General Christopher C. Andrews:

Leading the Minnesota Forestry Revolution

Anna M. Rice

Historical Paper

Senior Division
“How an active sentiment can be awakened for preservation of Minnesota timber I don’t know, as the present sentiment is to ‘grab all you can’ and no one cares about the future.”

George Goodrich, fire warden, Becker, Minnesota, January 13, 1896.

In the nineteenth century, America’s burgeoning population certainly did grab all the timber it could. Vast pine forests stretched from Maine to Dakota, and the lumber industry voraciously consumed them from east to west. In 1800, the Minnesota territory was sparsely sprinkled with fur traders and American Indians. By 1850, its bounteous forests attracted lumbermen, then settlers who hoped the plow could follow the ax. Railroads, farms, towns, and even statehood sprang from the lumber industry. Minnesotans loved this prosperity, so they left lumbermen unchecked. But forests fell quickly, leaving stump-covered wastelands, so littered with scraps that fires were a constant menace. Christopher Andrews, a retired Civil War general, tried to awaken sentiment for responsible forestry, but was ignored until a catastrophic fire garnered public attention. Andrews used fire prevention as a catalyst for his scientific forestry revolution. He insisted forestry would renew Minnesota’s ravaged timberlands, and make them fire resistant. At first, Andrews campaigned alone, but persistently, over twenty years, he convinced most Minnesotans, even lumbermen, that forestry benefited the environment and economy. Not only was the lumber industry reformed, but state and national forests were created. Most importantly, Andrews planted the seeds of scientific forestry so that a century later, Minnesota forests still flourish.

White pine, strong and inexpensive, was the favorite construction material of the 1800s (Maxwell 2; Larson 5). Lumbermen denuded New England’s forests to meet America’s demand, then pushed west toward the Great Lakes (King 11). In 1800, Minnesota’s prime timberlands, covering two-thirds of the territory, couldn’t be cut because American Indians owned them. Fort Snelling, protecting the fur trade on the Mississippi River, operated Minnesota’s first sawmill, but Indians allowed the Fort only enough timber for its use (Larson 13). By 1850, the fur trade dwindled, and just 6,000 settlers stayed (Ninth 40). Then, treaties in 1838 and 1851 secured title to Indian lands (Peick 72). Lumbermen raced to the territory, followed by hordes of homesteaders. Towns grew around sawmills, and loggers roamed the wilderness.
(F. Ryan 243). In 1858, with 170,000 residents, Minnesota, the state, was born (Nelson 4). At first, logging stayed near rivers because timber floated to sawmills. After 1860, railroads cut into forests (King 7). No tree was safe from the ax.

During Minnesota’s early years, its most influential people were lumbermen, such as Frederick Weyerhauser and John Pillsbury. Pillsbury was governor, 1876–1882, as were lumbermen David Clough, 1895–1899, and Samuel Van Sant, 1901–1905 (Governors). The legislature favored lumber, too (Legislative 581-644). Lumber ruled Minnesota; virtually no laws controlled it.

Disaster loomed ahead. By 1890, entire forests fell: 2 billion board-feet annually — enough to circle the earth with an inch-thick floor, 14 feet wide. At this pace, only a decade of trees remained. There was no replanting, but even had there been, trees take 80 years to mature (Dunnell 8–11; Prout 79). Unscrupulous lumbermen chopped timber they didn’t own, especially on Indian land. Loggers littered the ground with branches and scraps, called slashings, that were easily ignited by locomotives, lightning, and careless people (Andrews “Autobio” 233.2, AR 1908 6).

Lumbermen justified their aggression, claiming cutover land could be farmed. But trees thrive where farms cannot: two-fifths of Minnesota is unarable. Disgusted settlers abandoned barren cutover land (School 5; Barlowe 164–8). Even on fertile soil, settlers had to clear slashings and five-foot tall stumps. Burning was easiest, but runaway fires consumed homesteads and lives (Andrews AR 1895 74-83; Fire Warden Reports).
During dry seasons, smoldering brush fires were commonplace (J. Ryan 36–7). Then, in September 1894, a tremendous fire near Hinckley — a “Red Demon” — destroyed 480 square miles, killing 418 (L. Larsen 22; St. Paul). Some saw a bright side: “Blessings of fruitful agriculture will spring from the awful visitation of the cyclone of fire,” claimed a newspaper (“Cleaning” 5) (Appendix A). This fire, however, was too costly. Minnesotans clamored for fire prevention (“Valuable” 8).

Minnesota was not alone. In the late 1800s, forest fires were a national scourge, but public sentiment favored lumber prosperity and settlement over prevention (Pyne 6). Nine days before the Hinckley fire, Christopher Columbus Andrews presented “Prevention of Forest Fires” to the American Forestry Association. He claimed that fires annually cost $25,000,000 and many lives. “For the American people thus to allow such calamities to habitually occur, without adopting any adequate means for their prevention causes our country to be regarded as in some respects only semi-civilized” (“Prevention” 179–80). Andrews, a St. Paul resident, wanted to lead Minnesota’s fire prevention revolution.


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He purchased land “which contained some timber on the Rum River, and as I afterwards discovered on seeing the stumps, was handy for trespassers” (“Autobio” 86). Men made fortunes cutting timber that had “not been surveyed, much less sold by the government” (Recoll. 276). He began campaigning against rampant lumbermen, but the Civil War struck.

Andrews enlisted, and by war’s end was a major-general. His military credentials led to diplomatic appointments as U.S. Minister-Resident to Norway and Sweden, 1869–1877, and as Consul-General to Brazil, 1882–1885 (Mitchell 191–2). He “first became interested in scientific forestry in Sweden, and realized then how we in America were using up our forests when we should be conserving them… People think forest conservation means leaving all timber standing. This is a mistake. Timber should be cut when it is ripe.” New trees should be planted and “protected that they may reach their full growth” (Recoll. 277, 291). Sweden’s forests were well-managed and profitable, and he believed Minnesota’s could be, too. He returned to America, determined to lead a forestry revolution.

But America was skeptical. In 1880, Andrews requested a land grant for the first American forestry school. Harvard’s Charles Sargent bristled: “There are no teachers to teach, and no scholars that want to be taught in such schools” (“Establishment” 20). Andrews’ request was denied, but he pushed forward undeterred. An influential member of the Minnesota Forestry Association, a private citizens’ group, he represented them at the first American Forestry Association meeting in 1882 (Prout 78; Proceedings 39). By the time of the Hinckley fire, he was a forestry icon.

