

History of the Chequamegon-Nicolet National Forests

This is a highlight of the history of the Chequamegon-Nicolet National Forest focusing mainly on vegetation management within the forest. It is broken up into sections that include *Key Legislation*, *Early Conditions*, *Creation of Wisconsin's National Forest*, *Restoration Years (1930-1949)*, *Finding a Niche (1950-1986)*, *Setting a Course (1986 forest plans)* and *A New Vision (2004 forest plan)*.

Key Legislation

The **Forest Reserve Act of 1891** gave the President of the United States the authority to proclaim forest reserves, but made no provision for their use and management. Under its implementing regulations, resources of the first national forest reserves were literally “off limits and their resources...locked up”. By 1893, 17 forest reserves in the western United States, totaling 18 million acres had been proclaimed. However, in the same year President Cleveland decided to stop creating reserves until Congress could provide guidance for managing them. No more reserves were established until 1897, when as his term was expiring President Cleveland proclaimed another 13 reserves and increased to the total reserve by 21 million acres (Fedkiw, 1997).

The **Organic Act of 1897** established the purposes of the national forests and their management guidance with this statement:

“No public forest reservation shall be established, except to improve and protect the forest within the reservation, or for the purpose of securing favorable conditions for water flows, and to furnish a continuous supply of timber for use and necessities of the citizens of the United States; but it is not the purpose or intent of these provisions, or the Act providing such reservations, to authorize the inclusion therein of lands more valuable for the minerals therein, or for agricultural purposes, than for forest purposes.”

The first regulations for management of the forest reserves interpreted the policy this way:

“Public forest reservations are established to protect and improve the forests for the purpose of securing a permanent supply of timber for the people and insuring conditions favorable to continuous water flow.”

Lands “more valuable” for mineral development or agricultural use were to be excluded from national forest reservation. The Secretary of Agriculture was also directed to protect the public forests against destruction by fire or depredation. This general provision delegated authority to permit other uses of national forests such as grazing, recreation, and wildlife consistent with the direction to “improve and protect” the forest (Fedkiw, 1997).

Under the **Weeks Act of 1911**, as amended, the National Forest System acquired over 25 million acres of primarily heavily cutover woodlands and abandoned former croplands in the eastern States. National Forest management focused on rehabilitating and reforesting them to restore healthy forest ecosystems and protect watersheds—a prime tenet of the Organic Act (Fedkiw, 1997). The Weeks Act was modified by passage of the **Clark-McNary Act of 1924**, which authorized purchase of land for National Forests when such lands would promote a future timber supply (Strong, 1992). In its original form, the Weeks Act limited purchases to land on the upper headwaters of navigable streams, which had a direct

relationship to streamflow. Under that limitation, purchases in the enormous relatively level expanses of forestlands in the Lakes States, notwithstanding their urgent desirability, could not be affected. The Clark-McNary law made such purchases possible (USDA, 1962).

The **Multiple-Use Sustained-Yield of 1960 (MUSYA)** supplemented the Organic Act's watershed and timber purposes by adding outdoor recreation, range, and wildlife and fisheries to the specific purposes for which national Forests could be established. Under the MUSYA, the establishment of wilderness areas are recognized as being consistent with the purposes, and "multiple use" was defined as "the management of all renewable surface resources of the National Forests so that they are utilized in the combination that will best meet the needs of the American people." (Fedkiw, 1997).

The **National Environmental Policy Act of 1969 (NEPA)** required federal agencies to prepare environmental analysis to assess and reveal the environmental effects of the agency's plans and proposed actions. An important part of the act made it mandatory that agencies seek public participation on projects, from the planning stage to the review-of-documents stage (Williams, 2000). In addition, individuals and organizations could now sue the federal government and appeal such actions as national forest plans and management decisions that they perceived adversely affected the environment (Fedkiw, 1997).

The **National Forest Management Act of 1976 (NFMA)** evolved from a controversy and court suit over the Organic Act's specific timber harvesting and sale guidelines. It reaffirmed and further defined the concepts of multiple-use and sustained yield management, emphasized balanced consideration of all resources, and outlined policies and procedures for national forest land management planning. The resulting forest plans became legal documents for guiding national forest management under the more general authority of the Organic Act. Both the plans and the management that they proposed became the subject of judicial review and court suits (Fedkiw, 1997).

