the governor. In 1904, this

body appointed the first state forester, then the superintendent of forests, Ernest N, Griffith. The forest reserve was to contain state lands in four northern counties selected from trust fund lands, which were lands, held in public ownership from statehood to support education. The commission later reserved 40,000 acres in Vilas County to serve as the nucleus of the reserve. The law also earmarked revenue from the sale of timber on state lands to purchase additional lands. The state forester was also to select forest reserve lands after examining the trust fund lands to determine those most suited to forestry. The law also directed the state superintendent as state fire warden to select town fire wardens who posted fire warnings, enforced fire laws, reported fires, and organized local protection efforts including the hiring of fire fighting crews. The fire wardens still remained limited to a budget of $100 per annum and were not provided with equipment. These limitations and general public apathy toward fire protection restricted their effectiveness,

The 1905 act replaced the commission with the State Board of Forestry. The board included the president of the State University, the dean of the College of Agriculture, the director of the Geological Survey, the state attorney general, and one citizen appointed by the governor. The board was to employ a technically trained forester and an assistant. This individual appointed town fire wardens where needed. State reserves were now to be selected from state lands north of township 33. Those lands found more suited to purposes other than forestry were sold by the commissioner of public lands who followed the recommendations of the state forester and Board of Forestry. The reserve fund included not only income from the sale of timber and other resources on state lands but funds from the sale of state lands north of township 33 north and from timber trespass. Excluded income included monies gained from school lands. The forest reserve fund supported purchase and improvement of the reserves (Trenk 1939: 1; Fixmer 1982: n.p.; Wisconsin Interim Committee on Forestry and Public Lands 1929: 12; Wilson 1982: 13-15; Carstensen 1958: 33-35; Mitchell and LeMay 1952: 17, 22).

The Extension of the 1903 Wisconsin Act: 1905-1912

Voters approved a constitutional amendment, which permitted the state to appropriate funds for forestry as a work of internal improvement in 1910. The 1911 legislature reenacted the forestry legislation of 1905 and raised the annual appropriation for forestry to $35,000. This affirmation of the forestry program allowed the state to expand its 1903 40,000 acre reserves by large purchases of forest lands. Between 1906 and 1915, the Board of Forestry under Griffith's leadership attempted to ensure the state's timber supply by expanding its forest reserves rather than encouraging private forestry. In 1906 and again in 1912, the federal government awarded lands to the state for forestry purposes. The 1907 legislature also allocated monies from the sale of state lands and from the general fund to purchase delinquent tax lands from the counties. In 1909, the legislature permitted purchase of lands from any owner. The state defined the boundaries of its reserves in 1913. They encompassed 1,250,000 acres in Vilas, Oneida, Forest, Price, and Iron counties. Acquisition of reserve lands within this area continued between 1913 and 1915 so that reserve lands totaled 365,000 acres located north of township 33 in 1915. Many of these lands were cutover lands (Wisconsin Interim Committee on Forestry and Public Lands 1929: 12-13; Moody 1911: 595; Mitchell and LeMay 1952: 18-19; Wisconsin Conservation Commission 1955: 4; Wilson 1982: 1).

Although State Forester Griffith had appointed 300 fire wardens in 33 counties by 1908, their effectiveness in fire protection remained limited. The towns lacked equipment and adequate funds and organization to deal with

the large fires of 1908 and 1910. The 1,435 fires of 1908 destroyed 1,209,432 acres, and those of 1910 burned 802,832 acres. The 1911 legislature aggravated the situation by removing the appointment of town fire wardens from the duties of the state forester and designating the town chairman and road superintendent for this role. Since few town officials were concerned with fire suppression and the state forester lost authority in the situation, forest protection temporarily became almost non-existent (Mitchell and LeMay 1952: 22; Wilson 1982: 22-23).

The national forests suffered major fires on its lands in 1910. As a result, the agency introduced the use of fire towers and considerably augmented its own fire protection improvements including additional forest trails and telephones lines and fire patrols during fire seasons. The 1911 Weeks Act supported the expansion of federal forest protection by the creation of federal forests along the headwaters of navigable streams. Most importantly, section 2 of the act for the first time offered direct federal funding to non-federal recipients. It provided partial funding to state forestry agencies creating forest fire control programs protecting state and private lands along the watersheds of navigable streams. The state fire protection program was to meet minimum standards set by the Forest Service. The funds were to support fire patrols only, the state was to prepare a plan of cooperation for approval by the Forest Service, and the funded activity was to undergo inspection. Appropriations to each state were limited to $10,000, and the states were to spend an equal amount on forest protection. Six states including Wisconsin received these funds in 1911-1912. Through the Weeks Act, the Forest Service also sought cooperation from the lumber industry by exchanging limited regulation of cutting for federal support for state fire protection (Clepper and Meyer 1960: 442-47, 450; Clepper 1971: 89; Steen 1976: 129-30, 175; Robbins 1985: 50-55; Spring and Fish 1981: 10).

The 1908 and 1910 conflagrations in Wisconsin and federal support under the Weeks Act, stimulated significant improvement of the state forestry program in 1911. Despite the hindrance of the fire suppression program by the 1911 legislature, the State Board of Forestry shifted its emphasis from the creation of forest reserves to improving these reserves, advancing fire protection organization, and achieving additional protective legislation.

Improvements achieved in 1911 included the organization of a fire patrol system and fire protection improvements and the initiation of a reforestation program with the establishment of nurseries at Trout Lake in Vilas County in 1911 and at Tomahawk in 1912. Through a 1911 cooperative agreement under the Weeks Act, the federal government provided the salaries of one-half of the 24 rangers and nine seasonal patrolmen. One ranger was assigned the fire surveillance of one to two townships. Each ranger had the authority to hire a temporary fire-fighting crew. Town and special fire wardens continued to provide their own equipment, shovels and axes and occasionally a horse-drawn plow to build fire lanes. In 1913, the state forester organized twelve forest protection districts in the vicinity of the state reserves. The 1911-12 improvements facilitated access into the reserves and permitted communication about fire. They included the opening of 180 miles of former railroad grades to create roads and trails, the construction of 40 miles of fire lanes, the erection of 50 miles of telephone lines, the building of four ranger stations, and the establishment of the state forester's headquarters at Trout Lake in 1911. Logging railroads continued to access isolated areas. In 1912, four 55 foot steel frame fire towers, connected by telephone to the headquarters at Trout Lake and to the ranger stations, also assisted protection efforts. These improvements also included hazard reduction by the controlled burning of pine slash. In 1915, fire suppression improvements had been augmented to the following totals: 37 buildings

to house rangers and equipment, four fire towers, 250 miles of road, 140 miles of fire lines, and 86 miles of telephone lines (Mitchell and LeMay 1952: 19, 22-23; Moody 1911: 595-98; Fixmer 1982: n.p.; LeMay 1985: 30-31; Wilson 1982: 40-42, 49).

The Movement Against Forest Conservation in Wisconsin: 1912-1924

Contemporary interpretation of the state constitution, which prohibited state expenditures on internal improvements, viewed much of the forestry program as internal improvement. The amendment to the constitution, which permitted the state to engage in forestry, was approved by general referendum in 1910. As the Progressive Party lost its influence in state politics, opponents in northern counties to the rising amount of land placed in the reserves and their removal from the local tax base, as well as the expense entailed in maintaining the state forest lands became more vocal. The center of opposition to the forestry program occurred in Oneida and Vilas counties, the location of state reserves. In 1913, the Rhinelander newspapers, the Rhinelander News and The New North, attested to the abundance of farm crops in the county. Representing advocates of agriculture such as land speculators lumber companies, the papers argued that the state was purchasing lands to grow crops requiring one hundred years to mature. They further represented that the curtailment of agricultural development would devastate the area's economy (Wilson 1982: 52). These groups sought to limit or reduce the amount of lands placed in the forest reserves. As a consequence, the legislature of 1913 directed the state to reimburse the counties for tax revenues lost by state ownership of forest lands. The same legislature created an interim committee to examine the fertility of the soils and land use within the forest reserves in Forest, Iron, Oneida, Price, and Vilas counties. The action prohibited the purchase of further reserve lands pending the recommendations of the committee. The 1915 Supreme Court decision superseded the committee's report (Wilson 1982: 34-35, 52; Wisconsin Interim Committee on Forestry and Public Lands 1929: 13-14; Carstensen 1958: 48, 52-53).

Legal problems and other objections to the expanding land acquisition of forestry program led to a Supreme Court test case examining the constitutionality of the 1910 amendment. The 1915 Supreme Court decision found that forestry was a work of internal improvement prohibited by the constitution and that the 1910 forestry amendment was invalid because both houses of legislature had failed to follow proper procedures in its adoption. The state had contracted a debt from land purchases for reserves exceeding the constitutional limit. Also, lands not designated specifically for forestry purposes belonged to the Constitutional Trust Fund. Intended to support education rather than reserve land purchases, these funds and lands purchased with them were placed within the jurisdiction of the Commissioners of Public Lands.

In this 1915 ruling, the state Supreme Court also ruled that no further state funds be spent for forestry. Until the debt for the lands was repaid to the trust funds, the reserves remained under control of the Commissioners of Public Lands. Removing the reserves from the jurisdiction of the Board of Forestry, this decision reduced the board's functions to fire protection. Because fire protection on state lands was interpreted as the exercise of the state's police powers by protecting its citizens and property from destruction by fire, expenditures in this area remained valid. The legislature abolished the Board of Forestry in 1915. Consolidating the board's functions with other departments, the act created the State Conservation Commission guided by a commission of three full-time, paid members one of which was a technically trained forester (Wisconsin Conservation Commission

1955: 4; Wisconsin Interim Committee on Forestry and Public Lands 1929: 14-16; Wilson 1982: 54-55, 59; Mitchell and LeMay 1952: 19-20; Wisconsin Commercial Forestry Conference 1928: 116).

Following the Supreme Court decision of 1915, the work of the Conservation Commission became limited to fire protection and a small number of reforestation projects on the former reserve lands. The Commission lacked funds and authority to protect private lands. The 1915-1916 fire protection plan created seven districts covering 1,700,000 acres. A ranger supervised each district. The budget to support fire fighting crews under town fire wardens remained limited. During fire season, the state manned four primary and four auxiliary fire towers and maintained a patrol along railroad tracks and in forests adjacent to resorts and settlements. Under authority of the Weeks Act, the Forest Service directed the state to assign five seasonal fire patrolmen to districts outside state lands in 1919. Covering broad areas, the patrolmen primarily played an organizational role. The commission created protection districts for non-state lands or outside protection districts in the sandy area of Bayfield and Douglas counties in 1920. Cooperation with private land owners secured additional protection. Lumber companies, for example the Rust Owen Lumber Company and the Cornell Wood Products Company, coordinated protection of their lands in Bayfield and Douglas counties with the state. This action led, by 1921, to the construction and manning of seven fire towers by the two companies. These companies appointed their own fire wardens and provided their employees for fire fighting on their own or adjacent property (Wisconsin Interim Committee on Forestry and Public Lands 1929: 16; Mitchell 1939: 748; Trenk 1939: n.p.; LeMay 1985: 31-33; Mitchell and LeMay 1952: 22-24; Wisconsin Commercial Forestry Conference 1928: 112-13).

The Passage of the Wisconsin Forestry Amendment and Other Forestry Legislation: 1924-1932

Despite increasing fire protection measures in the national forests and through its cooperative programs with the states under the Weeks Act, Forest Service studies found that the area annually burned by fires nation-wide rose dramatically from 8.5 million acres during the second decade of the century to 23.7 million during the 1920s. Forest fires burned 53 million acres in 1931. This rise occurred in part because as lumber prices became depressed, logging companies reduced costs by leaving greater amounts of litter. The increasing use of machinery rather than animal power permitted them to clear cut the forest rather than following the traditional practice of cutting only mature and marketable trees. The hauling engines and locomotives produced sparks, which ignited the dried litter.

By the 1920s, the federal government made increasing progress in fire suppression through its cooperative program with the states. Twenty-nine states possessed forestry departments, which employed trained foresters and passed legislation providing for fire suppression by 1924. Broadening the applicability of the Weeks Act, the Clarke-McNary Act of 1924 lent additional support to this progress. The 1924 act greatly enlarged the potential areas of Forest Service purchase and cooperative fire protection by removing the restriction of the location of acquisition and fire protection to navigable streams.

In Wisconsin, the Forest Service established the nucleus of many of its purchase units in northern Wisconsin by the early 1930s under the Weeks Act. However, although the Forest Service manned fire towers as early as 1932, the construction of almost all of its fire protection and suppression facilities and the development of its

fire plans had just begun in 1932. Prior to 1933, the State of Wisconsin program played a greater role in fire protection. Under the Clarke-McNary Act, the Forest Service specified that to receive funds states organize an approved forestry agency, which guaranteed fire protection for all state and private lands. The act provided support for forest research including fire control (Clepper and Meyer 1960: 212, 452-54, 481-82; Clepper 1971: 89; Steen 1976: 189; Park Falls Herald 1932 [3/25: 1/5); USDA 1933 [3]: 1072; Davis 1983 [2]: 685).
Receiving support between 1911 and 1928, the State of Wisconsin gained a federal appropriation of 21,880 dollars for cooperative fire protection under these acts in 1928. Additionally, the state enlisted the aid of its counties, which shared in one-half the cost of fire suppression. Thus, federal, state, and county levels of government shared the responsibility for the fire protection program (Wisconsin Interim Committee on Forestry and Public Lands 1929: 33; Wisconsin Commercial Forestry Conference 1928: 116; Clepper and Meyer 1960: 96).

