NPS Form 10-900-b
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United States Department of the Interior
National Park Service

National Register of Historic Places Multiple Property Documentation Form

This form is for use in documenting multiple property groups relating to one or several historic contexts. See instructions in *Guidelines for Completing National Register Forms* (National Register Bulletin 16). Complete each item by marking "x" in the appropriate box or by entering the requested information. For additional space use continuation sheets (Form 10-900-a). Type all entries.

A. Name of Multiple Property Listing

The Conservation Movement in Iowa, 1857-1942

B. Associated Historic Contexts

Wildlife Conservation, 1857-1942	Conservation of Native Flora, 1909-1942
Forest Conservation, 1866-1942	Soil and Water Conservation, 1909-1942
Parks, c.1890-1942	

C. Geographical Data

State of Iowa

☐ See continuation sheet

D. Certification

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this documentation form meets the National Register documentation standards and sets forth requirements for the listing of related properties consistent with the National Register criteria. This submission meets the procedural and professional requirements set forth in 36 CFR Part 60 and the Secretary of the Interior's Standards for Planning and Evaluation.

David Cram — 10/31/91

Signature of certifying official — Date

State Historical Society of Iowa

State or Federal agency and bureau

I, hereby, certify that this multiple property documentation form has been approved by the National Register as a basis for evaluating related properties for listing in the National Register.

Beth Boland — 12/23/91

Signature of the Keeper of the National Register — Date

E. Statement of Historic Contexts

Discuss each historic context listed in Section B.

☒ See continuation sheet

SECTION E: THE CONSERVATION MOVEMENT IN IOWA, 1857-1942

SECTION E: THE CONSERVATION MOVEMENT IN IOWA, 1857-1942

I. INTRODUCTION

The impetus for conserving natural resources sprang from many sources. Depending upon one's purpose or perception, the roots can be traced as far back as the colonial era. In Iowa, however, the first articulation of statewide concern over the status of threatened resources came in 1857, when the state legislature passed a law establishing open and closed seasons for the hunting of wild deer, elk, turkey, prairie chickens, grouse, and quail, and imposed penalties for violators. The 1857 Game Law opened an era of increasing concern which flowered into a loosely organized and multifaceted conservation movement during the late 1890s. Organized groups initiated various movements to encourage tree-planting, to set aside forest reserves, to prohibit the excessive taking of fish and game, to propagate fish and game, to protect meandered streams and lakes, to restore marshlands, to control soil erosion, to preserve historic and scenic sites, and to create public parks. In this regard, Iowa was no different from the rest of the nation. The myriad activities which fell under the rubric of conservation were interrelated, with overlapping goals and memberships. Consequently, there is no precise definition of the conservation movement, and the term provides an umbrella for at least four major realms of activity on the national and state levels: controlled resource development, recreation, wilderness and wildlife preservation, and production control.[1]

The evaluation of resources associated with the conservation movement necessarily must begin with a discussion of the ideas and purposes which united separate but related efforts during the late nineteenth and early twentieth century. In large part, these historic places reflect particular cultural values which conservation-minded people shared. These values were imposed on the landscape in many forms.

Although the conservation movement was a diffuse and multifaceted phenomenon, it definitely flowered during the Progressive Era. Roy Robbins, one of the early historians of the Progressive Era, characterized the conservation movement as a reaction to the federal government's profligate land policies and to corporate business practices during the late nineteenth century. Large corporations, in particular, were culpable for wasting natural

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1 I follow Kendrick A. Clements's definition here, as presented in "Herbert Hoover and Conservation," *American Historical Review* 89 (February 1984): 85-86.

resources in the process of extracting mineral resources, building transportation systems, and manufacturing consumer goods. Actually, the process of industrialization bothered Robbins less than did the monopolistic and fraudulent practices which seemed to accompany it. In his view, the largest owners of land were also the worst abusers of natural resources.[2] To Robbins and other scholars of his generation, the conservation movement was another manifestation of the reform spirit which sought to curb the accumulation of private wealth and to assert the public welfare over the rights of private ownership. In this vein, Iowa native W.J. McGee, one of the outstanding geologists and ethnologists of the Progressive Era, rhetorically asked:

> What *right* has any citizen of a free country, whatever his foresight and shrewdness, to seize on sources of life for his own behoof that are the common heritage of all;... what *right* has any generation to wholly consume, much less to waste, those sources of life without which the children or the children's children must starve or freeze?...The ethical doctrine of Conservation answers...that each holder of the sources of life is but a trustee for his nominal possessions, and is responsible for all men and for all time for making the best use of them in the common interest...?[3]

As other historians delved more deeply into the social and political texture of the Progressive Era, this one-dimensional view gave way to a greater appreciation for the complexities of the time. Samuel P. Hays first challenged the reactionary connotations inherent in Robbins' view of the conservation movement. In *Conservation and the Gospel of Efficiency*, Hays observed that small landowners, namely farmers, abused natural resources just as much if not more than corporations with large landholdings. Moreover, corporations, notably railroads, had cooperated with conservationists to develop federal irrigation, forest, and range programs in the West. As Hays saw it, the conservation movement stemmed from a "spirit of efficiency" which sought to transform "a decentralized, nontechnical, loosely organized society, where waste and inefficiency ran rampant, into a highly organized, technical, and centrally planned and directed

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2 See Roy Robbins, *Our Landed Heritage* (Princeton: Princeton University Press, 1942).

3 W.J. McGee, "The Conservation of Natural Resources," *Proceedings of the Mississippi Valley Historical Association* (Cedar Rapids: The Torch Press, 1911): 377. McGee, who was born in Dubuque County, achieved considerable national prominence as a geologist and hydrologiest with the U.S. Geological Survey, and his scientific contributions to resource conservation as well as cultural conservation are widely recognized.

social organization which could meet a complex world with efficiency and purpose.[4] This "spirit of efficiency" resided in an emerging class of professionals who were trained in the sciences -- or at least were schooled in scientific principles. Conservationists, Hays noted, shared with corporate leaders "a mutual revulsion against unrestrained competition and undirected economic development." Both camps wanted "cooperation and planning to abolish the uncertainties and waste of competitive resource use."[5]

There was also a strain of aesthetics in conservationist thought. Although the first European settlers generally viewed their surroundings as hostile habitats to be tamed and civilized, from the beginning there were those, such as William Penn, who recognized the "nonutilitarian values" of their surroundings.[6] It would take more than a century before such ideas would be articulated with any clarity, however. During the early nineteenth century, the poems of William Cullen Bryant, the "leatherstocking tales" of James Fennimore Cooper, and the landscape paintings of the Hudson River school of artists portrayed a romantic vision of America that put man in awe of nature's beauty.[7] As the nineteenth century progressed under the banner of Manifest Destiny, and more and more "virgin" soil broke under the plow, a sense of foreboding tempered the rhapsody of romanticism. Expansion and industrialization, it became clear, had the power to "diminish as well as develop the landscape."[8]

By the late nineteenth century, the romantic vision of nature had given rise to a new breed of self-styled "nature lovers" -- urbanites who championed the aesthetic qualities of nature and

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4 Samuel P. Hays, *Conservation and the Gospel of Efficiency* (Cambridge, MA: Harvard University Press, 1959):265.

5 *Ibid.*, p. 266.

6 Hans Huth, *Nature and the American: Three Centuries of Changing Attitudes* (Berkeley: University of California Press, 1957):9.

7 *Ibid.*; see especially Chapter 5, "The Romantic Period," pp. 30-53.

8 Lee Clark Mitchell, *Witnesses to a Vanishing America: The Nineteenth-Century Response* (Princeton: Princeton University Press, 1981):6. Several historians have explored this theme, including Perry Miller, "The Romantic Dilemma in American Nationalism and the Concept of Nature," *Harvard Theological Review* 48 (October 1955):239-253; Leo Marx, *The Machine in the Garden* (New York: Oxford University Press, 1964); and Roderick Nash, *Wilderness and the American Mind*, rev. ed. (New Haven: Yale University Press, 1973).

transformed romanticism into an "Arcadian myth."[9] Peter Schmitt discerns the seeds of the conservation movement not so much in lofty ideals as in a society that was:

> trying to cope with the pressures of urbanization at the turn of the century" and consequently "worked [hard] to define the role of nature in an industrialized society.... John Burroughs and California's John Muir might even pursue country life back to elemental simplicities, but the great mass of nature lovers in the nineteenth century only seasoned their lives with wildness.[10]

From the "back to nature" movement emerged landscape architecture as a profession, the notion of setting aside land for public parks, the garden city concept of regional planning, the genre of outdoor adventure novels, and the organization of youth into "scouts" and "campfire girls." In most respects, this was an urban response. Unlike farmers and small-town folk, city dwellers "valued nature's spiritual impact above its economic importance."[11] The Arcadian myth, however, was not simply Jeffersonian agrarianism reclothed or nineteenth century Transcendentalism revived. Instead it was an attempt to preserve, capture, or recreate the best, in aesthetic terms, that nature had to offer -- nature's pastoral qualities, its scenic vistas, its wide open spaces, its abundant wildlife, its cleansing character.

Tempering aesthetics was a strain of asceticism in the conservation movement, a reaction to self-aggrandizing impulses inherent in the capitalistic system. Gentleman sport hunters who organized to end the needless carnage of wildlife inflicted by market hunters were driven, in large part, by a moral code which upheld the true sportsman as one who understood and respected his prey in its natural surroundings.[12] Moral conservationists, whether sport hunters or not, spoke for leaving some part of nature unsullied by man. "I am frightened when you talk of landscape-development [in state parks]" wrote Thomas Huston MacBride, one of Iowa's

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9 Peter J. Schmitt, *Back to Nature: The Arcadian Myth in Urban America* (Baltimore: The Johns Hopkins University Press, 1990, rpt. 1969).

10 *Ibid.*, pp. xix-xx, 7.

11 *Ibid.*, p. xix.

12 John F. Reiger, *American Sportsmen and the Origins of Conservation* (New York: Winchester Press, 1975), see especially Chapter 2, "American Sportsmen and Their Code," pp. 25-49.

leading conservationists. "For the wild things, the birds and trees, we fain would save from threatened absolute destruction, Nature's landscape is just exactly right! The wild woods and thickets undisturbed, grasses, sedges, composites, hazels, cedars are precisely right. To these we can add nothing."[13]

Joseph Petulla argues that the conservation movement can only be understood as a bifurcated manifestation of two intellectual crosscurrents: the Enlightenment and Romanticism. Industrialization, urbanization, and westward expansion provoked a reaction to Progress, and Americans responded decisively in two distinct ways. Resource conservationists, trained in the sciences, "sought to utilize the land and its resources efficiently."[14] The earliest spokesmen for this view were George Perkins Marsh in *Man and Nature* (1864) and John Wesley Powell in his *Report on the Lands of the Arid Region of the United States* (1878). "Nature preservationists," drawn to the writings of Emerson and Thoreau, sought to draw lines around unspoiled natural wonders in order to save them from exploitation.[15] John Burroughs expressed these ideas in numerous essays, and John Muir crusaded with missionary zeal to preserve the nation's forests. While these two wellsprings of conservationist may be discernible in retrospect, there really was "no strong division between the scientific, efficiency-minded resource utilizers and the resource preservationists" in the beginning.[16] It was not until Chief U.S. Forester Gifford Pinchot rejected Muir's ideal of forest preservation in favor of resource management for multiple use that the dichotomy became apparent. Even so, conservationists and preservationists remained united in pressing the federal government to protect natural as well as cultural resources, and the two distinct ideologies inherent in the conservation movement were not always clear to those who considered themselves in the mainstream.

One of the important aspects of the conservation movement in Iowa is the degree to which competing and overlapping activities were rationalized in the fifteen years following passage of

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13 Thomas H. MacBride to landscape architect John Fitzsimmons, undated [ca. 1930] letter. Thomas MacBride Papers, University of Iowa, Iowa City.

14 Joseph M. Petulla, *American Environmental History: The Exploitation and Conservation of Natural Resources* (San Francisco: Boyd & Fraser Publishing Co., 1977), p. 218.

15 *Ibid.*, pp. 228-229.

16 *Ibid.*, p. 233.

the 1917 Holdoegel Act, which established the State Board of Conservation. During the 1920s, the Board worked ad hoc with the State Fish and Game Commission and a variety of individuals in official or quasi-official positions in order to fashion a state park and preserve system. In fact, the state park system played a central role in defining the practical limits of conservation from about 1919 until 1933 when the the Board and Conservation and the Fish and Game Commission released their *Report on the Iowa Twenty-Five Year Conservation Plan.*

The twenty-five year plan provided a new blueprint for action administered by a central body, the State Conservation Commission [SCC]. As of 1935, all of the concerns which touched on natural resources were consolidated under the jurisdiction of one agency. Although a few other states, notably Wisconsin, Michigan, and New York, had by then consolidated the conservation of natural resources, the administration of public lands, and the provision of facilities for outdoor recreation into one conservation agency, this went against the trend at the time.[17] Herbert Hoover attempted, both as Secretary of Commerce and then as President, to consolidate federal departments with conservation responsibilities, but the effort failed, in part because power bases within agencies were too well established and in part because conservation meant different things to different people.[18] Thus, the federal government continued to house forestry with agriculture. So did most states. Likewise, there was a tendency to separate wildlife functions from parks during the 1930s. For instance, Missouri established a Conservation Commission in 1936 with jurisdiction over wildlife and game preserves. A separate Park Board, established in 1937, had jurisdiction over recreational parks.[19] In 1927, advocates for a strong park system in California managed to create a State Park Commission with full executive power over the state park program in order to keep it administratively separate from the Department of Natural Resources, created in the same year.[20]

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17 See *A Park, Parkway and Recreational Area Plan* (Madison, WI: Wisconsin State Planning Board and Wisconsin Conservation Commission, 1939):36; Charles F. Boehler, *State Parks of Michigan: A Report of the Past; A Look to the Future* (Michigan Department of Conservation, 1957):15-16; and *Fifty Year: New York State Parks, 1924-1974* (Albany: Natural Heritage Trust, 1975):n.p.

18 See Clements, entire article, and Ellis W. Hawley, "Herbert Hoover, the Commerce Secretariat, and the Vision of an 'Associative State,' 1921-1928," *Journal of American History* 61 (1974):116-140.

19 Bonnie Wright, "Emergency Conservation Work (ECW) Architecture in Missouri State Parks, 1933-1942, Thematic Resources" (Jefferson City, MO: Department of Natural Resources, 1984):Sec. 8, p. 9.

20 Joseph H. Engbeck, Jr. and Philip Hyde, *State Parks of California: from 1864 to the present* (Portland, Oregon: C.H. Belding, 1980):47-50.

The California experience demonstrated another strong tendency, which was to give a state park commission the responsibility for administering recreational and scenic area as well as historic sites. This followed the federal pattern established with the National Park Service. In 1935, Iowa chose to exclude the administration of historic sites from the State Conservation Commission's jurisdiction. This reversed the earlier policy, although the state parks already created to protect certain historic sites remained under SCC administration. When the State Board of Conservation was formed in 1917, its mandate specifically included the preservation of historic places, and E.R. Harlan, director of the State Historical Society, was named as one of the commissioners. By the 1930s, however, there seemed to be a consensus of opinion that natural and cultural resources should be treated under separate agencies, although the *Iowa Twenty-Five Year Conservation Plan* still listed "historic and scientific sites" and "highways and scenic ways" as two of nine interrelated conservation elements.[21] New Deal emergency relief and conservation programs enabled the state to implement the activities that gave the State Conservation Commission a presence in state government that was far greater than any of its predecessor agencies had ever held.

This consolidation did not happen by chance. A strong undercurrent of cooperation and coordination kept ideas and activities flowing throughout the 1920s. An "inner circle" of conservationists took part in almost all of the key organizations and agencies, and their sustained interest and active participation provided cohesion. There were also specific efforts to bring organizations and agencies together for the purpose of drafting and supporting effective legislation. Such was the case in 1917 when the Iowa Conservation Association took the lead in promoting a state parks bill and again in 1918 when the ICA worked with park promoters in northeastern Iowa to launch the American School of Wild Life Protection as a means to promote conservation of natural and cultural resources in the Upper Mississippi River Valley. Complete coordination, however, never materialized. In 1925 E.N. Hopkins of the Meridith Publishing Company brought together representatives of the Audubon Society, the Iowa Conservation Association, the Garden Clubs, the Farm Bureau, the Iowa State Horticultural Society, the State Board of Conservation, and the Izaak Walton League to coordinate legislative efforts. The

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21 Jacob L. Crane, Jr. and George Wheeler Olcott, *Report on the Iowa Twenty-Five Year Conservation Plan* (Des Moines: Iowa Board of Conservation and Iowa Fish and Game Commission, 1933):18.

meeting resulted in a new body: the Iowa Council of Conservation Organizations, which had only a fleeting existence.[22]

The highly personalized nature of the conservation movement in Iowa resulted in another important aspect: a sustained focus on objectives. Certainly, disagreements and disaffection crept in, but these never derailed the conservation movement. The vibrancy of the movement from the early twentieth century through the New Deal is remarkable; the record of achievement truly impressive. The list of accomplishments includes a highly developed system of state parks, preserves, and recreation areas; a system of state and federal fisheries; land acquisitions for forest reserves; creation of the nation's largest wildlife and fish refuge; major contributions to conservation research in all areas; and landmark legislation. A sense of mission pervades the records of those who were most involved. Though one cannot quantify the difference attributable to personality, it is hard to imagine that so much could have been accomplished in such a relatively short period of time if men and women such as John Lacey, Thomas MacBride, Louis Pammel, Bohumil Shimek, Cora Call Whitley, G.B. MacDonald, J.N. "Ding" Darling, and Ada Hayden had not made life-long commitments to conservation.

The chief legacy of the conservation movement in Iowa is that, by the early 1940s, the protection of natural resources was in the hands of one agency, while the management of cultural resources quietly dropped from the conservation agenda. In reality, though, prehistoric and historic sites have, from the beginning, been located within state parks and preserves, testimony to the fact that natural and cultural resources can never be completely separated. By-and-large, however, the mandates handed to the State Conservation Commission were 1) to attain a balanced utilization of the state's water, soil, woodland, game, and fish resources and 2) to establish a system of parks and preserves for outdoor recreation and educational purposes. The context of Iowa's conservation efforts, as organized and presented here, follows the division of conservation elements delineated in the 1930s, since, to a certain degree, resource property types can logically be grouped under these same broad categories. The history of the conservation and parks movements in Iowa is thus discussed under the following themes: wildlife conservation, forest conservation, parks (including municipal, county, and state parks), flora conservation, and soil and water conservation.

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22 Louis H. Pammel, "The Arbor Day, Parks and Conservation Movement...," cont. *Annals of Iowa* 17:4 (April 1930):277.

II. WILDLIFE CONSERVATION: 1857-1942

Origins of Wildlife Conservation

The term "wildlife conservation" is used here in its generally accepted definition to mean the conservation of mammals, birds, and fishes. Since wildlife conservation is intimately bound up with habitat preservation, it is somewhat artificial to discuss fisheries outside the context of water conservation, particularly the environmental degradation of lakes and rivers. Likewise, one cannot adequately discuss the conservation of migratory waterfowl, songbirds, and game without reference to the loss of prairie vegetation, marshlands, and forests. Nonetheless, during the nineteenth century, wildlife protection generally was not considered in ecological terms. Proposed solutions often focused on species propagation to counterbalance the adverse effects of hunting, trapping, and fishing or the loss of hunting and fishing grounds.

Wildlife depletion was the first resource issue to attract legislative attention in Iowa, as it was in the nation. In 1871, Congress established the Office of Commissioner of Fish and Fisheries, with authority to aid commercial fishing. This was followed in 1885 by a small appropriation to the Department of Agriculture for a study of birds, a fund which gave birth to the U.S. Biological Survey, the federal government's research agency for the scientific and economic study of birds and mammals.[23] Iowa's game laws date from 1857, and in 1874 the state established an official Fish and Game Commission, a time when many other states were doing the same thing.

Privately organized clubs and protective associations provided the initial impetus for wildlife conservation. The rise of sports hunting during the early nineteenth century was accompanied by a corresponding "decline in the prestige of men who hunted for a living.[24] To separate themselves from commercial hunters, sportsmen began to organize "horse and hunt" clubs principally for the purpose of acquiring hunting grounds where urban businessmen could repair with others of their own class and pursue shooting sports in gentlemanly fashion. The first of

23 Donald C. Swain, *Federal Conservation Policy, 1921-1933* (Berkeley and Los Angeles: University of California Press, 1963): 31. The Office of Commissioner of Fish and Fisheries became the U.S. Bureau of Fisheries in 1903; the Biological Survey attained bureau status in 1905. Both bureaus were combined into the U.S. Fish and Wildlife Service in 1939.

24 Schmitt, p. 9.

these were local in nature, but by the 1870s, sportsmen were forming statewide organizations and calling for the protection of specific game species. The Boone and Crockett Club, organized by Theodore Roosevelt in 1887, achieved prominence as a voice for conservation at the national level.[25]

The emergence of ornithology as a professional discipline lent a measure of cohesion to the budding wildlife conservation movement. When game birds were hunted chiefly for food, it was important to name only the hunted species. In consequence, field names for game birds reflected considerable regional variation, and non-game birds generally went unnamed. The Ornithologists' Union, founded in 1883, changed all this by establishing a committee on nomenclature which from 1886 on periodically published check lists of the official names for American birds.[26] Check lists not only spurred public interest in birdwatching, but the official nomenclature ultimately gave conservationists a common language when it came to avifauna.

The English sparrow invasion and market hunting were two issues which helped to transform nature lovers and sportsmen into conservationists. The English sparrow, first introduced into New York City in 1852 as a means to eradicate caterpillars, was established in thirty-five states by 1886. In the process of establishing and enlarging its territory, the sparrow drove out native species. In 1889, the U.S. Bureau of the Biological Survey devoted its first bulletin to the English sparrow menace, calling for laws to legalize year-round killing of the sparrow and to protect those birds -- such as shrikes, sparrow hawks, screech owls, bluejays, and grackles -- which preyed upon it.

Meanwhile, commercial game hunters were coming under fire from sport hunters and bird watchers. To sportsmen, market hunters seemed uncivilized. Birders and ornithologists decried the vast numbers of birds destroyed by market hunters just to obtain the plumage, widely used in the millinery trade. The connection between commercial game hunting and the fashion industry helped to bring women into the conservation movement, with the General Federation of Women's Clubs leading the campaign to persuade women not to wear hats

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25 James B. Trefethen, *Crusade for Wildlife: Highlights in Conservation Progress* (Harrisburg, PA: The Stackpole Company with the Boone and Crockett Club, New York, 1961): 15-18; John R. Reiger, *American Sportsmen and the Origins of Conservation* (New York: Winchester Press, 1975):114-141.

26 Schmitt, pp. 33-34.

adorned with bird feathers.[27] Major John F. Lacey, U.S. Congressman from Iowa, encouraged the Iowa Federation to join the "birdless hat" movement. Speaking before the group at a 1905 meeting in Waterloo, Lacey said: "We have a wireless telegraph, a crownless queen, a thornless cactus, a seedless orange, a coreless apple. Now let us have a birdless hat![28] Clubwomen in Iowa enthusiastically supported the "birdless hat" movement, as did clubwomen all across the nation. Once drawn into the campaign, the Iowa Federation of Women's Clubs became a powerful voice for wildlife conservation.

The National Audubon Society, founded in 1886 by George Bird Grinnell, gave bird preservationists another national voice. Ornithologists in Iowa found a vehicle for voicing their concerns in *The Wilson Bulletin*, a quarterly magazine published in Iowa under the auspices of the Wilson Ornithological Club. The publication, launched in about 1888, was edited by Dr. T.C. Stephens of Morningside College.[29] Stephens was also instrumental in founding the Iowa Ornithologists' Union, organized at Ames in 1923.[30]

Gentlemen anglers joined the ranks of conservationists somewhat later with the founding of the Izaak Walton League. Organized in Chicago in 1922 under the leadership of Will Dilg, the Izaak Walton League promoted a spirit of fraternal militarism to conserve fish and waterfowl. "Ikes" advocated fishing regulations and scientific fish management and the distribution of educational literature to arouse public interest in wildlife conservation. Iowa was the first state to organize a state division, founded sometime during the summer of 1922 when about a dozen sportsmen met in the old Orpheum Building in Waterloo. Chapters were established shortly thereafter in Des Moines, Osage, and Riceville. In October of 1923, individual chapters were organized into a statewide division. Since then, Iowa consistently has held the largest division membership. Early on the Iowa Division adopted conservation goals somewhat broader than the national organization. This may have been the practical result of a feud which lasted much

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27 *Ibid.*, pp. 38-43.

28 Quoted in *Major John F. Lacey: Memorial Volume* (Cedar Rapids: Iowa Park and Forestry Association and The Torch Press, 1915):42.

29 Pammel, "The Arbor Day, Parks and Conservation Movement...," cont. (April 1930):271.

30 Fred J. Pierce, "Iowa Ornithologists' Union Observes Twentieth Birthday," *Iowa Conservationist* 2:10 (October 15, 1943):79.

of the late 1920s. Bohumil Shimek and his supporters broke away from the League in 1927, charging that it was narrowly interested only in hunting and fishing resources, and formed the rival Will H. Dilg League. Although this action drained members away from the IWLA Iowa Division and fragmented political action for a time, the end result seems to have been a greater emphasis in Iowa on clean water, habitat preservation, and wildlife protection and conservation education.[31]

Restrictive Laws, Rescue, and Restocking:
The Three "Rs" of Nineteenth-Century Conservation, 1857-1899

Game laws in Iowa date from 1857, when the state legislature passed a law prohibiting the game hunting of wild deer, elk, turkey, prairie chickens, grouse, and quail between February 1 and July 15. In 1858 and again in 1862 and 1872, the legislature extended the closed season. The legislature added woodcock to the list of protected game birds in 1862; pheasants, beaver, mink, otter, and muskrat were added in 1872. All of these early laws excluded private property, thus their practical effect was extremely limited. Fish came under the protection of game laws during the 1860s. In 1862, the state legislature passed the first law protecting game fish by declaring a hook and line to be the only lawful method of catching trout and by closing Iowa's waterways to trout fishing between September 15 and December 31. The end of the decade witnessed the legislature creating a Special Commission on Game in 1868 and a Special Commission on Fish in 1870.[32]

Precisely who and what groups were pressing the Iowa legislature for restrictive game laws during the late nineteenth century is not yet clear. Secondary accounts and official reports examined to date do not address the politics behind legislation, and statewide organizations for wildlife protection did not fully emerge until the twentieth century. Further research into primary source materials is warranted to determine whether certain legislators, other individuals, or particular groups were consistently active in the legislative process.