Legislators felt compelled to react to the Hinckley conflagration, but not very severely — many had lumber connections. They balked at a state forester post, compromising on a Chief Fire Warden, appointed by the State Auditor (AR 1895 9). With help from his allies, Andrews, aged 65, was chosen (“Autobio” 588).

Fire prevention caught public attention, but Andrews’ vision was to study, manage, and regenerate Minnesota’s forests. He felt fire prevention was a consequence of responsible forestry. At Andrews’ urging, legislators allowed the Chief Fire Warden to “investigate the extent of the forests in the State… the method used if any to promote the regrowth of timber, and any other important facts relating to forest
interests.” This was an important step in the revolution because Andrews now had scientific forestry duties. In 1895, he undertook “the best work” of his life (“Autobio” 587, 233). His revolution was a two-front attack: involve the public in fire prevention, and the state in forestry.

Andrews waged a mighty battle for fire prevention with little ammunition. He had a $6,000 budget and no staff; it seemed legislators weren’t truly dedicated to fire prevention. Still, the laws penalized negligent or malicious fires and defined citizens’ fire-fighting responsibilities (“Fire Wardens”), so Andrews built a fire warden network among Minnesota’s 700 townships. Wardens, said Andrews, were “worthy of public gratitude” but would be paid “for but a day or two of service in the course of the year.” They should “cultivate a sentiment in their towns for forest preservation and a spirit of willing compliance with the laws” (AR 1895 57).

Despite Andrews’ efforts, this system faltered. His wardens, generally hardworking, under-educated settlers, had little experience or time for fire duties; yet Andrews bombarded them with requests for timber surveys, fire reports, and opinions (Appendix B). He sent placards to publicize the laws, but some couldn’t comprehend them. “It would be better if it could be had also printed in Finnish language on the placard [sic]” suggested a warden (Randa). The laws conflicted with their opinions: “…the law most to [sic] strict,” wrote one warden, “don’t give [settlers] chance enough to clear land” (Rankin). After a fire killed a child, one warden thought just having fire laws promoted complacency: “…they had so much faith in this law that they neglected to plow good fire breaks” (Pubanz 76). Wardens, patrolling their home townships, were reluctant to prosecute neighbors. “The forest fire laws will not be respected unless enforced,” Andrews fumed (AR 1910 17).

Andrews wanted professional rangers instead of volunteers. Lumbermen were beginning to realize that fire prevention benefited them, and agreed that “a good system of fire patrol under strict supervision of the state” was needed (“Most” 26). But it took another costly fire in 1908 for the legislature to throw Andrews a crumb: he could hire rangers during dry seasons (Gen. Laws 1909 135–6).

The laws themselves were toothless. There was no provision for slashing disposal. Railroad companies paid the paltry $100 fine instead of installing spark arrestors and clearing combustibles from
the right-of-way (AR 1895 10). Andrews proposed harsher penalties, but was refused. In fact, some tightfisted legislators tried to repeal the fire laws when Andrews was ill (Recoll. 297).

Fire prevention was also hampered by the federal “dead and down” law, which allowed Indians to sell a reservation’s dead trees. Deceitful loggers cut living trees, or set fires to kill more (Yourd). Andrews fought by photographing green lumber sold as dead trees. “I think the agitation that I made on the matter contributed much to the discontinuance by the government of the pernicious practice” (“Autobio” 620; Cong. Rec. 1902 3758).

A 1910 nationwide drought, coupled with reckless logging, caused tremendous fires across America (Pyne 21). In Minnesota, rangers worked long hours to prevent fires. By September, their miserly wage appropriation exhausted, they left (Wilson). In October, fire destroyed two towns and killed 40. “The country is a tinder box,” said George Chapin, a laid-off ranger who blamed locomotives, slashings, and lack of patrols (“No Use” 2).

Once again, disaster prompted reform. Andrews suggested a fire prevention conference for Minnesota, Wisconsin, and Michigan. It was held in St. Paul in December 1910, and resulted in important reforms: professional rangers, slashings regulations, and an adequate budget for fire prevention (Pyne 248; “Lake” 42; Gen. Laws 1911 152-60). Andrews won the first revolutionary front: the public was involved in fire prevention.

Simultaneously, Andrews attacked on the second front: involving the state in scientific forestry. When Andrews became Fire Warden, most of Minnesota’s forests were cutover. He urged the state to reclaim cutover land unfit for agriculture, and regenerate forests using scientific forestry, because it takes
“… about eighty years for pine forest to grow to merchantable size and individuals will not engage in the business” (AR 1904 38).

In this era, the federal government secured title to Indian lands, then released it for sale. Minnesota had no provisions to buy land, so lumbermen grabbed prime forests at low prices, shamefully swindling Indians (J. Larsen 523; Andrews “What”). They harvested at high profit, reselling the poor cutover land to settlers. As the great forests shrank, conservation, championed by flamboyant Teddy Roosevelt, became important (Miller 18). In 1891, the U.S. Department of Agriculture provided a way to save forests: timberlands could be reserved from settlement sales (Barlowe 162; Pinchot “Use” 3). Soon after becoming Chief Fire Warden, Andrews petitioned for Minnesota’s first state forest reserve (Best). Cunningly, he requested 200,000 acres, and was refused. He then requested 20,000. His strategy worked: Burntside Forest became a state reserve in 1904, initiating four million acres of Minnesota state forests (Cong. Rec. 1904; Volstead; MN DNR 15-1). Finally, Andrews’ revolution gained a foothold for scientific forestry.

At the time, however, Burntside and 1,000 acres donated by Governor Pillsbury were the only forests that the state would support; in fact, the Forestry Board members paid Burntside’s $250 land transfer fees themselves (Carleton; Succit; Green; Searle “CCA” 24). But Andrews wanted more, so he petitioned for federally managed reserves. He designated two areas: Cass Lake, and north of Duluth. Both contained cutover and burned land (Grapp 63), and one overlapped an Indian reservation. Andrews believed Indians should receive fair timber compensation, and supported letting them live within the reserve (“For” 2–3; Bramhall 11).