Early Conditions (Pre-establishment of the Chequamegon-Nicolet National Forests)

In the mid-1800s, northern Wisconsin was heavily dominated by maple-beech-birch forests, with several large pineries (USDA, GLA-Historic Vegetation). White pine was the major species involved in the development of timber harvest in the northern Lake States. In fact, this species was so extensive that before its supply began to dwindle around the turn of the century, the term lumbering was used exclusively to refer to the white pine industry (Flader, 1983 pp.35).

About the time Wisconsin became a state (1848) large scale lumbering began. The white pine harvest reached a peak between 1890 and 1910 when virtually all the merchantable pine had been cut or destroyed by fire. The white pine logs were skid in the winter by horse to stream banks. Later they could be floated to the mill on the spring runoff (Stearns, 1997). In 1899, Wisconsin led the world in lumber production (Saetre, 1983).

Pines occurred in some places in pure stands, but throughout most of northern Wisconsin, pines occurred in various concentrations among other species. Although not the most numerous species in the forests, the white pine was the largest and the oldest. White pine was preferred; red or Norway pine was also prized. Stands of 2 or 3 pine per acre were highly profitable, since the trees were likely to be the forest giants from 3 to 6 feet or more in diameter (Stiles, 1994).

The onslaught on the Wisconsin pineries started to wind down early in the 1900's. This was because the resource had been nearly wiped out. By 1884, a government report assumed the stands of white pine would be depleted before the nineteenth century was over. Part of the pine volume was lost before it reached the markets. Because loggers were paid so little, they could not afford to spend time to finish up and take the last log. As a result, nearly one-tenth of the wood was left in the woods, making the cutover lands a tinderbox. After the timber was cut, fires were set to the slash to eliminate the threat of uncontrolled forest fires (Elliott 1977:11). It was estimated that in 1880, fires burned over five percent of the forest each year. Fire became quite common over the next half century. From 1904 to 1930, there were an average of 2,500 fires burning half a million acres of timberland in Wisconsin each year (Saetre, 1983). A study by the Wisconsin State Forester in 1909 revealed that 45 to 95 percent of the ten northernmost counties consisted of cutover land lying idle.

Some observers expected lumbering to disappear entirely at the beginning of the century, but for a number of reasons, the industry did not collapse completely. Although one-third of Wisconsin's remaining white pine was cut during the first five years of the twentieth century, the state's hardwoods had barely been touched. At the turn of the century, 58 percent of Wisconsin was still covered by forest. The large remaining stands of hardwood, the cheap surplus labor and the favorable railroad rates all contributed to make the lumber industry an important one through the 1920's. The end of the lumbering era occurred not with the disappearance of white pine but with the cutting of hardwoods just prior to the Great Depression.

Most of the hardwood resource had been fairly well picked over by the time the Depression hit. The lack of a timber resource along with the economic difficulty caused by the Depression ended the logging era. The hardwood era of the 1920's provided a transitional period from white pine to the present age dominated largely by the paper industry.

After the majority of the timber had been harvested and the large slash fires exhausted the available fuels, numerous land speculation companies sprang into existence. Having purchased the abandoned lands at very low prices, they sold these depleted lands as farmland with a healthy climate, good market facilities and a location where droughts were unknown. Many families were lured into buying much of the land. Those who tried farming soon found the land to be generally unproductive. Many were forced to sell out or abandon their lands because they could not pay the taxes.

The logging era had a big impact on the species composition of the current forest. Since most of the mature white and red pine had been harvested, natural regeneration could not occur since the seed source was lost. Immature white and red pine was nearly eliminated by the slash fires that followed the logging. This situation was further aggravated by the nursery stock imported from Europe in reforestation efforts. This stock was infected with white pine blister rust, which is often fatal to white pine (Flader, 1983 pp 39). The removal of the big pines from the forest and subsequent fires opened extensive acreages to the establishment of aspen and other pioneer species. Post logging change in northern hardwoods was less dramatic because cutting was selective (Flader, 1983 pp 47). The biggest loss, in the northern hardwood types, was yellow birch and hemlock, which was replaced by sugar maple.