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31 Carol A. Buckmann, *The First 50: The Story of the Iowa Division, Izaak Walton League of America, 1923-1973* (Lake Mills, IA: Graphic Publishing Co. and the Iowa Division, IWLA, 1973?):5-7, 14-15, 28-34.

32 Henry Arnold Bennett, "Fish and Game Legislation," *Iowa Journal of History and Politics* 24:3 (July 1926):340, 351-353, 394-400.

In any event, the next milestone came in 1874 when the Iowa Assembly appointed a Fish and Game Commission, the first of the two bodies which eventually were consolidated into the State Conservation Commission in 1935. Three other important measures were enacted in 1874: the legislature extended game protection to cover *privately* owned lands, mandated that fishways be constructed into *all* new dams, and appropriated $3000 to propagate eels for distribution in state waters.[33] These laws asserted the primacy of the state over private landowners when it came to wildlife protection and established a two-pronged state policy of protection and propagation for fish and game.

Fish rescue and restocking programs began in 1876. In order to propagate fish for restocking Iowa's lakes and streams, Fish Commissioner B.F. Shaw erected a temporary wooden fish hatchery in Jones County, approximately four miles north of Anamosa along the Wapsipinicon River. Two years later, the state appropriated $8750 to build a permanent fish hatchery there, and another $1000 to distribute eels. In 1880, Commissioner Shaw established a second fish hatchery, the Orleans Hatchery at Spirit Lake in Dickinson County; this was a much more substantial facility. For reasons that are obscure, the legislature ordered the Anamosa hatchery closed in 1886, and all the fish as well as other moveable property were transferred to Spirit Lake.[34] In 1939, E.B. Speaker, then Superintendent of Fisheries, recommended that a five-acre tract containing the decaying ruins of the Anamosa hatchery be purchased and preserved as a historic site; however, the state never acted on Speaker's recommendation.[35]

During the early 1870s Shaw also experimented with rescuing fish trapped in backwaters of the Mississippi River. When the Mississippi overflowed its banks, as it generally did every spring, fish were dumped into lowland areas, which also provided convenient spawning beds.

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33 The law requiring fishways over all dams, whether built on public or private land, was a response to the proliferation of low-head dams in the state. By 1870, more than 1000 such dams existed. Constructed for milling, navigation, and water supply purposes, they also impeded seasonal migrations of fish on Iowa's interior rivers. See Bruce W. Menzel, "Iowa's Waters and Fishes: A Century and a Half of Change," *Proceedings Iowa Academy of Sciences* 88 (1981):17.

34 E.B. Speaker, "Recommendations for the Purchase of the First Fish Hatchery Site in Iowa," TS dated May 18, 1939, pp. 1-9.

35 *Ibid*, p. 9. The remains are now diminished to a partial foundation and a few loose stones, located on land which is in private ownership, according to Rick Martens, Fisheries Biologist, Manchester Fish Hatchery (personal communication, December 11, 1990).

However, as waters receded, the fingerlings were trapped in evaporating ponds. After he was sure of his success, Shaw convinced the legislature and Governor Carpenter to allocate funds to expand this work. Under the authority of legislation passed by the Sixteenth General Assembly, he chartered a small steamer, "Fire Fly," which left New Albin on September 6, 1876 with a crew of fishermen, who, for the next two months seined fish from Mississippi River backwaters. The fish were then loaded onto an ordinary freight car which had been fitted with two twelve-barrel tanks, air hoses, and a water circulation system. Every railroad company in the state reportedly lent assistance to move loads of fish throughout the state -- free of charge -- and deposit them into dozens of streams. By the end of October 1876, the fish car had traveled nearly 4000 miles, generally with Commissioner Shaw on board. Thus was born Iowa's fish rescue program.[36] In subsequent years, fish rescue operations proved so successful that Illinois, Missouri, and Wisconsin soon followed Iowa's lead.[37]

After asserting its right to adopt restrictive legislation in 1874, the state legislature continued to strengthen fish and game laws. Iowa, in fact, is credited with adopting the nation's first bag-limit law, an 1878 statute which limited hunters to taking no more than twenty-five prairie chickens a day.[38] Unfortunately, there was no mechanism for enforcing any of these laws. Public protest against flagrant violators finally prompted the state to appoint a Fish and Game Warden in 1897.[39] Another milestone was reached in 1899 when the Iowa Supreme Court upheld the constitutionality of an 1874 law requiring fishways in all dams. In so doing, the court established fish and game preservation as a matter of public welfare. In writing the majority opinion for *State of Iowa v. Beardsley*, Justice Charles T. Granger stated that "Fish and Game are so related to the public welfare that they have, time out of mind, been the subjects of legal control, and their preservation has been very generally a matter of legislative concern."[40]

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36 *Second Biennial Report of the State Fish Commission of Iowa* [1875-1877] (Des Moines: R.P. Clarkson, State Printer, 1877):3-6.

37 Raymond H. Merritt, *The Corps, the Environment, and the Upper Mississippi River Basin* (Washington, D.C.: Office of the Chief of Engineers, Historical Division, 1984), p. 43.

38 James B. Trefethen, *Crusade for Wildlife: Highlights in Conservation Progress* (Harrisburg, PA: The Stackpole Company and New York: Boone and Crockett Club, 1961): 118.

39 Bennett, pp. 404-405.

40 As quoted in Bennett, pp. 372-373.

The *Beardsley* case came before the state court during a period when game laws enacted by other states were being challenged in the U.S. courts. Without going into lengthy detail which is of limited pertinence here, suffice to say that by the turn of the century, the U.S. Supreme Court had affirmed the right of the states to assert ownership over wildlife.[41] While it was important to have widespread public support for wildlife conservation, the matter of legal ownership was crucial to the movement's advancement since birds and fish and fur-bearing animals belonged, in reality, to no one; they traveled equally free across state lines and fence lines. State activities preceded and paved the way for federal action.

The Rise of Research and Cooperation in Wildlife Conservation: 1900-c. 1930

By 1900, the populations of more desirable food and game fish had been seriously depleted in Iowa, in part because of over-fishing; in part because siltation, sewage, and navigational improvements had degraded habitats; and in part because rough fish, such as the Asian carp, tolerated harsher environments and drove out native species. Fish rescue and restocking programs had not proved to be any more successful than restrictive game laws at stemming the loss of fish resources.[42]

After the turn of the century, the state continued to amend and expand the scope of restrictive game laws. It also placed greater emphasis on species propagation. But in large part, the first three decades of the twentieth century constituted a period of research and study, during which time scientists and naturalists became increasingly concerned about the declining numbers of native species. As marshes were drained for agricultural land, wetland species disappeared. Game hunting also took a toll. By 1900, several birds once common in Iowa no longer nested

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41 Environmental Law Institute, *The Evolution of National Wildlife Law*, prepared for the Council on Environmental Quality (Washington, D.C.: GPO, 1977):12-20. The most important of the state cases to come before the U.S. Supreme Court was *Geer v. Connecticut*, 161 U.S. 519 (1896), in which the court held that the state had a "right to control and regulate the common property in game as a trust for the benefit of the people."

42 Menzel, pp. 17-19; the Asian carp was introduced into Iowa around 1880 for the purpose of raising a cultured food fish, but it quickly established wild populations and spread throughout the state's rivers and lakes.

here, including the passenger pigeon, the trumpeter swan, the common loon, the sandhill crane, and the whooping crane. The last merlin was sighted in 1908, and by 1910 Canada geese had all but disappeared (though the species was successfully reintroduced in the 1960s).[43]

This was not a period of political inactivity at the state level, but not everyone who expressed alarm at the declining numbers of indigenous birds, fishes, and other wildlife took the next step to join the movement for wildlife conservation. Althea Sherman is a case in point. She pioneered in the scientific technique of longitudinal studies of a limited number of species, particularly chimney swifts. In so doing, Sherman contributed valuable observations to ornithology contained in over seventy articles and scholarly notes published during the course of her work, which began early in the 1900s and lasted until her death in 1943. Sherman's work was well known to Iowa scientists and naturalists, yet her activities to promote conservation appear to have been limited to serving on the Historical Committee of the Mississippi Valley National Park Association.[44]

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43 James J. Dinsmore, "Iowa's Avifauna: Changes in the Past and Prospects for the Future," *Proceedings Iowa Academy of Sciences* 88 (1981):28-29.

44 Sharon E. Wood, "Althea Sherman and the Birds of Prairie and Dooryard: A Scientist's Witness to Change," *The Palimpsest* 70:4 (1989): 164-184; Deborah Strom, ed. *Birdwatching with American Women: A Selection of Nature Writings* (New York: W.W. Norton & Co., 1986): 129-143; George Bennett, "The National Park of the Middle West," *Iowa Conservation* 2:3 (July-September 1918):45.

Sherman's Chimney Swift Tower, built in 1915 on the grounds of her home in National. Source: *The Palimpsest* 70:4 (Winter 1989). The tower still stands, in dilapidated condition and out of context, at Andy Mountain Campground in Harpers Ferry.

Fairport Fisheries Biological Station

The Fairport Fisheries Biological Station, established in 1910, represents both an interesting example of cooperation between local businessmen and the federal government, and a prime example of species propagation as a less-than-effective conservation measure. Concern over the decline of the pearl button industry in Iowa, which depended heavily upon the harvest of mussels from the Mississippi River, prompted Muscatine button manufacturers to seek federal assistance to help save their industry. They solicited the aid of George M. Bowers, head of the U.S. Bureau of Fisheries, and Congressman Albert F. Dawson, representing the Iowa Second District. Dawson backed the proposal for a biological station wholeheartedly and succeeded in securing an appropriation from Congress in 1909 for establishing facilities designed to conduct scientific research on freshwater mussels and to propagate them for the benefit of the pearl button industry. The following year, the Bureau of Fisheries erected a laboratory, fish hatcheries, and other facilities on sixty acres near the village of Fairport, eight miles east of Muscatine.[45]

Muscatine became the center of the pearl button industry thanks to John Boepple, a German button maker who first experimented with the shells of freshwater mussels taken from the Mississippi River during the 1880s. After finding the shells to be superior materials, Boepple emigrated to the United States to try his luck making buttons. Eventually he made his way to Muscatine, where he established the first button factory in 1891. Once Boepple had demonstrated the vast commercial potential of mussel shells, other entrepreneurs entered the trade. Within a decade, Muscatine was the pearl button capital of the United States. By the turn of the century, nomadic "shellers" were taking nearly forty-eight million pounds of mussels a year from the Upper Mississippi River to supply the button industry. Over twenty million pounds came from Iowa shores, and approximately half of the total take was processed

45 See Robert E. Coker, "The Fairport Fisheries Biological Station: Its Equipment, Organization, and Functions," *Bulletin of the U.S. Bureau of Fisheries* 34 (1914):382-405; J.C. Welliver, "The Saving of the Fairport Hatchery: How Dawson Won," *The Muscatine Journal*, March 1, 1909, p. 3; "Bowers Announces That Fairport Gets Clam Hatchery," *Muscatine Journal*, January 22, 1910, p. 1; "Description of the Fairport Clam Hatchery-Its Objects and Purposes-What It Means to the City," *Muscatine Journal*, January 29, 1910, p. 7; and "How Uncle Sam is Striving to Save a Great Industry Through Science–Propagating the Clam at Fairport," *Muscatine Journal*, December 7, 1910, p. 1.

into buttons at Muscatine factories, although there were button factories all up and down the river.[46]

Advances in machine technology, which increased the manufacturing efficiency and output, and the development of a new fishing device known as the "crowfoot," which allowed shellers to increase their catch, hastened the depletion of mussel beds.[47] During the first years of the twentieth century, button manufacturers and scientists alike began to express concern over the possibility of commercial extinction. While two zoologists from the University of Missouri, George Lefevre and Winterton Curtis, experimented with artificial propagation, Muscatine button manufacturers successfully worked the halls of Washington in order to secure a biological research station in their back yard.

Under the direction of Robert Coker, the Fairport Biological Station continued to experiment with and refine the techniques of commercial-scale propagation. At the same time, Coker and his colleagues in the Bureau of Fisheries began to campaign for state regulation of mussel fisheries. By the early 1920s, the bureau had successfully pressured Iowa, Minnesota, Wisconsin, and Illinois to establish a coordinated system laws that set size limits, prescribed gathering methods, and alternately opened and closed sections of the river to shellers.[48] This two-pronged effort -- restocking and regulation -- met with considerable success, although by 1920 water pollution posed a new threat to the industry. The harmful effects of pollution on fragile mussels had been discussed since the turn of the century, but by 1920 they could no longer be ignored. In June of 1921, Herbert Hoover, then Secretary of Commerce, convened a national conference of scientists, pearl button manufacturers, government administrators, and sportsmen at Fairport to talk about the depletion of fresh-water fish and shellfish due to pollution and wetlands drainage. Although the conference increased awareness of habitat

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46 Philip V. Scarpino, *Great River: An Environmental History of the Upper Mississippi, 1890-1950* (Columbia: University of Missouri Press, 1985):81-85. Chapter 2 of this book, "Shells, Sewage, and Silt" provides an excellent case study of the symbiotic relationship which developed between button manufacturers and the U.S. Bureau of Fisheries as both struggled to save an industry and a natural resource.

47 *Ibid.*, pp. 89-91.

48 *Ibid*, pp. 101-102.

destruction, throughout the 1920s the bureau continued to focus its conservation efforts on species propagation.[49]

Meanwhile, the amount of sewage and silt dumped into the river continued to increase, undermining scientists' best efforts to restore mussel beds artificially. By 1930, research biologists were having difficulty obtaining healthy breeding stock, and the river was so heavily polluted that efforts to restock it with young mussels routinely failed. Commercial and organic wastes from Minneapolis-St. Paul as well as many other communities along the Mississippi constantly washed into the river, none of it even marginally cleansed through sewage disposal plants.[50]

Despite declining numbers of mussels in the Mississippi River, the pearl button industry remained viable into the 1930s, in large part because shells could be shipped in by rail from elsewhere in the country. However, in 1930 the Corps of Engineers issued the death blow to clamming along the Mississippi River, when the War Department decided to press ahead with its plan to dredge a navigation channel. This plan included by a series of locks and dams along the Upper Mississippi, which the Bureau of Fisheries had opposed for many years because dams would slow the current and deposit even more silt and sewage along the river bottom. However, with the Corps finally triumphant, the Bureau of Fisheries decided to abandon its propagation program aimed at maintaining freshwater mussels in the Upper Mississippi.[51]

World War II created a new demand for pearl buttons, because the use of steel for zippers was curtailed and plastics were going into war products. Unfortunately, the raw materials were no longer available in sufficient quantity. In 1942 the State Conservation Commission surveyed the state's clamming areas and found "vast beds of dead clams" lost to polluted and/or heavily silted waters; only a few beds contained abundant supplies of marketable clams.[52]

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49 Frank A. Stromsten, "Conservation Conference at the Fisheries Biological Station, Fairport, Iowa," *Iowa Conservation* 5 (1921):26; Scarpino, pp. 105-107.

50 C.F. Culler, "Depletion of the Aquatic Resources of the Upper Mississippi River and Suggested Remedial Measures," *Transactions of the American Fisheries Society* 60 (August 1930): 280.

51 Scarpino, pp. 108-108; Menzel, p. 20.

52 Earl T. Rose, "Iowa's Clam Industry May See War Boom for Buttons; Clam Population Only Doubtful Factor in Picture," *Iowa Conservationist* 1:4 (May 15, 1942):1-3.

Although the Bureau of Fisheries' effort to conserve both an important industry and an important natural resource ultimately failed, from 1910 until 1930 the Fairport Biological Station functioned as one of the most important laboratories in the country for the study of fresh-water mussels. When it was fully developed, the Fairport station's sixty-acre complex included a two-story laboratory, a tank house, a shell-testing plant, a storehouse and shop, a boat and net house, a barn, a boiler and pumphouse, five cottages, seventeen earthen ponds covering a total of seven acres, and fourteen small concrete-lined holding ponds. In 1974, the Iowa Department of Natural Resources acquired the Fairport station, as well as federal facilities at Manchester and Guttenberg, as part of a land exchange with the U.S. Fish and Wildlife Service. Today, these three stations function as the state's major hatcheries.[53]

In addition to the research carried out at Fairport, the U.S. Bureau of Fisheries embarked on a restocking program which entailed fish rescue, an effort which paralleled state operations. In about 1917 the federal Bureau of Fisheries embarked on a program of systematically removing fingerlings from Mississippi backwaters and either returning the stock to the Mississippi or transferring it to nearby rivers. By 1919, bureau rescue operations extended from Wisconsin to Mississippi. Homer, Minnesota served as upper river headquarters, the most prolific substations of which were reported to be North McGregor (Marquette) and Bellevue, Iowa, and LaCrosse, Wisconsin.[54] Fish rescue stations, however, went the way of the Fairport Biological Station when the Corps proceeded to build locks and dams along the river, since a stabilized water level prevented annual flooding.[55]

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53 Robert E. Coker, "The Fairport Fisheries Biological Station: Its Equipment, Organization, and Functions," *Bulletin, U.S. Bureau of Fisheries* 34 (1914):388; personal communications from Terry Jennings, Department of Natural Resources. Major changes subsequently were made to the facility at Fairport, and only the tank house and the barn remain from the original complex.

54 C.F. Culler, "Fish Rescue Operations," *Transactions of the American Fisheries Society* 50 (September 20-22, 1920): 247-248; Culler, "Depletion of the Aquatic Resources of the Upper Mississippi River and Suggested Remedial Measures," *Transactions of the American Fisheries Society* 60 (August 27-29): 283.

55 A small building associated with U.S. Bureau of Fisheries activities at Bellevue reportedly is still in existence, though this information was not confirmed by field investigation as part of this project.

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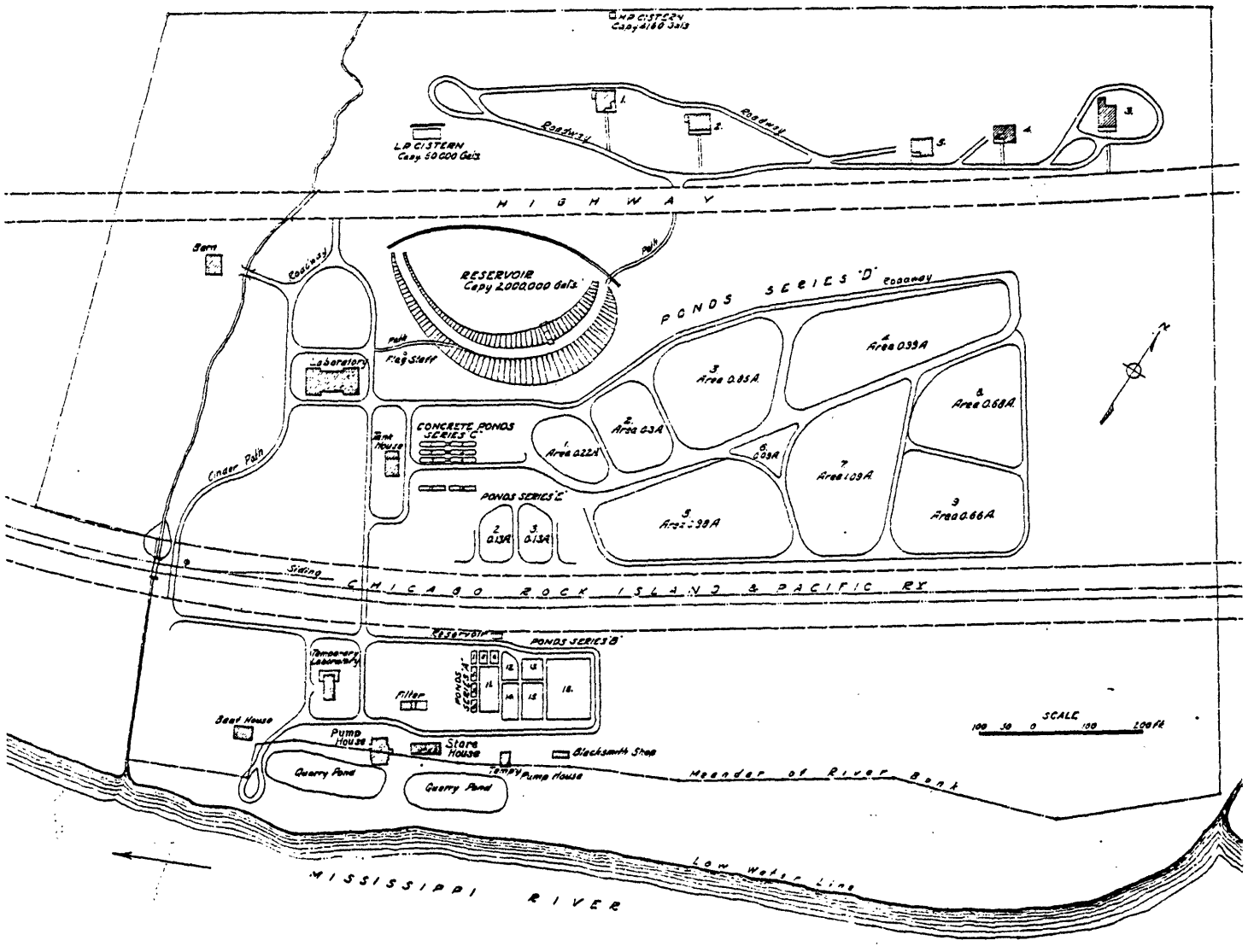
Site plan of Fairport Fisheries Biological Station. From *Bulletin of the U.S. Bureau of Fisheries* 34 (1914):Plate LXXXI. The barn and tank house are extant.



The Fish Cars: Hawkeye and Hawkeye No. 2

The fish hatchery at Spirit Lake stood as the only state-owned fisheries facility from 1880 until 1913, during which time the Fish and Game Commission continued its rescue and restocking program with jerry-built equipment. One important piece of equipment was the state fish car, Hawkeye, a converted passenger train car which, by 1900, had traveled over 8000 miles distributing fish taken from the Mississippi River to Iowa's interior waters.[56] In 1913, the Fish and Game Department embarked on a program to upgrade and expand facilities. It remodeled the Spirit Lake Hatchery and replaced the original Hawkeye with Hawkeye No. 2, a specially equipped car with twenty large steel fish holding tanks, eight berths, an office, and a galley. For two decades, Hawkeye No. 2 traveled the state's railroad lines, transporting fish to stocking points. At any given stocking point a game warden would meet the train with a caravan of farm wagons, the latter used to carry the precious and perishable cargo over dirt roads to its final destination. Arrival of the fish train often signalled the occasion for a community celebration, complete with town band. Ironically, the fancy fish car entered service at about the same time as gasoline-powered motor vehicles. Eventually, hard-surfaced roads and motor trucks eclipsed the efficiency of rail service, and Hawkeye No. 2 was retired in 1933 after twenty years of service. The car's last stop was at Spirit Lake, where it was used for storage at the hatchery. Finally, in 1944, it was sold for scrap during the drive to round up steel for the war effort.[57]

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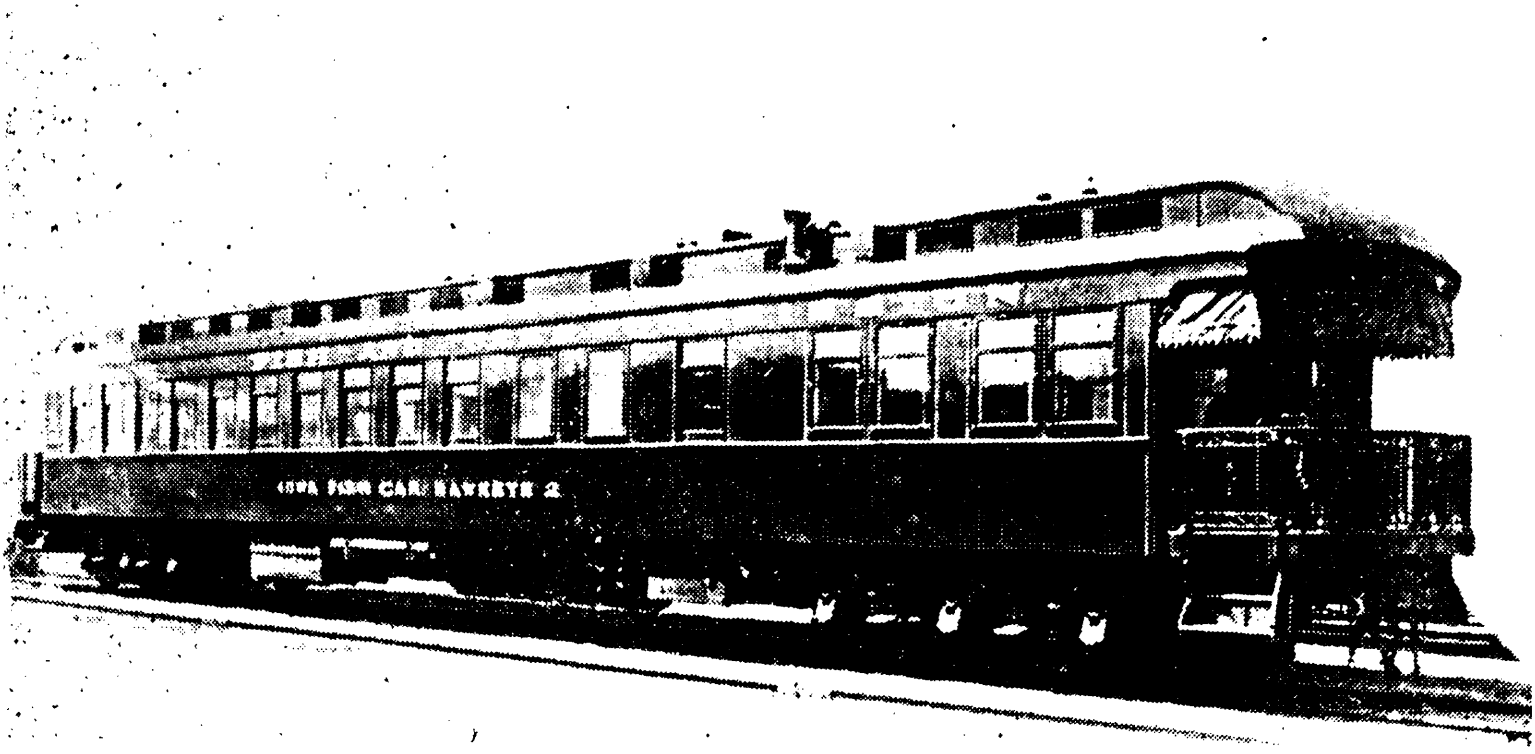
56 *Fourteenth Biennial Report, State Fish and Game Warden, 1900-1901* (Des Moines: State Printer, 1902): backcover and p. 19.