Heated debates erupted. Minneapolis and St. Paul residents favored the petitions, but people near the proposed reserves opposed them. “It is better adapted to agricultural uses,” claimed the Cass Lake newspaper (“Being” 1). Frank Eddy of Cass Lake wrote: “God Almighty could not devise better use for 160 acres of agricultural land than to make a home of it, and of a pine tree than to have it cut down” (“Being” 1). Duluth citizens declared it was “a menace to the city’s growth” (“Move” 3). A Duluth businessman felt: “It is a lovely thing… to talk of the advantages and beauties of a park, but… I am more
favorable to potatoes” (“Opposed” 10). Andrews recognized reserves had recreational value, but wrote: “In forestry we are talking about growing trees for revenue, not for beauty of scenery” (“Autobio” 590).

Andrews mustered support:

influential Congressmen, Indians, and foresters. But his best troops were Women’s Clubs. Although women couldn’t vote, Andrews supported political equality. “Women’s Clubs should not be content to study history; they should make history,” he declared. “Forestry in Minnesota is on its hands and knees, and it is a patriotic duty of the women of the state to place it on its feet” (AR 1902 43). Women responded, and successfully campaigned for federal forests (Williams 11; Bramhall 1–13).

In 1902, Chippewa National Forest, 190,602 acres, became the first federal reserve approved by Congress, and remains the only national forest to overlap an Indian reservation (Chippewa; Yourd). Superior National Forest, created in 1909, encompassed 857,330 acres (Barlowe 163; “Autobio” 595).

Andrews fought his forestry revolution publicly, writing countless letters and delivering hundreds of speeches (“Autobio” 586–674). But his favorite soapbox was his 150-page Annual Report. Fire reporting covered several pages, and the rest analyzed scientific forestry, especially European methods. Four thousand copies were printed. Andrews sent many to prominent people worldwide (AR 1910 180–
4), establishing connections with experts like U. S. Forester Gifford Pinchot (Pinchot; Hill). Andrews linked Minnesota to the forestry world.

In 1911, Andrews, now 82, had personified forestry reform for two decades. He was eccentric, however, and aggravated the Forestry Board by doing as he wished. In 1911, the Board appointed a forestry professional as State Forester (Searle “CCA” 25; Gen. Laws 1911 152). Andrews was disappointed, but accepted a secretarial role. He continued to work: advocating and implementing forestry, communicating with foresters, and advising the Board until his death in 1922, at age 92 (Andrews Minutes; “General” 1). The Board commended him for his fight to save the forests (Appendix C), and named a state forest in his honor (MN DNR 15–3).

A century ago, Minnesota’s forests were close to extinction and had no caretakers. Today, they cover 17 million acres, one-third of the state (MN DNR 14–1); state forestry commands a $37 million budget and 400 employees (Hanisch). Scientific forestry revitalized cutover lands, which now produce 375 million board-feet annually, generating $16 million for the state (Makey, Jacobsen). Our forests are renewable and profitable, as Andrews had hoped.

Andrews didn’t always have the right ideas. He idolized European forestry excessively. His scheme of replacing each harvested tree with the same kind in the same place was deemed “childish” (Fernow). His final letter to the forestry board lambasted an important tool of modern fire prevention: the burning permit (Letter to W. B. Douglas).

Andrews succeeded because he kept forestry controversial. For 27 years, he brought forestry to Minnesota, and the nation admired his work. His widely-distributed reports, extensive correspondence, wilderness excursions, and legislative proposals kept forestry prominent. Whether it was because he was a patriarch, a general, or a bulldog, he refused to bow to political pressures. Sometimes his was a lone voice, but he was a master at being heard. He was self-important, but fair and respectful to others.

Andrews reformed Minnesota’s careless attitude toward forests, and laid a solid foundation of scientific forestry. Trees that Andrews himself planted are finally harvestable, yet we have been profiting from his revolution for a century because General Andrews cared about the future.
Appendix A: a front-page advertisement in the first paper to be printed in Hinckley after the September 1, 1894 fire — which killed 418 people and devastated Hinckley. Notice that it took three and a half months for the newspaper to resume publication (15 years).

That's a startling statement, but it's true. In the language of the author Northern Pine county has been "twice refined." The fire on Sept. 1 in 15 minutes what it would have taken the humanism 15 years to accomplish. All nature is with us, it seems to know our needs, and came to clear the land.

Come and see; no word can tell the opportunity afforded the former here since the fire. But to emphasize, we repeat Hinckley with her enterprise and energy will welcome the industrious home-seeker; just spurs the approach of a drive; industry only may enter here.

Situated midway

Between the Four Great Cities!

Of the Northwest.

St. Paul, Minneapolis, Duluth and West Superior

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Appendix B: a sample of one of the many forms Gen. Andrews asked his local fire wardens to fill out (Fire Warden Reports).

TO THE CHIEF FIRE WARDEN, 
ST. PAUL:

Sir,—Your Circular No. 2, of May 28, 1855, was received by me on the 16th of June. I have delivered the copies of the Forest Preservation Act therein, one to D. Bradbury, and one to J. G. Scott.

I received 16 copies of Warning Places, posted on cloth, and they have been posted as follows:

[Explain in brief way, localities] 6 on the Shadley road at the crossings of other roads, and at all other crossings and most public place through the town.

The fire districts have been arranged as follows: (State briefly limits of each, numbering them.)

1. West of the railroad track to J. G. Scott.

My residence is on section 33, township 47, range 15, and my post office is

Resides on section 12, township 46, range 19.

Resides on section 35, township 47, range 19.

About how much of your township is covered with forest and what kind, and is the surface level or hilly?

[Enter length (E)]

[Enter width (W)]

If only a part is covered with forest, which part, and is it open, dense, original or second growth?

[If a pasture, state what the area of wild prairie and if what part of town situated.]

What is the probability as to fire, and if they have occurred heretofore, how, as far as you know, did they originate? Why the settlers clearing up the land, and the fires getting beyond their control by a sudden gust of wind?

What, for a rough estimate, is the number of able-bodied male persons in your township, who, under Section 5 of said Act, could be called to the assistance of fire wardens? Amount (120)

Please add any other information or suggestions that you think will be useful.

[Signatures]

[Place and Date, 1855]

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Appendix C: a resolution passed by the Minnesota State Forestry Board honoring Gen. Andrews' contributions (Hanson).