In summary, what was left of the great “Northwoods” were brush fields, eroded fallow pastures, and burned-over stump patches that drew the eye to the horizon and beyond. There was no forest, but only the promise of one in the future, if a careful steward could be found.

Creation of Wisconsin's National Forests

The State of Wisconsin and the federal government realized that something had to be done if these lands were to receive the protection and reforestation necessary to return them to their original productiveness. Upon the approval of county boards, and acceptance by the National Forest Reservation Commission, the federal government received the majority of lands that would become Wisconsin's national forests during the late 1920's and early 1930's (Bruhy, 1998). Much of this land was purchased under the authority of the Weeks Law of 1911 as amended, which stated, “no land could be purchased until the legislature of the State in which the land lies shall have consented to the acquisition of such land by the United States for the purpose of preserving the navigability of navigable streams”. In 1925, the Wisconsin legislature passed what is called the Enabling Act. The Act gave the Federal Government permission to purchase, control and administer Wisconsin lands as National Forests (Saetre, 1983). The Enabling Act contained a limitation of acreage of 100,000 acres and required approval of purchase areas by the Governor, Commission of Public Lands, Conservation Department and the County Board of each County in which a purchase area was located (USDA, 1963). Three subsequent amendments raised the limit to 500,000, then 1,000,000 and in 1933 to 2,000,000 acres (Saetre, 1983).

In December of 1928, lands in Oneida, Forest, Vilas, Bayfield, Ashland, Taylor and Price counties were acquired and designated the Moquah, Flambeau and Oneida Purchase Units. In May of 1931 the Mondeaux and Chequamegon Purchases Unit were added to these holdings, in 1932 the Oconto Purchase Unit was added and the Oneida Unit was expanded. The actual naming of the Forests came one year later.

These Purchase Units were collectively proclaimed the Nicolet National Forest on March 2, 1933. They were split into the Nicolet East and the Nicolet West in July 1933. In November 1933, Nicolet West was proclaimed the Chequamegon National Forest (Elliot 1977:37). Since the Chequamegon-Nicolet National Forest was purchased, not carved from large blocks of public land, it is characterized by fragmented ownership pattern, creating a patchwork of public and private lands (Shands & Healy, 1977).

What was known solely as the Nicolet National Forest and consisting of approximately 409,000 acres in 1929 has grown to a total of more than 1,500,000 acres. Separated in 1933 to become the Nicolet and the Chequamegon National Forests, the two land bases have since been administratively re-united to become the Chequamegon-Nicolet National Forest.

Restoration Years (1930-1949)

In March of 1933, President Franklin D. Roosevelt created the Civilian Conservation Corps (CCC). The CCC was a peacetime army made up of unemployed men between 18 and 25 years of age. Their objective was to get the Nation's natural resources back into good shape through restoration and protection projects.

During the 10 years they were active, CCC enrollees performed duties including forest fire control, tree planting, road construction, recreation area construction and maintenance, installation of telephone lines, fish and wildlife habitat improvement, timber stand improvement and surveying. Prior to 1930, an average of 2,500 fires burned a half a million acres a year in Wisconsin. The work of CCC's staffing fire lookouts, constructing and placing tool caches and patrolling areas of high risk helped end that. In 1937, only 89 fires occurred within the Chequamegon, burning just 20 acres (Saetra, 1983). In addition, many of the roads, recreation areas and pine plantations we enjoy today exist because of the corpsmen's hard work.

Though in the midst of the Great Depression, Wisconsin's newly developed national forests benefited from massive funding that stemmed from national economic recovery efforts. Working cooperatively with the Civilian Conservation Corps and Work Progress Administration-funded artisans, the Forest Service developed numerous administrative sites between 1934 and 1938. These sites included district offices, workstations and specialized administrative sites.

The war years (1942-1945) intensified the need to establish national forest priorities-one of which was increasing national forest wood outputs through the Timber Production War Project. The biggest single wood use was packing crates to ship military supplies; but other important uses were for bridges, railroad ties, gunstocks, ships, docks, barracks, other buildings, and aircraft (Williams, 2000:81).