57 "A Pioneer Passes," *Iowa Conservationist* 3:9 (September 15, 1944):72.

Hawkeye No. 2, built in 1913. Source: *Iowa Conservationist* 3:9 (September 15, 1944):72.



The fish train often originated at either Lansing or Sabula, which were the major points of state-conducted fish rescue work along the Mississippi River. Sometime between 1915 and 1917 facilities were constructed along the river at both towns. The Lansing fisheries building doubled as a trout hatchery until the Fish and Game Commission erected a new trout hatchery within Backbone State Park in 1925-26. From then until about 1940 multiple species were cultivated at Lansing, and rescue work continued as before. After 1940, the facility functioned mainly as a hatchery for northern pike and as a fish management station.[58] Similar operations were conducted at Sabula. Through 1942, the state's major fisheries facilities were located at Lansing, Sabula, Backbone, and Spirit Lake.

The State Fish and Game Exhibit

In 1910, the Fish and Game Department staged its first exhibit of game birds at the state fairgrounds in Des Moines. By 1913, the exhibit had become something of a game farm to promote Ringneck pheasants. At the close of the fair, birds on exhibit were distributed free to anyone who volunteered to assist in a statewide program of captive breeding and restocking.[59] However, the game farm was abandoned when W. E. Albert was appointed to the state warden's position in 1919. Albert gave priority to developing the annual "tent show" into a permanent exhibit facility on the state fairgrounds. An aquarium was constructed in 1926, and the fish and game pavilion was completed in 1928. Designed by the Des Moines architectural firm of Proudfoot, Rawson & Souers, the Fish and Game building was -- and remains -- one of the most distinctive and ornate facilities ever erected by a state agency for conservation purposes. Although many sportsmen criticized Albert for spending revenue from the sale of licenses frivolously on the exhibit facility, he held firm in his conviction that education was an necessary component of conservation, and the annual state fair provided one of the best opportunities to reach a large public audience.[60]

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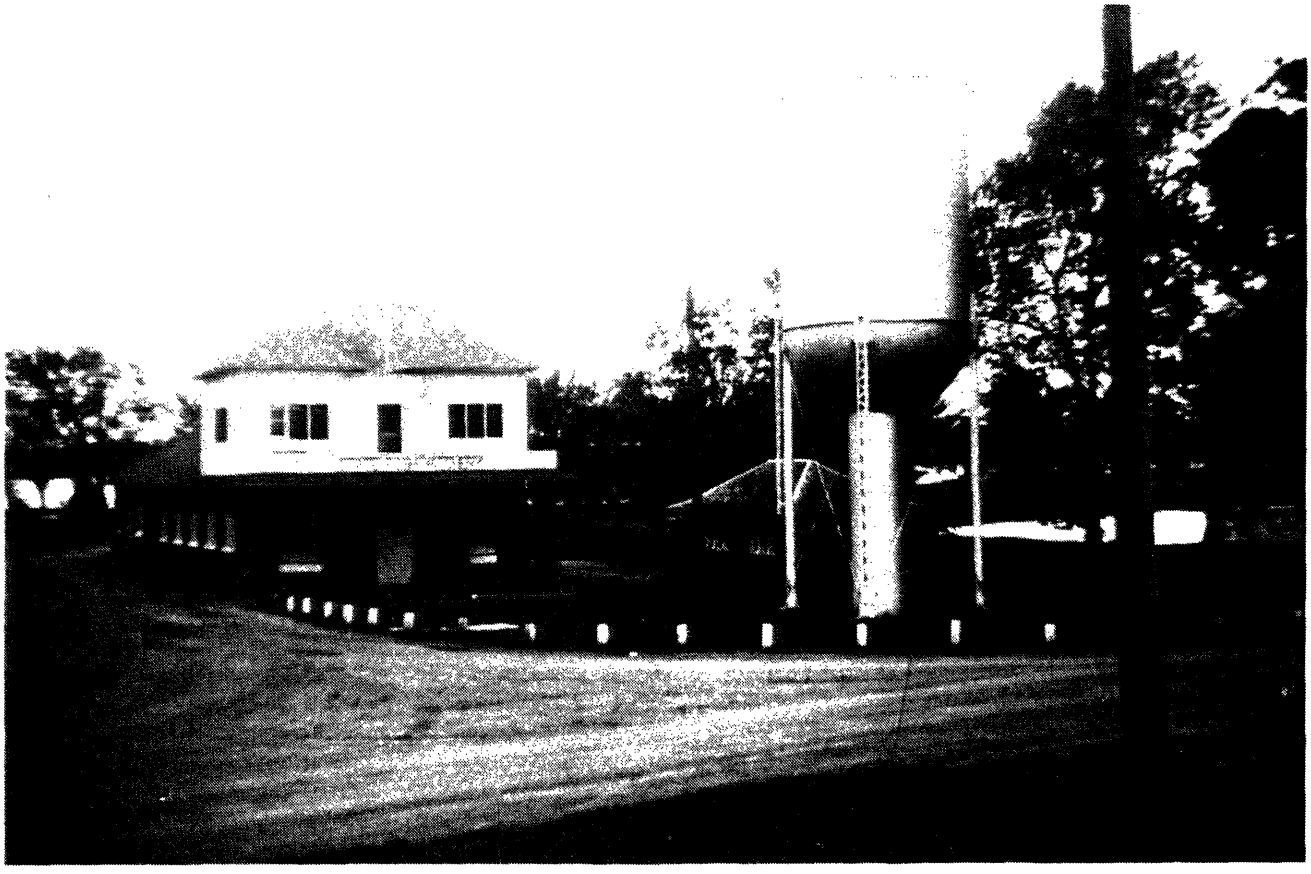
58 John Spinner, "Lansing Hatchery ...a passing era," *Iowa Conservationist* 34:6 (June 1975).

59 *Twentieth Biennial Report of the State Fish and Game Warden* [1911-1912] (Des Moines: State Printer, 1912):26.; Bruce F. Stiles, " Last Installment of History of Iowa Wildlife Legislation," *Iowa Conservationist* 2:11 (November 15, 1943): 86.

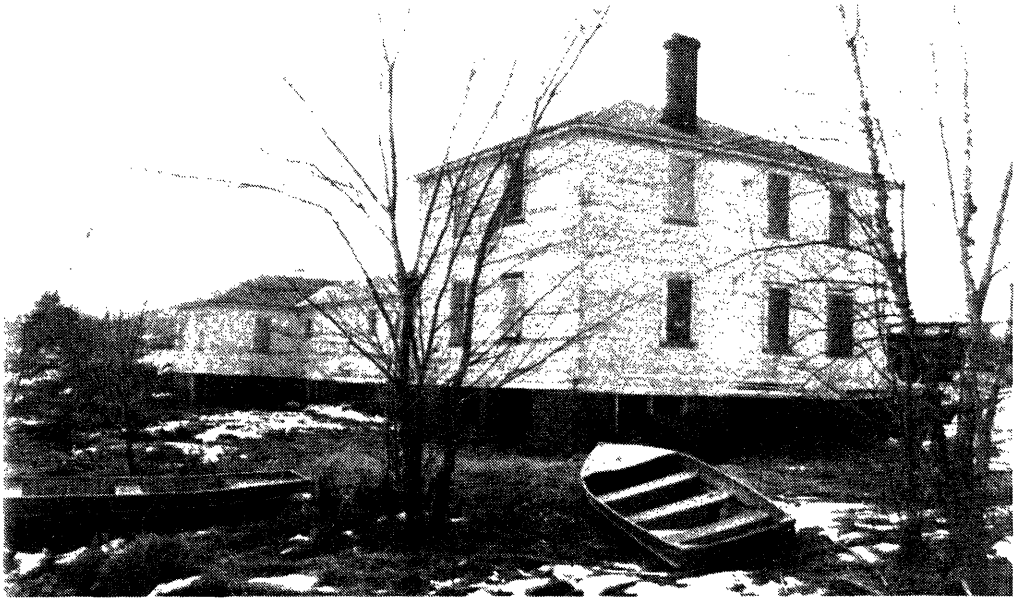
60 Tami Pavlicek, "Albert's Folly," *Iowa Conservationist* (August 1986): 20-21.

Backbone Trout Hatchery as it appeared after 1935. Photo courtesy of Ray Mulholland. The main buildings are gone, but rearing ponds and ancillary structures remain.

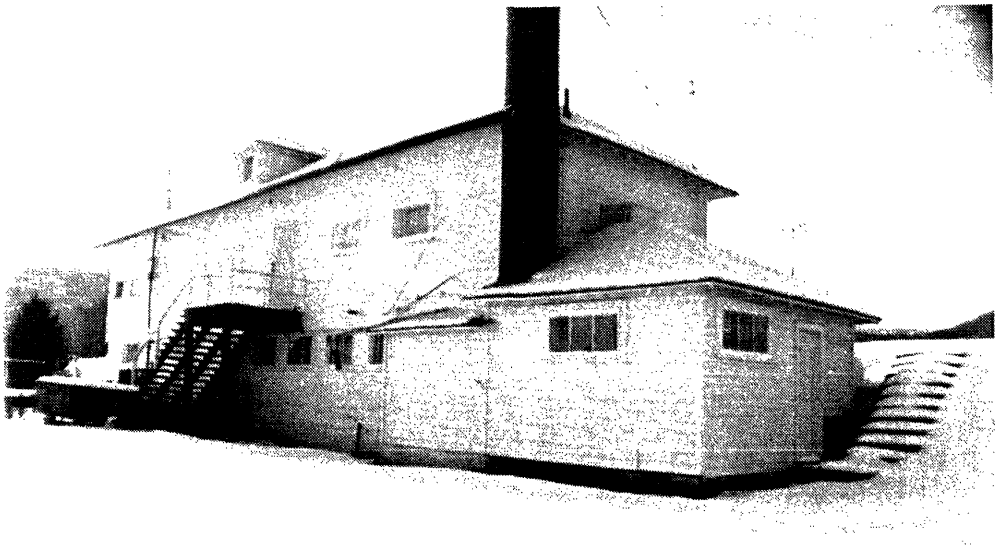
Spirit Lake Hatchery, date unknown. Photo courtesy of Ray Mulholland.
There is still a state fish hatchery at Spirit Lake, but the historic buildings are gone.



Sabula Fisheries Station, now owned by the City of Sabula and used for storage.
Photo: R. Conard, January 1991.



Lansing Fisheries Station, now leased by the City of Lansing and occupied by the VFW.
Photo: R. Conard, January 1991



Fish and Game Aquarium and Pavilion, Iowa State Fairgrounds.
Photo: R. Conard, January 1991

American School of Wild Life Protection

The American School of Wild Life Protection, established at McGregor in 1919, represents another noble cooperative effort in conservation education. The idea for a field school grew out of discussions among members of the Iowa Conservation Association (formerly the Iowa Park and Forestry Association). The founding purpose was tied to promoting a national park in the Upper Mississippi Valley, which never materialized; but the American School of Wild Life Protection flourished for more than twenty years, and it is now regarded as the major force behind the creation of the Upper Mississippi River Wildlife and Fish Refuge. Rev. George Bennett, a retired Episcopalian minister and the chief organizer, presided over the school until his death in 1928. The "school" was actually an annual retreat which brought together "students" of all ages from across the nation and leading lights in the conservation movement for two weeks of birding, nature hikes, and lectures on ornithology, geology, botany, ichthyology, entomology, astronomy, forestry, and archaeology.[61]

Members of Iowa's inner circle of conservationists -- Shimek, MacBride, MacDonald, and Pammel -- regularly taught classes and led field trips, and the roster of educators through the years included many individuals of national prominence in their fields. The wildlife school was the first of its kind in the nation, and reportedly provided the model for similar field schools established in Colorado and elsewhere during the 1920s.[62] Bohumil Shimek, one of its chief supporters, regarded the school as "the best effort of its kind."[63] Even so, Aldo Leopold observed that the school emphasized "preservation, as distinguished from cultivation and management, of outdoor resources."[64] The last session was held in 1941, after wartime rationing forced a suspension of activities. By the end of the war, the conservation movement had lost its focus, and the school never reopened.

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61 Harriet Bell Carlander, "The American School of Wildlife, McGregor, Iowa, 1919-1941," *Proceedings of the Iowa Academy of Sciences* 68 (1961):294-297.

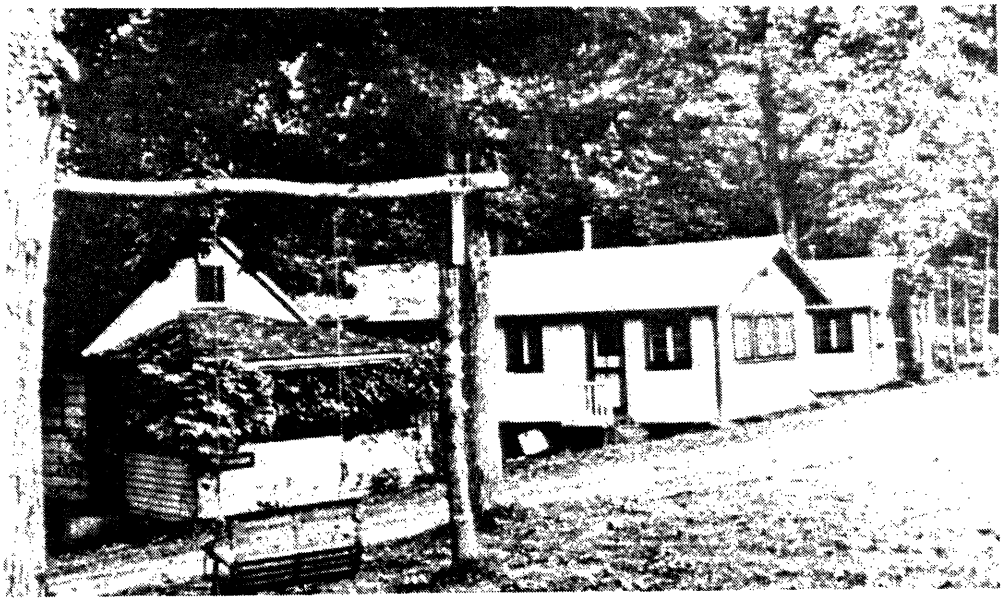
62 *Ibid.*, p. 297-299; "The American School of Wild Life Protection," *Iowa State Parks Bulletin* 4:4 (January-February 1927):118-119 and program materials for 1931.

63 Shimek to Fred G. Bell, letter of September 4, 1923 [Bohumil Shimek Papers, UI].

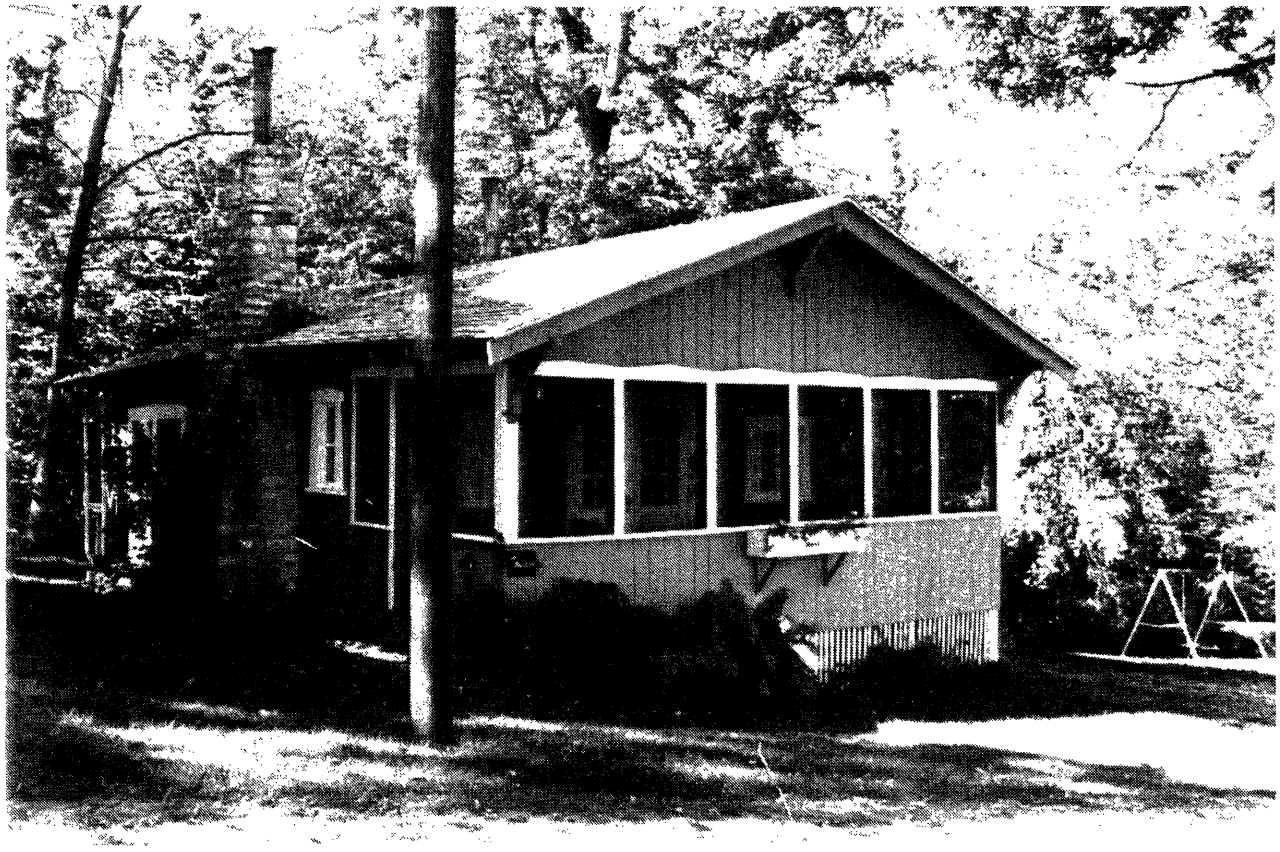
64 Aldo Leopold, *Report on a Game Survey of the North Central States* made for the Sporting Arms and Ammunition Manufacturers' Institute ((Madison WI, 1931):262.

Above: Summer cottages used to house American School of Wild Life Protection attendees. Postcard view, courtesy of John Bickel. All three cottages are extant.

Below: Posing in front of the "Faculty House" standing L-R are Louis Pammel and H. C. Oberholser; seated L-R are Rev. L.T. Weeks, G. F. Kay, Bohumil Shimek, and Rev. George Bennett, c. 1922. Photo courtesy of John Bickel.



The "Faculty House" as it appears today. Photo: R. Conard, September 1990.



The Upper Mississippi Valley Wildlife and Fish Refuge

The crowning achievement of wildlife conservation in Iowa during this period was the establishment of the Upper Mississippi Valley Wildlife and Fish Refuge. Early in the 1920s, the Iowa Division of the Izaak Walton League mounted an effort to defeat "The Winneshiek," a proposal by the Corps of Engineers to remove the timber from the Winneshiek Islands of the Mississippi River, riprap the shores, and convert the land to tillable acres. To stop the proposed Corps project, the League drafted a counterproposal for a wildlife refuge extending 300 miles from Rock Island, Illinois, to Wabasha, Minnesota. The General Federation of Women's Clubs joined the League in support of this endeavor as did Iowa conservationists in general. In August of 1923, a special conference on aquatic resources was held in conjunction with the Wild Life Protection School at McGregor. Conservationists from Minnesota, Wisconsin, Illinois, and Iowa met with representatives from the federal government to discuss clam production, fish farms, water resources, and the need to protect the Winneshiek Slough. Members of the Wild Life School, the Iowa Division of the Izaak Walton League, Will Dilg, Congressman Gilbert N. Haugan (R-Iowa), A.L. Bakke, Mrs. Cora Call Whitley, representing the Iowa Federation of Women's Clubs, Bohumil Shimek, and the U.S. Biological Survey have been cited as instrumental figures in securing passage of the Upper Mississippi River Fish and Wildlife Refuge Act in 1924. Congress also appropriated $1,500,000 to begin acquiring private property. After the Forty-first General Assembly passed corollary legislation authorizing the U.S. government to acquire land from the state in 1924, land purchases began.[65]

Plans for establishing the refuge were thwarted when the Corps was allowed to channelize the Mississippi and build a series of dams and locks to aid navigation. In 1924, the Secretary of War succeeded in amending the bill to include a proviso that the act would not "be construed as exempting any portion of the Mississippi River from provisions of federal law for the improvement, preservation, and protection of navigable waters...."[66] This clause in the 1924 act led to a major controversy in 1929 when U.S. Senator Henrik Shipstead (Minnesota)

65 Buckmann, pp. 17-19; Pammel, "The Arbor Day, Parks and Conservation Movement...," (April 1930): 279-280; Jacob A. Swisher, "The Legislation of the Forty-first General Assembly of Iowa," *Iowa Journal of History and Politics* 23:4 (October 1925):582; "Large Wild-life Refuge Being Established on Upper Mississippi," *Bulletin Iowa State Parks* 3 (1925):91-93.

66 Merritt, p. 45.

presented Congress with a memorial from the Minnesota Legislature advocating a nine-foot shipping channel through the Mississippi River. On one side of the controversy stood the Mississippi Valley Shippers Association, obvious beneficiaries of a shipping channel. On the other stood Iowa conservationists and Major Charles L. Hall, the Rock Island District Engineer, who insisted that dredging a shipping channel would change the flora and fauna and create silting problems. Despite strong opposition, Senator Shipstead managed to insert authorization for a nine-foot channel in the 1930 Rivers and Harbors Act. As a result, 26 locks and dams were constructed from St. Paul to St. Louis between 1930 and 1935. The Corps, however, worked with the Bureau of Fisheries and the Bureau of the Biological Survey in order to minimize adverse effects to fish and wildlife, a major policy shift for the Corps.[67]

The 1924 act marked a turning point in the history of federal wildlife refuge acquisition. Congress authorized the first federal wildlife refuge in 1903, and by 1924 nearly half of the states had federal refuges; however, this was the first act to carry an appropriation. The Upper Mississippi Valley Wildlife Refuge Act, along with the Bear River Migratory Bird Refuge Act in 1928, which also carried an appropriation, and the Norbeck-Andresen Migratory Bird Conservation Act, which authorized a system of migratory bird refuges, laid the foundation for systematic development of wildlife refuges throughout the United States.[68] Between 1903 and 1925, the number of acres in wildlife refuges in the United States grew from three to approximately 451,500. From 1926 through 1930, the figure gradually increased to about 744,000. During the ensuing decade, however, the acreage increased exponentially, reaching an astounding 9,617,713 acres by the end of 1941.[69]

By 1940 the Upper Mississippi Valley refuge contained nearly 25,000 acres, and various provisions of the state enabling legislation gave the State Game Warden broad authority over land use within the refuge. The warden, for instance had the power to establish and control fish hatcheries and game farms. Whenever land was transferred from the refuge into a public park, the warden could establish game refuges or other wildlife sanctuaries and to forbid hunting and trapping.[70] Today the refuge contains approximately 200,000 acres.

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67 *Ibid.*, pp. 54-59.

68 Ira N. Gabrielson, *Wildlife Refuges* (New York: The Macmillan Company, 1943), pp. 8, 14-15.

69 *Ibid.*, p. 23.

70 Swisher, pp. 582-584.

The Advent of Scientific Wildlife Management: c. 1930-1942

As of 1931, Minnesota, Wisconsin, Michigan, and Ohio each had game research projects that were carried out as cooperative efforts between universities or research stations on the one hand and state conservation commissions or federal agencies on the other.[71] Iowa had no comparable program which integrated wildlife research, management, and education. Iowa State College at Ames was among a handful of schools in the country offering courses in fish and game along with forestry. As a land-grant college, Ames also conducted some educational outreach through its extension service, though farmers clearly were not much interested or involved in wildlife conservation. In addition, the biological station at Fairport continued its mussel research program into the 1930s, but its academic link was chiefly with the University of Missouri. These efforts simply did not add up to an effective, coordinated statewide program of wildlife conservation.

Two individuals helped to change this situation in the 1930s: Aldo Leopold and Jay N. (Ding) Darling. In 1928, working under the auspices of the Sporting Arms and Ammunition Manufacturers' Institute (SAAMI), Committee on Restoration and Protection of Game, Leopold conducted a game survey of Iowa as part of a larger project covering the North Central United States. During this trip, he spent time at McGregor visiting the Wildlife School[72] He also met Ding Darling for the first time, an acquaintance that grew to friendship during the 1930s as they found themselves working shoulder-to-shoulder in the fight for conservation.[73]

In 1931, the Fish and Game Commission, of which Darling was a member, engaged Leopold to carry out a second game study, with SAAMI agreeing to cover part of the expense.[74] This survey was far more extensive, and in doing the fieldwork Leopold had the assistance of game wardens and Iowa State College. Leopold was dismayed to discover that game conditions in

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71 Leopold, p. 263.

72 Aldo Leopold, "Game Survey Notes of Iowa," MS, August, 1928.

73 Curt Meine, *Aldo Leopold: His Life and Work* (Madison: University of Wisconsin Press, 1988):288.

74 *Ibid.*, p. 284.

Iowa had deteriorated considerably between 1928 and 1931, but with respect to public attitudes he noted that he had "never encountered as much interest in any state, or as much willingness to try anything that promises to deliver results."[75]

Leopold used the data from the second game survey to formulate recommendations which went into the *Twenty-Five Year Conservation Plan.* As presented in the final, published document, the plan called for game authorities to work with farmers to restore suitable cover and nesting grounds for upland game, and for the state to classify lake and marsh areas into refuges and public shooting grounds, to acquire additional lands and marsh areas, to improve marsh areas for waterfowl enhancement, and to establish preserves to protect species -- notably deer, wild turkey, sharptail grouse, ruffed grouse, and prairie chickens -- whose Iowa populations were critically low.[76] The recommendations clearly bore the stamp of Leopold's own philosophy of management for use rather than preservation. Protectionist laws and preservation advocacy were, to Leopold, unrealistic and unworkable. Defending his position, he wrote:

> Does anyone still believe that restrictive game laws alone will halt the wave of destruction which sweeps majestically across the continent, regardless of closed seasons, paper refuges, bird-books-for-school-children, game farms, Izaak Walton Leagues, Audubon Societies, or the other feeble palliatives which we protectionists and sportsmen, jointly or separately, have so far erected as barriers in its path?[77]

The management-for-use philosophy was also evident in the four-part plan outlined for the conservation of fish. The *Twenty-Five Year Plan Conservation Plan* envisioned a system of thirty artificial lakes in the southern part of the state, to be located "within an easy hour's drive from any home." A second area of the state, lying north of the southern area but excluding the districts of natural lakes and trout streams, was designated the small-mouth bass area. Here, rivers and streams would be improved and stocked to enhance fishing. Professionally trained technicians would manage natural lakes. Trout streams in the northeastern corner of the state

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75 Leopold to John Olin, letter of October 25, 1931 [Aldo Leopold Papers].