Whereas, Gen. C. C. Andrews was one of the first men in Minnesota to recognize the necessity for the proper care and protection of the state's forests, and willingly devoted twenty-seven years of his long and useful life to an untiring effort to change his far reaching visions into a reality; and

Whereas, during his fifteen years of faithful service as State Fire Warden, he was more than a paid employee and gave of his life for the furtherance of his work; and

Whereas, he fought loyally and almost alone, with the same ardent and determination which brought him such distinction as an officer in the civil war, for the preservation and perpetuation of the forests of Minnesota, and that at a time when the lumber industry was just approaching its peak, when the forests were by many considered inexhaustible, cut-over lands as tomorrow's farms, and forestry impracticable; and

Whereas, he succeeded in spite of these odds in building up a very considerable sentiment favorable to forestry, and thereby laid a solid foundation for the present work of the Board which he served faithfully as secretary up to the time of his death; therefore

Be It Resolved: that the State Forestry Board express their grateful appreciation of his work and great admiration for his indomitable character; and

Be It Further Resolved that copies of this resolution be sent to the public press and to his daughter.

(Signatures)
Bibliography

Primary Sources:

This was the first paper printed in Hinckley after the fire on 1 Sept 1894. Strangely, this advertisement presents the fire as beneficial to the town, even though the whole area, including the printing office, was destroyed, and hundreds of lives were lost. The advertisement says that a land clearing job that would normally take 15 years was accomplished in 15 minutes by the fire. Because this was so surprising, it is in Appendix A.

This handwritten letter from Gen. Andrews’ daughter accompanies the donation of his “Autobiography of Eighty Years,” the rough draft of his book, Recollections. She writes that Andrews started this project when he was gravely ill at age 78. He kept adding to it until he died at age 92. Their home address is 833 Goodrich Avenue, St. Paul, which means he was a neighbor of John Weyerhaeuser (son of Frederick, the lumber baron) at 825 Goodrich. This is interesting because both Weyerhaeusers supported Andrews’ efforts for managed forestry, so perhaps the cause benefited from their social contact.

This is a collection of articles written by Andrews. The topics show his versatility and knowledge in many subjects, and his willingness to speak or write about any of them. The addresses include ones about education, politics, forestry, butter-making, Europe, civil service, slavery, farmers, wheat, and beet-sugar.

These 16 volumes are very important resources. As Chief Fire Warden (and Forest Commissioner, his later title), Andrews published an annual report as a summary of the fire incidents and prevention activities, forestry legislation, important developments in scientific forestry, and his views on forestry topics. Four thousand copies of each report (ranging from 80 to 184 pages, averaging 150) were distributed locally, nationally, and internationally; these broadcast his opinions. His fascination with European forestry expands each year: in his last report, 110 out of 184 pages are on this topic. The last two pages are usually favorable reviews of his previous annual reports from around the world. When W. Cox took over as State Forester, his annual reports were only half as long. Andrews never mentions an editor, so the reports truly reflect his personality: self-important, determined, literary, outspoken, energetic, clever, and dedicated to forestry.
This is the rough draft that Andrews’ daughter edited for the book Recollections. At over 1,000 typed pages with many handwritten additions, this is an important resource. Andrews’ spirit shows in his colorful prose and boldly stated opinions; some of this was lost in the published book. Many quotes are used and impressions of Andrews’ character are drawn from this. It is also interesting that Andrews was an early paper recycler because much of this draft is typed on the back of Forestry Board stationery; the list of board members changes through the years.

This booklet was presented to the 46th Congress (2nd Session). It is an argument for establishing a school of forestry with a government land grant. It includes Andrews’ reasoning in support of the school, letters that uphold his point of view, and opposing letters. Most of these letters are from college and government officials, although a letter from a forester is also included. A quote showing opposition to the scheme is used in this paper. Andrews included some new arguments in this booklet: the writer of a pro-forestry letter “quotes Daniel Webster with authority,” which Andrews used as proof that the writer of the letter was correct.

This is an article written by Andrews for a Minnesota women’s club newsletter, The Courant. It discusses “dead and down” laws and the exploitation of the Indians through these laws. He writes that the pine lands on the Reservation should be included in the proposed national park, and advocates having the Indian Reservation within park. This article was written to convince the women’s clubs to join forces with him in establishing a national park. This is important to this paper because it demonstrates how Andrews gathered support.

In this letter, Andrews asks for free transportation on trains. Because he traveled around the state to see first-hand the effects of forest fires, and to investigate lands for forest reserves, he frequently asked for free transportation around Minnesota. He did this even as he was trying to stiffen the fire laws pertaining to the railroads. This letter was in a book containing copies of over 1,000 letters, signed by Andrews, sent May 1904 – Sep. 1905. The letters ranged from comments on wardens’ pay to advice to government officials about forest reserves.

This letter discusses Andrews’ plans to visit the newly acquired Pillsbury Forest Reserve. He writes that he is going “to begin sowing the pine and spruce seed.” This illustrates how hard he worked for forestry (although at this time he was 75 years old). He often visited forests and camped in them for weeks at a time, regardless of his age.

This is Andrews’ (age 92) final letter to the Forestry Board. He is quite upset that the state forester’s fire reports are in too general of terms, and that too many burning permits are issued. A “person below the average” feels he doesn’t need to be careful if he has a permit, said Andrews. Modern fire prevention relies on burning permits, so this illustrates that he wasn’t always right.
- - -. Minutes: Forestry Board: 1911–1918. Ms. Minnesota State Archives: Forestry Board / Forestry Board Annual and Biennial Notes. Box 119.E.1.3. Minnesota Historical Society Collection. These are Andrews’ handwritten minutes of the Forestry Board meetings after he was “demoted” in 1911 to Secretary. He still seems to be quite involved with the Board’s business: arranging investigative trips to state forests, communicating and gathering information for reports, and maintaining contact with fellow forestry advocates throughout the world. This is important because it shows that he cared more about forestry than a title, and he continued to serve actively until his early 90s. Historians typically finish Andrews’ story at 1911. An interesting mystery was also tucked in the back of the minutes book. It is an undated board resolution written by Professor Green, honoring Andrews’ contribution to forestry, noting: “Drawn by Prof. Green but at Gen. Andrews request not presented to the board.” Was it gentlemanly modesty, or embarrassment at his demotion, that caused Andrews to reject the praise?

- - -. “The Prevention of Forest Fires.” Proceedings of the American Forestry Congress: Washington D.C., 1894. Washington, D.C.: Judd and Detweiler, Printers, 1884: 179–182. This is the speech that Andrews gave just nine days before the Hinckley fire. The speech was publicized, launching Andrews into the public eye. When the fire occurred, he was regarded as a prophet. This speech discusses the effect forest fires have on the country, and advocates European methods of preventing forest fires, again demonstrating his fascination with European forestry. A quote about the cost of forest fires in money and human lives is used in this paper to illustrate the damage caused and the magnitude of the problem Andrews was up against.