Due in part to the vastly increased demand for wood products and the construction of new homes, the postwar national forest managers were active in opening vast forest areas to timber management. The timber industry now sought cheap national forest timber to supplement or replace heavily cutover private forestlands (Williams, 2000:88). Logging technology had changed dramatically. Instead of axes and crosscut saws, everyone was using the new, highly efficient chainsaw and instead of horses and water moving the material a new system of roads and trucks were utilized. Intensive forest management was beginning in earnest (Williams, 2000:88).

While this was an active period for timber management on western forests, this period was considered a "fallow period" or a rebuilding period for the lake states forests. During this timeframe, the CCCs were instrumental in controlling forest fires, reforesting thousands of acres, developing recreation areas and building roads. Logging technology being developed in the western United States set the stage for the Lake States in the future years.

Finding a Niche (1950-1986)

By 1950, several important developments changed the climate for forest management in the northern lake states. After several decades of growth, the cutover land is green again. Much of it supports good stands of timber. Demands for timber supplies and the production characteristics of the region favor the resurgence of a timber-producing economy (Flader, 1983 pp169). The "weed" trees that had come in during the era of uncontrolled fires grew into merchantable size. Aspen became the dominant species in the cutover and burned-over timberlands. Paper birch and jack pine flourished (Flader, 1983 pp 201-202). Overwhelming abundance of these "weed" species and the development of new logging technology created new markets and was a driver for pulp mills in the great lakes region.

However, various groups that visualize much of the area as regional and national playground dispute the basis for this resurgence. Rather than manage the land for commercial forest production, they would reserve large areas for wilderness and environmental purposes, manage significant acreages for outdoor recreation pursuits, and open up numerous choice sites for private recreation and residential developments (Flader, 1983 pp169).

By the late 1950's and early 1960's, a new wave of national concern about conservation of natural resources began. Members of Congress and interest groups felt the Forest Service was giving too much attention to timber harvesting on the national forests—just 15 years after the huge post-war development push to open national forests for needed timber to be used in the national housing boom. The resulting MUSYA of 1960 ensured that all possible uses and benefits of the national forest would be treated equally. Multiple-use forestry was in “full swing”, with an increasing emphasis being placed on non-timber resources, while timber production increased to the maximum in the private sector and approached that for national forests (Williams, 2000:102).

In summary, this period represented the first stage of modern logging within the state of Wisconsin as second growth timber was coming into its own. At the same time, multiple uses of the national forests was taking shape, which provided a larger mandate for the Chequamegon and Nicolet National Forests.

Setting the Course (1986 Forest Plans)

In 1986, the Land and Resource Management Plans (Plans) for both the Chequamegon and Nicolet National Forests were released. Implementation started immediately, however, officially the Nicolet started the planning cycle in 1986, while the Chequamegon started the planning cycle in 1987.

In both 1986 plans, the desired conditions, standard and guidelines specific to management areas 1-4 determined the direction each Forest was taking on its suited timberland. In the case of the Chequamegon plan, the direction was broad giving a lot of latitude for managers. In the Nicolet plan, the direction was much more specific which limited flexibility for managers.

Both plans were appealed and the Forest Service later sued by various groups. The lawsuits were similar in nature focusing on issues related to biological diversity, remote recreation and the range of alternatives. In 1994, the court upheld the Forest Service on all points. However, between 1986 and 1994, the Forest Service determined it would be wise to address some of these issues as a plan revision was just around the corner. The Forest Service started talking a new language. Terms like “new forestry” and “new perspectives” were based on the connections or ecology of the land, air, water, plants, animals and people. Ecosystem management became the foundation for management in the early 1990's. Ecosystem assessments started looking at these connections and in the context of diversity, scale, time, location, etc.

Locally, the Chequamegon and Nicolet National Forests directed a “committee of scientific experts” to address biological diversity issues. Their report was titled *Report on the Scientific Roundtable on Biological Diversity* (Crow, Haney and Waller, 1994). A second panel was formed to examine the potential social and economic impacts of recommendations made by the Roundtable on Biological

Diversity. Their report was titled *Report of the Socioeconomic Roundtable* (Jakes and Harms, 1995). Many of these recommendations were adopted in the current Chequamegon-Nicolet National Forests 2004 Land and Resource Management Plan (see The 2004 Forest Plan section).