76 Crane and Olcott, pp. 6-7.

77 Aldo Leopold, "Game and Wildlife Conservation," *Condor* 34:2 (March-April 1932):103-104.

were to be improved in order to provide better spawning grounds. Fish rearing ponds were planned for four different areas.[78]

Ding Darling, an avid sportsman, took a special interest in wildlife conservation. In 1932, he and W.E. Albert, the State Fish and Game Warden, approached Iowa State College President R.M. Hughes and proposed that the college establish a cooperative program for research in wildlife conservation. Hughes was receptive, and in order to launch the program, the college, the Fish and Game Commission, and Darling himself entered into a three-year agreement, with each of the three parties contributing financial support. On the recommendation of Aldo Leopold, the college hired Dr. Paul L. Errington of the University of Wisconsin to head the program. The research unit showed early promise of success, which encouraged Darling to expand his horizons. When he was appointed as Chief of the U.S. Bureau of the Biological Survey in 1934, Darling managed to obtain federal support for a national program of cooperative training, research, and extension patterned along the lines of the Ames program. In 1935 the Cooperative Wildlife Research Unit Program was born, jointly financed by the Bureau of Biological Survey, the American Wildlife Institute, the land grant college in each participating state, and the game department in each participating state. The Iowa Unit joined the federal program immediately. During the 1930s, new graduate-level courses focused specifically on wildlife management, graduate students began the first of many specie-specific research studies designed to apply knowledge to better management practices, and a vigorous publications program began to disseminate research findings.[79]

Wildlife conservation got another boost with passage of the Pittman-Robertson Firearms Tax Act of 1937. Under the provisions of this act, money from a tax imposed on firearms, shells, and cartridges went into a federal aid program to fund wildlife restoration projects, including land acquisition and research. Iowa chose to use Pittman-Robertson Act funds to acquire land and develop game farms.[80]

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78 Crane and Olcott, pp. 9-10.

79 Arnold O. Haugen, "History of the Iowa Cooperative Wildlife Research Unit," *Iowa Academy of Science* 73 (1966):136-145; David L. Lendt, *Ding: The Life of Jay Norwood Darling* (Ames: Iowa State University Press, 1989 [rpt. 1979]):59-60.

80 "Pittman-Robertson Firearms Tax Act Aids Wildlife," *Iowa Conservationist* 1:1 (February 15, 1942):2.

Iowans and Wildlife Conservation

A number of Iowans achieved particular distinction for their work in wildlife conservation. These include native-son Aldo Leopold, noted conservationist-author; William Hornaday, director of the New York Zoological Park; U.S. Representative John F. Lacey, author of the Lacey Act and other conservation legislation; and Jay N. Darling, cartoonist and conservation activist. They are not the only individuals to have made important contributions to the conservation movement, of course, but in the course of their career these individuals were able to reach an audience or achieve conservation goals that lay beyond Iowa's borders.

John F. Lacey

The Lacey Act (1900) marked the federal government's first expression of policy regarding wildlife conservation.[81] Authored by Iowa Congressman John F. Lacey, the central provision of the act aided the enforcement of state game laws by prohibiting the "interstate transportation of any wild animals or birds killed in violation state laws." Another provision gave the U.S. Secretary of Agriculture the power to prohibit the importation of certain named species, including English sparrows and starlings, as well as unspecified birds or animals the Secretary might "declare injurious to the interest of agriculture or horticulture." A third provision gave broad authority to the Secretary of Agriculture to adopt measures for the "preservation distribution, introduction, and restoration of game birds, and other wild birds" so long as federal measures did not infringe on state laws.[82]

Lacey, who made his home in Oskaloosa, has been honored many times over for his efforts on behalf of wildlife conservation. Lacey-Keosauqua State Park, one of the first parks in the system, is named in his memory. After serving briefly in the Iowa Legislature, he was elected to Congress in 1888. As a congressman, Lacey served on the House Public Lands Committee, chairing that body for twelve years. From this position he drafted the Alaska Game Law (1902) and the code of laws for protecting Yellowstone National Park. He also proposed the laws which created the Wichita Forest Reserve in Oklahoma and the Grand Canyon. In addition, he

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81 An earlier law, the 1897 Hunting and Fishing Trespass Act, prohibited hunting and fishing in national forests, but it carried no widespread policy implications.

82 Environmental Law Institute, pp. 20-21.

worked for the establishment of national bison herds as well as passage of legislation to extend federal protection over historic and prehistoric sites on public lands, a goal accomplished in 1906 with the Antiquities Act.

Lacey's concerns covered all aspects of conservation, though he was extremely proud of the fact that his committee drafted the 1891 act which empowered the president to establish forest reserves by executive order. Believing very much in the multiple-use philosophy advocated by Gifford Pinchot, Lacey also worked to transfer the Bureau of Forestry from the Department of Interior to the Department of Agriculture, a goal accomplished in 1905, a year before he left office. He continued to work out of office for the protection of migratory birds. After losing a bid for reelection in 1906, Lacey lobbied as a representative of the League of American Sportsmen's Committee on Conservation. In this capacity he urged legislation to establish game preserves in national forests and to enact a migratory bird law.[83]

Lacey lived just long enough to see the fruits of his labor realized in 1913 with passage of the Weeks-McLean Migratory Bird Game Act, which placed all migratory birds under federal protection and closed hunting during the spring. When the question of constitutionality threatened to undermine the Weeks-McLean Act, President Wilson negotiated with Canada to obtain the Migratory Bird Treaty in 1916. This was followed by the Migratory Bird Treaty Act of 1918, which effectively abolished spring duck hunting, prohibited commercial game hunting, and authorized bag limits.

William T. Hornaday

Another conservationist with strong ties to Iowa, William T. Hornaday, also left his imprint on federal wildlife legislation. Though not an Iowa native, he grew up on a farm in Marion County and attended both Oskaloosa College and Iowa State College between 1871 and 1875. Hornaday left Iowa in 1875 to travel abroad and throughout the United States. Eventually, in 1906, he took his doctorate from the University of Pittsburgh. Hornaday became Director of the New York Zoological Park in 1896, a position he held his entire career.[84] For his work in

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83 See *Major John F. Lacey: Memorial Volume* (1915) and Annette Gallagher, Citizen of the Nation: John Fletcher Lacey, Conservationist," *Annals of Iowa*, Third Series, 46:1 (Summer 1981): 9-22.

84 Hon. John F. Lacey, "'Our Vanishing Wildlife,' by Dr. William Temple Hornaday," *Annals of Iowa* 11:5 (April 1914): 338, 341.

wildlife conservation, Iowa State College awarded him an honorary Master of Philosophy in 1923, and in 1925 the college and the Iowa Conservation Association placed a stone-and-bronze memorial to him in front of the library.[85]

It is no understatement to say that Hornaday battled for wildlife protection; he used both pen and tongue skillfully, sometimes ruthlessly, to fight for conservation causes he understood to the core. During the late nineteenth and early twentieth centuries he was instrumental in creating the Montana National Bison Herd, the Wichita National Bison Herd, Goat Mountain Park in British Columbia (a wildlife sanctuary), and Snow Creek Game Preserve in Montana.[86] Publication of his most influential book, *Our Vanishing Wild Life: Its Extermination and Preservation*, coincided with passage of the Weeks-McLean Migratory Bird Act. From then on, he was a central figure in the controversy over federal regulations to protect migratory birds. Having worked to secure passage of the Weeks-McLean Act, he then raised over $100,000 from benefactors such as Margaret Olivia (Mrs. Russell) Sage, Andrew Carnegie, Henry Ford, and George Eastman in order to establish the Permanent Wildlife Protection Fund, an endowment he used to lobby Congress for more wildlife sanctuaries around the world and to reduce bag limits. For example, in 1917, the fund supported a successful campaign to convince the Iowa Legislature to ban the killing of quail and prairie chickens for five years.[87] Among the first recipients of the Permanent Wildlife Protection Fund's Distinguished Service Gold Medal were Aldo Leopold, "for conspicuous services in awakening New Mexico to wild life protection activities," and Dr. T.C. Stephens of Morningside College, "for successful leadership in Iowa's campaign of 1917 to save quail and pinneated grouse."[88]

As a member of the Migratory Bird Treaty Act Advisory Board, Hornaday attempted, but failed, to convince his fellow board members to lower bag limits and reduce the length of the duck hunting season. Decades of observing wildlife and the disappearance of native habitats

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85 William T. Hornaday, *Thirty Years War for Wildlife, Gains and Losses in the Thankless Task* (New York and London, 1931): 271.

86 *Ibid.*, p. 339.

87 *Ibid.*, pp. 186, 188.

88 *Ibid*, p. 192.

convinced him that the supply of migratory game birds was seriously depleted, a view shared by many states which had reduced bag limits below those imposed by the federal government. The Biological Survey had only spotty records to inform the situation, but opposed him nonetheless, as did the American Game Protective Association, the National Association of Audubon Societies, and other organized groups. In disgust, Hornaday resigned from the advisory board in 1923 and began a frontal (and affrontal) assault on the Biological Survey, which he accused of being controlled by the sporting arms industry. Hornaday always enjoyed the support of scientists and many wildlife aesthetes, and he soon won the support of *Outdoor Life* and *Forest and Stream*, influential publications which reached many sport hunters. Eventually, he even regained the support of the Migratory Bird Treaty Act Advisory Board and the Biological Survey. After the Survey's bird-banding program, begun in 1921, confirmed precipitous declines in migratory bird populations, the Advisory Board reduced bag limits in 1930 and again in 1931.[89]

Hornaday's greatest victory during the 1920s was the Norbeck-Andresen Migratory Bird Conservation Act, passed in 1929. The act grew out of bills that had been repeatedly introduced for the purpose of creating wildlife refuges that would serve both as breeding grounds for migratory birds and as public shooting grounds. Supporters of this legislation included the American Protective Game Association (chief sponsor), the Izaak Walton League, the National Association of Audubon Societies, and the Biological Survey. Every time the bill reemerged, Hornaday, through the Permanent Wildlife Fund and its allies, managed to influence its defeat on the grounds that the legislation was designed less to protect game fowl than is was to provide new slaughtering grounds for unsportsmanlike hunters. In 1928, Senator Peter Norbeck (R-North Dakota) reintroduced the bill once more. This time, Hornaday went directly to the senator and convinced him to drop the provision for public shooting grounds. Then he used his influence through the Permanent Wildlife Protection Fund, *Outdoor Life*, and *Field and Stream* to lobby Congress. The Norbeck-Andresen Act, which Congress adopted on February 9, 1929, authorized the creation of wildlife sanctuaries, protected by federal wardens, and appropriated $1 million annually for ten years to fund the program.[90]

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89 Swain, pp. 34-40.

90 Swain, pp. 41-42; Hornaday, pp. 235-244; Pammel, "The Arbor Day, Parks and Conservation Movement...," (April 1930), p. 271.

Throughout his life, Hornaday cultivated friendship and support among his compatriots in Iowa. Reflecting on the long struggle for wildlife protection in 1931, he wrote:

> That the people and institutions of my former home state have always had more or less faith in me, and have stubbornly maintained it 'through good and evil report,' has been to me a constant source of satisfaction and strength. I count particularly the State College, the State University, Morningside College, the Iowa School of Wild Life Protection, the State Conservation Association and the organized bird defenders of Iowa.[91]

Aldo Leopold

Aldo Leopold was born in Burlington, Iowa, in 1887, the son of parents who instilled a respect for both community and nature in their children. Carl Leopold, his father, was a businessman and sportsman of high standards. He served as the state's vice-president at the Third National Conservation Congress from 1910 to 1911. Aldo Leopold always considered his own biotic land ethic to be an extension of the values he learned from his family as a child. He is best remembered for his eloquent articulation of those values in *Sand County Almanac* (1949), written at an abandoned farm in south central Wisconsin which he had purchased in 1935 in order to rehabilitate the land. That farm is now part of the Leopold Memorial Reserve, a private wild area of almost 1400 acres. The reserve includes The Shack where he wrote *Sand County Almanac,* and the structure is listed on the National Register of Historic Places?[92] The Starker-Leopold House in Burlington where he was raised is also listed on the National Register.

Leopold's only professional connection with the conservation movement in Iowa came through the game survey he conducted as part of the *Twenty-Five Year Conservation Plan* in 1931-32. That survey, however, was itself part of a much larger study he conducted for the Sporting Arms and Ammunition Manufacturers' Institute (SAAMI). Between 1928 and 1932 he along with various research fellows undertook systematic field investigations in a block of north

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91 Hornaday, pp. 271.

92 Charles C. Bradley, "The Leopold Memorial Reserve" in *Aldo Leopold: The Man and His Legacy*, Thomas Tanner, Ed. (Ankeny, IA: Soil Conservation Society of America), 1987.

central states which included Ohio, Indiana, Michigan, Illinois, Wisconsin, Minnesota, Iowa, and Missouri. The game survey was the first of its kind ever attempted in the United States, and the results provided the baseline data needed to develop scientific game management theory and techniques.[93]

Six months into the survey, Leopold delivered a progress report to the American Game Conference meeting in New York in December 1928. He emerged from the conference as chairman of a new committee to draft a national game policy. After another year of fieldwork, he wrote a rough draft of the policy statement for circulation among the committee members; and throughout 1930 he consulted with the members of his committee before preparing a final version, which was unveiled at the December meeting. As presented to and adopted by the American Game Conference, the national policy statement called for recognizing game management as a distinct profession with appropriate training programs, placed primary responsibility for game management in the hands of landholders, identified classes of game and the particular management needs of each, and emphasized the need for sport hunters and nature-lovers to cooperate on matters of wildlife conservation. The policy statement drew praise from many quarters because it marked the emergence of "a coherent national strategy" aimed at directing "the previously disparate activities of sportsmen, administrators, researchers, and (its framers hoped) landowners."[94]

Though the SAAMI game survey continued until 1932, Leopold's major findings were contained in his *Report on a Game Survey of the North Central States*, published and distributed in the spring of 1931. The report, packed with statistics on game and habitats, secured Leopold a place of respect among conservationists nationwide. At the same time he was writing the report, he also worked on a textbook on game management and undertook the Iowa game survey for the State Fish and Game Commission. The textbook, *Game Management*, and the Iowa survey were both completed in 1932. This four-year odyssey crystallized Leopold's thinking about wildlife management, and his principles guided professional wildlife management for several decades. His philosophy was rooted in a realism that tried to reconcile the complexities of human nature and western society with the vulnerability of the natural world.

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93 Meine, pp. 259-268

94 *Ibid.*, pp. 272-278.

> I realize that every time I turn on an electric light, or ride on a Pullman, or pocket the unearned increment on a stock, or a bond, or a piece of real estate, I am 'selling out' to the enemies of conservation. When I submit these thoughts to a printing press, I am helping cut down the woods. When I pour cream in my coffee, I am helping to drain a marsh for cows to graze, and to exterminate the birds of Brazil....
>
> What to do? I see only two courses open to the likes of us. One is to go live on locusts in the wilderness, if there is any wilderness left. The other is surreptitiously to set up within the economic juggernaut certain new cogs and wheels whereby the residual love of nature, inherent even in 'Rotarians,' may be made to recreate at least a fraction of those values which their love of 'progress' is destroying. A briefer way of putting it: if we want Mr. Babbitt to rebuild outdoor America, we must let him use the same tools wherewith he destroyed it. He knows no other.[95]

Jay Norwood (Ding) Darling

No other Iowan promoted wildlife conservation quite as vigorously or as successfully as cartoonist Ding Darling. His forthright handling of politically charged issues earned him his first Pulitzer Prize in 1924. Some of Darling's most eloquent and memorable statements concerned wildlife, which brought him to the attention of conservationists nationwide. By 1930, he had become an articulate spokesman for the protection and scientific management of wildlife, and in 1931 Governor Turner appointed him to the Fish and Game Commission. In this capacity, he initiated the Cooperative Wildlife Research Unit at Iowa State College and helped launch the state's comprehensive *Twenty-Five Year Conservation Plan*.[96]

In December 1933 Darling, along with Aldo Leopold, and Thomas Beck, editor of *Collier's Magazine*, were appointed to the President's Committee on Wildlife Restoration, commonly known as the Beck Committee. After much disagreement among the members, with Beck taking a position in favor of more game hatcheries, Leopold arguing the necessity of restoring habitats, and Darling mediating, the committee issued a report which, among other things,

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95 As quoted in Meine, p. 290.

96 Lendt, pp. 59-60.

called for the federal government to purchase twelve million acres of submarginal land for wildlife purposes, a $25 million appropriation for wildlife restoration, and $25 million in relief appropriations from the Public Works Administration to hire workers.[97]

President Franklin Roosevelt more-or-less ignored the report, but he did take note of Darling's work on this committee and, as a result, appointed him Chief of the U.S. Bureau of Biological Survey in March 1934. Darling's acceptance of the appointment took many by surprise, especially since he was a frequent critic of both FDR and the New Deal, but he apparently saw the job as a rare opportunity to revive and restructure the Biological Survey, which he proceeded to do during his two-year tenure. As Chief of the Biological Survey, Darling first reorganized the agency and hired new staff. He also crusaded for funding to purchase new wildlife refuges and to maintain those already established. He shortened the open season, reduced bag limits even further, and outlawed live decoys and baiting. He also instigated a nationwide program of wildlife research units modeled after the cooperative research unit he had helped to establish at Iowa State College in Ames in 1932. Darling conspired with Senator Peter Norbeck of South Dakota to attach a $6 million appropriation to the 1934 Migratory Bird Hunting Stamp Act, better known as the Duck Stamp Act. The act was of special interest to Darling, since he not only drafted the bill but designed the first duck stamp.[98]

After he left the Biological Survey in late 1935, Darling set about to create an umbrella organization for small conservation organizations across the country. During the summer of 1936, he convinced a collection of industrial businessmen to help fund his nationwide cooperative wildlife research units through an organization known as the American Wildlife Institute. Then, using the institute as an operating base, he campaigned for a national organization of local sportsmen's and conservation clubs. That organization became the General Wildlife Federation, later renamed the National Wildlife Federation, of which Darling was founder and president. It soon became the largest conservation organization in the country.[99]

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97 *Ibid.*, pp. 63-68.

98 Lendt, pp. 69-73.

99 Meine, p. 362.

Status of Wildlife Conservation as of 1942

From a single wooden fish hatchery in 1874, Iowa built an impressive system of preserves and facilities for wildlife conservation. By the end of 1942, the state held title to more than 143,000 acres of land. Of that total, 13,541 acres were maintained for game-producing purposes, with 2,263 acres devoted to game farming. A state game bird hatchery near Boone released over 95,000 fowl annually. Ninety-one wildlife refuges covered a total of 49,408 acres, and 86 public shooting grounds represented 60,227 acres dedicated to sport hunting. The state also controlled sixty-five meandered lakes, eleven meandered streams, and eighteen artificial lakes. Forty-two fish-producing units and two fish rescue stations stocked these waters with over 246 million fish annually.

On the federal level, the U.S. Bureau of Fisheries had an operating fish hatchery at Guttenberg, built on land acquired under the authority of the 1924 Upper Mississippi River Wildlife and Fish Refuge Act. The hatchery occupied a small portion of the 25,000 acres that so far had been acquired for refuge purposes in the Upper Mississippi Valley. The appearance of the Guttenberg National Fish Hatchery signified the shift in thinking about wildlife conservation that took place during 1930s, moving away from simple species propagation and distribution operations to a more comprehensive program of resources management. By 1942, the federal government also had acquired slightly over half of the planned 2000-acre Union Slough National Wildlife Refuge in Kossuth County; and restoration was underway on what had been one of the largest marshes in Iowa before it was drained for agricultural land.[100]

100 Ira N. Gabrielson, *Wildlife Refuges* (New York: The Macmillan Company, 1943):158.

III. FOREST CONSERVATION: 1866-1942

Origins of Forest Conservation

Michael Williams observes that "Other than the creation of cities, possibly the greatest single factor in the evolution of the American landscape has been the clearing of the forests that covered nearly half of the country."[101] It is not surprising then that concern over disappearing woodlands should have developed early. New England settlers, who depended upon wood for energy, shelter, and ship-based commerce, were the first to recognize the need for forest reserves. Towns required landowners to obtain the permission of a selectman or a forest warden before felling trees for dwellings, barns, or farm implements. Several Massachusetts Bay Colony towns forbade cutting young trees for firewood. The widespread practice of burning trees to create grazing pastures not only denuded woodlands but often resulted in unwanted destruction through forest fire. As a result, during the early 18th century, towns in Connecticut Valley were forced to suspend burning for several years in order to allow forests to regenerate. William Penn, who opposed the practice of burning, required that each settler in Pennsylvania agree to leave one acre of trees standing for every five acres of land cleared.[102]

New Englanders also recognized the value of trees for shade and their ability to control erosion. During the mid-seventeenth century, the Bay Colony towns of Watertown, Ipswich, and Groton began to designate trees that were to be left standing along public highways as shade for travelers. In 1747, Salem, Massachusetts went so far as to offer a bounty to anyone who would plant locust trees on the highlands in order to provide shade for cattle. Massachusetts forbade cutting trees in the Province Lands near the tip of Cape Cod because drifting sand was silting up the harbor. Likewise, in 1702, Plymouth Town forbade the cutting of pines along the beach.[103]

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101 Michael Williams, *Americans and Their Forests: A Historical Geography* (Cambridge: Cambridge University Press, 1989), p. xvii.

102 Howard S. Russell, *A Long, Deep Furrow: Three Centuries of Farming in New England* (Hanover, Hew Hampshire: University Press of New England, 1982):93-94; Huth, p. 9.

103 Russell, p. 94.

While these instances provide evidence that the beginnings of a land ethic existed among the early settlers, colonial laws did not stop, or probably even slow, the destruction of New England woodlands. By the end of the eighteenth century, land around the larger towns had been largely deforested. Moreover, the admirable qualities of New England thriftiness did not migrate westward with agricultural expansion. It has been estimated that in the half-century between 1850 and 1900 Americans cleared over 190,000 acres of forested land, with the greatest losses taking place during the 1850s and the 1870s, before and after the Civil War.[104]

During the early nineteenth century, the federal government purchased stands of timber on islands off the Gulf Coast and reserved 244,000 acres of forested land in Alabama, Florida, Louisiana, and Mississippi. In 1831, the federal government also imposed penalties for destroying trees -- particularly live oak and cedar -- from public lands. These actions, however, did not represent the beginnings of a national forest policy: the "real incentive" was to save "special kinds of timber necessary in the navy."[105] Meanwhile, forests were cleared for farmland or reduced to wasteland as lumbering moved from Maine to New York in the 1850s, to Pennsylvania in the 1860s, the Lake States in the 1870s, and then to the South and Far West.

The forests of the northern United States gave way to prairie in Iowa; nevertheless, the earliest maps show that about 6.5 million of the state's 35.5 million acres were covered with woodlands, and the first settlers found heavy stands of timber along the Mississippi River. By 1840, substantial quantities of potash and pearl ash were being produced in the extreme southeast tip of Iowa, indicating that pioneers were rapidly clearing forests in what would later become the counties of Lee, Van Buren, and Davis. At the same time, hunters and trappers exported sizable numbers of animal skins and furs taken from the forests along the Mississippi River in upper Iowa.[106]

During the 1860s and 1870s, scientists and naturalists began to agitate for federal protection of forests, although there is no evidence that Iowa's forests benefited from this agitation. George

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104 Williams, Table 11.1 on p. 354.

105 Bohumil Shimek, "Report of the Chairman of Committee on Legislation," in *Proceedings of the Iowa Park and Forestry Association, Second Annual Meeting, 1902* (Iowa City: IPFA, 1903):64.

106 Williams, pp. 140, 142.

Perkins Marsh is generally credited as the first person to arouse awareness about the injurious effects of destroying the vegetative covering. In *Man and Nature*, which appeared in 1864, Marsh demonstrated how man had repeatedly disrupted, with disastrous results, the fragile balance that exists in nature. With this work, he laid the foundations for the study of ecology. While Marsh had a far greater impact on the post-World War II environmental movement, his concerns were amplified by agricultural scientists during the 1860s and 1870s.[107]

Plant a Tree: 1866-1895

Agitation for government policies to preserve forests began to produce results by 1870. The U.S. Census Bureau added "woodland" as an enumerative category for the first time in 1870 and discovered that approximately one-quarter of the nation's total land acreage was covered with timber. Maine appointed a commission on forest policy in 1869. New York set up a similar commission, whose investigations led the state to withdraw, in 1883, forested state land from further sale, an action which gave birth to the Adirondack State Park. By 1885, California, Colorado, and Ohio also had state forest commissions.[108] Several states passed laws during the early 1870s to encourage timber planting, including the states of Iowa, Kansas, Nebraska, New York, Missouri, Minnesota, Illinois, North Dakota, and Connecticut. Iowa's first law, passed in 1868, allowed property tax exemptions for planting trees. Another law, adopted in 1872, provided $1,000 for the support of the State Horticultural Society and directed that $200 of that amount be used to pay premiums for growing forest trees.[109] These two laws, plus the founding of the Iowa State Horticultural Society in 1866 have been cited as evidence of an early awareness among Iowans of the need to conserve woodland resources.

States advocated the carrot approach to tree planting during the 1870s; and activities at this level spurred the federal government to pass the Timber Culture Act of 1873, which allowed homesteaders to claim 160 acres of treeless public land in exchange for planting forty acres of timber. While these developments certainly encouraged tree planting, they were not designed to, nor did they, advance sound practices of forest management or forest preservation. Since

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107 *Ibid.*, pp. 370-373.

108 *Ibid.*,, pp. 374-375; Shimek (1902), p. 65.

109 L.H. Pammel, "The Arbor Day, Park and Conservation Movements in Iowa," *Annals of Iowa* 17 (October 1929):90, 102; Widner, p. 381.

conservationists later campaigned to have the Timber Culture Act repealed, in large part because so many homesteaders abused it by removing trees once the land was patented (the 1868 state legislation was similarly abused), it is debatable whether the organizations and individuals who advocated tree planting should be considered in the same vein as later conservationists. Comparatively speaking, tree planters contributed more to the development of agriculture. However, there is a political philosophy that links tree planting with the eventual emergence of forestry conservation. When horticulturists and natural scientists organized for political action in Iowa in 1901, they adopted essentially the same position embodied in the 1868 tree-planting act: that government should seek to induce a conservation ethic among private landowners by offering tax incentives rather than by imposing land-use restrictions and penalties.