- - -. “Reasons for Additional Forest Fire Legislation.” 9 Jan. 1911. C. C. Andrews, Miscellaneous Pamphlets. Pamphlet 17, F605.1.A565mp. Minnesota Historical Society Collection. This is one of many pamphlets Andrews wrote about the laws he was advocating. This pamphlet features a discussion of stronger fire law penalties and legislation for safe slashings disposal. It gives Andrews’ explanation of why these tougher laws are needed, using the large Minnesota forest fires as examples. He also complained about the fire wardens, saying: “If we could find a George Washington in every township who would be willing to serve as fire warden or patrol, the problem of forest fires would be solved.”

- - -. Recollections of Christopher C. Andrews: 1829–1922. Ed. Alice Andrews. Cleveland: The Arthur H. Clark Co., 1928. This is the published version of “Autobiography of Eighty Years.” It was edited by Andrews’ daughter, Alice. It is not quite as interesting as the original autobiography, and is three or four times shorter because many of the anecdotes that show his personality are missing. A photograph of Andrews from his Civil War days is used, as are several quotations.

- - -. Scrapbooks 1857–1922. Manuscript Notebooks, A / .A565, Andrews, Christopher C. Papers, Box 14. Minnesota Historical Society Collection. These scrapbooks contain Andrews’ news clippings, articles, and various brochures collected on trips or social outings. The early scrapbooks 1857–1879 chronicle his Civil War experiences, and how he established himself politically in Minnesota. His versatility is shown in the range of issues he addressed: agriculture, suffrage, railroads, libraries, etc. It is also interesting that a blotter sheet was left one of the books; it is imprinted with mottoes about the importance of fire prevention. These blotters are not mentioned elsewhere, but could it be that Andrews had them printed to publicize the cause?
Rice 16

- - - “What Forestry has done for the Chippewa Indians in Minnesota.” June 1918. C. C. Andrews, Miscellaneous Pamphlets. Pamphlet 9, F605.1.A565mp. Minnesota Historical Society Collection. This is another of Andrews’ many pamphlets. This one discusses how the federal reserve would benefit American Indians. It lists past indignities done to the Indians through unfair timber laws, and discusses how forestry has been benefiting the Indians. Andrews cheerfully pronounces that the Chippewa “have derived considerable money during the past fourteen years by the application of forestry principles.”

“Andrews Funeral Today.” St. Paul Pioneer Press 23 Sep. 1922: 1. Despite being a very public figure for most of his life, and using his military title, General, for nearly 60 years, Andrews’ burial in Oakland Cemetery was “private and without military rites.” One of his honorary pall bearers was the Governor of Minnesota. See also “Visit to C.C. Andrews’ Gravesite.”

“Being Heard From.” The Cass Lake Voice 10 Aug. 1901: 1. This article opposes the proposed park near Cass Lake, where the residents feared that the park would hurt their business and agricultural prospects. A quote is used in this paper saying that God meant timber to be cut down, and that the people should be allowed to farm cutover land.

Best, E. F. Letter to C. C. Andrews. 19 Mar. 1896. Minnesota State Archives: Conservation Dept. / Forestry Div. / Correspondence, Folder 1886–1909. Box 103.E.13.8(F). Minnesota Historical Society Collection. Mr. Best was an assistant commissioner for the Dept. of the Interior’s General Land Office. This letter is in response to one of the first Andrews wrote as Chief Fire Warden requesting that the United States acquire title to pine lands to be used for forest reserves. There are many other such letters in this box requesting land for both state and federal reserves. These letters show Andrews’ tenacity in creating scientifically managed forests in Minnesota.

Bramhall, F. E. “The Park and Forest Reserve Plan — What It’s All About.” The Courant Jan. 1902: 1–13. This article was written by a woman who was a strong supporter of federal forest reserves. She reached out to other club women with her article in support of the reserve. She gave reasons why the reserve would be good for Minnesota’s forests and discounted the arguments against forestry. She provided a map of possible park land and a list of profits from a park in New Hampshire, claiming that Minnesota parks could easily generate the same amount of revenue.

Cartoon. The St. Paul Pioneer Press, appearing in The Courant, Jan. 1902: cover. This cartoon appeared in The Courant, but is actually from the Pioneer Press. It shows the women’s clubs protecting trees from a greedy (and puzzled) lumberman. It illustrates how instrumental women were in establishing federal forest reserves, so it is included in this paper.

Carleton, Frank H. Letter to C. C. Andrews. 20 May 1902: 1 This letter was written by John S. Pillsbury’s lawyer after Pillsbury’s death. It accompanies the deed to the 1,000 acres that Pillsbury bequeathed for the first state forest reserve. Pillsbury had promised this land to Andrews, and this officially designates it for that purpose.

Chippewa National Forest, U. S. Dept. of Agriculture, Forest Service. 6 Mar. 2002. <http://www.fs.fed.us/r9/chippewa> This is the Internet site for the Chippewa National Forest in Minnesota. It gives current size and usage information. In addition, it says that the forest is the only one to share boundaries with an Indian Reservation, which was part of the original proposal supported by Andrews.

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This article extols the virtues of the Hinckley fire of 1894. It claims that the fire cleared much land for settlers. This paper uses it to illustrate the attempts made to distract people from the detrimental effects of bad forestry practices, thus making Andrews’ revolution more difficult.

This includes a record of the amendments passed for bill S. 4284, which was a provision for the sale of timber on Chippewa lands. This bill makes the bidding for timber more fair to the Indians, a feature that Andrews actively campaigned for. This also repealed the “dead and down” timber laws that Andrews had fought against. See also Green logs.

*Cong. Rec.* 5 Apr. 1904: 4284.
This is the record of the bill S. 4401 which granted Minnesota 20,000 acres of forest land, which was named the Burntside Forest. This is the first federal land transferred to Minnesota for forestry purposes. This was one of Andrews’ most important contributions.

This photograph shows the underbrush, tall tree stumps, and general debris left behind after an area has been logged. This illustrates why settlers often used fire to clear land for farming, thus complicating fire prevention.

This was one of the first speeches given before Congress that told of the dire consequences of over-harvesting America’s forests. Especially useful are the direct references to Minnesota as a state whose forests were being depleted at an alarming rate. Dunnell’s analogy of boards encircling the earth is used in this paper.