Summary of timber management activities and outputs resulting from the 1986 plans

From 1986 to 1995, the Chequamegon-Nicolet National Forests provided nearly 1.4 billion board feet of sawtimber and pulpwood valued at \$37.5 million. This value is compounded by the number of jobs forest industry provides the State. Improving forest health, increasing pulpwood productivity, and providing a variety of wildlife habitats benefits many other forest users such as hunters, hikers and bird watchers. While the amount of timber removed through timber sales was substantial between inventories, growth actually exceeded removals by more than 10 percent during the period (Haugen, Freeman and Theisen, 1998).

A monitoring report compiled in 2003 (and projected to 2006) indicated the harvest treatments were within the Chequamegon forest plan projections for the first two decades (Quinn, 2003a).

Harvest Method Summary (acres) for the Chequamegon from 1987 to 2006 (actual + projection)

	Clearcut	Sheltrwd	Select	Thin	Total
Decade 1&2 harvest (87-06)	58,020	10,507	20,362	61,799	150,688
Decade 1&2 harvest (plan)	79,370	29,620	26,900	67,720	203,610
Attainment of plan harvest	73%	35%	76%	91%	74%

A monitoring report compiled in 2003 (and projected to 2006) indicated the harvest treatments were within the Nicolet forest plan projections (adapted to Chequamegon NF format) for the first two decades (Quinn, 2003b).

Harvest Method Summary (acres) for the Nicolet from 1986 to 2005 (actual + projection)

	Clearcut	Sheltrwd	Select	Thin	Total
Decade 1&2 harvest (86-05)	30,090	7,517	99,213	77,779	214,599
Decade 1&2 harvest (plan)	62,694	11,269	169,558	118,817	362,338
Attainment of plan harvest	48%	67%	59%	65%	59%

Based on these tables, the average treatments on the Forest totaled approximately 11,514 acres per year over this 20-year period.

During the same period, the Forest cut volumes averaged approximately 130 million board feet (MMBF) annually. Despite this level of activity and timber outputs, the forest growing stock volume has increased 11% on the Nicolet and 17% on the Chequamegon landbases (Haugen, Freeman and Theisen, 1998) which is consistent with the state-wide average of 12% (Schmidt, 1998). Not only has the growing stock volume increased but so has the amount of sawtimber (large trees) volume. Between 1983 and 1996 the volume of sawtimber increased 47% on the Nicolet and 73% on the Chequamegon landbase (Haugen, Freeman and Theisen, 1998), which exceeds the statewide average of 31% (Schmidt, 1998). While the sawtimber growth has occurred in both conifer and hardwood species, the highest percentage of growth occurred in the hardwood species group.

As result of the two forest plans and subsequent projects, the forest has been actively managing the timber resource. Since the Forest plans were released the forest has averaged more than 130 MMBF annually with an average value of nearly \$5,000,000. This has provided many jobs in the private forest product sector while improving forest health, increasing productivity, and providing a diversity of wildlife habitats. Despite this activity, the forest continues to increase its growing stock volume as well as the amount of sawtimber remaining in the forest. In other words, the forest is growing more than what is harvested every year.

A New Vision (2004 Forest Plan)

Since the two previous forest plans were appealed by similar interests on similar issues, the leadership teams from the two forests decided to have forest plan revision teams work together so issues could be addressed in a consistent manner. This started as early as 1994. Pre-revision teams worked to “brainstorm” the issues, which needed to be resolved, determine data needs, gather necessary data, and configure existing and new data in a consistent format to ease the data queries.

By early 1995, with budget projections going down and the obvious cost saving of working together, the Forest started working as one administrative unit with one Supervisor Leadership team. Districts also consolidated from nine districts to five districts. The Washington Office officially recognized these administrative consolidations in February of 1998. As with any consolidation, there were “shrinking pains” but the Forest had successfully reduced its personnel costs by quite a bit through personnel movement, retirements and buy-outs.