Although tree planting may not rightfully deserve a prominent berth in the history of the conservation movement, it nonetheless appealed to a large segment of the population, as is illustrated by the popularity of Arbor Day. Moreover, the history of Arbor Day demonstrates another link between horticulture promoters and conservationists. In 1872, J. Sterling Morton, a member of the Nebraska state legislature who later became Secretary of Agriculture under Grover Cleveland, introduced a resolution calling for April 10th to be set aside for tree planting. He also called upon the state to offer a cash premium to the county planting the most trees. The State legislature went one better and passed an act granting tax exemptions to landowners who planted forest trees. Nebraska settlers, who generally had transplanted themselves from wooded areas to the treeless prairies, responded so positively that the State legislature was forced to repeal the act in 1877 because the treasury was losing considerable revenue to tax exemptions.[110]

In reality, the enthusiasm for Arbor Day, which spread immediately from Nebraska to Kansas, Tennessee, Ohio, Iowa, Illinois, Michigan, and West Virginia -- stemmed from a desire to recreate a more familiar, more scenic, and more comfortable landscape than the one nature offered in the prairie, not from a desire to conserve natural resources. In 1867, W.W. Beebee, secretary of the Iowa State Horticulture Society, estimated that 20,000 acres of trees were then under cultivation in the state, and he further commented that if the "spirit of increased interest" in tree planting were "suitably encouraged and properly directed" Iowans could endow their "now treeless prairies with beautiful groves to be more remotely crowned with stately forests,

110 Pammel, pp. 84-85.

where there will exist those 'giants' and 'monarchs' of which we have been reading but, at present, so seldom see in our otherwise beautiful Iowa."[111]

Iowa jumped on the Arbor Day bandwagon early, first commemorating what was to become a vibrant custom on April 20, 1873. The following year the State Horticultural Society published a tree manual, and for twenty years thereafter offered premiums for planting certain kinds of trees.[112] When this stimulus was abandoned, the society continued to issue circulars especially aimed at promoting tree-planting exercises in public schools. It was not until the early twentieth century that the commemoration of Arbor Day took on conservationist overtones. Teaching materials issued by the superintendent of public instruction in 1910 and 1911 contained a history of the Audubon Society, quotations from John Muir, and an article on conservation. From then on, conservation became an Arbor Day theme. In his Arbor Day proclamation 1925, Governor John Hammill sadly noted that "We have stripped our forests and at times destroyed the young growth and the seed from which new forests might spring, with no thought of the future and while we already feel the grip of timber shortage, we have barely begun to save and restore."[113] In the final analysis, though, Arbor Day remained more of a substitute for conservation. At best, its commemoration over the decades helped to stir a love of trees in school children. At worst, it provided a convenient annual event for politicians, and others, to make speeches of concern while doing nothing of substance.

Early-day advocates of tree planting included C.E. Whiting, a member of the State Horticultural Society who is said to have planted extensive groves of soft maple, cottonwood, and walnut trees in Monona County; Governor William Larrabee, who planted about 100,000 white pine trees in 1875; and the Close Brothers, who planted 1500 acres of trees in Plymouth County in 1881. Other pioneer horticulturists in Iowa were C.F. Clarkson of Grundy County,

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111 As quoted in Pammel, p. 92.

112 G.B. MacDonald, "State Forestry in Iowa: The Early Period," *Iowa Conservationist* 4:4 (April 1945):123.

113 In L.H. Pammel, "Forest and Forestry," *Bulletin Iowa State Parks* 2 (May-June 1925):1-2. Hamill's 1926 address, as quoted in Pammel's 1930 Arbor Day article, p. 89, carried a similar message. Hamill asserted that it was time for Americans to "balance accounts with our forests. It is time we became growers as well as users of wood....It is time we paid heed to our idle acres -- that we restored woods, industries and people on a large part of our soil which lacks them all." Pages 86-90 of the same article contain a brief but useful history of Arbor Day in Iowa which Pammel gleaned from the annual reports of the State Horticultural Society.

whose horticultural reports were published in the *Iowa State Register*; Prof. Henry M. McAfee, the first professor of horticulture at Ames; and Prof. J.L. Budd, who along with Suel Foster of Muscatine and H.W. Lathrop, established the annual *Forestry Manual*, published under the auspices of the State Horticultural Society from 1874 through 1895. Budd also introduced a number of plant species and experimented with them at Ames.[114] Individuals such as these supported, through the State Horticultural Society, passage of the Timber Culture Act and also encouraged Iowans, especially farmers, to plant trees for harvest as well as for ornamental purposes. Many of the farm groves in Iowa no doubt were planted in response to the federal act as well as by the circulars which emanated from the State Horticultural Society beginning in the 1870s.

On the federal level, the creation of a Division of Forestry within the Department of Agriculture was perhaps the most significant outcome of the political action Marsh helped to stir. In 1873, the American Association for the Advancement of Science began to press Congress for such an agency, and Congress finally responded in 1876. Dr. Franklin B. Hough, the first division chief, produced a few pithy reports of his own and succeeded in arousing Secretary of the Interior Carl Schurz to the need for reliable and complete statistics. In 1880, Schurz ordered a three-year field investigation, conducted by Charles Sargent, the findings of which were published in a massive *Report on the Forests of North America* in 1884. Sargent concluded that lumbering and mining were menacing the nation's forests, but the federal government took no legislative action in direct response to Sargent's report.[115]

While these activities were taking place on the federal level, horticulturists and others interested in forestry began to organize professionally. The Iowa State Horticultural Society, organized in 1866, carried the standard for forest propagation. From the early 1870s on, the society called for the creation of a forestry commission, appointment of a state forester, establishment of a state tree nursery, and state appropriations for a forestry program -- all to no avail.[116] The

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114 Pammel, pp. 92-96, 103. In his 1929 paper, Pammel mentions just about every individual who was involved through the Iowa State Horticultural Society with the nascent forestry movement in Iowa. Researchers are referred to this document as a source of information on individuals who may have significance at the local level in the contexts of either the conservation movement or the development of agriculture.

115 Williams, pp. 375-377.

116 G.B. MacDonald, "State Forestry: The Early Period," p. 123.

Iowa Academy of Science, organized in 1875, supported research in all areas of natural science, including forestry.

The year 1875 proved to be pivotal. That year, foresters and lumbermen convened a meeting in Chicago, out of which emerged the American Forestry Association.[117] Iowa's Henry McAfee served as the first president. In the following years, several states organized affiliates, although Iowa did not join the ranks until 1901, when the Iowa Park and Forestry Association (IPFA) was organized. By that time, state forestry organizations also existed in Maine, New Hampshire, Massachusetts, Connecticut, New York, Pennsylvania, New Jersey, North Carolina, South Carolina, Ohio, Wisconsin, North Dakota, Colorado, and Washington. The most important goals of professional associations seems to have been establishing state policies of fire prevention and suppression and creating state agencies with responsibility for carrying out such policies.[118] In this regard, they were much more politically inclined than the earlier organizations had been.

On the national level, the American Forestry Association drafted a bill providing for the withdrawal, entry, or sale of all public timber lands unfit for agricultural uses. The bill, which Congressman John F. Lacey placed before Congress in 1888, was finally passed in 1891. It repealed the Timber Culture Act of 1873 and empowered the president to set aside forest reserves.[119] President Benjamin Harrison responded by setting aside fifteen forest reserves totaling 16,000,000 acres. A national forestry program was thus launched, although the development of national policies would await the presidency of Theodore Roosevelt and the guiding hand of his Chief Forester, Gifford Pinchot.

Despite statewide efforts to encourage tree planting and a growing movement to set aside national forest reserves, Iowa, as well as every other state undergoing EuroAmerican settlement

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117 Williams, p. 403. In 1882, the American Forestry Assocation merged with the American Forestry Congress (organized in 1882). The latter group was much more politically inclined, with individuals such as Bernard Fernow and Franklin Hough at the helm.

118 Wm. H. Mast, "The Progress of Forestry and the Work of the Bureau in Iowa," *Proceedings of the Iowa Park and Forestry Association, Second Annual Meeting* (Iowa City: the IPFA, 1903):66-67.

119 Mast, p. 67.

in the late nineteenth century, was losing much of its natural tree cover. The pattern of lumbering in the United States has been described as "one of a continuously expanding wave of exploitation." In Iowa, the wave crested in about 1890. Approximately 500,000,000 board feet of lumber were produced in the state in 1870, when Iowa ranked ninth in the country, supplying 2.77 percent of the nation's total lumber. By 1890, the figure had doubled to 1,000,000,000 board feet.[120] Horticulturists who had previously urged tree planting to shade the prairie now saw the need to replenish a disappearing resource and control soil erosion. In 1890 the State Horticultural Society estimated that Iowa had about 2,000,000 acres of timber. The acreage estimate may have been low, but the Society nonetheless "deprecated the fact that much of this was in such poor shape that it was little more than brush land."[121] By 1910, lumber production in Iowa had decreased to about 100,000,000 board feet; and by 1930, lumbering was a negligible sector in the state's economy.[122] From the rank of ninth in 1870, Iowa slipped to forty-third in 1939 with only .002 percent of the nation's total cut.[123]

To be sure, Iowa's woodlands were cleared mainly by farmers, not loggers, but Iowa did have a modest sawmill industry for several decades. The state's first sawmill was established c. 1830 on the Yellow River near Fort Crawford in the northeastern part of the state. By 1860, sawmills were operating in seventy percent of Iowa's counties, with concentrations along the larger rivers. Many of these were local hardwood mills. During the early years, logs generally were rafted to sawmills, which probably meant that at least some of the raw materials came from northern forests via the Mississippi River. By 1910, however, the "rafting" period had passed, and the number of sawmills along the Mississippi and other large rivers within the state had decreased substantially. Increasingly, consumer demands were met by local mills and by large lumber producing centers in the Great Lake States, the South, and the West.[124]

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120 Williams, quote from p. 193; production statistics from Figures 7.1-7.4 on pp. 195-196 and Widner, p. 382.

121 Pammel, "Arbor Day, Park and Conservation..." (1929), p. 99.

122 Williams, pp. 195-196.

123 Ralph R. Widner, "Iowa: Forestry on the Farm" in *Forests and Forestry in the American States: A Reference Anthology* (Missoula, MT: Association of State Foresters, 1968):382.

124 *Ibid.*, p. 382.

Woodland Propagation as Official Policy: 1896-1930

As lumber production peaked in the state, horticulturists and naturalists began to take a more active stance toward forestry and conservation. The year 1896 has been cited as a turning point in the history of conservation in Iowa. In that year, Dr. Thomas MacBride presented to the Iowa Academy of Sciences a paper entitled "Forest Distribution in Iowa" in which he advocated that Iowa's remaining forests be left undisturbed. The following year, he called again for woodlands preservation in order to keep the state's rivers and springs from drying up. These addresses earned MacBride a reputation as the "father of conservation" in Iowa.[125]

MacBride's early calls for woodlands preservation aside, the accomplishments of the next few decades continued to focus on forest propagation. Working in cooperation with Iowa horticulturists, the federal Bureau of Forests examined 1,859 acres of land in Iowa between 1899 and 1902 and devised planting plans for eight plots scattered in Palo Alto, Sioux, Johnson, Hancock, Pottawattamie, Howard, and Iowa counties. Twenty-seven different species of trees were planted on these experimental plots. The chief purpose of these plantations apparently was not to establish commercial forests but rather to experiment with woodlot trees and windbreaks that would add "ornamental and protective value" to farms.[126] However, the State Horticultural Society continually urged planting trees for their commercial value, citing uses such as box and crating materials, basket materials, fence posts, and commercial nut growing.[127] In addition, the Iowa Park and Forestry Association listed as one of its founding purposes "the planting of trees in country homes for aesthetic purposes as well as for the supply of timber for commerce."[128]

To those in the inner circle, the time seemed right to act. Pammel reported to the State Horticultural Society in 1901 that Congress had just passed a resolution "to set aside some

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125 Jacob A. Swisher, "The Iowa Academy of Science," *Iowa Journal of History and Politics* 29 (1931):343-344.

126 Mast, p. 71.

127 Pammel, "The Arbor Day, Parks and Conservation Movements in Iowa..." (April 1930):198-224.

128 Article II of the Constitution published in the *Proceedings of the Iowa Park and Forestry Association*, 1901.

800,000 acres of land and water for a national park and a forest reserve" and other waste lands in Wisconsin.[129] Pammel and others also recognized the need for an organization more explicitly focused on political goals. That organization turned out to be the Iowa Park and Forestry Association. According to one chronicler, the IPFA,

> was born on the campus of the Iowa State College, at Ames, on November 16, 1901, when a meeting was held in the Agricultural Hall, there...the convener of the meeting on behalf of its friends, being L.H. Pammel, Professor in the Botanical Department....[130]

Thomas H. MacBride was elected to serve as the IPFA's first president. This organization, from 1914 to 1917 known as the Iowa Forestry and Conservation Association, and after 1917 as the Iowa Conservation Association, became the leading voice for conservation legislation in the state.

The IPFA was the first state organization to promote legislation for rational forest management and the creation of forest reserves. In 1901, the state had no policy governing forestry, and the IPFA lost no time in seeking to change the situation. This organization, chiefly through its Committee on Legislation, took the lead in drafting the bill that ultimately became the Forest and Fruit Tree Reservation Act. In the literature, two names are closely associated with the bill, R.J. Bixby of Edgewood, who is said to have drafted the bill, and Rep. Eugene Secor of Forest City, who introduced the bill to the legislature in 1901. Both were members of the IPFA. The Iowa Academy of Sciences and the State Horticultural Society joined in support of the Secor Bill or the Bixby Forestry Bill, as it was variously called, which provided that natural as well as planted woodlots and groves be assessed at a taxable value of $1.00 per acre if owners met certain conditions.[131]

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129 See Pammel, "The Arbor Day, Park and Conservation Movement...," (April 1930), p. 275.

130 George Bennett, "The Iowa Conservation Association: Looking Back," *Iowa Conservation* 2:3 (July-September 1918):55. Agricultural Hall, or Old Botany, as it is also called, is listed on the National Register of Historic Places.

131 B. Shimek, "Report of the Chairman of Committee on Legislation," pp. 54-56; T.R. Truax, "Some Returns from Forest Plantations in Iowa," *Major John F. Lacey: Memorial Volume* (Cedar Rapids: The Iowa Parks and Forestry Association and The Torch Press, 1915):428.

The forestry bill finally passed in 1906, thereby establishing Iowa's first true forest policy. Much of the impetus for the Forest and Fruit Tree Reservation Act stemmed from the loss of woodlands for commercial products. Supporters of the bill had no intention of promoting large-scale commercial forests in the state, but they did hope that limited property tax benefits would encourage private landowners to manage woodlots and woodlands in order to replenish trees cut for commercial products, such as fence posts. Additionally, supporters hoped to encourage farmers to plant windbreaks to protect crops and control soil erosion.[132] Toward this end, the U.S. Forest Service aided the cause in 1905 by conducting a study of native and planted timber in the state. The results of this study, published in 1908, provided detailed guidelines to farmers for establishing windbreaks and for managing woodlots in order to produce fence posts and repair materials.[133]

In 1908, Governor Cummins appointed a Forestry Commission, an act the State Horticultural Society had called for since 1875. MacBride had great hopes that this body would have the power to restore Iowa's extirpated forests. In fact, MacBride, ever the moral conservationist, saw the Forestry Act and the commission as the dawning of a new era. On the horizon he saw an "Iowa Commission for the Conservation of Our Natural Resources," which would "teach the teachable people in the world how to rear and use trees as the profoundest sort of world-economy, the highest sort of earth-culture, the triumph of enlightenment in this early home which God has given to the sons of men."[134]

MacBride's vision, unfortunately, was wholly out of step with reality. At the time the Forestry Act was passed, approximately 2,500,000 acres were covered with native timber; another 210,000 acres were planted as woodlots. As a result of the act, by 1907 a paltry 13,000 acres of natural groves had been placed in 917 reservations, and another 2,000 acres were reserved in

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132 Truax, p. 428.

133 Hugh P. Baker, "Native and Planted Timber of Iowa," *U.S.D.A., Forest Service, Circular 154* (Washington, D.C.: GPO, 1908).

134 Thomas H. MacBride, "A Forestry Commission for Iowa," *Report of the Iowa State Horticultural Society for the Year 1908* 43 (1909):169-170.

628 planted groves.[135] The number of acres in forest reservations remained at this level until 1920, when the acreage began to increase. By 1924, approximately 23,500 acres were in forest reservations.[136] These statistics demonstrate clearly that the carrot approach of the Forestry Act was not working, and the Forestry Commission dropped into obscurity. Attitudes of landowners had changed very little from 1904, when Joseph Trigg observed that:

> Men will plant trees to break the force of the winds around their homesteads, and a few, a very few, will plant orchards, but the fact is, the majority of Iowa land owners will not at present listen to the idea of devoting even a small portion of their large farms for forest growth, because they can see no money it for them.[137]

Although the number of acres in forest reserves inched upwards, interest in forests *per se* was subsumed under broader conservation concerns during the 1910s and 1920s. In 1924, the State Secretary of Agriculture, Mark C. Thornburg, was appointed to the tandem position of State Forestry Commissioner, but the state had no forests to oversee. There were, however, a few activities of note during these decades. In 1910, Iowa State College hired a young forester by the name of G.B. MacDonald, who proceeded to develop a program of professional training in forestry at the college. After 1912, when MacDonald was appointed to the post of Deputy State Forester, he became the chief spokesman for forest conservation in Iowa. During these decades the State University conducted experimental reforestation projects, and the State College began raising forest trees for distribution throughout the state. The latter program was funded through the federal Clarke-McNary Act, passed in 1924.[138] To a certain degree, the lack of major events specifically focused on forest conservation is attributable to the fact that the State Board of Conservation was busy acquiring lands for state parks throughout the 1920s. This did not mean conservationists forgot about forestry concerns. As evidence to the contrary, the

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135 Wesley Greene, "Forest and Fruit Tree Reservations," *Transactions Iowa State Horticultural Society* 42 (1907): 389.

136 Pammel, "Arbor Day, Park and Conservation Movements," (1929), p. 91.

137 J[oseph] S. Trigg, "Practical Forestry for Iowa," *Proceedings of the Iowa Park and Forestry Association, 1904* (Iowa City: IPFA, 1905):46.

138 Beatrice Ward Nelson, *State Recreation: Parks, Forests and Game Reservations* (Washington, D.C.: National Conference on State Parks, Inc., 1928):87; G.B. MacDonald, "Forestry Progress in Iowa," *The Ames Forester* 29 (1941):10.

Board of Conservation devoted ample space to forestry in its quarterly publication, and it routinely called upon G.B. MacDonald to help regenerate woodlands in state parks and preserves.[139]

Forests and Forest Management: the 1930s

The 1930s witnessed a renaissance of ideals and activity, encouraged and funded by New Deal programs. Iowa's remaining forests and woodlands also benefited from the *Twenty-Five Year Conservation Plan* adopted in 1933. Among other things, the plan recommended that the new State Conservation Commission be organized into three major divisions: administration, fish and game, and lands and waters. The resulting reorganization of state agencies moved the position of State Forester from the Department of Agriculture and placed it under the jurisdiction of the lands and waters division of the SCC, thus providing the framework for carrying out forestry policy and programs within a consolidated conservation agency. The plan further recommended that tax-delinquent lands that were cut-over or badly eroded be placed under state ownership for eventual management as national forests.[140] These recommendations are generally acknowledged to have originated with G.B. MacDonald.

While state agencies were being reorganized, MacDonald, who would serve as State Forester from 1935 until 1957, was laying the groundwork for new forest conservation work. Under his guidance, the state undertook a three-pronged program: a survey of forest and waste lands, land purchases for forest reserves, and reforestation. During 1933 and 1934, MacDonald directed the survey program, which was funded by the Civil Works Administration and carried out in cooperation with the State Planning Board. This was a massive effort which involved several hundred surveyors who mapped about three-fourths of the state and recorded data showing tree species, soil conditions, and other forestry information in forty-acre units. Data collected as part of the Forest and Wasteland Survey were then compared with maps prepared from the original land survey in order to identify potential purchase units.[141]

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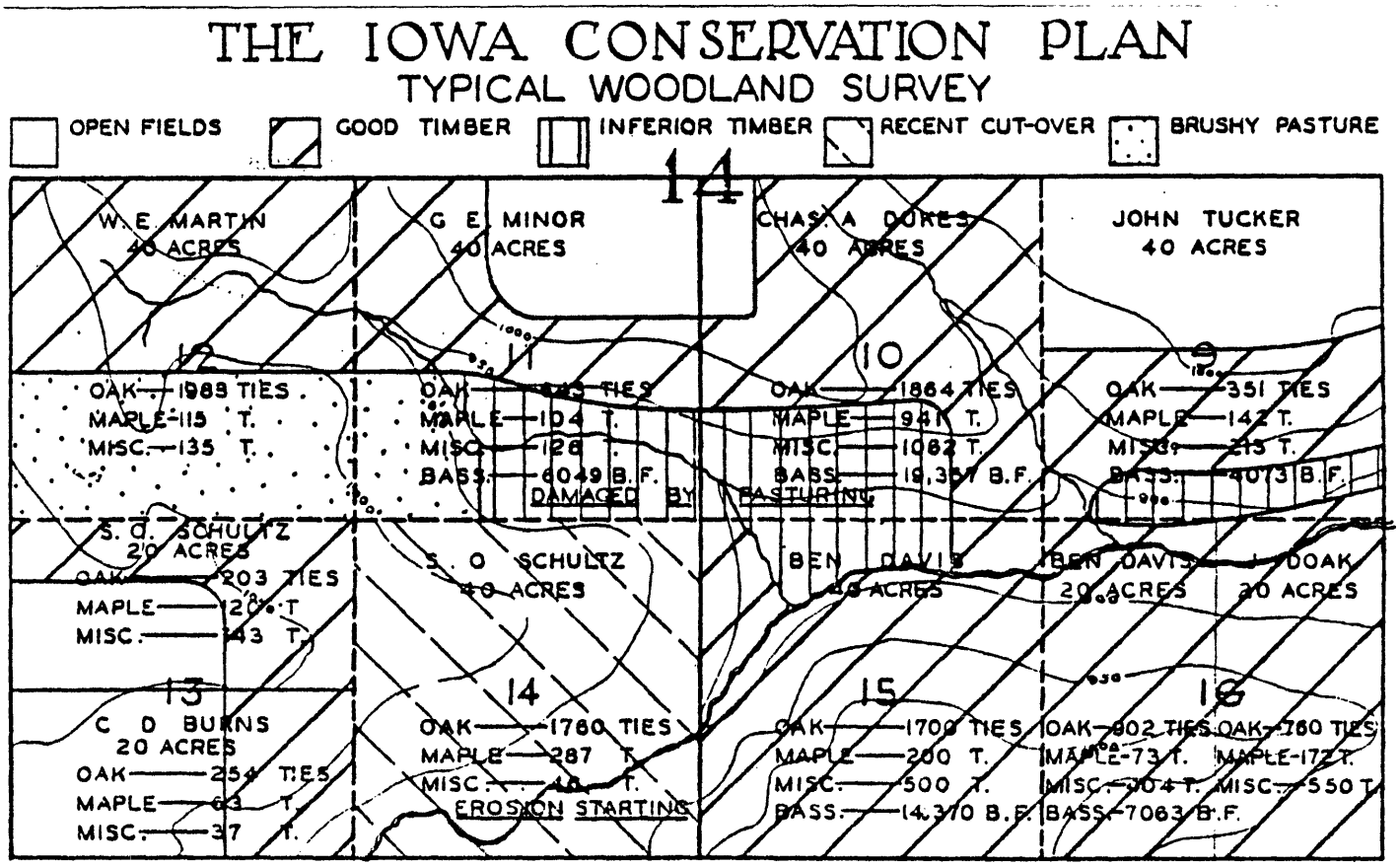
139 See, for instance, L.H. Pammel, "Forests and Forestry," *Bulletin, Iowa State Parks* 2:6 (May-June 1925): 1-5.

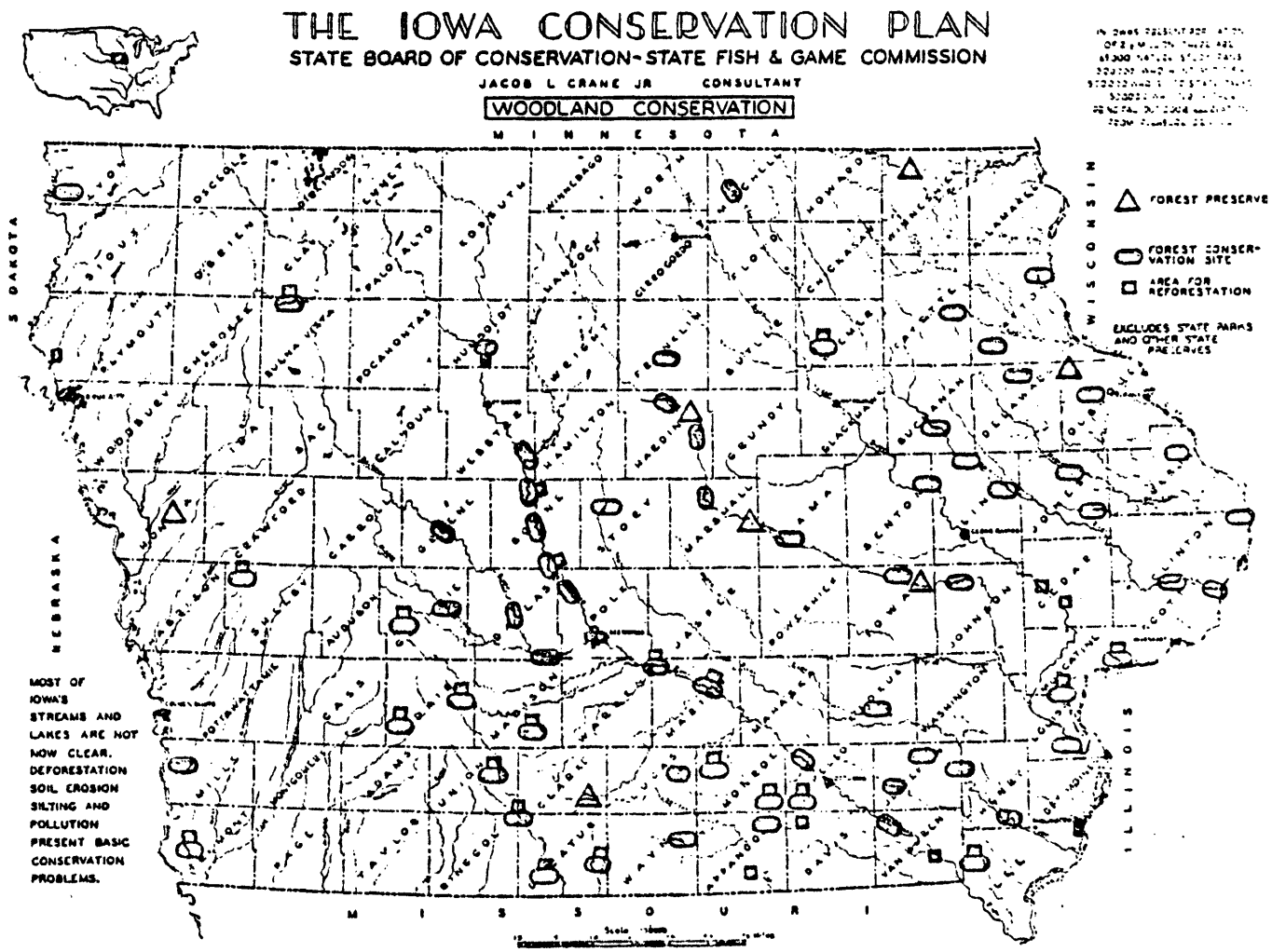
140 Crane and Olcott, pp. 69-79.