During the decade following the invalidation of the 1915 Wisconsin forestry amendment, the attitude toward forestry and fire protection altered dramatically in Wisconsin. In this period, land values for northern cutover had risen and collapsed. Only six percent of this land was ever cultivated. Many of these cutover farms failed, and their owners lost their lands. Many lumber concerns had left the state. Of eleven million acres potential lands, tax delinquent acres reached one million acres in the seventeen northern counties by 1921 and 2.5 million acres by 1925. However, having invested considerable sums in its industrial operations, the Wisconsin pulp and paper industry sought the development of continuous supplies of wood pulp in the state. As forest production gained support with soaring tax delinquency, Wisconsin voters overwhelmingly approved the 1924 forestry amendment first introduced in 1921. This amendment permitted the state to appropriate monies up to a specified amount to acquire, preserve, and develop forest lands in the state, to create state forest reserves, and to engage in the forest fire protection. In a clarifying action, the state supreme court supported the validity of this amendment. Despite this action, the state did not appropriate tax monies for forestry until 1930 when the Conservation Commission received $298,798 for forest acquisition, development, and protection (Wisconsin Conservation Commission 1928-40 [1928-29]: 8; [1937-38): 1).

With the assurance of proper legislative action, funding, and knowledge of the northern forests gathered over the last decade, the Commission finally proceeded to create permanent state forests in the 1931-32 biennium. By 1932, it defined a forest area around nuclei of state-owned lands and began purchasing contiguous holdings to create the first four forest areas: the Northern State Forest in Vilas County first created in 1925, Brule River State Forest in Douglas County founded in 1932, American Legion State Forest in Oneida County organized in 1929, and Flambeau River State Forest in Sawyer County established in 1930. The Commission's objective was to acquire and maintain one million acres of forest lands positioned adjacent to transportation facilities to move the products of these lands to the wood-using industries (Wisconsin Conservation Commission 1928- 40 [1928-29]: 8; [1931-32]: 17-20; 1955: 4, 21; Fixmer 1982: n.p.; Wisconsin Interim Committee on Forestry and Public Lands 1929: 16-17; Mitchell and LeMay 1952: 20; Carstensen 1958: 94-97).

A series of forestry-related acts encouraging private forestry and legislation supporting state forestry also followed the retirement of the debt to the trust fund in 1923 and the passage of the 1924 amendment. The severe, uncontrolled fires of 1925 continued to stimulate action on behalf of forestry at the state level. In 1923, the fire protection districts appear to have been reformed into six districts covering parts of Douglas, Bayfield, Burnett, Washington, Ashland, Iron, Vilas, Price, Forest, Florence, and Marinette counties. The 1925 fire

permit system required a written permit to set a fire in a protection district when snow cover was absent. With support from the governor, the Commission established a new fire protection program in the same year. A state appropriation of $25,000 to the Commission financed the costs of fire detection, law enforcement, fire fighting equipment, and fire suppression. The towns remained responsible for the appointment of a special fire warden who engaged in suppression activities under the direction of the state protection district rangers. But, now the state provided fifty percent of the funding for this position.

The state again reorganized the Conservation Commission in 1927 under a non-salaried commission of six appointed members, three from the northern counties and three from the southern counties. The commission hired the director who administrated its divisions. The Division of Forest Protection oversaw the fire protection program. Between 1927 and 1930, the state significantly increased fire protection improvements and the purchase of fire equipment and strengthened the organization of the districts. A state appropriation of 6 million dollars in 1930 greatly furthered this goal. In 1927, the state expanded fire protection districts from the six in 1923 to eleven, adding Lincoln, Oneida, Jackson, and Monroe counties and protecting a total of 13.5 million acres. Fire protection headquarters were erected and equipped in eight of the districts by 1928. Late in 1931, the Commission again reorganized the eleven protection districts, which now covered 13.6 million acres. The ranger continued to head the district which each encompassed between 800,000 to 1,500,000 acres. Done in cooperation with the county boards, the Commission expanded its force of fire fighters by appointing 21 to 40 men in each district to serve as emergency fire wardens and leaders of local fire fighting units. The Commission also combined the district into protection areas guided by an area warden. Sixty-six American Legion posts cooperated with the districts by helping to augment the fire fighting units. These cooperating groups also assisted in raising the public consciousness about fire prevention.

The fire tower was the focus of the detection system. The state with the assistance of the Forest Service strove to make all areas of the protection districts visible from its system of fire towers. Fifty-four fire towers stood by the end of 1927. By the close of 1929, the state fire detection system included 89 active fire towers, and most open towers were enclosed. In this year, for example, the state erected 12 new towers, replaced two, and cooperatively owned six with private concerns. The commission designed new standard ladder and stair towers in ca. 1929 and again in the early 1930s. Between 1929 and 1932, the Commission erected twenty-nine 68 to 100 foot steel towers, rebuilt 13, strengthened 31 towers, and constructed 13 tower cabins to accommodate the tower lookouts. The communication network between the towers was completed, connecting by telephone all towers with fire protection headquarters and the headquarters with the area fire warden. A total of 400 miles of telephone line were installed by 1927, and 1,141 miles of state telephone lines facilitated communication by 1932. Additionally, 342 miles of fire break and 1020 miles of road improvements greatly facilitate fire suppression efforts (LeMay 1985: 32-33; Mitchell and LeMay 1952: 20, 26-28, 35; Wisconsin Conservation Commission 1928-44 [1928-29]: 38; [1931-32]: 10-13, 110; [1937-38]: 25; Wilson 1982: 62; Wisconsin Commercial Forestry Conference 1928: 116-17; Iron River Pioneer 1932 [2/11: 1/1; 2/18: 1/1; 2/25: 1/1]; Sawyer County Record 1932 [2/25: 1/3]; Park Falls Herald 1932 [2/26: 1/6]; Hansen 1995).

In late 1932 prior to the beginning of the New Deal, a special session of the Wisconsin legislature funneled 500,000 dollars of its eight million dollar unemployment relief appropriation to the Wisconsin Conservation Commission. These funds remained available until fully expended for the purposes of this act in Chapter 29, Section 2, laws of the Special Session of the 1929 Legislature. The monies supported fire suppression in and

development of fire protection facilities in the forest protection districts. Some portion of the funding for this program may have come from the Reconstruction Finance Corporation (RFC) established in 1932. Although this fund notably provided loans for self-liquidating projects of private concerns, the passage of the Emergency Relief and Construction Act in the same year permitted the federal government to lend small amounts to the states and municipalities for unemployment relief. The Clarke-McNary Act also likely contributed monies to at least the fire protection portion of this work (U.S. WPA 1935-42 [6/38-6/39]: 131; Robbins 1985: 139; Wisconsin Conservation Commission 1928-42 [1931-33]: 55).

The act directed the Commission to determine the necessary projects in consultation with the interim committee on cutover lands and tax problems of northern Wisconsin created in 1931. The selection of projects was based on the Commission's reconnaissance of the forest protection districts conducted by the rangers, wardens, and sub-rangers as early as October 1931. It chose projects requiring large of amounts of labor rather than expensive equipment or materials. To employ a maximum number of workers, the Commission formed work crews which it rotated every ten to twelve days. Because the program served those unemployed living near the project areas, the Commission constructed only a small number of temporary work camps. The Wisconsin National Guard provided much of the equipment necessary to run these camps (Robbins 1985: 139; Wisconsin Conservation Commission 1928-42 [1931-33]: 15-16, 55-57; Immell 1933: 1).

The appropriation became available in February 1932. Work began by the middle of February and continued through the end of the year. During this period, the Commission spent $464,221.08 and employed 12,790 workers. It allocated 85.5% of the expended monies, for the support of labor. Completed projects, which were closely supervised by the Commission, included the construction of 1,400 miles of fire roads and fire lanes and the erection of telephone lines, state ranger headquarters and substations, fire towers, and warehouses. In 1932, the Commission developed and carried out simultaneously 416 projects in thirty counties across the forest protection districts. As recommended by the Commission's final report (Immell 1933: 3), the state continued this relief program under the Conservation Commission in 1933. The 1933 program completed projects similar to those accomplished in 1932 (Wisconsin Conservation Commission 1928-42 [1931-33]: 55, 57; Immell 1933: 2-3; Sawyer County Record 1933 [4/6: 1/7]; Forest Republican 1933 (3/30: 1/1]; The Bee 1932 [12/8: 1/3]; Iron River Pioneer 1932 [2/11: 1/1; 2/18: 1/1]; Park Falls Herald 1933 [1/27: 1/4]).

It is likely, but not directly verified, that the funding employed to support the labor and materials used to erect the Fifield Fire Lookout Tower, erected in May, 1932, came at least in part from this appropriation. However, this relationship is an inferential one.

Most of Wisconsin's forests were in private ownership. One major investor of cutover land, the pulp and paper mills sought a permanent supply of raw materials. The state strove to stimulate private rehabilitation of such lands through legislation. The forest protection legislation ensured the future survival of forests for such investors. The 1927 Forest Crop Law attempted to make the investment in forest lands more affordable. The law substantially reduced taxes on private forest lands by taxing the land at ten cents per acre separately from its product, the timber which was taxed according to its value at harvest. In 1929, this law was also applied to county forests. Marinette County established the first county forest in 1930. By 1937, 25 counties owned and managed 1.6 million acres of forest lands. The Commission provided the services of a forester for development and improvement of such lands. Finally, the 1929 Wisconsin zoning law permitted the counties to regulate land

use according to forest, recreational, and agricultural lands. This law prevented the establishment of farms on soils not suited to agriculture, attempting to curb the continued growth of tax delinquency. An area which strongly opposed the forestry program in the early twentieth century, Oneida County now became the first county in the nation to enact a rural zoning law in 1933 (Fixmer 1982: n.p.; Wilson 1982: 52; Wisconsin Interim Committee on Forestry and Public Lands 1929: 17, 23, 29, 44; USDA 1933 (2]: 1193; Wisconsin Conservation Commission 1928-40 [1928-29]: 9; Carstensen 1958: 107; Clepper 1971: 256, 260-61).

State and Federal Cooperation in Fire Detection and Suppression during the Depression Era: 1933-43

Despite state and federal efforts to organize a fire control program and introduce necessary improvements in Wisconsin in the late 1920s, the long drought between 1929 and 1933 resulted in a large number of forest fires in these years. Between 1927 and 1933, this number rose annually in Wisconsin. In 1930, a single fire, aerially the largest recorded fire identified in the state, burned 120,000 acres in central Wisconsin. Still a chronic problem in fire control in the early 1930s, the absence of adequate roads prevented crews from reaching the heart of the fire. Despite the large amounts of New Deal relief labor available for fire detection and suppression, devastating fires continued. A total of 3659 fires burned 259,041 acres with an average of 71 acres per fire in 1933. Such fires as those occurring near Tipler, Hiles, and Nelma destroyed many acres and buildings. Although the number and size of fires in Wisconsin declined considerably in 1935, the Iron River fire burned 26,862 acres and a fire along the Minnesota-Wisconsin state line destroyed 28,590 acres in Wisconsin in 1936. As the dry years ended and the Depression Era labor was able to effect significant fire protection improvements and promptly respond to the fires in the national forests and state protection districts, their number declined each year beginning in 1937. Indicating the effectiveness of the fire fighting crews, the percentage of fires held to less than eleven acres rose markedly from 32.5% in 1931, to 81% in 1934, and to 97% in 1937 (Clepper and Meyer 1960: 481-83; Wisconsin Conservation Commission 1928-44 [1931-32]: 15-16; [1933-34]: 13-15; [1935-36]: 33-34; [1937-38]: 18-19; Rhinelander Daily News 1983: 8; USDA Forest Service, Region 9 1937: 46; Mitchell 1939: 750).

By 1934, the Conservation Commission placed 12 million acres in part or all of 34 counties under intensive fire protection. With the Forest Service land purchases, the Conservation Commission reduced the number of protection districts from eleven to ten. It retained the organization of the protection districts headed by a forest ranger and organized into four protection areas directed by a supervisor. The state divided each district into sub-districts with an associated ranger station and subdivided the district into patrol areas assigned to a patrolman or fire warden. District No. 1 headquartered at Brule, District No. 7 at Hayward, District No. 6 at Park Falls, and District No. 4 at Antigo included towers later transferred to the National Forest Service. The Conservation Commission purchased a former iron works at Tomahawk and moved the fire protection headquarters from Madison to this location in 1934. This building served as a shop to develop, construct, and repair equipment and functioned as a supply depot for fire equipment (Trenk 1939: 16-17; Mitchell and LeMay 1952: 29).

Although the states had very limited funds at the onset of the Depression, the relief agencies – especially the Civilian Conservation Corps but also the Works Progress Administration (WPA), state relief labor, and other Depression Era relief programs – enabled the Forest Service to pursue its cooperative fire protection work

under the Clark-McNary Act on state and federal lands. In fact, the chief focus of the CCC was fire protection and suppression (Robbins 1985: 148-149; LeMay 1985: 33). With many of Wisconsin's conservation laws in place, a recently reorganized state conservation commission, identification of numerous needs in its protection program, and the Forest Service itself acquiring tax delinquent lands in the state, Wisconsin stood in a good position to put the relief agencies to work.