This is from the U.S. Dept. of Agriculture, Division of Forestry in response to Andrews suggestion that for every white pine cut down, a new one be planted in the same place. Fernow called this idea childish. This illustrates that Andrews had ideas that were too difficult to implement, but he was always trying.

Andrews devised several forms to gather annual information from the local fire wardens. This is the collection of handwritten answers that were returned to Andrews. They are important because they tell the story of continual fires, the settlers’ reaction to the fire laws, and provide insight on the local fire wardens, e.g. attitude, education, and country of birth. One of these forms appears in Appendix B.

This lists the provisions of the first fire laws passed by Minnesota (S. F. 583), designating the Chief Fire Warden post. This is the first legislative milestone in Andrews’ forestry revolution.
This is Andrews’ obituary. It summarizes his life. Strangely, the title of the article does not include a mention of his forestry work. However, his work is summarized in the article.

This contains the legislation organizing the first Forestry Board in Minnesota. While it is still under the State Auditor’s office (an elected official), Andrews fought for its creation as the first step toward the non-partisan forestry board that was formalized in 1911.

This contains a law that allows the Chief Fire Warden (Andrews) to hire Forest Rangers as needed to patrol the forests full-time in the dry season. As usual during this time, only a small amount of money is appropriated for the purpose.

This contains new, harsher fire laws, based on Andrews’ ideas. Another law reorganizes the Forestry Board, and Andrews’ position is terminated. A State Forester takes his place as overseer of forestry in Minnesota.

This survey, created by Andrews, was completed by local fire wardens the first year after the Minnesota fire laws were enacted. Especially interesting is the response to: “How can an active sentiment be awakened for preservation of Minnesota timber?” Mr. Goodrich’s reaction of frustration and hopelessness was typical of this era, so it is used as the opening quote.

This photograph was taken by General Andrews as part of his campaign to repeal the federal “dead and down” laws. The photograph shows green (fresh) timber that the loggers were claiming was dead and down. It is important to this paper because it shows that Andrews was devoted to fire prevention, was concerned that Indians get a fair price for their timber, and was willing to do field work — even at about 70 years old.

This letter, written to Andrews as the Secretary of the State Forestry Board of Minnesota, discussed a letter from the U.S. Land Office (see Succit) which required $250 to transfer the land for Burntside Forest to the state. The state government didn’t pay it, so Green offers to pay $50 and requests the same from the other board members. These two letters illustrate Andrews’ (and other board members) very personal dedication to state forest land, and the many obstacles faced in the revolution for public land managed by forestry principles.

Ms. Hanisch works for the Minnesota’s Department of Natural Resources providing information to the public. She provided many facts and figures on Minnesota forestry’s current status which were useful, and a copy of Forestry: Sustaining Minnesota’s Forest Resources (see below), for which she was project manager. She also provided contacts to other DNR personnel, whose interviews were also very valuable.

Upon Andrews’ death in 1922, the Forestry Board voted to pass a resolution honoring him. It summarizes his many years of forestry work. A copy was sent to his daughter and to the press. The text of this resolution is in Appendix C.


This letter is from Gifford Pinchot’s clerk. Pinchot was U. S. Forester, and often communicated with Andrews. This letter is one of many written to Andrews, and, although Pinchot was away, shows that they had been discussing the bill proposing Burntside Forest. Andrews shared much of Pinchot’s philosophy, and constantly updated him on developments in Minnesota forestry.


Mr. Jacobsen works for the Minnesota DNR, Marketing and Utilization Department. He provided information about what kind and how much timber is currently harvested (375 million board feet) from state forests and the revenue it generates annually ($16 million). This shows that Andrews was right — Minnesota forests are renewable and revenue-generators when properly managed.


This article is extensive coverage of the proceeding of the Conference called by Minnesota’s Governor Eberhart (at Andrews’ urging) after the disastrous fire year 1910. Minnesota, Wisconsin, and Michigan lumberman, foresters, railroad and state officials took part. This the first time that these states united to come up with fire prevention proposals to take back to their respective state legislatures. This is important because their proposals were what Andrews had been asking for all along: professional fire patrols and a larger budget.


The occupations of Minnesota’s state legislature members and elected government officials are listed on pages 581–644. Men with lumber interests (which encompassed: lumbermen, railroad men, farmers, and manufacturers or merchants serving these occupations) were in the majority in the House (~60%) and Senate (~53%). This was used to support the point that lumber interests controlled Minnesota in the late 1800s.

Makey, Dean. Telephone interview. 7 Mar. 2002.

Mr. Makey is a Minnesota DNR field forester, with over twenty years experience. He provided information about the schooling required for a forester. He discussed the causes of today’s fires, their size, and how many there are. Slashings disposal is still required, a law for which Andrews fought. Mr. Makey also said that they replant cutover land, even though some trees regenerate on their own. This supports Andrews’ philosophy that managed forests can be regenerated.


This discusses the importance of white pine as a building material, which was used in this paper. The history and statistics about white pine also provided background information. In 1912, Minnesota produced the most white pine (1.2 billion board-feet), four times more than the closest competitor, Wisconsin.
Minnesota Department of Natural Resources (abbreviated in parenthetical citations as MN DNR). 
Minnesota, DNR. 1997.
This publication summarizes the history and current status of forestry in Minnesota, including 
legislative milestones, maps of state-managed forest reserves, and timber production. Andrews is 
featured. His importance to Minnesota forestry is highlighted in the names of the state forests. 
Most of the 57 forests have landmark or Native American names; only 5 (not counting Paul 
Bunyan) are named after people, including the General C. C. Andrews State Forest Nursery.

This book is composed of biographies of important people from Stearns county. There is a 
detailed summary of Andrews’ life and works on pages 190–194. This was helpful in 
understanding the order of events in his life.

This is an article written for the women’s club newsletter that opposes the national park scheme. 
This was offered as a counterpoint to the usual tone of The Courant which was overwhelmingly 
sympathetic to the national park (later called forest reserve) movement.

Although lumbermen were often opposed to forestry, in this case, they backed stricter fire patrols. 
They were beginning to realize that proper forestry practices resulted in a larger profits. This 
shows that Andrews’ revolution had made an impact on the lumber industry.

“Move Would Injure Duluth.” The Sunday News Tribune (Duluth) 6 July 1902: 3. 
This article opposes the national park (later called national forest reserve) scheme. The people of 
Duluth felt that the park would cut them off from the rest of the state, slow or stop the city’s 
growth, and waste good agricultural land. A quote is used that claimed Duluth would not expand 
quickly if the park were formed.