141 Widner, p. 386; G.B. MacDonald, "Acquiring State Forests," *Iowa Conservationist* 4:6 (June 1945):142.

Typical Woodland Survey Map generated by the Forest and Wasteland Survey
Source: *Iowa Twenty-Five Year Conservation Plan* (1933): Plate XXXIII



Woodland Conservation Plan, Showing Desirable Areas for Forest Conservation, Preservation, or Reforestation
Source: *Iowa Twenty-Five Year Conservation Plan* (1933): Plate XXXII



MacDonald's initial plan seems to have been to place the rougher, more depleted areas in national forest reserves, reforest them, and manage them for timber production. Woodlands which mainly required sound management but were not in need of emergency restoration would go into state reserves. In any case, approximately 2,000,000 acres were targeted as purchase units.[142] In order to implement the creation of forest reserves, the state legislature passed the National Forest Enabling Act in December of 1933, which gave the federal government permission to acquire private lands in the state for the purpose of establishing national forests. Although four purchase units totaling 829,000 acres were identified, and the U.S. Forest Service set up an office in Des Moines to begin the process of negotiating purchase options with private landowners, the National Forest Reservation Commission postponed authorization to carry out purchases until 1939. The only exception was a 100-acre tract at Keosauqua, purchased in 1936 for the purpose of establishing a federal forest nursery. In 1939 the federal government purchased 4,400 acres of the most distressed land in four southeastern counties. The U.S. Forest Service purchased a bit more land in following years, but no actual national forests ever were created.[143]

The State of Iowa ultimately funded most of the forest-reserve purchases. In 1934 the state legislature appropriate $100,000 to supplement federal emergency programs, and another $500,000 in 1935. Some of this money was used to purchase the first state reserves. By April 1, 1937 five units had been purchased:

McGregor Purchase	3714 acres
Grand River Purchase	807 "
Chariton Purchase	1759 "
Keosauqua Purchase	2733 "
Pine Hollow Purchase	530 "

142 G.B. MacDonald, "The Beginning of a National and State Forestry Program in Iowa," *The Ames Forester* 23 (1935):15-20.

143 MacDonald, "Forestry Progress in Iowa," pp. 15-16; G.B. MacDonald, "Progress of the Forest Land Acquisition Program in Iowa," *The Ames Forester* 25 (1937):53; Widner, pp. 386-387. In 1964, the state purchased 4,649 acres of public land and added them to Shimek State Forest and Stephens State Forest in southeastern and south central Iowa.

The state later appropriated another $500,000 for park and conservation work in 1937, and by 1941 about 12,500 acres had been placed into three state reserves: 1) discontiguous parcels located the south central Iowa counties of Lucas and Monroe (part of present-day Stephens State Forest); 2) discontiguous parcels located in Lee and Van Buren counties in southeastern Iowa (part of present-day Shimek State Forest); and 3) a tract located in Allamakee and Clayton counties in northeastern Iowa (present-day Yellow River State Forest). These reserves represented lands which the State Conservation Commission and the State Forester intended to develop for multiple use as timber-producing forests and wildlife habitats. In the beginning, recreation was not considered a compatible use; this idea would not gain currency until the 1950s. A fourth reserve of 330 wooded acres in Boone County was given to the state by B.P. Holst of Boone in 1939. The SCC placed this reserve under the jurisdiction of the forestry department at Iowa State College to use as a demonstration area.[144]

Forest management got a big boost with the Civilian Conservation Corps, which State Forester G.B. MacDonald oversaw as Iowa Director of the Emergency Conservation Work program. Out of the sixteen CCC camps initially established in Iowa, three were devoted entirely to forestry work: one at the forest nursery near Keosauqua, a second camp at Keosauqua to assist with developing the newly purchased state forest lands there, and a third camp at the Chariton purchase. To some extent, though, nearly all of the forty-nine CCC camps eventually operated in Iowa were involved in reforestation as part of their work in controlling soil erosion.[145]

Status of Forestry Conservation as of 1942

Between 1866 and the early 1940s, forestry in Iowa evolved from an initial concern with reshaping the prairie landscape to restoring and managing the state's timber-producing areas. The State Horticultural Society, which remains active to this day and manages the State Arboretum south of Boone, set the initial agenda when it was organized in 1866. From then until 1924, when the state legislature created the position of State Forester within the Department of Agriculture, the Horticultural Society served as the quasi-official agency in

144 MacDonald, "Progress of the Forest Land Acquisition Program...," p. 54; MacDonald, "Forestry Progress in Iowa," p. 13-15.

145 MacDonald, "Progress of the Forest Land Acquisition Program...", p. 53; Einar L. Henrikson, "The C.C.C. in Iowa," *The Ames Forester* 22 (1934):25-26.

charge of forestry and tree planting -- always working closely with the School of Forestry at the State University and with forestry professors at the State College in Ames. While the activities and organizations which fall under the rubric of forestry may not rightfully be called forest conservation, they have been included here for two reasons: 1) Iowa is consistently portrayed in the literature on conservation as one of a handful of states in the forefront of the movement during the nineteenth century; and 2) although these early efforts may not add up to what one could call a statewide conservation movement, there undoubtedly were individuals and perhaps local activities who/that represent the beginnings of a conservation ethic. Further research may well reveal a greater consistency of conservationist thought and activity from the mid- to late nineteenth century than is apparent from literature reviewed for this evaluation.

During the 1880s and 1890s, perceptions about forestry began to shift. The preoccupation with horticulture gradually gave way to a concern for restoring, conserving, and managing timber resources. This shift coincides with the peak in lumber production in the state, with the growth of forestry as a professional discipline, and with the rise of a conservation ethic nationwide. When the Iowa Park and Forestry Association was formed in 1901, ideas blossomed into political action. The ICA functioned as a catalyst, bringing together those individuals who wanted change, particularly those who wanted the state to take the lead in establishing a forestry policy. The outcome, however, was not much different from what had been done before. Minds seemed to have been wedded to the notion of encouraging private action through government-sponsored tax incentives.

The next explosion of activity did not come until the 1930s, although by the early 1920s, G.B. MacDonald, then Professor of Forestry at Iowa State College, was advocating government intervention in order to adjust "private interests to public needs."[146] Throughout the 1920s, MacDonald worked with the State Board of Conservation to establish forest conservation as one of the policies and goals of state park management. It was not until federal emergency funds became available in the 1930s, however, that Iowa put into place a forestry program which reflected the multiple-use policy of the U.S. Forest Service as developed under Gifford Pinchot. Indeed, Iowa had no publicly owned forest reserves at all until 1937. The literature indicates that, as State Forester, MacDonald relentlessly pushed to achieve the modest program the state ultimately created. In the hands of a less committed person, Iowa might have ended the decade with no cohesive forestry program, or, worse yet, no program at all. By the early 1940s,

146 G.B. MacDonald, "The Forestry Program," *The Ames Forester* 9 (1921):7.

though, the state had three forests and the foundations for multiple-use forest management had been laid.

IV. PARKS

Iowa and the State Parks Movement: 1901-1917

Iowa was not among the first states to establish state parks, but as the movement gained momentum, Iowa rode the crest of a wave of popular sentiment. Nationwide, the first phase of the state parks movement took place between 1865 and 1895, when five states set aside parks to preserve areas of outstanding natural beauty or with important historical associations. In this regard, those who advocated state parks during the late nineteenth century did so for the same reason they advocated national parks: to preserve areas that possessed extraordinary or unique characteristics. California had the distinction of being the first to set aside a state park when the state acquired, by an act of the U.S. Congress in 1865, the Yosemite Valley including the Mariposa Grove of giant redwoods.[147] In 1885, New York established a state park around Niagara Falls and set aside 800,000 acres of timber as the Adirondack State Forest. In the same year, the federal government transferred Mackinac Island, a former military reservation, to the state of Michigan for development into a state historical park. Between 1889 and 1895, Minnesota established three state parks: Birch Coulie, a battleground of the 1862 Sioux War; land encompassing the headwaters of the Mississippi River, which was the beginning of Itasca Lake State Park; and Camp Release, the site of another Indian-white skirmish.[148]

In 1895, New York and New Jersey jointly acquired the nucleus of Palisades Interstate Park along the Hudson River, the first extensive state park created purely for recreational purposes. This added a new dimension to the state park movement, and recreation eventually became the dominating force. During the early twentieth century, however, a number of motives drove park advocates, who, generally speaking, were "most successful in those areas where progressivism was strong -- that is, from New England across the upper Midwest to South Dakota and in the tier of states on the Pacific Coast."[149] The movement as a whole lacked

147 In 1906, the state returned the land to the national government for inclusion in Yosemite National Park, but for 32 years the valley and the Mariposa Grove remained a state park. See Thomas R. Cox, *The Park Builders: A History of State Parks in the Pacific Northwest* (Seattle: University of Washington Press, 1988):4-5

148 Nelson, pp. 3-5.

149 Cox, p. 12.

organization until the National Conference on State Parks was born in 1921 at Des Moines. Some states, for instance, established parks but were unsure where to place administrative jurisdiction. Florida, for example, created Royal Palm State Park in 1915 (enlarged 1921) from state-owned land , but turned over park administration to the General Federation of Women's Clubs. Four state historical monuments in Florida were each overseen by a local commission. The first state parks in Illinois and North Dakota were historical parks. In Illinois, a commission held jurisdiction over these areas until the 1920s, when administrative power was transferred to the Department of Public Works and Buildings. In North Dakota, which created its first park in 1916, the twenty-one directors of the State Historical Society supervised the system by appointing, for each park, a board consisting of three to five society directors.[150]

New York, the acknowledged leader in the state parks movement, left the administration of its state parks to many separate entities, both public and private, until 1927, when the state legislature created a new Division of Parks within the State Conservation Department. Minnesota, another leader in the movement, first placed its parks under the administration of the Commissioner of Forestry, then under the State Auditor. It was not until 1925 that park administration passed to a newly created Conservation Commission.[151]

Wisconsin and Connecticut were the first states to recognize park administration as a function of state government warranting a separate department. Wisconsin began acquiring land in 1901 for Interstate Park at St. Croix Falls. Acquisition of other lands soon followed, and in 1907 the legislature established a State Park Board. In 1915, the Park Board, the State Board of Forestry, and the Division of Fish and Game were placed under the charge of a Conservation Commission. Connecticut designated a Revolutionary War campground as a historic park in 1887 and added a second park in 1911. A year later, the legislature authorized a State Park Commission to administer these sites, and in 1923 the park and forest commissions were joined into one State Park and Forest Commission.[152] In was within this climate, nationwide, that Iowa's state park system developed. Few other states were active in the movement prior the late 1910s.

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150 Nelson, pp. 58-59, 71, 205.

151 *Ibid.*, pp. 130, 131, 176-178.

152 *Ibid.*, pp. 48-49, 292.

In Iowa, the movement to create a state park system had its origins in the Iowa Park and Forestry Association, which, as the name implies, was founded in part to stimulate public interest in parks. Originally, the organization seems to have focused its sights on county parks, but by 1917, when the IPFA regrouped as the Iowa Conservation Association, it was promoting a complete system of parks throughout the state. According to Pammel, the Iowa Conservation Association, aided by the Iowa Federation of Women's Clubs, spearheaded the legislative effort to establish county and state park systems as well as a national park in northeastern Iowa.[153] The memberships of these two organizations actually overlapped considerably. Upon retiring as president of the IFCA in 1917, Fred J. Lazell of Cedar Rapids noted that:

> With united voice, these members have pointed out the need of conserving at least a part of that natural beauty of which the state once was so proud. They have urged that some of the state's most beautiful lakes be conserved and their natural beauty enhanced rather than diminished. They have pleaded for the protection of forest coverings on some of the noblest elevations and in some of the charming valleys. They have asked for the conservation of the state's wild flowers; for greater protection to its birds.[154]

Although the IPFA concentrated its efforts on forest conservation during the early years of its existence, in 1902 Thomas MacBride circulated a questionnaire designed to establish baseline data concerning the status of parks in the state. The results were not unanticipated but disheartening nonetheless. Out of 150 replies, he found that all but six towns maintained some type of park space. Seventy of these parks, however, were "the old fashioned square in the middle of the town" and most of these so-called "parks" were really the public grounds surrounding courthouses.[155] MacBride was truly chagrinned to learn, though, that cemeteries often doubled as parks.

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153 Pammel, "The Arbor Day, Park and Conservation Movements...," (April 1930), p. 291; Fred J. Lazell makes a similar claim in "Action Needed in Conservation" *Iowa Conservation* 1:1 (January-March 1917):6-7; the national park movement is discussed further in this section.

154 Lazell, p. 6.

155 Thomas H. MacBride, "The Present Status of Iowa Parks," *Proceedings Iowa Park and Forestry Association* 1 (1902):6.

> Is not this a commentary upon our sociologic method, upon our carelessness and neglect of the interests of our people? The people need the park; they instinctively seek it, must have it, but in a great many of our cities...there being no park provided, the people, the plain people, mind you, betake themselves to God's acre and stroll back and forth among the tombstones and monumental marbles.[156]

Even worse, as far as MacBride was concerned, was the fact that businessmen and male community leaders often took little interest in city beautification, the result being "that in at least six instances the effort for city and park improvement has fallen to the hands of the women of the city."[157]

Armed with this information, the IPFA appealed to the state legislature to create a state park around the capitol in Des Moines. This effort failed, initially, and so did another to authorize townships and counties to purchase land for parks.[158] The state park movement eventually crystalized around the issue of Iowa's lakes. As early as 1896, the Iowa Academy of Sciences appealed to the state legislature to protect the lakes "in order to maintain some of the original conditions of the state" and to develop them into "pleasure resorts" for the citizens of Iowa.[159] In 1905 Bohumil Shimek publicly advocated that the state take possession of the rough lands along its meandered streams and place them in forest reservations with an eye to opening such lands to park use once timber had regenerated.[160] A few years later, in 1909-1910, both MacBride and Shimek participated in preparing a report for the Iowa State Drainage Waterways

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156 *Ibid.*, p. 7.

157 *Ibid.*, p. 9.

158 Thomas P. Christensen, "The State Parks of Iowa," *Iowa Journal of History and Politics* 26 (1928), pp. 339-340.

159 Memorial to the Twenty-sixth General Assembly from the Iowa Academy of Sciences, drafted by Thomas MacBride, L.H. Pammel, and B. Fink. Reported in *Proceedings of the Iowa Academy of Sciences* 3 (1896):15.

160 Bohumil Shimek, "Township, County, and State Parks," *Proceedings Iowa Park and Forestry Association* 4? (1905):17-20.

and Conservation Commission urging that Iowa place its lakes under the jurisdiction of a custodial agency empowered to arrest the loss of these public waters.[161]

The legislature finally acted in 1915, passing a law which directed the Highway Commission to coordinate a study of seventy lakes to which the state still held sovereign title. Senator Daniel Cady Chase of Webster City reportedly was instrumental in securing passage of this law.[162] Originally, the state owned no fewer than 109 meandered lakes covering approximately 61,000 acres, plus an assortment of ponds and lagoons along the Mississippi and Missouri rivers. In 1850, some of these lakes were reclassified as swampland and subsequently sold; and in 1913 the state authorized the sale of abandoned river channels, which affected a few more lakes. Because the remaining seventy lakes were surrounded by privately owned land, either in whole or in large part, they had been subjected to numerous abuses over the years. Storm Lake's shoreline, for instance, had been stripped of sand, gravel, and boulders; as a result, the bank was eroding. To a less serious degree, the same situation existed around other lake shores.[163] There was also the long-standing problem of encroaching private ownership. Since the line of meander -- that is, the line between public and private ownership -- varied from season to season under natural conditions, it was difficult to establish precisely the limits of state ownership. And since the state had no watchdog agency supervising its public waters, private landowners along lake shores could, with impunity, slowly drain shallower lakes and thereby increase their own holdings.[164] At Tuttle Lake in Emmet County, for instance, unidentified individuals had blown up earthen dams designed to maintain the lake level. As the water slowly drained through the outlet, private landowners inched their fields toward the changing line of meander.[165]

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161 [Thomas MacBride], "The Conservation of Our Lakes and Streams" in *Report of the Iowa State Drainage Waterways and Conservation Commission* (Cedar Rapids: The Torch Press, 1911):188-198. The commission was established in 1909 by an act of the 33rd General Assembly.

162 Pammel, "The Arbor Day, Park and Conservation Movements...," (April 1930), p. 292.

163 *Part One, Report of State Highway Commission* (Des Moines: Robert Henderson, State Printer, 1917):8.

164 Christensen, p. 340.

165 *Part One, Report of the State Highway Commision,* p. 8.

The purpose of the lake study was to assay the state's holdings: determine which of the seventy remaining lakes should be retained and maintained, which should be drained, and which should be sold. Over a two-year period various state departments, assisted by Iowa State College professors Louis H. Pammel, G.B. MacDonald, and H.D. Hughes, conducted surveys and studies which eventually resulted in detailed topographic maps covering approximately 90,000 acres; individual studies of the seventy lakes; and separate reports on crop surveys taken near various lakes (Hughes), the vegetation of Iowa lakes (Pammel), and the potential for improving lake shores through forestation (MacDonald). This marked the first time in the history of the state that its public lands had ever been studied for conservation purposes. When the Highway Commission reported its findings in 1917, it recommended, with very few exceptions, that the state retain its lakes and "adopt an intelligent policy of betterment."[166] Specifically, the Commission recommended that concrete dams be constructed at all outlets in order to preserve water levels, that the state acquire "suitable acreage along the lake shores" for the purpose of establishing public parks, that roads be constructed to connect these parks with existing highways, and that trees be planted in parks wherever the natural timber had been cut down.[167]

Despite the Highway Commission's lake study and recommendations, politicians were slow to respond. ICA President Fred Lazell grieved that trying to interest the legislature in appropriating money for even one state park was "like trying to kindle a campfire with wet wood."[168] Nonetheless, conservationists doggedly pressed forward. In 1917, A.H. Carhart, Recreation Engineer for the U.S. Forest Service and a frequent contributor to Iowa conservation publications, called for a comprehensive system of parks -- national, state, county, and city -- "unhampered by politics."[169] During World War I, the Iowa Forestry and Conservation Association struggled to stay afloat; but after the war, the movement rebounded. The old IPFA changed its name for the second time in 1917 and began publishing a quarterly, *Iowa Conservation*, devoted to promoting conservation issues. In the first issue, for example, Shimek published a list of 100 areas that he personally felt would make suitable parks. Fifteen

166 *Ibid.*, p. 10.

167 *Ibid.*, pp. 11-12.

168 Lazell, p. 6.

169 A.H. Carhart, "A System of Parks--National State and County," *Report of the Iowa State Horticultural Society* 51 (1917):79-84.

of these were especially desirable, he stated, as areas that could serve the combined functions of recreation, game preservation, and plant preservation.[170] Between 1917 and 1920 membership in the association grew from less than 100 to over 700.[171] By 1919, the organization began to hit its stride. The mid-winter meeting held at Ames in March of that year attracted a wide audience and the program, according to one participant, "turned into a court of hearing where the park question was presented and discussed from all angles."[172]

The legislative stalemate broke in 1917 after members of the Iowa Conservation Association, Curator of the State Historical Department E. R. Harlan, State Senators Byron W. Newberry and B.J. Horchem, and others met with Senator Perry C. Holdoegel, who was then chairman of the Senate Committee on Fish and Game. Holdoegel, of Rockwell City, agreed to sponsor a bill creating a state parks system, which the Thirty-seventh General Assembly enacted. The Holdoegel Law, signed by Governor W.L. Harding on April 12, 1917, authorized a State Board of Conservation to acquire places of historic, natural, or recreational interest for the purpose of creating state parks.[173] The first board consisted of Louis H. Pammel, chairman, Joseph Kelso of Bellevue, J.F. Ford of Fort Dodge, and E.R. Harlan, ex-officio member and secretary. The original Holdoegel bill provided that land purchases be funded from hunting license fees received by the Fish and Game Department, an idea first proposed by Thomas MacBride in 1910; however, the Thirty-eighth Assembly changed this in favor of a direct appropriation.[174]

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170 B. Shimek, "Iowa's Natural Parks, *Iowa Conservation* 1:1 (January-March 1917):16-17.

171 Christensen, p. 344.

172 Florence L. Clark, "Putting Iowa on the Park Map," *The Iowa Magazine*, April 1919, p. 14.

173 Although the State Board of Conservation had wide-ranging concerns and responsibilities, initially it focused on the purchase of state parks. For this reason, the history of this agency is discussed in this section. It should be noted, however, that members of the board always saw parks as more than recreational areas or interesting scenic spots. Aesthetic concerns were high on the agenda, but the impetus for state parks in Iowa also included a concern for protecting areas with scientific and/or historical value.

174 Louis H. Pammel, "What the Legislature Did With Reference to State Parks in Iowa," *Iowa Conservation* 3:1 (January-March 1919): 14-15; the complete text of the state park law appears in *Iowa State Parks Bulletin* 1 (1922?): 12-14.

By the time Iowa's State Board of Conservation was organized in 1918, several states had established parks. The Board especially studied the experiences of New York, Minnesota, and Wisconsin in formulating policies for Iowa.[175] One of the more important policies adopted by the Iowa Board was to accept gifts from individuals and communities. This policy, in fact, was key to the early success of the park system, for without such gifts, parkland acquisition would have proceeded much more slowly. E.R. Harlan played a leading role in establishing the parkland donation policy. While the Board was still setting up shop, he worked with residents of Keosauqua to design a plan whereby citizens would purchase privately owned land and then donate it to the state. The "Keosauqua Plan," as it became known, was used to acquire lands elsewhere in the state.[176]

Perhaps the most enduring policy recognized the importance of conservation in establishing state parks. Conservation was perceived broadly by the board to include conservation of animals, plants, scenery, topography, and history. The lake parks in particular were considered valuable as representative of the topography, geology, and natural history of the state. According to Pammel,

> The persons who framed the law had in mind the preservation of animals, rare plants, unique trees, some unique geological formations, the preservation of the Indian mounds, rare old buildings where Iowa history was made....The framers of this law wished to show generations yet unborn what Iowa had in the way of prairie, valley, lake, and river. It was felt that a part of this heritage left to us was not only for the present generation, but that its citizens of the future had a just claim on this heritage.[177]

Toward that end, the board approved a plan presented by Bohumil Shimek in 1920 to set aside portions of parks for the restoration and preservation of native and rare plant life. The board also requested that he assist in this effort by preparing a map of preferred areas.[178] Likewise,

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175 Pammel, "The Arbor Day, Park and Conservation Movements...," (April 1930), p. 286.

176 *Ibid.*, p. 286.

177 *Ibid.*, p. 293.

178 "Abstract of the Minutes of the State Board of Conservation, April 23, 1920," *Annals of Iowa* 13:1 (July 1921):57-58.

in 1922, Dr. Oberholtzer appeared before the Board and offered the services of the U.S. Biological Survey to assist in efforts to preserve fish and wildlife in state parks.[179]

E.R. Harlan explained to members of the State Historical Society that the Board expected, "regardless of local of general interest, to preserve certain areas for scientific and historical reasons."[180] As editor of the *Iowa State Parks Bulletin,* Pammel consistently hammered the conservation theme. For instance, in a 1925 editorial he called attention to Aldo Leopold's observation that "our tendency is not to call things resources until the supply runs short" and wrote:

> In the creation of state parks, recreation is important but we should not lose sight of the fact that conservation, too, is fundamental. Our modern life has brought so many changed conditions that conservation must be urged much more strongly than it has been in the past...."[181]

The policies adopted in 1918 guided the board's work until 1935. It immediately began to accept gifts, with the first coming from the citizens of Farmington and Keosauqua. During the Board's first year of operation, the state acquired the following nine properties:

1300 acres known as The Devil's Backbone in Delaware County (now Backbone State Park)
100 acres near Farmington (now Indian Lake County Park)
1400 acres near Keosauqua (now Lacey-Keosauqua State Park)
9 acres near Union (now Lepley Park, managed by Hardin County)
15 acres near Oakland (now Chautauqua Park, owned by the City of Oakland)
? acres near Oakland Mills (now owned by Henry County)
15 acres along the Shell Rock River in Floyd County (originally known as Roosevelt Park, present status undetermined)

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179 "Abstract of the Minutes of the State Board of Conservation, August 11, 1922," *Annals of Iowa* 13 (January 1923): 547.

180 Edgar R. Harlan, "Scenic, Scientific, and Historic Iowa Areas," *Annals of Iowa* 13 (1923):369.

181 [L.H. Pammel], "Conservation," *Bulletin Iowa State Parks* 3 (1925):66.

360 acres known as Wild Cat Den in Muscatine County (now Wildcat Den State Park)
457 acres in Webster County known as Boneyard Hollow and Woodman's Hollow (now part of Dolliver State Park)[182]

The property in Delaware County, long considered a prime spot among naturalists and a well-established recreation ground for area inhabitants, was the first park to be acquired and formally dedicated. On May 28, 1920, Louis H. Pammel, chairman of the State Board of Conservation, made the presentation address to a crowd of 7500 people who gathered on the grounds to inaugurate Backbone State Park.[183]

Of the nine initial properties entrusted to the Board of Conservation, four remain in the state system: Backbone, Lacey-Keosauqua, and Wildcat Den; Woodman's Hollow and Boneyard Hollow are now part of Dolliver Memorial State Park. Another three are either owned or managed by county conservation boards. One is a city park, and the fate of Roosevelt Park in Floyd County remains undetermined.