In addition to the funding state programs, the 1924 Clark-McNary Act permitted and encouraged federal-state cooperation by participation in a joint fire protection program. The Conservation Commission and Forest Service refined the fire detection system. The development of fire protection facilities was a main priority on newly acquired Forest Service Purchase units. Although many towers already stood on Forest Service land by 1933, the agency added to the number of fire towers, the center of the detection system. In some instances, the state erected towers on Forest Service land and the Forest Service constructed the associated cabins and outbuildings, which accommodated the fire lookouts. The agencies connected the tower sites by many miles of telephone line to state ranger stations and protection headquarters or guard stations and Forest Service ranger district offices respectively. They continued to improve the road system across the forest to reach the fires and built firebreaks. These agencies engaged in hazard reduction, removing slash and eliminating snags along the road and trails and inspecting locomotives. They established permanent campsites to contain fire hazards introduced by recreation activities (Wisconsin Conservation Commission 1928-44 [1935-37]: 125; [1933-35]: 17-19, 33; Trenk 1939: 15; LeMay 1985: 33).

The Commission increased the number of state towers from 108 in 1932 when it erected 29 towers to 119 in 1934. Almost all of these towers were the 60 to 100 foot, steel structures. By 1935, they were positioned at intervals of 10 to 15 miles, enabling complete surveillance of the protection districts. The Commission equipped the tower with an alidade to determine the direction of the fire from the tower. Relief labor had by 1936 also connected the towers with a total of 2,000 miles of telephone lines to stations where fire suppression equipment was stored. By 1937 and 1938, the state began to improve its existing system by adding or replacing fourteen towers, erecting sixteen tower cabins, and engaging in other fire protection work. By 1939, the Conservation Commission manned 123 towers (Wisconsin Conservation Commission 1928-44 [1931-33]: 110; [1933-35]: 17-19, 33; [1935-37]: 29-32, 128-29; [1937-39]: 113; [1939-41]: 24; Choinski 1935 [revised 1937, 1939]; Sawyer County Record 1932 [2/25: 1/3]).

Covering a comparatively small area, the Forest Service erected fewer fire towers than the state. The Forest Service constructed eleven towers on its lands in 1933 and erected telephone lines to connect them to the ranger stations (Park Falls Herald 1933 [12/7: 1/1-2]). As late as 1937, the Forest Service operated a total of 16 primary towers and fifteen dwellings and garages at the tower sites on the Nicolet and maintains the same number on the Chequamegon. Two additional secondary towers also served the Chequamegon. All together, the agency operated 38 known towers. Supplementing its towers, the Forest Service used flight detection for fires on a limited basis by 1936 (USDA Forest Service, Chequamegon-Nicolet National Forests 1984-95; USDA Forest Service, Region 9 1937). Within the new national forests, essential protective facilities and equipment and protective organization on the Washburn and Park Falls districts of the Chequamegon National Forest existed by 1933. Similar facilities for the Hayward, Glidden, and Medford districts of the Chequamegon and the Peshtigo Ranger District of the Nicolet National Forest were probably constructed by 1934 (USDA Forest Service, Chequamegon National Forest 1933-95a [Harmon, CCC Forestry, 8/14/1933]; Elliot 1977

[1989]: 38-39).

The state and federal as well as the local fire fighting crews coordinated fire suppression. According to a general agreement enacted in 1934, the Conservation Commission suppressed fires outside the national forest boundaries while the Forest Service responded to fires on lands within its purchase units whether federal or private (Wisconsin DNR, Forest Protection Headquarters 1931-73 [correspondence, 3/9/34]). At this time, the Forest Service gained ownership of and manned most of the state towers on its lands. However, state and federal towers cooperated in sighting and cross-shooting fires and frequently disregarded boundaries in instances of severe fires (Park Falls Herald 1935 [5/10: 1/4]). The state and federal CCC and WPA crews as well as the local town units provided the fire suppression force in the 1930s. Nation-wide, the CCC devoted 6,273,220 man-hours in fighting forest fires between 1933 and 1942, perhaps their most noted task. By 1942, loss from forest fires declined to less than 17% of the average annual loss in 1933 on all national forests lands. Much of this decline may be attributed to the cooperating state and federal agencies and the CCC, WPA, and other Depression Era labor forces (Clepper 1971: 257-58).

Fire suppression aimed at the detection of the fire as soon as possible and the confinement of the fire to as small an area as possible. Each Forest Service Ranger District and Conservation Commission District prepared a fire plan, which assigned a fire area to each CCC camp or other fire fighting crew. The CCC fought a majority of the fires on the Wisconsin national forests and in many of the adjacent state forests during the Depression Era. The superintendent at the CCC camps under the authority of the state or federal district ranger, were immediately responsible for the training of tower lookouts and crews under their authority. Reporting to the CCC superintendent, the fire foremen remained in charge of each 15 to 20-man CCC fire fighting crew. Communication about ongoing fires occurred by telephones, which connected each camp to a ranger district office and fire dispatcher either at the ranger district or a federal guard station. Each camp office also possessed a fire map of the district and fire area to ensure the selection of a proper route to the fire. The camp maintained a truck and fire fighting equipment in a 60-man fire-fighting tool cache at the entrance to the camp. Additional tool storage occurred at the ranger district stations, the guard station warehouses or the state sub-districts, and outlying caches (Bangsbery 1936 [fire plan]); Wisconsin DNR Fire Protection 1931-73 [General Instructions to Towermen], 1943; Park Falls Herald 1933 [6/30:
1/4]; Smith 1930: 82; Owen 1983: 132).

The towers remained the center of the fire detection system through the 1940s. Aermotor Company of Chicago was a common supplier of prefabricated towers to both the Wisconsin Conservation Commission and the Forest Service. Typically, such agencies produced the initial tower designs and specifications, which were then followed by the manufacturing company. These companies supplied all parts of the tower, the materials necessary for its construction, and instruction and plans for assembly. The purchaser remained responsible for assembling the parts with an assembly crew of a foreman and four or five men. The towers were erected by raising the first section of the corner posts with a gin pole and tackle. The corner posts were attached to the anchor rods set piers whose tops had to be perfectly level with one another to prevent a twist in the tower. This step required the services of an engineer. The tower assembly moved from the footings upward horizontal section by horizontal section beginning with the corner posts and including the corresponding section of the ladder. Pieces were hoisted in place with a hand line while standing on scaffolding placed on the erected struts. Each parcel of parts were marked with a part number which keyed the piece to a loading list and tower

blueprints (Wisconsin DNR, Fire Protection Headquarters 1931-73 [correspondence with Aermotor, 1932-37; tower specifications for Wisconsin DNR and USDA Forest Service, 1936, 1937]; Kresek 1984: 11; Aermotor Company n.d.: 2-5, 10, 34-36; see also Cohen 1980: 102; Kylie and Hall 1937: 271-73; Paccagnella 1995; The Scotsman 1937 [5/27:1]).

The tower lookout, often a CCC enrollee or later a seasonal employee who was thoroughly familiar with the surrounding landmarks, was responsible for fire detection. The state and federal tower lookouts were housed at the nearby CCC camps or the adjacent cabins and federal lookouts were occasionally accommodated at the guard stations. The tower cabin facilities usually included a privy, combination garage and woodshed, and well. The lookouts manned the towers during fire season, usually from the melting of snow in May into September, during day light hours. Fire season and length of daily assignments in the tower varied considerably according the level of dryness. By the end of 1937, Region Nine built 39 fire danger stations with equipment to measure relative humidity, wind velocity, temperature, precipitation, and the moisture content of forest fuel. The computation of fire danger permitted the Forest Service to determine the need for tower occupation, length of daily vigilance, the direction-identified fires would spread, and the proper number of fire patrols along railroad tracks and roads. Secondary fire towers were used primarily during period of low visibility. Flown as early as 1934 over the Nicolet and Chequamegon during these periods, airplanes more commonly supplemented tower observation by 1936 (USDA Forest Service, Regional 9 1937: 48-50; Bangsbery 1936; Kylie, Hieronymus, and Hall 1937: 66-67; Park Falls Herald 1937 [2/19: 1/4]).

The tower lookouts detected fires by watching for "smokes" with the unaided eye. They calculated the azimuth direction of the smoke from the tower using an alidade, essentially an eyepiece for sighting fires, which rotated over a stationary compass. Resting on a tower table, this assembly sat over a fire map showing a ten-mile radius centered on the tower. By 1937, the Forest Service equipped federal fire towers with Osborne Fire Finders, simply one version of the alidade. The lookout also gauged the wind velocity in the area by examining adjacent trees, described the smoke's color to determine the type of fuel and condition of the fire, and estimated the size and the distance of the fire by associating it with adjacent landmarks.

If in a federal tower, the lookout reported the fire to a control tower which then secured a cross reading from the control tower or a tower closer to the fire and notified the dispatcher of the two azimuth readings and location by legal description. The dispatcher, often located at a guard station, notified the federal CCC camp located in the area of the fire. Information concerning the approximate location and also the best route to the fire and the number of men necessary to suppress the fire was also included. This information was relayed to the truck driver and fire foreman who selected the crew. The dispatcher maintained contact with the lookouts to ascertain the progress of the fire and the need for additional assistance. The state lookouts communicated with the ranger district or sub-district station which in turn notified the nearest CCC camp, WPA crew, or local fire fighting unit. Communication by telephone remained in effect until limited use of the short wave radio began. The short wave radio was not sufficiently developed and the appropriate frequencies were unavailable to Forest Service until 1938 (Bangsbery 1936; LeMay 1985: 34; Wa Wa Ta 1935 [10/25: 16]; Camp Riley Rag 1936 [July: 4]; Kylie, Hieronymus, and Hall 1937: 6-71; Mitchell and LeMay 1952: 31-32; Iron River Pioneer 1934 [5/3: 1/1]; Overman 1995).

The fire fighting crew suppressed the fire by surrounding it with a trench excavated to mineral soil, using water

when available, and felling all trees and snags within 300 feet of the fire. Their equipment included trucks and trailers to transport tractors, fire plows, pumps, hose, water tanks, and smaller equipment such as back pack pumps, shovels, axes, hoes, mattocks, cross-cut saws, scythes, cant hooks, fire rakes, back fire torches, and pails. During the 1930s, the fire suppression headquarters at Tomahawk designed and constructed improved fire equipment including fire plows and several varieties of trailers (Mitchell 1939: 748; Wisconsin Conservation Commission 1928-44 [1931-32]: 13-14, 111; Goodman 1939; 752; Mitchell and LeMay 1952: 34-35; Schultz 1995; Sawyer County Record 1933 [4/6: 1/7]).

Because of the number of fires, which burned outside the protection districts in 1936, the Conservation Commission added a cooperative form of extensive fire protection to these areas in 1937. These outside districts were located in parts of 34 counties. Although they contained large tracts of forests, these districts also included considerable agricultural lands. Four rangers were employed in fire prevention education and advising local wardens in fire suppression. The state provided twelve fire truck units for use by the towns (Wisconsin Conservation Commission 1928-44 [1937-38]: 20, 23-24; Trenk 1939: 16; Mitchell and LeMay 1952: 31).

Although replacement, repair, or improvement continued on a limited scale, construction of fire towers generally ceased during the 1940s. After 1942 and the end of the CCC and WPA programs, the Forest Service lost its ability to man the towers. The development of equipment for World War II with some modification provided needed equipment for fire detection, for example airplanes and radios, which eliminated much of the necessary manpower. Helicopter surveillance, portable two-way radios, and smoke jumpers began to replace the use of fire towers and telephones after World War II. The use of paid crews including the ranger force and stand-by crews replaced the relief workers in the actual fire fighting. The Forest Service ceased manning the towers in the 1960s and early 1970s (Kresek 1984: 9; Spring and Fish 1981: 11; Ashland Daily Press 1983: 10; Mitchell and LeMay 1952; 33; Rhinelander Daily News 1983: 8; LeMay 1985: 34; Clepper 1971: 174-75; Gagner [tower lookout] 1995; Murnik [tower lookout] 1995).

In 1926, the Wisconsin Conservation Commission established the office for Fire Protection District Six at Park Falls. This district included Ashland, part of Taylor, and Price counties. The immediate task became the construction of fire towers, erection of telephone lines connecting the towers to the dispatch office at Park Falls, and the clearing of fire lanes. In June 1926, the Commission erected the fire protection district's first tower, also known as the Fifield tower, approximately four miles east of Fifield. The sixty-foot, steel tower with a 12.5-foot square base supported a five-foot square, open platform. In the same year, the Commission erected two additional towers in the district (Goc 1989: 168; Park Falls Herald 1926 [6/11: 1/4]). With additional funding received in 1931, the Flambeau District of the Chequamegon National Forest constructed two steel fire towers in the Flambeau Unit, which worked in conjunction with the state's Fifield tower. The legal source of the funding remains unidentified (Park Falls Herald 1931 [4/3: 1/5; 5/29: 1/2]). This state and federal effort is an example of the joint fire protection program fostered by the Clark-McNary Act of 1924.

On April 9, 1931, the Forest Service purchased the property on which the current Fifield tower stands as part of a larger parcel denoted as tract 5 from the American Immigrant Company (USDA Forest Service, Chequamegon National Forest 1928-95 [entry for tract 5, 4/9/31]). The Wisconsin Conservation Commission erected the 100-foot, replacement Fifield tower one mile east of the 1926 tower in May 1932 on Forest Service land. The state typically received a permit to build and operate a tower and did not purchase the property on which the tower

was placed. Approached by a centered, outside ladder enclosed by a circular cage, this tower followed the Wisconsin Standard Ladder Protected design (date inscription on tower base; Wisconsin DNR, Fire Protection Headquarters 1931-73 [file; towers, lookout memorandum, 1933, 1935]; Park Falls Herald 1932 [7/15: 1/2]; USDA Forest Service, Region 9 1931-33 [map of Flambeau Unit, 1931, 1933]).