The sharp increase in population between 1850 and 1860 is used to show how the lumber industry 
brought residents to Minnesota very quickly.

This is a newspaper article about the Baudette / Spooner fire. This fire was caused by railroad 
sparks and dry slashings littering the ground. The appropriation for forest rangers had run out a 
month earlier. Some believed that if the rangers had been able to patrol the forest, the catastrophe 
would not have occurred. A quote from a laid-off ranger was used to illustrate the dire situation.

This article opposes a national park (later called national forest reserve land) near Duluth. A quote 
from Elbert A. Young is used that said he would prefer having potatoes grown on cutover lands to 
a park. This illustrates opposition to the forestry revolution.
Pinchot, Gifford. Letter to C. C. Andrews. 10 Feb. 1897. Letterbooks, A / .A565, Andrews, Christopher C. Papers, Vol. 77-85, Box 14, Letter 254. Minnesota Historical Society Collection. This is an example of one of the many letters sent between Pinchot, one of America’s most important foresters of this era, and Andrews. This particular letter requests a copy of one of Andrews’ annual reports because he saw one and thought it was very interesting; many other letters are in Andrews’ letterbooks. This is important because it illustrates how Andrews relied on expert foresters for help with Minnesota’s forestry revolution.

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The Use of the National Forests, GPO: U. S. Dept. Of Agriculture, Forest Service, 1907. This book, written by the U. S. Forester, gives an overview of what a national forest is. It also includes a list of national forests in the country. Oddly, no Minnesota forest is listed, even though the Chippewa National Forest reserve was designated in 1902.

Proceedings of the American Forestry Congress: 1882. Washington D.C.: American Forestry Society, 1883: 39+. These are the minutes of the first meeting of the American Forestry Congress. Andrews’ name is on the membership list. This illustrates his national visibility as a forestry advocate.

Pubanz, E. H. “Annual Reports of Local Fire Wardens.” Andrews, C. C. Annual Report of Chief Fire Warden 1895: 75–76. This report was quoted in Andrews’ annual report, highlighting a problem with the fire laws. Mr. Pubanz believed a terrible fire that engulfed a toddler occurred because people weren’t being as cautious; they assumed the law and the warden would protect them.

Randa, A. Fire Warden Report form. Fire Warden Reports. Atkin, MN: 27 Jan. 1896. This survey, created by Andrews, was completed by local fire wardens the first year after the Minnesota fire laws were enacted. Especially interesting is Randa’s suggestion that fire law placards be printed in Finnish, demonstrating how hard it was just to communicate the laws to settlers.

Rankin, S. J. Fire Warden Report form. Fire Warden Reports. Barnum, MN: 29 Feb [1896]. This survey, created by Andrews, was completed by local fire wardens the first year after the Minnesota fire laws were enacted. Rankin’s opinion that the fire laws were too strict for settlers to clear their land demonstrates the opposition Andrews faced.

St. Paul Pioneer Press 3 Sep. 1894 to 6 Sep. 1894: 1+. These newspapers tell the terrible tale of the Hinckley fire through many articles. These accounts were important to this paper because it told of the destruction precipitated by poor fire prevention methods, and shows how imperative Andrews’ revolution was to save people and forests.

Succit, H. W. Letter to C. C. Andrews. 9 Aug. 1904. Minnesota State Archives: Conservation Dept. / Forestry Div. / Correspondence, Folder 1886–1909. Box 103.E.13.8(F). Minnesota Historical Society Collection. This letter, written to Andrews as the Secretary of the State Forestry Board of Minnesota, asked for $250 in federal land transfer fees for Burntside Forest. See: Green, Samuel, for the Board’s response to this situation. These two letters illustrate Andrews’ (and other board members’) very personal dedication to state forest land, and the many obstacles faced in the revolution for government land managed by forestry principles.
This article details the proceedings of the Minnesota forest fire conference, held in response to the September Hinckley fire. Minnesota businesses and institutions were represented, as well as government officials. Andrews was one of the featured speakers. The conference urged the legislature to give its attention to fire prevention, which supported this paper’s point that Minnesotans were clamoring for government involvement in fire prevention.

I expected Andrews to have some sort of monument on his grave, but instead he has only a flat plaque on the ground. He is buried near his wife, daughter, and mother-in-law. Although there is no large stone monument, there are many tall trees around his grave that must have been young when he died. These are fitting memorials to his forestry contributions.

This was a very interesting artifact, because it conveys some of the happiness and relief Andrews must have felt when he received it. The message is: “Bill granting Minnesota twenty thousand acres passed house and senate this evening.” This land became Burntside Forest: the first state forest reserve. Even though telegrams were printed on half sheets, this telegram is folded in quarters; perhaps Andrews carried it in his pocket in excitement. It came at 9:51 P.M. — maybe Andrews had been waiting for this news for hours. Also in this folder are many letters to senators on the Committee for Public Lands in response to Andrews’ personal requests for their support. This shows his dedication to obtaining forest land that could be managed on forestry principles.

This is a cloth placard created by Andrews to notify the public of the fire laws. It appears that it was actually posted because it has rusty nail holes. It is in the language of the law (and hard to understand), and in tiny print. This illustrates some of the frustration that settlers had with the early fire prevention methods. It does appear that Andrews solicited other ideas because in 1899 another cloth placard from another state (Box 103.E.13.8(F)), worded more understandably, was received by Andrews. No updated Minnesota placards, however, could be found.

Williams, Lydia P. Editorial. The Courant Dec 1900: 11.
This woman wrote of her travels around the country (Illinois, Michigan, Wisconsin, New York) advocating Minnesota national forest reserves. This illustrates the hard work the women’s clubs were doing for the national park movement.

This letter was written to Andrews from the Bemidji Pioneer newspaper’s Managing Editor, wondering what could be done to prevent fires since the Forest Rangers had to be laid off. He writes that people in the area are worried about dry conditions and the high possibility of a fire.
Yourd, Bill. Telephone interview. 18 Apr. 2002.

Mr. Yourd is a Forest Archaeologist for the Chippewa National Forest. He related the history of the Chippewa National Forest, and how it came to overlap forest land with the Leech Lake Band of the Ojibwe. He discussed the advantages and disadvantages to the Indians. He also provided a brief history of “dead and down” laws and other ways Indians were taken advantage of by the lumbermen. He was informative about how the Federal forest and the Indian reservation cooperate today, and how timber is harvested today.