While the State Board of Conservation was busy acquiring land for state parks, it also conducted a survey to identify additional areas suitable for acquisition. The report, published in 1919, functioned as a comprehensive plan for park acquisition and development. It also included research articles on lakes and lake areas, wild plants, and bird life to buttress the board's recommendations. The target acquisitions' list included ninety-eight scenic, scientific, and/or historic areas, laying the foundation for much of the board's work over the next two decades.[184] Between early 1920 and the end of 1922, the state acquired several more properties, and fourteen areas were established as parks. By 1927, the number of parks reached thirty-eight.

The majority of these parks were acquired either in whole or in part as gifts. The first park, Backbone State Park, was one of the few to be acquired entirely by purchase, with funds

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182 *Iowa Parks*, pp. ix-xi.

183 L.H. Pammel, "The Beginning of Iowa's Park System, *The Iowa Homestead* 65:30 (July 22, 1920):12.

184 E.R. Harlan, et al., eds., Iowa State Board of Conservation. *Iowa Parks, Conservation of Iowa Historic, Scenic and Scientific Areas* (Des Moines: Iowa State Board of Conservation, 1919).

derived from the sale of hunting licenses.[185] Rice Lake State Park was the first meandered lake be declared a state park as a result of a 1921 change in the park law which placed the seventy meandered lakes and streams identified by the 1915-1917 Highway Commission study under the administration of the Board of Conservation. Wall Lake (Wright County), Twin Lakes (Calhoun), Eagle Lake (Hancock), Clear Lake (Cerro Gordo), and Storm Lake (Buena Vista) were added to the state park roster in the next four years.[186]

By 1940, the state system included sixty parks, historic sites, preserves, wildlife areas, and forests.[187] Most of the areas acquired for state parks were valued for their natural history or recreational potential. The 1917 law, however, recognized that some areas merited conservation principally for their association with cultural history. During the early 1920s, three state parks were acquired for the expressed purpose of protecting historic structures or sites. In 1920, fifty-three acres marking the site of Ft. Defiance, built near Estherville in 1862 in order to ward off an attack by the Sioux leader Little Crow, were acquired and dedicated as a historic park. A year later, in 1921, the State purchased five acres encompassing Ft. Atkinson, in Winneshiek County, in order to restore the dilapidated remains, which included a stockade, blockhouses, barracks, and powder house. Six hundred acres near the Missouri River in Monona County were dedicated as the Lewis and Clark State Park, in part to recognize the site's association with the famous expedition that spent several days in August of 1804 exploring the region and recording observations concerning topography, plants, and animals.[188]

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185 Christensen, pp. 353-358.

186 *Ibid.*, pp. 382-386.

187 National Park Service, *A Study of the Park and Recreation Problem of the United States* (Washington, D.C.: U.S. GPO, 1941):169.

188 J[oseph] A. Swisher, "Historical and Memorial Parks," *Palimpsest* 12 (June 1931):204-208.

State Park System as of 1942

Listed below are the parks, preserves, wildlife areas, and forests acquired by the State Board of Conservation between 1919 and 1940, along with their dates of acquisition and a list of improvements made as of circa 1942. Some of these areas have since been removed from the system. These changes are footnoted with lower case letters.[189]

SCC = Iowa Board of Conservation, after 1935 State Conservation Commission
CCC = Civilian Conservation Corps
WPA = Works Progress Administration
PWA = Project Works Administration
CWA = Civil Works Administration
FERA = Federal Emergency Relief Administration
NYA = National Youth Authority

Park	County	Date Acquired	Improvements made as of c. 1942
Ambrose A. Call	Kossuth	1926	SCC: log lodge; cabin (custodian's residence), entrance portals, picnic areas, surfaced drives; pioneer cabin moved into park 1929 PWA: trails, other structures WPA: latrine, park signs
Ahquabi, Lake	Warren	1934	CCC: (see McKay)

189 Compiled from information listed in State Board of Conservation, *Administration of Iowa Parks, Lakes and Streams* (Des Moines: State Printer, 1931), pp. 14-15; Beatrice Ward Nelson, *State Recreation* (Washington, D.C.: National Conference on State Parks, Inc., 1928), 324-329, and Christensen, pp. 359-360, 364-367, 370, 374, 377-379, 381, 387-388, 390, 392, 396, 411-412; National Park Service, "Recreational Area Study: State Parks and Preserves," 1939; National Park Service, *A Study of the Park and Recreation Problem of the United States* (Washington, D.C.: USGPO, 1941); Work Projects Administration, *Guide to Iowa* (1938); Joyce McKay, *CCC Properties in Iowa State Parks*, NRHP Multiple Property Document (1990); and survey work conducted by Iowa DNR park staff as part of this study. As with any such compilation, the potential for error is substantial, so this listing is should be considered as a rough indicator of development in a constantly changing system.

Backbone (1st Devil's Backbone)	Delaware	1919	SCC: auditorium, camping area, trout fish hatchery, fish rearing ponds, entry wall, utility building, meat house, rebuilt barn (first used as custodian's residence, now CCC museum), barn, roads and trails CCC: see McKay; SCC may have finished 6 cabins begun by CCC ?: stone pumphouse
Barkley Preserve	Boone	1929	None
Beaver Meadows [c]	Butler	1935	?: dam
Beeds Lake	Franklin	1934	SCC: fish ponds WPA: sewer & water system CCC: see McKay
Bedford (see Lake of Three Fires)			
Bellevue	Jackson	1925	SCC: log lodge, picnic areas, electric lights, golf course, fish rescue station, custodian's residence
Big Duck (see Farmington)			
Bixby	Clayton	1926	Donated: old log cabin SCC: picnic area CCC: see McKay
Black Hawk	Sac	1934-1935	CCC: see McKay WPA: maintenance building, superintendent's residence, 2 stone walls
Brush Creek Canyon	Fayette	1936	CCC: see McKay
Theodore F. Clark [d]	Tama	1921	SCC: pavilion, open fireplaces, picnic area ?: fish rearing pond
Clear Lake	Cerro Gordo	1923	SCC: small building (shelter house), picnic area, farm house moved in for custodian's residence WPA: lodge, 4 stone fountains, sewer & water system, service building, latrine, roads ?: fish hatchery

Clinton Merrick [b]	Winnebago	1922	Donated: cottage SCC: shelter house, camp areas
Cold Springs [a]	Cass	193?	?
Danville (see Geode)			
Devil's Backbone (see Backbone; see Pammel)			
Dolliver Memorial	Webster	1921	SCC: log cabin (used as custodian's residence), two lodges, picnic areas , campground, surfaced drives, masonry dam over Prairie Creek, memorial plaque, 2 cabins WPA: mess hall, 10 cabins, shop?, entrance portals, 2 family cabins, south lodge CCC: see McKay
Eagle Lake [a]	Hancock	1924	SCC: pavilion, well, picnic tables, outdoor fireplaces ?: fish rearing pond
Echo Valley [a] (1st-West Union)	Fayette	1934	FERA: ? WPA: dam CCC: see McKay
Elbert Tract (see Walnut Woods)			
Eldora Pine Creek (see Pine Lake)			
Farmington [e] (1st-Big Duck)	Van Buren	1919	SCC: trails, footbridges WPA: lodge, entrance portals, dam
Flanders-Bixby [f]	Marion	1923	?
Flint Hills [g]	Des Moines	1925	SCC: custodian's residence, picnic grounds, parking areas WPA: bridges, signs, furniture
Ft. Atkinson	Winneshiek	1921-1924	Donated: fort remains, incl. part of barracks (visitor center), three block houses, magazine house; foundations of 7 buildings, church ruins, well
Ft. Defiance	Emmet	1922	CCC: see McKay WPA: entrance portals, gate house, wall?, toboggan run, 8 foot bridges SCC: residence, enclosed lodge

Geode (1st-Danville)	Henry	1936	CCC: see McKay SCC: superintendent's residence, completed a maintenance building, sewer system
Gitchie Manito	Lyon	1919	SCC: picnic tables, benches
Gull Point (1st-Pillsbury Point)	Dickinson	1934	CCC: see McKay
Guthrie Tract (see Springbrook)			
Hamburg Tract (see Waubonsie)			
Heery Woods	Butler	1935	WPA: lodge
Keomah, Lake	Mahaska	1934	NYA: lodge FERA: superintendent's residence CCC: see McKay
King (see Springbrook)			
Lacey-Keosauqua	Van Buren	1919	SCC: club house, golf course, picnic areas, surfaced roads, 6 cabins WPA: maintenance building, bridge CCC: see McKay
Ledges	Boone	1921	Donated: Fowler Home Site (ruins) Beulah Home Site (ruins) SCC: log lodge, log cabin, stone concession building, water supply, latrines, trails, picnic areas, camping area, roads WPA: State Game Farm Hatchery CCC: see McKay CWA: foundation of shelter
Lepley [a]	Hardin	1919	Donated: old log cabin SCC: picnic area ?: fish rearing pond
Lewis & Clark	Monona	1920	SCC: bathhouses WPA: lodge, drinking fountain, log sidewalk, latrine, picnic area with log tables, Stephen T. Mather Memorial Forest
Lost Island [h]	Palo Alto	1921	SCC: open pavilion, picnic tables, fireplaces, two bathhouses, parking area (all destroyed by fire)

MacBride, Lake	Johnson	1934	WPA: stone shelter house, bridge CCC: see McKay
Manawa, Lake	Pottawattamie	1927	CCC: see McKay WPA: bathhouse, fenced bird reserve
Maquoketa Caves	Jackson	1921	SCC: custodian's residence, trails, picnic areas WPA: 2 stone latrines, shelter/concession, entrance portals, picnic circle w/ fireplaces foot trails and steps, main cave channelization CCC: see McKay
Mill Creek [a]	O'Brien	1937-1938	WPA: lodge, earthen dam, artificial lake
Mini Wakan	Dickinson	1934	CCC : see McKay
Oak Grove [a]	Sioux	1924	SCC: pavilion, open fireplaces, wells, picnic areas, fish rearing pond
Oakland [i]	Pottawattamie	1919	?
Oakland Mills [a]	Henry	1919	SCC: custodian's residence, trails, , picnic areas
Okamanpeden	Emmet	1923	Donated: stone cottage (shelter house), SCC: picnic area; CCC: see McKay
Orleans	Dickinson	1923	Site of 2nd state fish hatchery built in 1880 (moved to Anamosa)
Palisades-Kepler	Linn	1922	Donated: old tavern (custodian's residence) SCC: several cottages, road, fish rearing ponds WPA: stone cabins, stone portals, roads WPA, CCC, & FERA: dam CCC: see McKay
Pammel (1st-Devil's Backbone)	Madison	1923	Donated: farm house; (custodian's residence) SCC: stone lodge, surfaced road, bridge, stone tunnel, picnic areas trails, latrine CWA: dam WPA: stonework? CCC: see McKay

Pike's Peak	Clayton	1936	CCC: see McKay
Pike's Point	Dickinson	193?	CCC: see McKay
Pilot Knob	Hancock & Winnebago	1922	SCC: shelter pavilion, residence, surfaced road, picnic and parking areas WPA: toboggan slide CCC: see McKay
Pillsbury Point (incorp. into Gull Point)	Dickinson	1928	CCC: see McKay
Pine Lake (1st-Eldora Pine Creek)	Hardin	1921	SCC: bathhouses, picnic areas, superintendent's house, tunnel, Hogsback shelter, bridge?, culverts?, fish rearing ponds? CCC: see McKay WPA: 2 stone cabins, signs, botany area
Preparation Canyon	Monona	1934	CCC: see McKay
Red Haw Hill	Lucas	1936	SCC: water pumps? WPA: roads WPA, FERA, & CWA: dam CCC: see McKay
Rice Lake	Winnebago & Worth	1924	SCC: surfaced road, picnic areas, parking spaces CCC: see McKay
Roosevelt [b]	Floyd	1919	?
Rush Lake	Palo Alto	1931	?: fish rearing pond
Sharon Bluffs	Appanoose	1931	?: shelterhouse, 2 latrines
Siever Springs [j]	Winneshiek	1934	CCC: see McKay
Silver Lake [k]	Delaware	1923	?: fish rearing pond
Springbrook (1st-Guthrie Tract) (2nd-King S.P.)	Guthrie	1926	SCC: picnic tables, fireplaces; CCC: see McKay
Stone	Woodbury	1935	CCC: see McKay
Storm Lake [l]	Buena Vista	1923	SCC: fish rearing ponds
Swan Lake [a]	Carroll	1933-1934	WPA: earthen dam & spillway, stone shelter house, stone toilets, entrance portals

Three Fires, Lake of (1st-Bedford)	Taylor	1934	CCC: see McKay WPA: dam spillway, three footbridges, culverts FERA: dam PWA: riprap SCC: 6 cabins
Trapper's Bay	Dickinson	1933	CCC: see McKay
Twin Lakes	Calhoun	1923	SCC: picnic tables, benches, open fireplaces; CCC: see McKay
Twin Springs [j]	Winneshiek	1933-1934	CCC: see McKay
Union Grove	Tama	1938	WPA: dam
Wall Lake	Wright	1922	Donated: old farm house SCC: picnic tables, well
Walnut Woods (1st-Elbert Tract)	Polk	1925	SCC: custodian's residence, picnic areas, surfaced drive, parking WPA: lodge, drinking fountain, entrance portals, latrines, vehicle bridge, footbridges CCC: see McKay
Wanata Preserve (now Wanata S.P.)	Clay	1934	CCC: see McKay
Wapello, Lake	Davis	1933	CCC: see McKay
Wapsipinicon	Jones	1921	SCC: 2 stone arch bridges, surfaced drives, picnic shelter, stone portals, entrance wall, swimming pool, golf course, plant nursery; ?: Boy Scout cabin,
Waubonsie (1st-Hamburg Tract)	Fremont	1926	SCC: water tank, residence?, pumphouse? WPA: entrance portals, 4 footbridges CCC: see McKay
West Union (see Echo Valley)			
Witrock Indian Village (state monument)	O'Brien	1936	?
White Pine Hollow Preserve	Dubuque	1934	?

Wildcat Den	Muscatine	1919-1926	Donated: 1834 mill (NRHP) and dam, farm house?; Melpine School moved in? SCC: picnic and parking areas, roads, foot trails, historic marker NYA: park shelter CWA: trails & guard rails; WPA: vehicle bridge, portals, culvert, 4 foot bridges, road, restored mill?
Wood Thrush Preserve [m]	Jefferson	1927	None
Woodman's Hollow Preserve	Webster	1919-1927	SCC: roadways
Yellow River	Allamakee	various	?

[a] now managed by County Conservation Board
[b] present status undetermined
[c] now owned by City of Parkersburg
[d] now Hickory Hills Recreation Area, owned by Butler County
[e] now Indian Lake Park, owned by City of Farmington
[f] now privately owned
[g] now Burlington City Golf Course
[h] now owned by Palo Alto County
[i] now Chautauqua Park, owned by City of Oakland
[j] now owned by City of Decorah (both Siever Springs and Twin Springs)
[k] now owned by Delaware County
[l] now owned by City of Storm Lake
[m] now owned(?) by the City of Fairfield

The 1919 state park survey attracted nationwide attention, prompting the Department of the Interior to select Iowa as the location for a national conference on state parks. E.R. Harlan and O. Van Wyk, Jr., worked with Secretary of the Interior John Barton Payne and National Park Service Director Stephen T. Mather to organize the conference, which convened on January 9, 1921, at Des Moines. Delegates from twenty-four states and the District of Columbia attended

the three-day event to discuss issues of common importance in the growing state park movement. The roster presents a glimpse of the organizations and entities, nationwide, which were involved in the conservation movement: the Sierra Club, Friends of Our Native Landscape, the Federation of Women's Clubs, American Society of Zoology, American Forestry Association, American Society of Landscape Architects, U.S. Bureau of Biological Survey, National Park Service, U.S. Forest Service, the Chamber of Commerce, dozens of state agencies and state organizations, state historical societies, and numerous local civic organizations, historical societies. Out of the Des Moines meeting came a formal organization, named after the convening body, the National Conference on State Parks.[190]

During the 1920s, the State Conservation Board continued to foster a community of conservationists by publishing four volumes of a quarterly under the title of *Bulletin, Iowa State Parks*, which contained information about board activities; reports on conferences, state park dedications, and other events; and articles on a variety of conservation-related topics.

The tremendous enthusiasm for and success of the state park movement during the 1920s has been attributed to a number of circumstances. A contemporary of the movement, Harold Caparn, believed simply that the time had come: people wanted parks and so they were willing to pay for them. To Caparn, all the reasons advanced in promoting parks -- to preserve natural scenery, to provide public recreation, to protect areas of historic or scientific interest -- were mere justification.[191] The numbers of people who immediately flocked to state parks lends some credence to Caparn's observation, even if his superficial analysis tends to portray park popularity as something akin to outbursts of mass hysteria or transient fashion trends.

Other contemporaries noticed a well-defined link between parks and the advent of the automobile. During the 1910s, the automobile became a "common luxury," which created a demand for good roads and convenient wayside and recreational parks.[192] By the late 1920s,

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190 George Bennett, "The National Park Conference at Des Moines, Iowa, January 10-11-12, 1921," *Iowa Conservation* 5 (1921): 14-25; *Bulletin, Iowa State Parks* 1:1 (July 1923), p. 5; and Louis H. Pammel, "The Arbor Day, Park and Conservation Movements...," (April 1930), p. 302-303.

191 Harold A. Caparn, "State Parks," *National Municipal Review* 10:11 (November 1921), reprinted in Herbert Evison, *A State Park Anthology* (Washington, D.C.: National Conference on State Parks, 1930), pp. 35-41.

192 Christensen, pp. 351-352.

forty-five states had some form of park or recreation system, tremendous growth that Beatrice Ward Nelson also attributed primarily to increasing cross-country travel by automobile.[193] The combination of private automobiles and public parks improved with roads, picnic shelters, and camping facilities gave rise to that venerable American institution known as the family summer vacation. One certainly cannot deny that inexpensive and easily available outdoor recreation became the chief attraction of state parks, but it does not account for the initial impetus, which predated the automobile's popularity by several years. Perhaps James Speed, editor of the *Southern Agriculturist*, touched upon a deeper felt need when he wrote in 1925:

> When a region is developed for the preservation of wild life we at once speak of it as a reservation or a sanctuary for animals and birds.... when in reality sanctuaries do not tame the animals; but they do tame men and women. Wild life is wild only because it has been forced to fear man. Really, these reservations should be called sanctuaries for the taming of men and women. Besides the beauty of animal and bird life in our State and National Parks, there is the subtle beauty of light and shade, stream and glade, open spaces and the sky through the mosaic of moving leaves.[194]

Parks were many things to many people: an escape from the work-a-day world with its increasing industrialization and routinization, a convenient playground, an inexpensive vacation spot. They were places where one could peer back in time, either geologic or historic, to experience or to study an older landscape. To some, parks provided an angle of repose, places where the press of daily life came to rest in serenity and beauty. C. F. Culler of the U.S. Bureau of Fisheries offered an interesting observation on the meditative value of recreational waters: "Some day some fisherman is going to hit on the solution to the farm problem while waiting for a bass or pickerel to grab his lure."[195]

Whatever attracted people to parks, available visitor statistics bear witness to the park system's instant popularity in Iowa. During the 1923 season, an estimated 232,000 people visited

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193 Nelson, p. 5.

194 James Speed, "The Farmer Needs Parks," address delivered at the Ohio Valley Regional Conference for State Parks in 1925, reprinted in Evison, *A State Park Anthology*, p. 46.

195 C.F. Culler (1930), p. 279.

seventeen state parks. Vistors represented practically every county, over thirty states, and several foreign countries.[196] Both the number of parks and the number of visitors steadily climbed throughout the decade. During the 1930 season, approximately 1,750,000 visitors passed through Iowa's forty state parks.[197] Although the Board of Conservation gave priority to land acquisition, it sought to keep pace by providing accommodations suitable for both vacationers and day-users. By 1930, seven lodges had been erected in six parks: Ambrose A. Call, Pammel, Dolliver Memorial (two lodges), Ledges, Bellevue, and Lacey-Keosauqua. Camping areas were available at Backbone, Pammel, Dolliver Memorial, Eldora Pine Creek, Lacey-Keosauqua, Ledges, Pilot Knob, Wapsipinicon, Wild Cat Den, and Oakland Mills.[198]

A New Deal for Parks: 1933-1942

During the 1930s, the extensive park improvement program carried out under the auspices of the Civilian Conservation Corps, the Work Projects Administration, and other New Deal agencies vastly enhanced park facilities. Correspondingly, the number of visitors continued to rise. In 1937, approximately 2.5 million people visited Iowa's parks.[199] This compares with an estimated seventy-five million visitors passing through 1397 state parks nationwide during 1938.[200]

The Civilian Conservation Corps contributed more to the development of Iowa's state parks than any other federal or state agency, Enrollees in CCC camps across Iowa carried out projects in practically every state park. Four other New Deal agencies also participated in park development and other conservation work during the 1930s and early 1940s: the Works Progress Administration (WPA), the Project Works Administration (PWA), the Civil Works Administration (CWA), and the National Youth Administration (NYA). Next to the CCC, the

196 "Attendance at State Parks During the Season of 1923." *Bulletin, Iowa State Parks* 1:1 (1923):11-12.

197 Iowa Board of Conservation, *Administration of Iowa Parks, Lakes and Streams by the Board of Conservation* (Des Moines: State of Iowa, 1931):8-9.

198 *Ibid.*, p. 29.

199 H.W. Groth, "Iowans Enjoy Their State Parks," *Iowa Planning News* 3:1 (January 1938):19.

200 National Park Service, *A Study of the Park and Recreation Problem of the United States* (Washington, D.C.: U.S. GPO, 1941):50.

WPA was the federal agency most active in conservation and parks projects, contributing to the development of twenty-seven state parks. The contributions of the other agencies cannot be overlooked, however. In 1933-34, for instance, various communities lent CWA workers to dredge Lake Manawa and build structures at Wanata and Wildcat Den State Parks. In addition, larger civil projects, such as concrete bridges, dams, and other flood control structures generally fell within the purview of the CWA and PWA. Although it is not clear what criteria, if any, determined which agencies would be involved in which projects, the overall *ad hoc* character of the New Deal no doubt shaped operational policies. Many final decisions probably turned on the funding and personnel available at any given time.

From 1933 through 1935, the federal government spent approximately $366 million for the construction and improvement of recreational areas and facilities nationwide. Approximately $50 million for Civilian Conservation Corps projects was channeled through the Emergency Conservation Work program; the other $316 million went through the Works Progress Administration, the Civil Works Administration, the Project Works Administration, the Federal Emergency Relief Administration, and the National Youth Administration. It has been estimated that New Deal programs advanced park development at all levels -- national, state, and local -- by at least a decade.[201] This was certainly true in Iowa.

Iowa was in a good position to take advantage of the federal government's largesse. When President Franklin Roosevelt authorized the CCC in March of 1933, the *Twenty-Five Year Conservation Plan* was hot off the press. This document placed the state in a prime position to take advantage of CCC funding for state parks development, since federal regulations required applicant states to submit a planning document. The only other states so poised were New York, Illinois, Indiana, Michigan, and California.

Ironically, the success of the *Twenty-Five Year Conservation Plan* was the undoing of the state parks system as originally conceived. Money and labor for park improvements tipped the balance of park use in favor of recreation. So long as the Board of Conservation maintained a policy of spending money first for land acquisition and delaying improvements, it could postpone the inevitable decision of how much and what kinds of public use to accommodate.

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201 George D. Butler, *Municipal and County Parks in the United States, 1935* (Washington, D.C.: National Park Service in cooperation with the National Recreation Association, 1937):4.

But a growing number of park visitors could not be ignored forever. As state parks became more popular, resource conservation yielded the driver's seat to recreation.

The role of the Civilian Conservation Corps in developing Iowa's State parks has been the subject of a separate Multiple Property Document prepared by Joyce McKay in 1989.[202] Her findings are incorporated here.

In April of 1933, State Forester G.B. MacDonald and Lt. Governor Nels G. Kruschel traveled to Washington, D.C. and presented a proposal for sixteen CCC camps. Based on data in the state plan, the CCC plan detailed proposed camp locations and work projects. It also specified state supervisory agencies, equipment needs, and number of enrollees desired. CCC Director Robert Fechner approved Iowa's plan within three days, and the first camp was formally organized at Albia in May of 1933.

At its peak in mid-1935, the Civilian Conservation Corps operated forty-nine camps in Iowa.[203] The average number of camps, however, was closer to thirty throughout most of the program's life. The bureaucracy developed to implement projects remains one of the most fascinating case studies in the history of intergovernmental relations; and the CCC is often cited as the most popular and one of the most effective of all the New Deal socioeconomic agencies. The U.S. Department of Agriculture and the U.S. Department of Interior provided technical services through several of their agencies, such as the National Forest Service, the National Park Service, the Soil Conservation Service, and the Biological Survey. Technical services included planning and supervising work projects, choosing camp locations, furnishing equipment, and transporting enrollees to work projects. The Department of Labor made the final selection of enrollees, and the Department of the Army clothed them. In addition, the Army supervised all camp activities, including programs of physical exercise, counseling, and educational training.

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202 Joyce McKay, *Civilian Conservation Corps Properties in Iowa State Parks: 1933-1942.* NRHP Multiple Property Documentation prepared for the Iowa Bureau of Historic Preservation, 1990.

203 McKay's figures on the total number of camps in Iowa are reported variously. At Section E, p. 72 she states the highest number as 46, but Table 4 on p. 51 of Section E lists the highest number as 49 between April 1, 1935 and September 30, 1935. The higher number is used here because the totals add up accurately on Table 4.

Several state agencies cooperated to take advantage of federal programs. One of the most important, of course, was the State Board of Conservation, which, as of 1935, was combined with the Fish and Game Commission and the Office of the State Forester to become the State Conservation Commission. The conservation board/commission approved all park designs and plans. Actual design work took place through the Central Design Office of the Extension Service at Iowa State College, which provided technical support in engineering, architecture, landscape architecture, forestry, agriculture, and botany.

After plans had been approved by the board/commission, they were submitted via the Central Design Office to a branch office of Planning and Design of National Park Service. Iowa first reported to the Indianapolis Branch Office, later to the Omaha Branch. The NPS, through its branch offices, also supplied designs. Inspectors in these branch offices, in fact, were the main points of contact between state authorities and the National Park Service. The pace of park development in Iowa was such that in April of 1936 the inspector for Iowa moved his office from Omaha to Ames in order to keep up with the workload. Inspectors checked and approved plans, participated in the design planning, and visited parks to inspect work in progress.