The Wisconsin Conservation Commission planned to erect a total of 29 new towers in 1932. Of this number, 12 including the Fifield tower and two others planned for the Flambeau Unit represented replacement towers and the remainder placed at new locations. Additionally, four smaller towers were constructed from materials salvaged from those removed by the Commission. Depending on the height of the timber and the elevation of the location, the height of the new towers varied between 68 and 100 feet. The Sawyer County Record explained that the towers followed the new 1932 design developed by the Commission, presumably the Wisconsin Standard Ladder Protected tower design. The state then manned the Fifield tower during the spring and the Forest Service manned it during the summer probably through 1934 (Sawyer County Record 1932 [2/25; 1/3]; Iron River Pioneer 1932 [2/25: 1/1]; Park Falls Herald 1932 [5/15: 1/2; 7/15: 1/2]); date on pier).

The Forest Service received the Fifield tower from the state in the spring of 1935. Under the same agreement, the state transferred four additional towers in the Chequamegon National Forest, the Grand View or Long Mile, Pigeon Lake, West Fork, and Clam Lake towers. The state also included a portion of the telephone lines connecting some of these towers to dispatching centers placed at guard stations or the CCC camps. Additionally, the Forest Service had erected sufficient telephone line to connect all the fire towers with each other and with the Forest Service office in Park Falls in 1932. Beginning in the spring of 1935, the Forest Service took over the permanent responsibility of fire protection within the boundaries of the forest units of the Chequamegon National Forest except portions of southeast Ashland County and all areas in Iron County. The agency appraised the Fifield tower and manned it by the spring of 1935. It employed CCC enrollees from Camp Riley as tower lookouts. By the early 1940s, the Forest Service replaced the CCC enrollees with seasonal employees (Sawyer County Record 1932 [2/25: 1/3]; Iron River Pioneer 1932 [2/25: 1/1]; USDA Forest Service, Nicolet National Forest 1928-95 [letter dated 2/7/35]; 1933—61; USDA Forest Service, Region 9 1933-42a [report, 5/17/34]; Hansen 1995; Murnik [tower lookout] 1995; Park Falls Herald 1932 [9/9: 1/1]; USDA Forest Service, Chequamegon National Forest 1928-95 [appraisal for tower, 1935]). Although the interior has probably been dismantled, the Fifield tower included through 1973 the standard stool, square table with round ranger finder with map to locate the smokes, and a telephone. The fire crew and equipment were located at the Riley Creek Guard Station located about ten miles to the east along STH 70 (Murnik 1995 [tower lookout]; USDA Forest Service, Chequamegon National Forest 1933-95b [Park Falls, inspection report, 5/30/73]).

Encircled by a drive, the property also includes the concrete footings of the dwelling and a few remains of the garage/woodshed pushed south of the drive (USDA Forest Service, Chequamegon National Forest 1931-85 [plan, 1937, rev, 1957; 1941]). A 14.5 by 16.5 foot dwelling with a porch across its front and the 12.5 by 24.5 foot garage/woodshed, which followed Forest Service Standard Plan No. 26 or 8-16, were probably removed from the site by 1941. The Forest Service erected the tower cabin in 1932 and the garage/woodshed and well were completed in 1933 (Park Falls Herald 1932 [7/15: 1/2]); USDA Forest Service, Chequamegon National Forest 1933-61 [garage and well, 1933]; USDA Forest Service, Region 9 1933-42b [photo of site, 6/40]; Wisconsin DNR, Fire Protection Headquarters 1931-73 [photos, undated]). In 1941, Camp Riley erected a

second residential area to the southwest of the tower site along STH 70. Only the clearing for this site remains, This area included a three room, one story frame dwelling, garage/woodshed, and privy which followed plans No. 37 or B-34, No. 26 or B-16, and B-84 respectively. A well was dug in 1942 (USDA Forest Service, Chequamegon National Forest 1984-95; 1933-61 [well, 1942]; 1931-85 [plan, 1941]); Murnik 1995; USDA Forest Service, Region 9 1933-42a [work plan, 1941]).

CCC Involvement

The Fifield Fire Lookout Tower was manned by enrollees from CCC Company 642 of Camp Riley Creek (F-3) as part of the Depression Era work relief program. The camp manned the tower for a significant length of time between 1935 and 1941 and perhaps before that date. For every six-month period, the Forest Service ranger districts in the Wisconsin national forests developed a work plan for the CCC camps within their jurisdictions, which included fire detection in the forest conservation program. Each CCC camp was responsible for the project within a specific area. The protective system developed through the use of CCC enrollees significantly reduced the number of fires across northern Wisconsin. Their efforts permitted the survival of forests restoration projects completed by the CCC and enabled areas unaffected by forest fires to rejuvenate and survive. This forest protection program not only had a clear impact on the development of the Wisconsin national forests, but also assisted the resuscitation of the local economy as logging companies began to harvest timber under a forest management system on state and federally owned property under the guidance of the Wisconsin Conservation Commission and the Forest Service.

The physical reminders of the Depression Era, the system of towers improved and manned by Depression Era relief workers, additionally represent the contributions work relief agencies made to those who were engaged in the work and to the definition of the appropriate avenues for state and federal government involvement in relief. These relief agencies in the Wisconsin national forests put to work and in the process assisted in the training of thousands of unemployed youths and adults. And, the role of the federal government expanded manifold. It became committed to not only the protection and development of the natural resources but to the social welfare of its communities and citizens. Moving from the woefully inadequate local and private handouts of the past, the federal and state governments within less than half a decade provided work programs and direct relief for many of those who were unable to find work or were unable to work.

The Role of the Federal Government in Relief before the Depression Era

In 1932, 20 percent of the American work force or 28 million were jobless and millions were homeless. Between 1929 and 1933, the percentage of young men between the ages of 15 and 24 suffering unemployment rose from 3% to 25%. About 30% of those employed held only part-time work. And, between 1929 and 1932, industrial production dropped by half. By 1937, the rate of unemployment reached more than 30%. Rapid growth of the labor force produced a level of unemployment in 1940 at only one million workers below the 1929 level. This growth occurred during a period of no industrial expansion. The unprecedented severity of depression necessitated some form of public relief during the 1930s. In addition to the deep depression, which disrupted the nation, a series of recent natural disasters underscored the long-term deterioration of the resources. Thus Franklin D. Roosevelt faced tremendous economic and social problems as he began his

presidency in 1933.

Roosevelt introduced his New Deal program to Congress in early 1933. For its time, it was an innovative legislative package intended to improve the failing economy including agriculture, industry, and business; put the unemployed back to work; support those who could not be employed; increase spending; ameliorate social dislocation; and resuscitate the nation's natural resources. The use of federal public spending to support the unemployed through relief work which contributed to the conservation of the nation's resources and the improvement of its public works had very limited precedent in the nation's history. But, it was the rapid expansion of the federal bureaucracy in recognition of the government's responsibility to the welfare of its citizens, which was most innovative. While it has been questioned whether the New Deal programs or World War II finally ended the depression, the Roosevelt Administration did successfully put into action at the federal level a group of programs which relieved financial suffering and social distress of a significant number of citizens, provided work to the unemployed of many backgrounds, and launched a highly prolific public works and conservation program which left many tangible reminders of the program on the nation's landscape (Owen 1983: 92, 84; Braeman and Brody 1975 [1]: 124; Otis et al. 1986: 5-6).

Traditionally, then, responsibility for relief belonged to the family or at most the local community or private charity, but not the state or federal governments. Prior to the late 1920s, the number of those requiring relief remained relatively small. Those requiring relief primarily included unemployables, for example the aged, crippled, insane, and orphans, but also a small number of employables in need of aid. If the family or private charity, the primary sources of relief, failed to offer assistance, only then did the local government provide support. Aid remained at a minimum, especially to employables, so that families did not avoid their responsibility and the recipients did not engage in idleness. Because of the pervasive belief that adequate relief led to idleness, the poor laws made public assistance as unattractive as possible. Although all classes of indigents were initially placed in local poorhouses, increasingly through the late nineteenth and especially in the early twentieth century, the needy were placed in separate state institutions according to the type of care required. Outdoor relief or care for the needy in their homes was also begun in the early 1900s. This local relief was usually limited to small donations of food, clothing, and fuel. Because it was assumed the relief recipients were incapable of managing their own affairs, cash was not given (Ahlgren 1987: 10-12; Goldston 1968: 98; U.S. Federal Works Agency 1946: 1).

Shouldering the government's responsibility to the welfare of its citizens, Roosevelt developed the New Deal package. On March 15, 1933, Congress convened to consider his emergency legislation intended to ameliorate the economic and social crises facing the nation. The following one hundred days of the Roosevelt administration produced a model for the legislation, which followed and remained in effect during the 1930s and early 1940s. Later acts defined and supplemented this legislation, but they did not alter their substance (Schlesinger 1940: 1; Cohen 1980). Because of the variations in the types of individuals who required relief and the multiple causes, which gave rise to their needs, as well as the fluctuations in the public attitude concerning how to meet those needs, the solutions which provided relief were complex.

The Establishment of the CCC, 1933-42

The National Plan for American Forestry and the Creation of the Civilian Conservation Corps

The creation of the Chequamegon and Nicolet national forests, which originally included all of the national forests in northern Wisconsin, coincided with the 1933 publication of the Copeland Report on American forestry and the creation of the Emergency Conservation Works program by Franklin Roosevelt in March, 1933. All three events were closely related.

The Forest Service issued its National Plan for American Forestry or the Copeland Report (USDA 1933) on March 13, 1933. This report resulted from discussions in the U.S. Senate recommending the use of reforestation as a source of work for unemployed Americans. The final report added fire protection; flood control; soil erosion; forest research; wildlife, timber and range management; and recreation to the Forest Service's Depression Era agenda. However, the report clearly stated that the protection of these resources depended on federal-state control of forestry on private lands. Congress rejected the report on this basis. Its historical significance lies in its linkage between resource conservation and work relief. In this capacity, it served as the basis for the New Deal forest conservation program (Steen 1979: 199-204; Leake 1980). During the Depression Era, the general understanding of resource conservation finally reflected the ideas of Gifford Pinchot at the turn of the century. Rather than the hoarding of resources, Franklin Roosevelt advocated the protection and prudent use of the resources in a manner, which would benefit a majority of the nation. Such an approach required the national planning of resource use, a major objective of the Roosevelt administration. The National Plan of the Forest Service thus represented such a national-level planning effort to ensure the proper utilization of the nation's forests and address their recreational potential (U.S. Federal Emergency Administration of Public Works 1934: 75; Owen 1983: 82, 102; Ahlgren 1987: 11).

In response to the Forest Service's National Plan and based on his own personal interest in conservation, Roosevelt first outlined his strategy to use unemployed young men in conservation work on March 9, 1933. The president then addressed a conference attended by representatives from the Departments of Interior, Agriculture, and War and the Director of the Budget. He announced his intention to develop an Emergency Conservation Work (ECW) program to Congress on March 21 as part of his New Deal package. Before Congress, Chief Forester Robert Stuart supported the need for conservation work in the national forests and urged the inclusion of conservation measures on state and private lands. Popularly known as the Civilian Conservation Corps (CCC), this relief agency was intended to address both the depressed economy and the resulting social dislocations and the long-term deterioration of the natural resources underscored by a series of recent natural disasters. The package offered a strategy to restore 600 million acres of forested land and of the eroded farm lands in the dust bowl of the Plains and provided the labor to resolve them (Ahlgren 1987: 10-12; Salmond 1967: 8-11; Robbins 1985: 140; Fechner 1934: 1).

The ECW would enroll 250,000 young men by July 1, 1933 to undertake conservation and recreation work in the nation's parks and forests. Rather than offering doles to the unemployed, the program's funds supported useful projects of public benefit employing those needing work. The program lifted morale and sustained the skills of many American workers who had lost their jobs because of the state of the economy rather than their

own negligence. The program also provided some training to men just reaching the age of employment. On March 31, Congress passed the Economic Conservation Work Act to establish the program. This legislation provided the president with broad authority to execute the act. On April 5, 1933, Roosevelt signed Executive Order 6101, Relief of Unemployment through the Performance of Useful Public Works, which further defined the parameters of the legislation. The order directed the transfer of ten million dollars from unallocated funds appropriated July 21, 1932. Additional funds were later transferred for the operation of the new agency. On March 30, 1935 funds for the program were released through the 1935 Economic Relief Administration Act (ERA). After this one time allocation from the ERA Act, Congress funded the ECW through a direct appropriation. The program remained formally titled the Emergency Conservation Work program until 1937 when it became the Civilian Conservation Corps program. The Corps began operation on April 5, 1933 (U.S. WPA 1935-42 [6/15/36]: 52; [12/36]: 33; Paige 1985: 7-9; Wirth 1980: 67-70; Rawick 1957: 35-36; Owen 1983: 84; Isakoss 1938: 19-22; Cohen 1980:7; Fechner 1934: 1; U.S. WPA 1935-42 [6/15/40]: 52).