The plan revision officially began with the publishing of the Notice of Intent in 1996. Four major revision topics were addressed: Access and Recreational Opportunities; Biological Diversity; Special Land Allocations; and Timber Production. These revision topics were derived from a list of potential revision topics made available to the public in 1995. A series of 13 open house meetings were held, and over 100 individuals responded with written comments. Most people agreed these topics needed to be considered.

The task of revising two forest plans with one comprehensive set of documents was completed in 2004 and implementation has begun. In the end, over 3,000 individuals, groups, organizations and agencies were contacted and/or have participated in the planning process through the Forests’ public involvement efforts (USDA, 2004a).

It is recognized that no alternative could have been developed that would satisfy all of the interested publics, due to the diverse values and views on the highest and best use of these Forests. However, the selected alternative provides the best opportunity to improve ecological conditions while providing a broad spectrum of recreational opportunities and a realistic level of commodity production (USDA, 2004b). The 2004 Land and Resource Management Plan will serve as the guide for resource managers for next 10 to 15 years. Following the plan will generate jobs, provide many opportunities, maintain or improve wildlife/plant habitat and improve forest health while continuing to let the forest mature.

The brush fields, eroded fallow pastures, and burned-over stump patches of the early part of the 1900's are gone. It is now a productive forest shaped by the hard work of a careful steward, the Forest Service.

Bibliography

Bruhy, Mark. December 1998. Chequamegon-Nicolet National Forest Origins and the Location of Administrative Offices.

Conrad, David E. 1997. The Land We Cared For...A History of the Forest Service's Eastern Region. American Resources Group, Ltd. and USDA-Forest Service, Region 9.

Crow, Thomas R.; Haney, Alan; and Waller, Donald M. 1994. Report on the Scientific Roundtable on Biological Diversity Convened by the Chequamegon and Nicolet National Forests. General Technical Report NC-166. USDA-Forest Service, North Central Forest Experiment Station.

Elliott, Kennell M. 1977. History of the Nicolet National Forest 1928-1976. A cooperative publication of the USDA-Forest Service and the Forest History Association of Wisconsin, Inc.

Fedkiw, John. 1997. National Forest and the Organic Act of 1897 at 100 Years.

Haugen, David E., Freeman, Phillip C., and Theisen, Mark A. 1998. The Forest Resources of the Chequamegon-Nicolet National Forest, 1996. Resource Bulletin NC-194 USDA-Forest Service, North Central Research Station.

Jakes, Pamela and Jan Harms. 1995. Report on the Socioeconomic Roundtable Convened by the Chequamegon and Nicolet National Forests. General Technical Report NC-177. USDA-Forest Service, North Central Forest Experiment Station.

Saetre, Sara. 1983. Chequamegon: The Making of a Forest.

Schmidt, Thomas L. 1998. Wisconsin Forest Statistics, 1996. Resource Bulletin NC-183 USDA-Forest Service, North Central Experiment Station.

Shands, William E. 1987. The Lake States Forests – A Resources Renaissance. Report and Proceedings of the Great Lakes Governor's Conference on Forestry

Shands, William E. and Healy, Robert G. 1977. The Lands Nobody Wanted. A Conservation Foundation Report.

Stearns, Forest W. 1997. Great Lakes Ecological Assessment. History of the Lake States Forests: Natural and Human Impacts.

Stiles, Cynthia M. 1994. The Historic Logging Industry in State Region 2 and the Nicolet National Forest

Strong, J. Terry. 1992. Historical Development of the Nicolet National Forest from the Proceedings of the 17th Annual Meeting of Forest History Association of Wisconsin, Inc.

USDA-Forest Service. 1963 Historical Summary of Land Adjustment and Classification Region 9 1929-1962. USDA-Forest Service.

USDA-Forest Service. 2004a. Final Environmental Impact Statement Summary-to Accompany the 2004 Land and Resource Management Plan. USDA-Forest Service R9-CN-FEIS-Summary.
USDA-Forest Service. 2004b. Record of Decision for the Final Environmental Impact Statement- to Accompany the 2004 Land and Resource Management Plan. USDA-Forest Service R9-CN-FEIS-ROD.

Williams, Gerald W. 2000. The USDA Forest Service – The First Century. USDA-Forest Service FS-650.