**Secondary Sources:**


This article is important to this paper because it discusses how agriculture failed in many of the cutover lands, and how land ownership reverted to Minnesota when taxes weren’t paid. Many of the current state forests have been regenerated on this land.


This pamphlet lists the profession of each governor. Between the mid-1800s and early 1900s, three governors were lumbermen. This was used to show the major influence of lumber in state politics, and the stranglehold the industry had on Minnesota.

Grapp, Lloyd O. “National Forests.” School of Forestry, Univ. of Minnesota 63–71.

This article is contained in a book marking the fiftieth anniversary of Minnesota forestry (see School of Forestry). It tells how National Forests evolved in Minnesota. Surprisingly, Minnesota’s reserve land had already been heavily logged and burned before being designated as national forests, unlike the pristine western national forests created by presidential declaration. This shows how Andrews was dedicated to forest regeneration, and the difficult task he faced.


The history of the lumber industry, especially the era of logging railroads, is detailed. Eastern forest depletion brought loggers and logging railroads to Minnesota. Logging railroads were a challenge to conservation because all trees were accessible year round, creating a major fire hazard. This demonstrated a difficulty facing forestry preservation.


This biography of Andrews focused mainly on his forestry accomplishments. An especially interesting piece of information is that Minnesota needed to amend its state constitution to have a legal basis to permit the legislature to set apart lands for state forests that were better suited for forests than agriculture.


This book describes the Hinckley Fire of 1894 and its tremendous costs in lives, lumber, and property. It also supports this paper’s thesis that this fire was the catalyst for the revolution in Minnesota forestry by bringing Gen. Andrews to the front in the battle against bad forestry practices.
This book is a detailed history of the early days of Minnesota lumbering, and what it meant to the state. The author (Professor of History at St. Olaf College) visited many of the lumber mills and forest sites, and interviewed people who had first-hand knowledge of the industry. The legislative history and the impact on the native population, and its wealth of footnotes to primary sources, are important to this paper. General Andrews also is featured as a key figure in bringing forestry practices to Minnesota.

This is a very valuable resource about forestry in general. It has a detailed timeline that spans hundreds of years, and many wonderful pictures. Information about Teddy Roosevelt is also included, and is briefly mentioned in this paper.

This book provided population numbers 1850–1950. Especially interesting to this paper is the rapid expansion between 1850–60, and the large immigrant population which added complexity to the task of educating settlers about the fire laws.

Peick, Clyde F. “Forestry Activities: Bureau of Indian Affairs.” School of Forestry, Univ. of Minnesota 72–76.
This article is contained in a book marking the fiftieth anniversary of Minnesota forestry (see School of Forestry). Peick was a forester with the Indian Service. His clear and concise history makes sense out of the many laws and treaties dealing with Indian land and timber in the 1800s and early 1900s. Information on the first Minnesota land treaty and the “dead and down” laws is used in this paper.

Prout, Clarence. “State Forestry.” School of Forestry, Univ. of Minnesota 77–94.
This article is contained in a book marking the fiftieth anniversary of Minnesota forestry (see School of Forestry). This tells how state forestry evolved, and features Andrews. Especially useful to this paper are the staggering lumber statistics: 75 billion board-feet were cut between 1837 and 1927.

Pyne’s thesis is that major fires in 1910 played a major role in establishing forestry and firefighting in the U. S. as we know it today. Andrews is highly regarded for his tireless efforts to bring fire prevention to Minnesota, and his larger goal of implementing scientific forestry, not just in Minnesota but throughout the Great Lake States. He is credited with establishing the first hybrid approach to forestry: a balance between state, federal, and private land management. These support this paper’s thesis that Andrews was a leader of the forestry revolution, and fire was a catalyst for that revolution.

This book contains a variety of information about Minnesota’s history. Since logging is a major part of the state’s history, the book has many articles about the industry. It discusses how the lumber industry stimulated the development of Minnesota towns and cities.
Ryan, J. C. *Early Loggers in Minnesota*. Duluth, MN: Minnesota Timber Producers Association, 1973. This is the loggers’ point of view of this era, telling about the lifestyle, work, and language of the lumber industry. Especially interesting is Ryan’s opinion that the slashings burning law destroyed the white pine because its seeds could not survive fire. This information conflicts with other sources. He did agree that locomotives were fire hazards, which is used in this paper.

School of Forestry, Univ. of Minnesota. *Forestry in Minnesota: Past, Present and Future*. St. Paul: Univ. of Minnesota, Institute of Agriculture, 1953. Marty Moen of the Univ. of Minnesota’s Forestry Department sent me a copy of this hard-to-find book that commemorates fifty years of Minnesota forestry. Primarily, the Forestry School’s history is covered, but it also provides an excellent general history of the forestry movement and Andrews’ involvement in it. It also had useful, in-depth articles on several topics written by other authors (see Grapp, Peick, Prout).

Searle, R. Newell. “Minnesota Forestry Comes of Age: Christopher C. Andrews, 1895–1911” *Forest History* July 1973: 14–25. This is an overview of Andrews’ forestry accomplishments and the challenges he faced. This article provides many details and is heavily footnoted. These footnotes provided many useful primary sources. However, like most of the sources for this paper, this article does not mention the large amount of work Andrews continued to do after the position of Chief Fire Warden was taken from him. He continued to gather support for forestry, advise the board, write forestry-related letters, travel around the state deciding which laws would be good for Minnesota forestry, and in general, making his voice heard in related discussions. No biographical research on Andrews seems to include any mention of this vast quantity of work done by Andrews after 1911. One must read his papers and correspondence to find out about his work as Secretary of the Forestry Board.

---. “Minnesota National Forest: The Politics of Compromise 1898-1908.” *Minnesota History* Fall 1971: 242–57. This description of the political birth of the first National Forest (by Federal legislation) was key to understanding the complex conservation and lumber issues during the late 1800s and early 1900s. The author cites Andrews as a major figure in the national forest movement, and provides details on how he helped obtain scientifically managed forest reserves.

Twining, Charles E. F. K. *Weyerhaeuser: A Biography*. St. Paul: Minnesota Historical Society Press, 1997. This book’s introduction provided background of F. K.’s grandfather (Frederick) and father (John), who were contemporaries and supporters of Andrews. The most interesting information is the home address of John in the early 1900s — he was a neighbor of Andrews, who often gained support through contact with influential citizens.

**Source for research paper format:**