The Organization of the Civilian Conservation Corps

The organizational structure of the ECW program utilized existing federal agencies to execute the program, thus permitting its rapid mobilization. Although the CCC involved the work of seven of the ten existing government departments, Roosevelt relied principally on four agencies, the departments of War, Labor, Agriculture, and Interior. Robert Fechner, a labor union official, directed the CCC. He primarily developed policies regarding, for example, the welfare of the enrollees, discipline, pay, and enrollment, at the direction of the president. Fechner did possess full authority regarding some aspects of the work projects and camps, and he coordinated the work of the federal agencies. After Fechner's death in 1940, James McEntee, also a labor leader and Fechner's assistant, became the CCC director.

Because the CCC director's role was primarily coordination, this administrative office included only fifty employees. Its structure included the statistical, information, investigation and correspondence, and safety divisions. In the field, the CCC director's office included a liaison officer attached to each of the nine army corps area headquarters. This position coordinated the activities of the federal agencies. The special investigators from the administrative office periodically examined the camps, and the special inspectors ascertained if work projects proceeded according to established regulations and the purpose of the project. Their reports provided valuable historical information about the construction projects. In addition to this administrative structure, an advisory council composed of the CCC director, his assistant, and two representatives from each of the four federal agencies recommended policies to the director.

Roosevelt assigned each of the federal agencies a central role. The Labor Department undertook the selection of the enrollees from the state relief rolls. The Department of the Army provided staff for basic conditioning programs at the CCC district headquarters and oversaw the building, organization, supply, and daily operation of the CCC work camps. It transported, fed, clothed, and disciplined the men. The Departments of Interior and Agriculture, known as the technical services, supervised the work projects, the conservation and recreation work performed by the CCC enrollees. The agencies within these departments conducted work projects related to their overall government function. The technical services were responsible for the enrollees during their work hours.

The National Park Service in the Department of the Interior oversaw national and state park projects. This work included not only construction of recreational facilities and park landscaping but also erosion control and the protection of other natural resources within the park. Coordinated between the National Park Service and a state agency, a considerable amount of state park development occurred during the Depression Era. CCC project operation involved additional bureaus in the Department of the Interior, for example, the Bureau of Indian Affairs, General Land Office, and the Soil Erosion Service. The Department of Agriculture was responsible for soil conservation and, through the Forest Service, for fire protection, reforestation, and recreation projects in national and state forests and in some instances on private lands. Nation-wide, the National Forest Service directed 82 percent of all the work projects in the first year. Both technical services were responsible for planning and executing the work projects; furnishing the equipment, tools, and supplies; and providing transportation to the projects. Each CCC camp performed projects for a specific agency. Both the projects and CCC camps were often located on lands under the department's administration.

The Department of Labor established enlistment guidelines, set the state CCC enrollment quotas, and chose the state agency responsible for overseeing the process. The local relief agencies either certified or recommended for certification eligible enrollees. In Wisconsin, local relief directors first worked under the Industrial Commission and later under the direction of the Wisconsin Emergency Relief Administration. Composing 90 percent of the enrollment, the junior CCC enrollees were between the ages of 18 and 23 and unmarried and belonged to families on relief. By September 30, 1933, the CCC included 337,020 junior enrollees. Roosevelt periodically altered the enrollment quotas. The original 250,000 junior enrollee quota reached 295,000 by February 1934.

Roosevelt soon designated other categories of enrollees. On May 11, 1933, the president issued Executive Order 6129 which created separate CCC camps for up to 25,000 veterans of World War I, then in their thirties and forties and often in poor health. The Veterans Administration oversaw the selection of these enrollees. Without age or marital restrictions, these camps operated under more lenient rules, performing conservation work appropriate to their age. These enrollees represented approximately 10 percent of the total CCC enrollment. On April 14, 1933, the government also opened enrollment to 14,000 Native Americans in response to the proportionately high unemployment on the reservations and the need to improve and develop the natural resources on these lands. Their work projects occurred within the boundaries of the reservation. By September 1933, the CCC included 12,702 Native Americans with 1,516 in Puerto Rico and Alaska. By the program's end, the CCC enrolled a total of 75,000 men from Wisconsin, and 92,000 enrollees served in Wisconsin (Salmond 1967: 32-37, 71-74; Paige 1985: 7-9, 73; Leake 1980; Cohen 1980: 6-7; Fechner 1934: 3, 7; Wirth 1980: 67-70; Harper 1939: 29-31).

As the CCC matured, additional legislation and executive action soon corrected some of the deficiencies in its original organization. The vast majority of the CCC enrollees were unskilled laborers from urban areas. Construction and forestry projects required the leadership of experienced workmen with sufficient technical skills. On April 22, 1933, the president approved the hiring of up to 25,000 Local Experienced Men (LEM) who were unemployed woodsmen, foresters, construction workers, machine operators, mechanics, and blacksmiths from communities near the proposed projects. Age and married restrictions did not apply to this category. The technical services selected these men. The LEM's provided additional technical skills and

leadership as foremen on the work crews (Paige 1985: 44-45, 50-51, 69; Leake 1980; Wirth 1980: 111-14).

Enrollee enlistment lasted for a six-month period with the opportunity for reenlistment up to a maximum of one year in 1933. This limit was later raised to 18 months and then two years. Between April 1933 and July 1942, the CCC existed for nineteen enrollment periods, which began on April 1 and October 1. The CCC enrollees received clothing, food, shelter, education, job training of varying quality, and a 30-dollar per month allowance of which 25 dollars went to their families. In exchange, enrollees worked a 40-hour week on the work projects assigned to the camp. Effectively, this program put young men to work, provided funds to economically-distressed family members, brought money into communities near the location of camps and projects, and accomplished a tremendous amount of conservation work throughout the nation.

At the beginning of the program, the CCC assigned enrollees to one of nine Army Corps centers for basic training and physical conditioning after entrance into the program. Until 1935, the administrative structure of the CCC camps reflected the organization of the army. The CCC camps operating in Wisconsin as well as Illinois and Michigan were formed from enrollees processed through the Sixth Army Corps Headquarters located at Fort Sheridan, Illinois, near Chicago. The army subdivided each Army Corps area into forestry districts. Beginning on April 1, 1935, the army administrated the CCC through CCC districts. The Sparta District included the CCC camps working on the Chequamegon and Nicolet national forests. Headquartered near Sparta, the district served northern Wisconsin north of an east-west line through Baraboo. After completion of their basic training, CCC enrollees were assigned to 200-man camps. Because those states with large forested areas received a larger proportion of the camps, enrollees did not necessarily work in their own state (Otis et al. 1986: 8-9, 61; U.S. CCC 1937: 23; Salmond 1967: 84).

The Building of the CCC Camps in the Wisconsin National Forests

With assistance from the army, the Division of the Civilian Conservation Corps in Region 9 office at Milwaukee selected and moved the CCC camps, disposed of abandoned camps, and managed the technical equipment and aspects of the work projects. This office also administered the Economic Relief Act program on the forests. The government established the first CCC camp on April 17, 1933 at Camp Roosevelt in Virginia's George Washington National Forest. Organized in May 4, 1933, located about 14 miles west of Washburn for Company 640, Camp Brinks (F-5) became the first CCC camp in Wisconsin.

By July 1, 1933, the CCC had created 1,468 camps of which 1,264 were operated by the Department of Agriculture. The Forest Service oversaw a majority of these camps. The total number of camps peaked in September 1935 at 2,635 with 1,907 run by the Department of Agriculture. By July 1, 1941, these totals had fallen to 1,234 and 793 respectively. In the first period from April to October 1933, the Wisconsin national forests included 21 camps, 12 of which were located in what would become the Nicolet. At peak enrollment by September 1935, the Chequamegon contained 23 camps and the Nicolet included 22 camps. Finally, in July, 1941, six CCC camps served both national forests (Burns and Williams 1941: 67; Harper 1939: 58-59; Fechner 1934: 1, 3, 5; Wisconsin Conservation Commission 1928-42 [1933-35]: 37; U.S. WPA 1935-42 [10/15/36]: 52; Cohen 1980: 9, 25, 155; Owen 1983: 137; USDA Forest Service, Region 9 1937: 7-8; Ashland Daily Press 1983: 7; Sorenson n.d.; USDA Forest Service 1933-42 [camp lists, folder 1]).

Each CCC camp received a number. The letter prefix referred to the agency sponsoring the work or the form of land ownership. For example, "F" referred to Forest Service lands, "S" indicated camps in state forests, and "SP" and "CP" designated state and county park work supervised by the National Park Service. The numbers following the letters were assigned by each of these classes. Each CCC company also received a number in order of company formation within the corps area. The first digit usually indicated the number of the corps area in which the company was formed (Otis et al. 1983: 9-10; Cohen 1980: 24).

Roosevelt gave the army the task of camp construction. Until the fall of 1933, the CCC camps on the Wisconsin national forests used army tents for housing (Paige 1985: 70). The CCC continued the use of tents for summer side camps or at the initial creation of a permanent camp during the construction of frame buildings. When used for long periods, tents were improved with wood floors and frames and wood frame service buildings were added (Otis et al. 1983: 71). Established in the summer of 1933 near Medford in the Chequamegon, a representative tent camp accommodating 207 to 215 included (Taylor County Star News 1933 [7/6:3/2]):

> ...30 pyramidal tents for living quarters, 3 wall storage tents, 2 tropical hospital tents, 3 small wall tents, 2 kitchen flies, and a shower house, which is equipped with hot and cold water.

By November 1933, permanent, wood, fixed frame structures or "rigid camps" were being built at 1,400 camps in 43 states by 40,000 contractors. They were intended to function only 18 months. Although the enrollees often improved the grounds of the camps and the buildings' interiors, the army hired contractors from local communities to construct the buildings. For example, the Hoffman Construction Company of Appleton contracted to build camps Riley Creek, Sailor Lake, and Sheep Ranch in the Park Falls District of the Chequamegon National Forest in 1933 (Goc n.d.). While Fort Sheridan first supervised the work, the Construction Department of the Sparta District oversaw camp construction after April 1935 (U.S. CCC, Sixth Corps Area 1937: 36-37).

Although more variation existed in camp building size and function between 1933 and 1935 than after 1936, the army did produce building plans and specification for materials and construction by 1934. In late 1933, the typical CCC camp included 11 buildings: four barracks, a mess hall, recreation hall, infirmary, officers' quarters, truck garages, latrine, and shower building. However, the 11 winter camps erected in the western portion of the Wisconsin national forests during the fall and early winter of 1933 contained only (Park Falls Herald 1933 [9/22:1/6]):

> ...six barracks 30 by 120 feet, one mess hall and kitchen 30 by 100 feet, a headquarters building 30 by 50 feet which will contain offices and sleeping quarters for both the forest service and army personnel, and a store room, tool building, etc., 30 by 50 feet. In addition it is possible that a big garage will be built.

Camp Perkinstown, constructed in the fall of 1933 twenty miles northwest of Medford, included three 29 by 72 foot, two-story barracks; the mess hall and kitchen; an army administrative building; a newly constructed educational and recreational building; an infirmary; a new forestry administrative building; warehouse; army

garage; forestry garage; a pump house and electric plant; bathhouse; several root cellars; a coal bin; and several latrine buildings (Camp Perkinstown Log 1934 [10/6: 5]). The army usually erected four or five 100 foot long by 20 foot wide, one-story barracks buildings. The forestry administrative building enclosed an office, lounge, bunk room for foresters, and washroom and shower. In this period, considerable variation in the size and types of buildings did exist among the camps. Built in the fall of 1933, Camp Moose River included five, one story, approximately 20 by 60 foot barracks. This camp lacked the warehouse and separate infirmary buildings of Camp Perkinstown (USDA Forest Service, Chequamegon National Forest 1933-95a [Reminiscence by Dick Smith, Park Falls District]; Taylor County Star News 1933 [10/5: 2/1-3, 10/12: 6/1]; U.S. CCC, Sixth Corps Area District 1937: 121).

Provided by the army, these CCC buildings were constructed in a utilitarian fashion. A creosote or tarpaper and batten exterior covered the wood frame buildings which stood on cedar posts or concrete pillars. Inside walls might be covered with insulite or graylite. The Camp Perkinstown buildings were arranged in a series of rows rather than the more open camp form, which included a center open space used for sports and other events (Salmond 1967: 136; Otis et al. 1986: 8, 74; Camp Perkinstown Log 1934 [10/6: 5]; USDA Forest Service, Chequamegon National Forest 1933-95a [Reminiscence by Dick Smith, Park Falls District]).

Because the rigid buildings could not be easily dismantled, the army began to explore the use of portable buildings beginning in 1934. The army developed prefabricated, portable buildings with interchangeable parts so that they could fulfill all the necessary building functions in the camp. Built in a standardized fashion, these "portable camps" were mass-produced in 1935 and became the usual camp facility by March 1936. Although local carpenters continued to assemble these buildings, the CCC permitted enrollees and other relief labor to clear and prepare the sites, load and unload the building parts, and assist in the construction or dismantling of the buildings.

The prefabricated buildings were one story, rectangular or ell-shaped, gable roof, and balloon frame structures. A creosote, tarpaper and lath, or board and batten exterior finish covered the frame and rolled roofing or shingles protected the roof. They usually stood on concrete piers, footings, or slabs. Windows were the six light, bottom or top hinged type. In 1939, the standard camp often included about 17 buildings of standard sizes: five barracks, one mess hall and kitchen, technical service quarters, officers' quarters, technical service headquarters and storehouse, army headquarters and storehouse, recreation or welfare building, dispensary, lavatory and bathhouse, latrine, garages, oil houses, pump house, generator house, blacksmith shop, educational building, and equipment repair and maintenance building. Each barracks housed two crews of 20 or 21 men. The types of buildings varied somewhat from year to year, and each camp did not always include its full complement of buildings. These buildings encircled an open space, which served for assemblies and sports activities. Although the U-shaped arrangement became a common camp design, the building layout depended on the type of terrain. In time, enrollees often added gravel paths, rustic gates, outdoor amphitheaters, decorative or swimming pools, and gardens (Salmond 1967: 136-37; Ermentrout 1981: 11; Cohen 1980: 8, 155; CCC Sixth Corps Area 1937: 23; Paige 1985: 70-72; Otis et al. 1986: 75-80; Harper 1939: 50, 52).

Communities adjacent to the camps benefited from the presence of CCC camps in their areas. The CCC engaged a small number of locally unemployed, skilled men called Local Experienced Men (LEM). The construction and conservation projects improved the community and often attracted revenue from travelers

using the new recreational facilities. To assist local businesses and maintain a positive image, Fechner directed the army to purchase many of the camp supplies including food, tools, and building materials locally. These supplies contributed over $1000 to $5000 per month per camp to the local economy. The five dollars per month allowance to the enrollees were usually spent locally on entertainment. Thus, the presence of the CCC camp considerably reduced the economic crisis faced by the local community. In addition, CCC enrollees participated in community projects such as dramatic productions and other types of programs, which entertained and often raised money for a local cause. The local CCC camp also assisted with local emergencies ranging from disasters caused by flooding, drought, and fire to the location of missing persons and apprehension of criminals. For these reasons, the CCC camps retained a popular public image, which resulted in the renewal of the CCC program through the 1930s (Salmond 1967: 35, 102; Paige 1985: 73-79; Wirth 1980: 105-08, 111; Rawick 1957: 64; Leake 1980).

Administration of the CCC Camps and Work Programs

The civilian technical staff from either the Forest Service or the National Park Service assumed the supervision for the enrollees' work program, and army personnel directed the operation of the camps.

Responsible for the oversight of camp operations, the Department of the Army selected most of the camp personnel except for the technical and work foremen. The camp commander, a regular army or reserve officer, oversaw the operation of each CCC camp. His staff included a junior officer, supply sergeant, mess sergeant, cook, a medical officer, sometimes a chaplain, and an educational advisor beginning in 1934. On June 7, the CCC permitted the use of eight enrollee rated men or leaders to assist with camp administration. The leaders included a senior leader, mess steward, storekeeper, and two cooks while the assistant leaders became the company clerk, assistant to the educational advisor, and several second cooks. Some of these leaders and assistant leaders also provided leadership to the technical services. Civilian employees replaced the army positions in 1939. Although the army administrated the camps, they were to be treated essentially as civilian rather than military installations.

The Forest Service and Park Service divided leadership responsibilities for work projects differently. The following applies to the Forest Service work projects. The work project superintendent and technical assistants from the Forest Service assumed supervision of the enrollees' work programs. Prior to each period, the superintendent and district ranger prepared a plan for work projects reviewed by the forest supervisor. The superintendent then coordinated the work projects with the district rangers of the Nicolet National Forest.

Each CCC camp often worked on several or more work projects simultaneously. Also, it appears to have been the policy of the Forest Service in the Wisconsin national forests, and probably in other national forests, to assign camps to a specific area to perform at least routine projects, especially fire protection and suppression and forest improvement. The boundaries of this work area probably became less important for one-time projects such as construction. In this instance, enrollees from several camps might work on the same project. The superintendent set the daily work schedule for the projects and directed the approximately eight to ten work foremen who supervised the work crews. The foremen included four or five technically trained men, often foresters, engineers, or landscape architects, and the same number of non-technically trained men. The

superintendent was permitted to hire Local Experienced Men (LEM) to serve as the non-technical foremen. By 1936, each camp on the Nicolet included 16 LEM's. The Forest Service divided its enrollee work crews into two platoons, sections supervised by leaders, subsections headed by assistant leaders, and squads headed by non-rated enrollees[3] (Paige 1985: 66-69; Wisconsin Conservation Commission 1928-42 [1933-35]: 37; Harper 1939: 41; Cohen 1980: 25; Park Falls Herald 1936 [3/6: 1/3-4]; Rhinelander Daily News 1936 [3/12: 3/1]; Salmond 1967: 87; Ermentrout 1982: 77; Harper 1939: 37-44).

By 1934, the CCC also hired local college students majoring in landscape architecture, engineering, forestry, geology, history, and science during the summer. They provided additional technical direction as technical foremen. The regional office in Milwaukee also employed these individuals to review project proposals; provide the necessary oversight, master plans, and individual building plans for the projects; and inspect their execution. The planning of each project to fit within the existing environment and meet local needs was an important initial step in each project. Many of the designs for the facilities were completed at the Forest Service regional office by these personnel or permanent Forest Service employees (Paige 1985: 44-45, 50-51, 69; Wirth 1980: 111-14; Tweed et al. 1977: 91; Elliot 1977 [1989]; 43).

The CCC camps also offered education programs and recreation. Most of the camps eventually included an educational building with library and recreation hall to accommodate these needs. In 1933, the Forest Service provided seminars and workshops in forestry. In November 1933, the government began to organize the education program. By 1934, each camp commander formally oversaw the program. He received program direction from Fort Sheridan or after 1935 from the Sparta District educational advisor. Present at the beginning of 1934, the education advisor, with the assistance from the camp technical, staff taught the classes.

Held at night, the classes included both academic and vocational courses. The quality of the program depended on the energy of the camp commander and his advisor. Books and equipment were frequently in short supply, and the instructors often covered areas beyond their competence. Vocational courses ranged from automotive mechanics, carpentry, welding, blacksmithing, machine operation, stone masonry, drafting, and cooking to forestry. After 1935, most camps in the Sparta District maintained a workshop for these courses. Basic literacy, elementary, high school, and college freshmen correspondence courses through the local school system and the University of Wisconsin were also available. The CCC Washington administration provided assistance with course content. Until 1937, the educational programs were voluntary. The ERA Act of 1937 required that enrollees devote eight hours per week to course work or vocational training. Many camps published a camp newspaper and formed an orchestra, band, or singing group. Teams participated in inter-camp athletics including basketball, baseball, football, ice hockey, and boxing (Otis et al. 1986: 11; Leake 1980; U.S. CCC, Sixth Corps Area 1937: 191-92; Salmond 1967: 50- 53; Ermentrout 1982: 45).

The Continuation of the Civilian Conservation Corps After 1935

From the beginning, Congress viewed the ECW as a temporary relief measure. It periodically extended the

[3] Rate enrollees included leaders and assistant leaders who received a higher rate of pay than the non-rated men. The CCC appears to have instituted this system as an incentive to the men to learn work skills and improve work performance.

Agency through legislation, which appropriated money for the program by approximately two-year periods. In January 1935, Roosevelt proposed and Congress overwhelmingly approved through the Emergency Relief Appropriations Act of 1935 not only the extension of the CCC until 1937 but also its enlargement. Drought conditions continued to depress the economy. Congress expanded the CCC enrollment to 600,000 and extended the enrollee age limit from 18 to 25 to 17 to 28. Peak enrollment occurred in September 1935 at 505,782 in a total of about 2,514 CCC camps after which the number declined gradually. The CCC failed to reach its quota of 609,000 in part because of the creation of the National Youth Administration (NYA)[4] in 1935 (Ahlgren 1987: 12; Paige 1985: 21; Salmond 1967: 63). As the economy slowly began its recovery by 1935, the CCC began to shift its focus from relief to training to enable enrollees to better support themselves after their departure. The CCC more closely supervised the army's development of education and vocational training at the camps. Between July 1936 and June 1937, 87% of the enrollees participated in the education program (Cohen 1980: 132; Ermentrout 1982: 45).

As an election year approached and Roosevelt sought to decrease federal expenditures, he reduced the enrollment ceiling to 300,000 men by July 1, 1936. He also sought to create the CCC as a permanent agency in the federal government, and reduce its costs to make the proposal more palatable to Congress. However, Congress failed to support Roosevelt's request for a permanent agency not because the public objected to the program, but because the president did not provide a long-term budget and establish a firm basis for its administration. The camp reductions met considerable resistance from midwestern congressmen whose constituents sought its continuation. They slowed the CCC reductions. Faced with opposition, Roosevelt compromised. All camps remained active until the completion of their work projects at which time some were closed. But, Roosevelt's policy eventually resulted in extensive camp closings. In December 1935, the Nicolet National Forest included 22 camps. By early, 1937, nine remained in the forest (Elliot 1977 [1989]; Rawick 1957: 68-78; Salmond 1967: 63-70; Wirth 1985: 105, 121, 131; Pager 1993: 11; Leake 1980).

On June 28, 1937, Congress funded the ECW as a separate, federal agency and Roosevelt appointed Fechner as the director. Its advisory council was also continued. This funding act altered the name of the program from Emergency Conservation Work to the Civilian Conservation Corps, which had previously designated only the enrollees. This act also shifted the purpose of the program. Founded to alleviate the effects of deep depression on the nation's youth through work relief, the program now combined vocational training with employment through public work. It required the enrollees to engage in the educational program and allotted a budget to support the program. Despite rising unemployment in 1937, the act continued the enrollment number at 300,000 men of whom not more than 30,000 were to be veterans. It reduced the number of camps to 1,200. However, because of the continued fall in employment, Roosevelt requested monies to maintain the number of camps at 1500 in April 1938. It also provided for the enrollment of an additional 15,000 Native Americans. The act restricted the junior enrollee age limit to between 17 and 23 but dropped relief requirement for junior enrollment. Each enrollee was allotted a term of six months with the option of re-enrolling for 18 additional months. However, the CCC remained a temporary agency, now extended for a period of three years until 1940. Congress maintained the number of camps at 1,500 into 1940. The number of enrollees remained at a

[4] The NYA was a relief program created under the Works Progress Administration in 1935, which was intended for an age group parallel to those in the CCC. For a brief description of the program, see below under the Work Progress Administration, The Selection of Relief Workers.

maximum of 300,000 enrollees through this period. This support by Congress reflected the continued popularity of the program (Cohen 1980: 18, 132; Paige 1985: 21-26; Leake 1980; Ermentrout 1982: 48-51; Salmond 1967: 170-71).

The Reorganization Act of July 1, 1939 placed federal agencies into administrative groups by function. The CCC as well as the U.S. Employment Service, Social Security Board, the Office of Education, the Public Health Service, and similar agencies were placed within the Federal Security Agency because they administered public welfare, furthering economic and social security, educational opportunities, and health. Congress extended the program in the summer of 1939 to June 30, 1943. As the reserve officers were shifted to military operations of World War II, civilians replaced all reserve officers in CCC administration. By 1940, CCC enrollees became involved in defense. CCC Director McEntee and the army altered the educational program to prepare them for jobs in the defense industry and military life. By June 1940, some CCC camps were placed on military bases from which enrollees constructed structures necessary to the nation's defense. This activity deflected the work of the CCC from conservation and recreation programs (Ahlgren 1987: 105; Johnson 1941: 150- 51; Salmond 1967: 63-70, 177-79; Wirth 1985: 105, 121, 131; Paige 1983: 11, 26-27, 29-30; Cohen 1980: 19; Ermentrout 1982: 55, 63).

The Closing of the CCC Program

Congress ended the CCC program on June 30, 1943. The nation's economy had begun to improve as preparation for World War II absorbed man power and materials. As the nation prepared for war, federal monies were channeled in other directions. Because the government saw the CCC as a potential source of recruits, non-combative military training became a mandatory part of the CCC program in August 1941. In 1940 and 1941, the work of the remaining CCC camps increasingly involved the construction of defense facilities and related defense work. By 1941, the CCC itself experienced labor shortages. The desertion rate in the CCC increased as young men left to join the army or entered the work force. Employment opportunities were opening, especially in the defense industry, and jobs began to pay a higher wage. Although the number of enrollees had stabilized at about 300,000 and camps numbered about 1,500 until the beginning of 1941, by late summer, there were 200,000 enrollees in 900 camps. In October, the number of enrollees had declined to 160,000.

By December 1941 at the entrance of the United States in World War II, McEntee ordered the completion of all jobs unassociated with defense. In some cases, the CCC employed paid labor to attain this goal. The CCC continued to build military base facilities, roads, airports, and recreational facilities for military use, and perform conservation work related to the protection of natural resources utilized in the nation's defense. Congress considered dismantling the CCC by late December 1941. Roosevelt requested sufficient funding to maintain 150 camps in May 1942. However, on June 25, 1942, Congress failed to pass the necessary appropriations and instead voted to liquidate the CCC in the Labor-Federal Security Administration Appropriation Act. Except for small administrative crews who left by August 1942, the CCC vacated the 350 occupied camps by mid-July, 1942. There were in addition 1,367 unoccupied camps at this time. The CCC and army completed the transfer of all property used by the CCC by July 1, 1943 (Rawick 1957: 72-94; Wirth 1985: 143; Leake 1980; Ahlgren 1987: 105; Otis et al. 1986: 11; Ermentrout 1982: 73-74; Paige 1985: 29-34).

The Classes of CCC Work Projects Performed in the Wisconsin National Forests

The CCC projects advanced the cause of conservation in the forests many years. The Forest Services divided its CCC work into several classifications.

(1) Forest improvement work involved the improvement of timber stands by, for example, the thinning and removal of undesirable scrubs and trees; the planting of trees; development and maintenance of tree nurseries; the establishment of experimental plots in the forests for forest research; estimation of the quantities of timber types; cone and seed collection; timber inventories and surveys; and lineal and topographic surveys and boundary marking and mapping for timber land purchase.

(2) Forest protection work required the reduction of fire risks by the removal of such fire hazards as standing dead trees, limbs, and brush and old logs along roads and trails; the construction of forest roads, trails, and bridges to permit access to fire fighting units; the building of firebreaks to prevent the spreading of fires; the erection of fire towers, fire guard cabins and garage/woodsheds, tool houses for fire fighting equipment, and telephone phone lines; the digging of wells to supply water to fire fighting tanks and pumps; manning fire towers; the fighting of fires; and the eradication of tree diseases such as white pine blister rust or spruce budworms on jack pine; and the control of insects such as grasshoppers, rodents, especially rabbits, and poisonous plants.

(3) In the forests, the enrollees accomplished flood control and soil erosion prevention by reforestation, dam construction, and the protection of lake, river, and stream banks.

(4) And, the agency established refuges for birds, fish, and wild animals. Such development required management of the numbers of game and fish. The enrollees became involved in the stocking of streams and lakes; fish propagation at hatcheries also built by the CCC; and the planting of vegetation for game food and cover (Harper 1939: 58; Fechner 1934: 14; Cohen 1980: 88-89, 155; Salmond 1967: 122; Otis et al. 1986: 10, 61; Elliot 1977 [1989]: 42; Park Falls Herald1934 [11/2: 1/2]; 1936 [3/6: 1/3-4]; USDA Forest Service, Region 9 1937: 11).

In addition to the above project classifications, the CCC constructed many recreational improvements. As the forests experienced a rising number of visitors by the 1930s, the CCC initially erected simple and inexpensive recreational facilities for the Forest Service. However, the agency gradually determined that forests should be made more accessible to motorists and developed for recreational activities non-harmful to the natural setting. Through the 1930s, recreation projects gradually involved increasingly complex development. Forests supported several types of potential recreational areas depending on their natural setting. Most forests were capable of providing hiking, nature study, camping, and picnicking. In some areas, the Forest Service developed summer and winter sports areas. Recreational improvements sometime completed with other forestry work included hiking trails, access roads, bridges, trail side shelters, picnic grounds and associated shelters, dams for the creation of swimming and boating facilities, bathhouses, beaches, ski runs and jumps and warming shelters, toboggan trails, guest cabins, campgrounds, comfort stations, and landscaping. Finally, the CCC erected many of the administrative facilities in the forests including district ranger and guard stations with

CCC labor. The enrollees erected such buildings as warehouses, offices, ranger dwellings and garages, guard station cabins, and oil houses (Tweed 1980: 16-18; Kylie, Hieronymus, and Hall 1937: 279-81; Owen 1983: 129; Otis et al. 1986: 1, 10; Cohen 1980: 88; Salmond 1967: 123; USDA Forest Service, Region 9 1937: 11; Park Falls Herald 1934 [11/2: 1/2]).

The Fifield Fire Lookout Tower is associated with CCC Company 642 of Camp Riley Creek (F-3) as a statement of use, not because it constructed the residential buildings in the 1941 residential area. The camp clearly manned the tower for a significant period of time between at least 1935 and 1941. Established in 1931, several years prior to the establishment of the Camp Riley Creek, the Riley Creek Guard Station (located adjacent to the camp) coordinated the camp's fire fighting activities and stored and repaired fire fighting equipment. This role was one of the primary functions of the guard stations. The fire tower communicated with the dispatcher located at the guard station as well as with other fire towers in the area and the Park Falls Ranger District office (USDA Forest Service, Chequamegon National Forest 1984-95 [interview with A.J. DeVriend, Hayward in 12/1986 by R. Harmon]; 1931-85 [1936, 1937 rev. 1957 plans of Riley Creek Guard Station]; Murnik 1995; Thieleke 1995; Vilas County News-Review 1936 [3/5: 1/2]; Iron River Pioneer 1930 [5/22: 1/4]; Elliot 1977 [1989]: 38; Park Falls Herald 1931 [4/9: 1/5]; 1932 [9/9:1/1]; 1933 [5/19:1/6]; 1937 [1/1:1/l].

The third CCC camp established in Wisconsin, Camp Riley Creek (F-3) housed CCC Company 642 from May 14, 1933 into the eighteenth period between January 1941 and March 1942. In July 1935, Company 3650 formed from Company 642 and moved for a short period to nearby Camp Sailor Lake. The camp first served as the headquarters for the Twelfth Forestry District of the Sixth Army Corps headquarters at Fort Sheridan and, after 1935 it remained the Second Sparta Sub-District Headquarters, which included nine to twelve camps. The camp began as a tent camp, and received its fixed, permanent buildings in November and December of 1933. By October 1934, the CCC camp buildings at Camp Riley included six "standard" barracks, a mess hall and kitchen, army garage, latrine, bathhouse, pump house, recreation hall, infirmary, storehouse, forestry headquarters, and army headquarters. The company produced two CCC newspapers: Riley Creek Rag between 1935 and 1937 and The Life of Riley in 1939 (USDA Forest Service, Chequamegon National Forest 1933-95a [inspection reports for Camp Riley, 1934-36, 1941-42]; Park Falls Herald 1933 [12/2: 2/2]; 1935 [5/31: 1/5]; 1937 [5/7: 1/4-5]; Rudeen 1991: C-18-19; U.S. CCC, Sixth Corps Area District 1937: 52-54).

Major work projects included the reforestation of cutover land, seed collection, gathering moss for the Forest Service nurseries, timber stand improvement, stream improvement, stocking streams with fish, rodent control, ribes eradication, building of truck trails, fire lanes, fire breaks, and bridges, fire hazard reduction along road sides, maintenance of equipment and supply storage houses, stream and lake development and surveys, mapping, fire suppression, telephone line maintenance, the manning and maintenance of fire towers including the South Fork and Fifield towers, construction of a tower cabin and garage, the clearing of lands leased for summer home sites, and the construction and maintenance of campgrounds and picnic grounds. This work required the building of latrines, toilets, camp stoves, fireplaces, table and bench combinations, signs, and picnic shelters. The camp erected a warming shelter and ski and toboggan slides at the winter sports area adjacent to Spur Lake. The camp also built the bathhouse/picnic shelter as well as a boat dock, swimming beach, and playground at Lake Newman in 1939 (USDA Forest Service, Region 9 1933-42a [camp lists, folder 1]; USDA Forest Service, Chequamegon National Forest 1933—95a [inspection reports for Camp Riley, 1933-

36, 1941-42]; 1933-61 [Newman L. Bathhouse]; U.S. CCC, Sixth Corps Area District 1937: 52-54; Thieleke 1994; Park Falls Herald 1933 [12/2: 2/2]; 1935 [5/31: 1/5]; U.S. CCC, Camp Riley 1939; Camp Riley Rag 1936 [Sept., p. 2]).

Thus, in addition to its conservation activities including fire prevention, detection, and suppression activities, Camp Riley Creek periodically manned the Fifield tower between at least 1935 and 1941 as well as two others in the Park Falls District. It may have shared the operation of the Fifield tower with the Wisconsin Conservation Commission as the federal agent of the Forest Service manning the tower in the summer in 1933 and 1934. However, this fact is not documented. Some of the CCC tower lookouts occupied the adjacent cabin during fire season while others drove over from the camp each day. The monthly newspaper, the Camp Riley Rag, described the operation of towers in the area. They not only watched for "smokes," but also reported the level of fire danger, the wind velocity and direction and humidity on a daily basis to the ranger station at Park Falls. This information allowed the evaluation of the level of fire danger. The tower guard reported the location of the smoke and shortest route to it to the dispatcher who related the information to the nearest camp (Camp Riley Rag 1936 [July, p. 4]). In 1936, the camp performed limited and unidentified improvement work at the tower, probably maintenance of the fire tower itself. In 1941, the camp did build the second cabin and garage/woodshed at the Fifield Fire Lookout Tower, but these buildings are no longer standing (USDA Forest Service, Forest Service 1933-61 [Fifield Tower, entry 1936]; U.S. CCC, Camp Riley Creek 1939: n.p.; Thieleke 1995; USDA Forest Service, Chequamegon National Forest 1933-95a [inspection reports, 1934, 1936] Kazan 1995; USDA Forest Service, Region 9 1933-42a [work plan, 1941]; Park Falls Herald 1935 [5/10: 1/4]).

Site Comparison and Conclusion

The Fifield Fire Lookout Tower property then gains significance for its role in the fire detection and suppression program of the surrounding forest, first as part of the Wisconsin Conservation Commission fire protection system and then as part of the Forest Service's fire detection program. No matter which agency manned the tower, both agencies worked together to provide the necessary fire protection. Although the associated residential area no longer remains, the center part of this system, the tower, is still intact. The wood portion of the tower, primarily the floor of the cab, has suffered deterioration, and much of the interior and the glass of the seven foot square cab has probably been removed. The steel structure remains unaltered except for the bottom approximately twenty feet of the ladder removed for safety purposes.

Of the 38 recorded fire towers which once stood within the boundaries of the Chequamegon-Nicolet National Forest, nine of those towers still remain. They include the Clam Lake, West Fork and Long Mile (or Grand View) towers in the Great Divide Ranger District; the Iron River Tower in the Washburn District; the Laona and Mountain towers in the Lakewood-Lakewood District; and along with the Fifield Tower, the Jump River and Perkinstown towers in the Medford-Park Falls District. All of these towers are steel, measure between approximately 80 and 120 feet in height, and support a seven foot square, metal cab enter by an interior stair or an interior or exterior ladder. They were erected between 1932 and 1936.

Four of towers – Long Mile, Clam Lake, Laona, and Iron River – were built by the Wisconsin Conservation Commission in 1932 and 1934. They are 1932, Wisconsin Standard Ladder Protected, exterior ladder towers

with the exception of the Iron River tower, which is a 1934, interior ladder, International Stacy tower. The Laona tower was manufactured by the Aermotor Company of Chicago.[5] The remaining towers were erected by the Forest Service between 1934 and 1936. The Jump River and Perkinstown towers are 1934, interior ladder towers erected by the Civilian Conservation Corps (USDA Forest Service, Region 9 1933-42a [Inspection Reports, 2/20 and 2/23/34]; USDA Forest Service, Chequamegon National Forest 1933-61 [1934]; Taylor County Star News 1935 [6/13: 1/8]; Camp Perkinstown Log 1934 [8/14: 1]). Built in 1935 and 1936 respectively, the Mountain and West Fork towers are Aermotor Company, stair towers also erected by the Civilian Conservation Corps (USDA Forest Service, Nicolet National Forest 1984-95 [draft National Register nomination]; 1933-95b [correspondence, 2/7/1935]; McDonald-Maas Associates 1992; USDA Forest Service, Chequamegon National Forest 1933-95b [correspondence]; Park Falls Herald 1934 [3/23: 1/4].). From the beginning of the Depression Era onward, Aermotor Company of Chicago remained a major supplier of towers to both the Forest Service and the Wisconsin Conservation Commission (Wisconsin DNR, Fire Protection Headquarters 1931-73 [correspondence from Neil LeMay 6/17/64; inquiry to Aermotor Co., 12/16/40]).

Although the wood elements of many of the towers are deteriorated, most of the steel structure of the eight remains sound. Except for privies at the Long Mile, Jump River, and Perkinstown towers, adjacent buildings including the tower cabin, combination garage and woodshed, and in some instances a root cellar are no longer extant. Concrete footings, cellar holes, or depressions often mark the site. None of the towers are used for their original purpose, and most function primarily as radio towers. The Forest Service rehabilitated the Mountain Tower, Lakewood-Laona Ranger District, for public access and interpretation. Archaeological examination and analysis of the foundation remains and depressions as well as trash pits continues to be required at a majority of the properties. This component was not assessed in this examination of the property.

Thus, the integrity of setting, feeling, design, materials, and workmanship do not vary significantly among the nine tower properties. Because the integrity of the Fifield Fire Lookout Tower is comparable to the other eight tower properties and because they represent a small portion of the tower sites which once occurred across the Forest and played a central role in the fire protection system, this example gains National Register significance under criterion A in the area of conservation.

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[5] USDA Forest Service, Nicolet National Forest 1933-95a [letter dated 2/7/35]; date inscription on tower base; Sawyer County Record 1932 [2/25: 1/3]; Iron River Pioneer 1932 [2/5: 1/1]; USDA Forest Service, Chequamegon National Forest 1933-85b [Hayward R.D. records]; Park Falls Herald 19325/15: 7/15: 1/2]; USDA Forest Service, Nicolet National Forest 1933-95a [records pertaining to Laona Tower]; Forest Republican 1931 [12/24: 1/1]; 1932 [3/17: ¼: 1/1; 7/28: 1/6]; Wisconsin DNR, Fire Protection Headquarters 1931-73 [file: towers, lookout memorandum, 1933, 1935]; Choinski 1936 [revised 1937, 1939].

Endnote:

(1) Period of Significance for 1932-57: USDA Forest Service, Chequamegon National Forest 1928-95 [entry as tract #5 purchased 4/9/31]; 1933-61 [entry, 1935, standing property appraised]; Wisconsin DNR, Fire Protection Headquarters 1931-73 [file: towers, lookout memorandum, 1933, 1935]; Park Falls Herald 1932 [5/15: 1/2; 77/15: 1/2]; date 1932 inscribed on northeast concrete pier; USDA Forest Service, Region 9 1931-33 [Flambeau Unit, 1931, no improvements]; 1933 [Flambeau Unit, tower shown]; USDA Forest Service, Nicolet National Forest 1933-95a [correspondence between Conservation Commission and Forest Service, 2/7/35, file: Laona];Young and Davis 1949).

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United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Geographical Data:

Verbal Boundary Description:

The boundary of the Fifield Fire Lookout Tower is defined by the outer perimeter of the oval drive or loop, which surrounds the tower (see enclosed site plan).

Boundary Justification:

Except for a privy which no longer remains, the tower drive encompasses the improvements made at the Fifield Fire Lookout Tower property as illustrated on the improvement plan for 1937 (USDA Forest Service, Chequamegon National Forest 1928-95 [plan, 1937, rev. 1957]). Since the 1941 residential area and the privy associated with the 1937 improvement plan no longer stand and the archaeological significance of these areas is not established, the boundary does not include these locations.

Form 10-900-a
(Rev. 8-86)

Wisconsin Word Processing Format (Approved 1/92)

United States Department of the Interior
National Park Service

National Register of Historic Places
Continuation Sheet

Section **photos** Page 1 Fifield Fire Lookout Tower, Price County, Wisconsin

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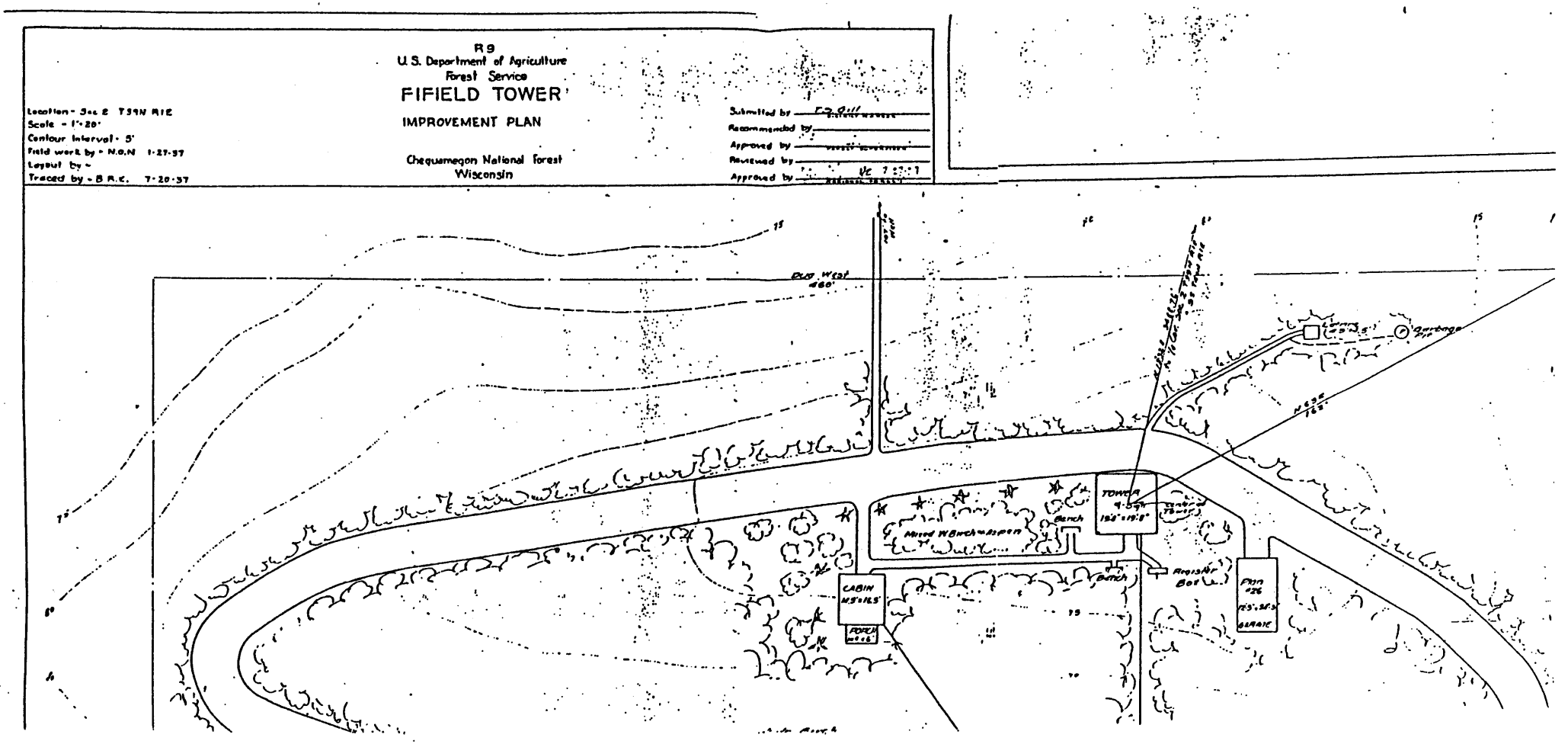
Photographic Documentation:

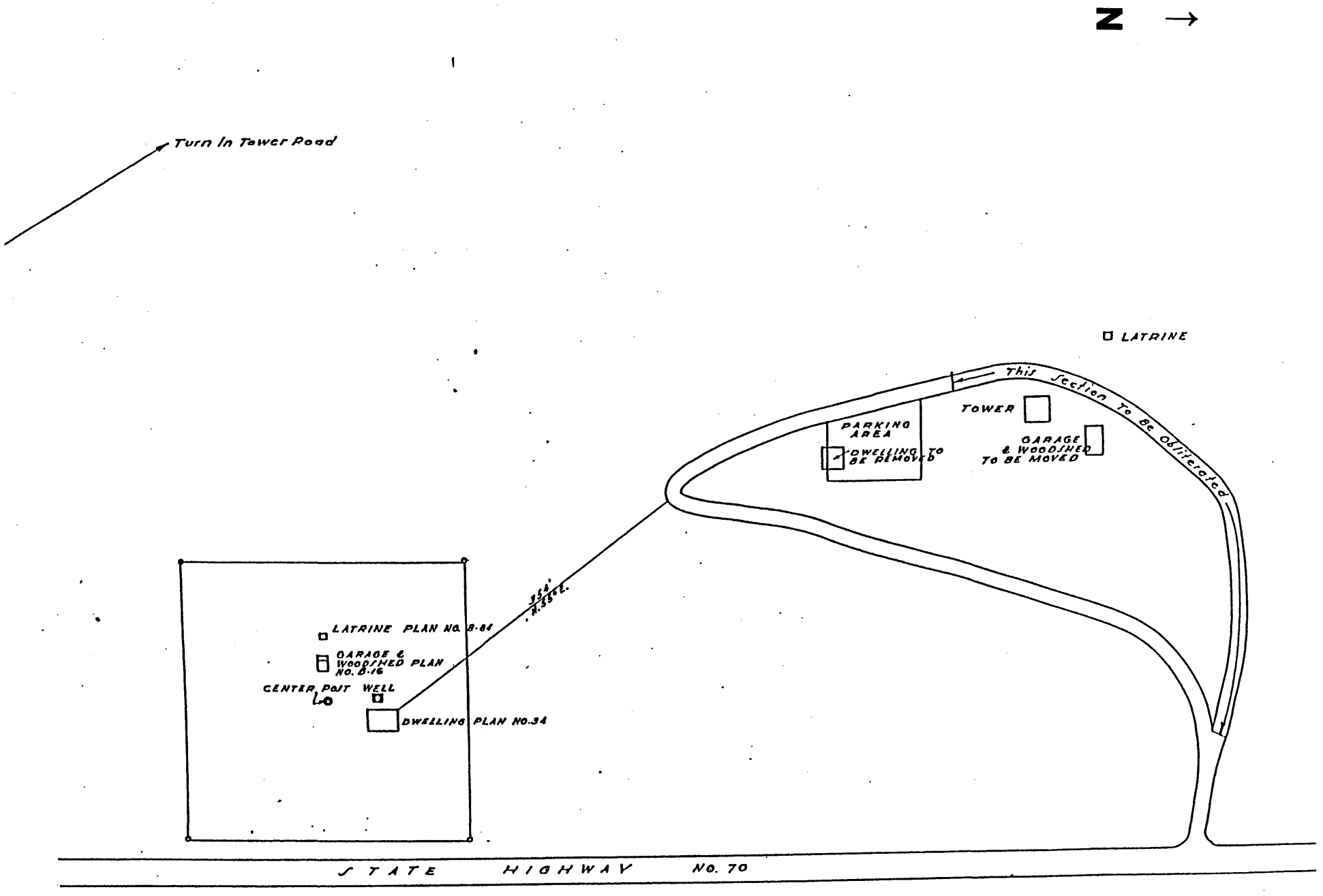
Name of property: Fifield Fire Lookout Tower
Location: Fifield, Price County, Wisconsin
Photographer's Name: Mark Bruhy
Photograph Date: Fall 2006
Location of Negative: Chequamegon-Nicolet National Forest, 68 South Stevens Street, Rhinelander, Wisconsin 54501

1. View of the east side of the tower facing west, northwest (4/14)
2. View of the south side of the tower facing north (4/17)
3. View of the base of the fire tower facing north (4/16)



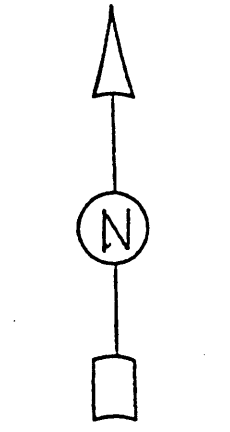
Fifield Fire Lookout Tower
Fifield, Price Co., WI
1937 Site Plan

Fifield Fire Lookout Tower
Fifield, Price Co., WI
1941 Site Plan



FIFIELD LOOK OUT

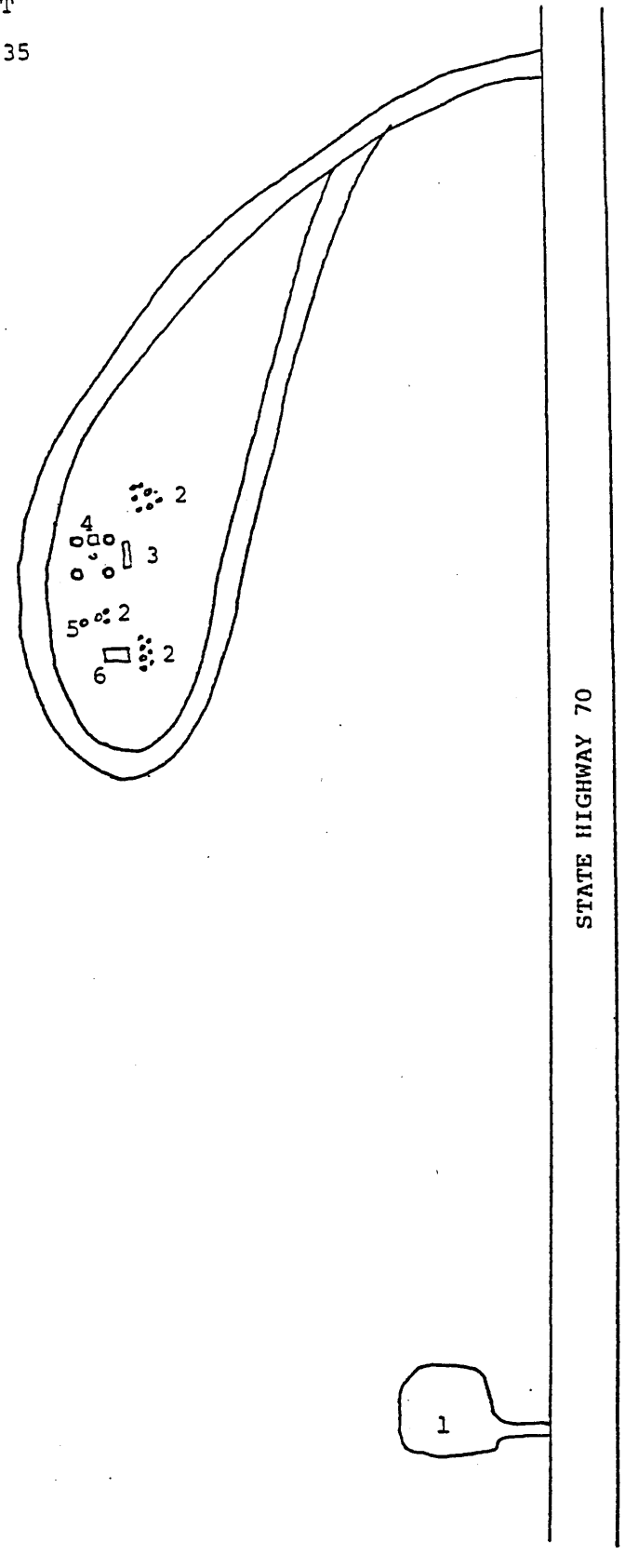
CRIF 09-02-01-035



METERS

0 10 20 30 40

LEGEND	
1	DWELLING CLEARING
2	ROCK PILES
3	DOWN TELEPHONE POLE
4	TOWER BASES, LADDER BASE, & BENCHMARK
5	BENCHMARK
6	STORAGE SHED



Fifield Fire Lookout Tower
Fifield, Price Co., WI