Other cooperating state agencies included the Iowa Emergency Relief Administration, appointed by the U.S. Department of Labor in April 1933, which certified individuals who applied to become CCC enrollees. The Iowa Highway Commission provided blueprinting services, engineering consulting services, and storage facilities. The Chief Engineer of the Highway Commission also supervised the construction of roads in all state parks.

G.B. MacDonald wore many hats during the 1930s. In addition to his position as Professor of Forestry at Iowa State College, he served as the State Forester and as Secretary of the State Department of Agriculture. In 1933, he took on new responsibilities as Director of the ECW in Iowa, which entailed coordinating project planning between the state and federal agencies. Since proposals for state park development originated with the state, one of MacDonald's primary responsibilities was shepherding proposals through the chain of command. Other duties included recommending camp assignments, supervising technical staff, and administering federal and state funds.

Federal funding for CCC projects came through the Federal Emergency Relief Administration, and these funds were used to pay supervisory and technical staff, purchase and maintain equipment, and purchase construction materials. From time to time, the Iowa State Legislature

appropriated supplemental funds which were used to acquire state park lands, purchase equipment and materials, and pay technical staff workers who were not covered by federal funds.

Between 1933 and 1942, a total of 49,266 men enrolled in the Iowa CCC, although the number of enrollees actually working on projects in Iowa was slightly lower, 45,846. In operation, the CCC was a fluid organization, and camp assignments frequently shifted. Of the total forty-nine camps organized in Iowa, forty-one of them were assigned, at one time or another, to state parks projects. CCC enrollees built an untold number of buildings and other structures in state parks, including dams, bridges, water systems, sewer systems, trails, roads, and fences. The CCC also excavated fish rearing ponds as well as artificial lakes, planted trees, and otherwise restored the natural landscape. From 1935 to 1942, anywhere from fifteen to twenty-five camps were assigned to Soil Conservation Service projects. Another two or three camps were generally on assignment in state forests at any one time. Occasional assignments included working on drainage levees, biological surveys, and agricultural engineering.[204]

McKay's survey of state park buildings, structures, and features constructed by the Civilian Conservation Corps identified a total of 713 extant structures, a figure which plausibly represents at least eighty-five percent of the total park development carried out from the inception of the system in 1918 to 1942. Structures built under the auspices of other New Deal relief and conservation agencies probably accounted for another ten per cent of park development. By any assessment, the state park system clearly benefited from the great economic depression of the 1930s, and the vast majority of these new structures were designed to enhance the recreational potential of Iowa's parks.

In 1941 the State Conservation Commission took stock of its properties for purposes of reclassification. By then Iowa had sixty-one parks, preserves, and recreation reserves in the state system, well above the nationwide average of twenty-nine park properties per state. Including state forests and wayside parks brought the total figure to seventy-three. The 1917 law creating the system mandated that state parks contain one or more of the following attributes: recreation potential, scientific value, historic interest, and/or native woodlands. The original criteria were not exactly outmoded as of 1940, but the National Park Service urged

204 Information extrapolated from McKay, Table 4 on pages 51-51 of Section E.

states to reclassify its properties along functional lines. Iowa complied, fitting its properties into the following categories:[205]

State Parks:	Backbone	McGregor Areas
	Dolliver	Palisades-Kepler
	Gull Point	Pilot Knob
	Lacey-Keosauqua	Springbrook
	Lake MacBride	Stone
	Lake Wapello	Waubonsie
	Ledges	Wildcat Den
State Recreation Areas:	Beed's Lake	Lewis and Clark
	Bellevue	Mill Creek
	Black Hawk Lake	Oak Grove
	Call	Oakland Mills
	Cold Spring	Pammel
	Danville Area	Pike's Point
	Echo Valley	Pine Lake
	Farmington	Pioneer Park
	Ft. Defiance	Red Haw Hill
	Heery Woods	Rice Lake
	Lake Ahquabi	Sharon Bluffs
	Lake Keomah	Walnut Woods
	Lake Manawa	Wapsipinicon
	Lake of Three Fires	
State Lake Reserves:	Arnolds Park	Okamanpedan
	Clear Lake	Rush Lake
	Eagle Lake	Storm Lake
	Inn Area	Swan Lake
	Lost Island	Trapper's Bay
	Mini-Wakan	Twin Lakes

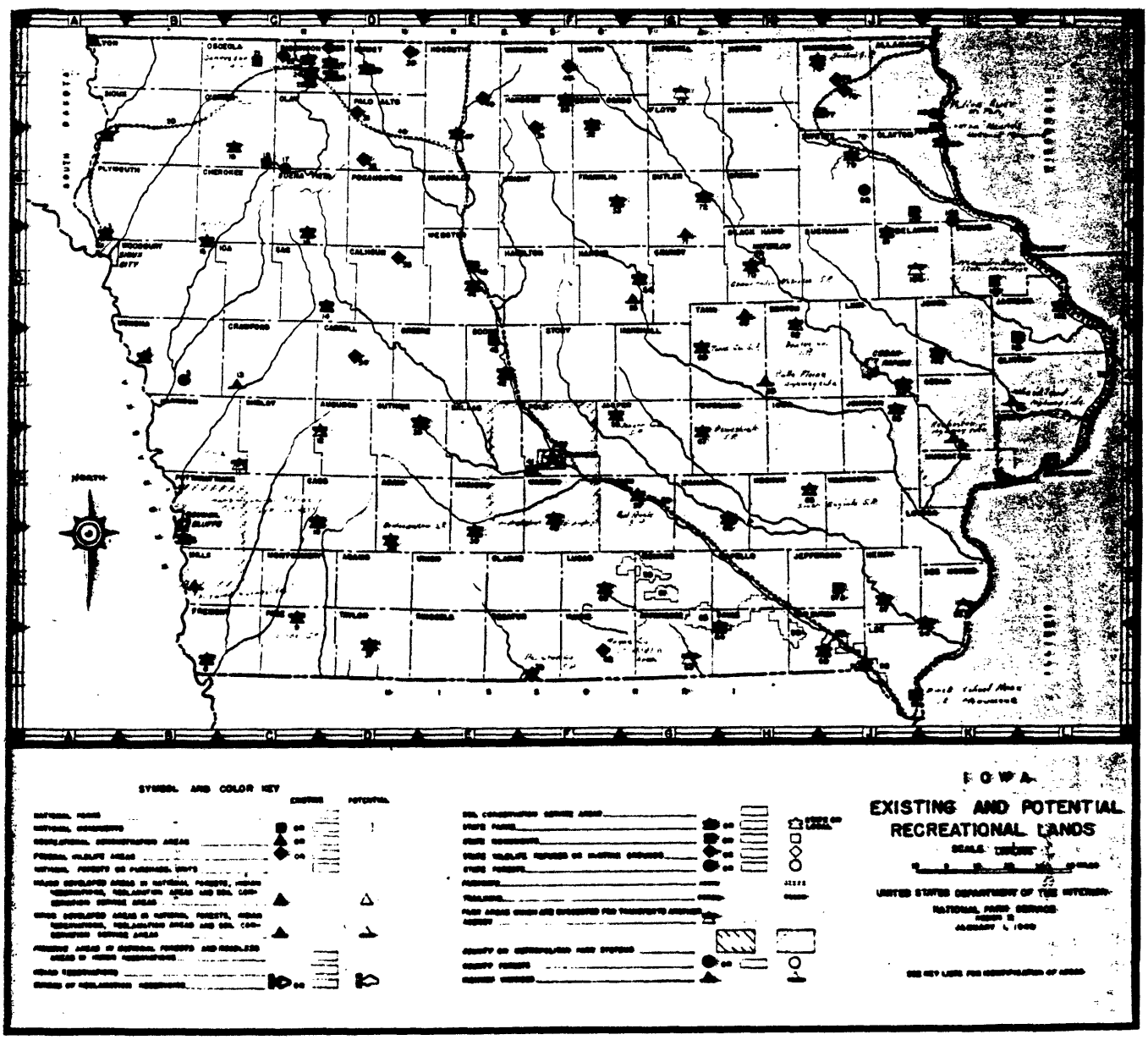
205 As reported in the State Conservation Commission Minutes of February 13-14, 1941.

Geologic-Biologic:	Bixby	Barkley Memorial
	Maquoketa Caves	Woodman's Hollow
Historic-archaeologic:	Ft. Atkinson	Gitchie-Manito
	Pillsbury Point	Indian Village Tract
State Forests:	Brush Creek Canyon	Lucas-Monroe
	Preparation Canyon	Van Buren
	Wanata Peterson	Yellow River
	White Pine Hollow	
State Waysides:	Beaver Meadows	Lepley
	T.F. Clarke	Woodthrush
	Silver Lake	

The preponderance of parks which the SCC classified as state recreation areas, twenty-seven, is testimony to the dominant role recreation came to play. This was not necessarily undesirable. Quite the contrary, but it did represent a departure from the collective vision of those who initiated the park system. By 1942, the system was functionally less-balanced among recreation areas, scientific preserves, historic sites, and forest reserves. Nowhere was the shift more evident than in Backbone State Park, the jewel in the crown of the state parks system. Conservationists had sought some means of preserving the unique geologic formation known as the Devil's Backbone in rural Delaware County from the mid-1890s on. It was therefore no coincidence that about 1300 acres encompassing this formation were purchased in 1919-1920 and set aside as the first state park. By 1942, however, Backbone State Park also was one of the most thoroughly developed state parks -- with boating facilities, a swimming beach, overnight cabins, camping areas, day-use and picnic areas, a trout hatchery, a trout fishing stream, a nature study area, a group assembly area, and staff housing. Objections raised by Thomas MacBride may have prevented the construction of lodges and more overnight cabins, but the park in 1942 was a considerably busier place than he and many of his colleagues ever envisioned it would be.[206]

206 This aspect of Backbone State Park's history is discussed in greater depth in the NRHP registration form.

Existing and Potential Recreational Lands in Iowa
Compiled for the National Park Service, January 1940
Source: National Archives, RG 79, National Park Service Records



The Movement for an Upper Mississippi Valley National Park: c.1915-c.1930

Interest in the natural features of northeastern Iowa, especially the prehistoric effigy mounds, generated a sustained movement to protect these unusual archaeological features. An area approximately 100 miles square occurring in northeastern Iowa, southern Wisconsin, northwestern Illinois, and southwestern Minnesota forms a geologic region distinctive because it was left untouched by glaciers. It is known as the "driftless area," or, because the Mississippi River cuts a trough through the center, as the "Upper Mississippi River Valley." With its deep valleys and high, rocky divides, this region contrasts sharply with the gently rolling hills and broad prairie expanses found throughout much of Iowa. During the late nineteenth century, the portion encompassed within the borders of Iowa -- all of Allamakee County and parts of Winneshiek, Clayton, and Dubuque counties -- was christened the "Switzerland of Iowa."[207]

By the turn of the century, local sentiment reportedly ran high for the establishment of a national park in the heart of the driftless area, around McGregor, Iowa and Prairie Du Chien, Wisconsin. Iowa naturalists enthusiastically supported the idea; and the Mississippi Valley National Park Association, an organization headquartered at McGregor, actively promoted public support through meetings, articles, a pictorial folder, and a moving picture film. As previously noted, the American School of Wild Life Protection also grew out of this movement. In February of 1916 U.S. Senator William Kenyon of Fort Dodge introduced the first national park bill, which called for acquiring 1364 acres around McGregor, Iowa. The bill failed, but public interest did not. To sustain momentum, Martha Buell Munn, of McGregor, offered to donate 150 acres of land that included Pike's Peak, a 540-foot bluff overlooking the Mississippi and named for Lt. Zebulon M. Pike, who explored the Upper Mississippi in 1806.[208]

The Iowa Conservation Association promoted the national park idea through its house organ, *Iowa Conservation*. Supporters offered several reasons why the Midwest should have a national park and why northeastern Iowa should be part of the site. From the time W.J. McGee surveyed the geology and topography of northeastern Iowa in the late 1870s, scholars had

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207 Samuel Calvin, "The Switzerland of Iowa," *The Midland Monthly* 3 (May 1895):403-414.

208 George Bennett, "The National Park of the Middle West," *Iowa Conservation* 2:3 (July-September 1918):43-46.

recognized the scientific and historical value of the area.[209] Many felt, in particular, that either the national government or the state should take steps to preserve the remarkable effigy and linear mounds along the Mississippi River.[210] Others pointed to a growing demand for parks as public recreational grounds, and, noting that the vast majority of national parks were located in the far West, called for a more even distribution throughout the country. May H. McNider of Mason City, Vice-President of the Iowa Conservation Association, stated the case for Iowa about as succinctly as possible: "The middle west is entitled to one and the place we are proposing [the McGregor site] is ideal for the purpose."[211] The Iowa State Bankers' Association heartily endorsed the idea of a park that would serve a population of "twenty million people within a night's ride" of northeastern Iowa.[212] Althea Sherman proposed that the region "be developed as an open air museum along the lines of the Skansen Museum in Stockholm, Sweden. She envisioned scientific labels on trees and among wild flowers as well as flying-cages "to teach the identity of the two hundred or more species of birds" in the region.[213]

Between 1916 and 1923, Senator Kenyon and U.S. Representative Gilbert Haugen continued to introduce legislation to establish a national park in the Upper Mississippi Valley. Despite outside support from key officials in federal agencies; the neighboring states of Missouri, Minnesota, Wisconsin, and South Dakota; and the Mississippi Valley Association, a congress

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209 Before McGee left Iowa for a career in the U.S. Geological Survey and the Bureau of Ethnology, he completed a geological and topographic survey of Northeastern Iowa between 1877 and 1881, said to be the most extensive survey of its type ever executed in America without public aid. His investigations were published in 1891 under the title of *Pleistocene History of Northeastern Iowa.*

210 Bennett, p. 46-47; Althea R. Sherman, "Historical Sketch of the Park Region About McGregor, Iowa, and Prairie Du Chien, Wisconsin," *Iowa Conservation* 3:1 (January-March 1919):11-14; see also Charles R. Keyes, "Some Materials for the Study of Iowa Archaeology," *Iowa Journal of History and Politics* 18:3 (July 1920):363-364.

211 Mrs. C.H. [May] McNider, "What the Mississippi Valley National Park Would Mean to Iowa," *Iowa Conservation* 1:2 (April-June 1917):30.

212 "State Bankers Endorse the National Park," *Iowa Conservation* 3:2 (April-June 1919):1-2.

213 Althea R. Sherman, "Historical Sketch...," cont., *Iowa Conservation* 3:2 (April-June 1919):40.

of economic and business interests, all of these bills failed.[214] By the mid-1920s, the national park movement was dead in the water. However, after a New York woman donated several acres in the McGregor area to the U.S. Biological Survey in 1928, the Northeastern Iowa National Park Association resurrected the park idea and persuaded Congressman Haugen to introduce yet another bill for a proposed Upper Mississippi National Park. Haugen's bill, H.R. 2040, authorized the Secretary of the Interior to investigate and report to Congress on the advisability of establishing a park that would stretch 220 miles along the Mississippi River and encompass lands in Iowa, Illinois, Minnesota, and Wisconsin. Congress passed the bill and President Hoover signed it in June of 1930. Sadly, the Secretary of the Interior's subsequent report recommended against a park. The reasons for rejecting the site as a national park were several: long-established towns were included within the proposed boundaries and would therefore break up the park into isolated tracts; the cost of purchasing vast tracts of privately owned land would run into the millions of dollars; and, compared to other national parks, the scenery was not considered to be "extraordinary." Nonetheless, the report did recommend that the mound areas be protected as a national monument. That recommendation was finally realized in 1949 when President Harry Truman signed the presidential proclamation establishing Effigy Mounds National Monument -- after years of negotiation between the state and the federal government and among federal agencies.[215]

County Parks: 1895-1942

Thomas MacBride was the first to call for a system of county parks. Speaking in 1895 before the Iowa Academy of Sciences, he modestly described his idea as "an effort to call back into public favor the once familiar public 'common'."[216] The year of his remarks coincided with

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214 Jill York O'Bright, *The Perpetual March: An Administrative History of Effigy Mounds National Monument* (Omaha, NE: National Park Service, Midwest Regional Office, 1989):47-49. File 90:3 of E.R. Harlan's papers contain copies of correspondence between Iowa Governor Harding and the governors of Minnesota, Missouri, Wisconsin, and South Dakota. (South Dakota was then in the process of preserving the Black Hills region and hopeful of achieving national park status.) Harlan also acted as the governor's representative at the December 1919 meeting of the Mississippi Valley Association in Washington, D.C., where he secured that body's endorsement. A full report of his trip is filed with his papers.

215 O'Bright, pp. 47-54; see also Chapter 4, "The Authorization of Effigy Mounds National Monument" for a detailed discussion of events leading up to President Truman's proclamation of the monument on October 25, 1949.

216 Thomas MacBride, "County Parks," *Proceedings Iowa Academy of Sciences* 3 (1896):91.

the establishment Essex County's park system, in New Jersey, the first county park system in the United States.[217] What MacBride had in mind, though, was not land that could be used indiscriminately as public pasture and woodlot, but rather places where access and use would be controlled. MacBride believed that multiple benefits would derive from county parks. Public health was one of the benefits he saw: "Our rural population is wearing itself out in an effort to wear out 'labor-saving machinery'."[218] The value of education also ranked high. Specifically, MacBride saw county parks as "absolutely needed to teach our people the first lessons in forestry...."[219] The highest value, however, in MacBride's eyes, was "to preserve to those who come after us something of the primitive beauty of this part of the world...."[220]

Shortly after the Iowa Parks and Forestry Association was formed, Thomas MacBride conducted a statewide survey of parks. Seventy-seven county auditors reported that their counties had no park but that "the cemetery was used every pleasant Sunday."[221] A.H. Carhart echoed MacBride's call for county parks in 1917. Carhart, in fact, envisioned nothing less than a system of national, state, county, and municipal parks built on the model of the national park system.[222]

Despite early calls for county parks in Iowa, nothing approaching a system appeared until the 1950s. As of 1930, Hamilton County was the only Iowa county reporting acreage set aside as county parkland, with a total of eighty acres in three parks.[223] Iowa was not behind the times,

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217 "Park Recreation Areas in the United States," *Bulletin of the U.S. Bureau of Labor Statistics* (May 1928):50.

218 MacBride, "County Parks," p. 92.

219 *Ibid.*, p. 93.

220 *Ibid.*, p. 93.

221 Thomas MacBride, discussion following Euclid Sanders paper, "The Municipal Park," in the Proceedings of the Iowa Park and Forestry Association, *Report of the State Horticultural Society for the Year 1908* 43 (1909):84.

222 A.H. Carhart, "A System of Parks – National, State, and County," p. 79-84.

223 See Table 21 in "Park Recreation Areas in the United States, 1930," *Bulletin of U.S. Labor Statistics*, No. 565 (May 1932):40-43.

though, since very few states had county parks, let alone park systems. Statistics compiled by the U.S. Bureau of Labor revealed only thirty-three counties in the entire nation with one or more parks as of 1926; by 1930 the figure had increased to only seventy-four counties.[224] A survey conducted jointly by the National Park Service and the National Recreation Association in the mid-1930s discovered only slight change, reporting seventy-seven county park systems in the country. These were scattered throughout twenty-one states, with the vast majority located in California, Michigan, and Wisconsin.[225]

Many of the areas that eventually ended up as county parks in Iowa were culled from the state parks system. Of the ninety-eight areas targeted for inclusion in the state system in the 1919 report of the State Conservation Board, many were relatively small areas which had value as wildlife or botanical habitats, but little recreational potential. During the 1930s, the State Board of Conservation, the State Planning Board, and the Federal Emergency Relief Administration cooperated with a few volunteer country park boards to begin a small-scale program of county park development. The FERA and other New Deal agencies furnished labor and some materials, and the State Planning Board developed plans. Squirrel Hollow County Park south of Jefferson in Greene County was developed in this manner. Further investigation may identify other county parks that were also part of this pioneer development period. If so, they will probably be among those properties listed in the State Planning Board's 1935 report, which included the first survey of county parklands since MacBride's informal inquiry early in the century.[226]

County	Park	Date (if known)
Cass	Cass [Pellett Wildlife Reserve]	
Clay	Spencer	
Clark	Osceola	

224 *Ibid.*; "Park Recreation Areas in the United States" (May 1928):50.

225 George D. Butler, *Municipal and County Parks in the United States, 1935* (Washington, D.C.: National Park Service in cooperation with the National Recreation Association, 1937):55-59 (Table #35).

226 Table taken from Iowa State Planning Board, *The Second Report*, submitted to the National Resources Board, Washington, D.C., April 1935, p. 133

Fremont	Fremont	
Greene Co.	Squirrel Hollow	1933
Hamilton Co.	Briggs Woods Park	1919
	Bell's Mill	1926
	Nehomis	
	Sketchley	
	Water Works	
Hardin	Sheffield	
Humboldt	Humboldt	
Ida	Ida	
Lee	Fort Madison	
	Keokuk Area	
Mitchell	Spring Lake	
	Athletic Park	
Monona	Onawa	
Plymouth	LeMars	
Polk	Valley Junction	
Sioux	Paullina	
Story	Story Athletic and City Park	
Woodbury	Horse Shoe Lake	

It is not clear what criteria the State Planning Board used to determine which properties qualified as county parks, but whatever they were, the criteria were loose. LeMars, for instance, appears on the list, but this property was actually developed by the City of LeMars as a municipal park and golf course. To encourage local support for development, the city promoted the facilities as serving all of Plymouth County, but the LeMars Park Board had jurisdiction. In Hamilton County, which has the distinction of being the first county to establish parks, only two of the five properties appearing on the 1935 list are now managed by the county conservation board: Briggs Woods and Bell's Mill.

The State Planning Board noted that no real progress could be made until the legislature gave counties authority to improve areas for recreation or set them aside as preserves. Legislation to create a county park system was first proposed in 1940, but it was not until 1955 that a bill passed the Iowa Legislature. The Iowa law, based on the Wisconsin County Park Law and the Illinois Forest Preserve District Law, both adopted in about 1910, enabled counties to establish

county conservation boards and to acquire lands and waters suitable for public parks, preserves, playgrounds, recreation centers, forests, and wildlife refuges. By 1962, sixty-two counties had established conservation boards.[227] As county parks developed, they filled a niche between municipal parks, which tended toward small, neatly landscaped areas catering to urban recreational needs, and state parks, large areas with facilities to accommodate multiple use and which usually could be reached only by motor travel. In contrast, county parks provided public spaces landscaped with what Mother Nature offered free and generally developed with facilities to accommodate day use, such as picnicking and hiking. In a sense, county parks became miniature state parks, with an emphasis on preserving natural areas, easily accessible to most of the state's populace.

Municipal Parks: c.1890-1933

In contrast to the movements for state and county parks, the city park movement started slightly earlier and its supporters were heavily influenced by the nationwide City Beautiful Movement. Landscape architects and planners had a hand in creating several parks in Iowa's larger urban areas. One of the oldest designed urban parks in Iowa is Crapo Park in Burlington, listed on the National Register. The park is named for Philip M. Crapo, a wealthy businessmen who invested a goodly portion of his accumulated wealth in beautifying ninety acres on a bluff overlooking the Mississippi River as a gift to posterity. Designed by the Cincinnati firm of Earnshaw and Punshon, the park was completed in 1896. In addition to an arboretum, the park contained an artificial lake, a bicycle racing track, two gazebo bandstands, a 300-foot boat slide, and a 10,000-seat coliseum.[228]

In 1892, Des Moines established a Board of Park Commissioners for the purpose of creating a park system connected by parkways and boulevards and improving the downtown riverfront. By 1894, the Board had acquired approximately 600 acres of land out of which came four parks: Greenwood, Waveland, Union, and Grand View. Parkway and riverfront improvements came more slowly, built gradually over nearly four decades between 1900 to 1938. In the

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227 J. Harold Ennis, "The County Conservation Program in Iowa," *Proceedings Iowa Academy of Science* 69 (1962): 219-221.

228 Preservation Committee of the Des Moines County Historical Society, National Register nomination for Crapo Park, November 1974.

process, various individuals and commissions and two nationally renowned civic planners contributed their visions of what an integrated system of public buildings, transportation corridors, and landscaped parks should look like. The Park Board put forth the first of these plans in 1899. Known as the Kell Plan, after its principal designer, Philip Kell, this document proposed a chain of riverfront parks with a new bridge linking those on the west side of the Des Moines River with those on the east side.[229]

Concern for the health and welfare of the workingclass also entered into the motives of park supporters. Euclid Sanders, a member of the Iowa Park and Forestry Association, urged the creation of municipal parks especially for "that large portion of our urban population having only limited means."[230] This impulse is evident in the plan of pioneer landscape designer and planner Warren H. Manning, who incorporated and expanded the Kell Plan in his own design, commissioned by and presented to the Des Moines Park Board in 1900. Manning's plan called for an entire system of parks -- including small "playgrounds for the poor" and city squares -- all linked with wide boulevards along the riverfront. Likewise, in 1909, Charles Mulford Robinson incorporated suggestions for riverfront beautification as well as parkway and boulevard systems into Des Moines' first comprehensive plan. Like Manning, Robinson also called for small neighborhood parks. The Progressive Era reform mentality called for balancing aesthetics with social ethics. In his plan, Robinson proposed a boulevard system to connect the riverfront, existing large parks, and other areas heavily used by the public, such as the State Fairgrounds and Laurel Hill Cemetery.

Robinson also designed plans for Dubuque, Cedar Rapids, Waterloo, and Council Bluffs. His 1910 plan for Waterloo called for incorporating the large parks already acquired by the City -- Cedar River Park, Prospect Park, and Cortlandt Park -- into a system that included smaller neighborhood parks and playing fields adjacent to the Cedar River as well as developing subdivisions.[231] Likewise, in his 1913 plan for Council Bluffs, Robinson called for linking the

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229 See Barbara Beving Long, "The City Beautiful Movement and City Planning Iowa, Iowa, 1892-1938" (Multiple Property Document prepared for the Bureau of Historic Preservation in 1988) for a complete discussion of Des Moines city parks within various city plans.

230 Euclid Sanders, "The Municipal Park" in the Proceedings of the Iowa Park and Forestry Association, *"Report of the State Horticultural Society for the Year 1908* 43 (1909):82.

231 Charles Mulford Robinson, *The Wellbeing of Waterloo: A Report to the Civic Society of Waterloo, Iowa* (Waterloo, 1910):n.p.

city's two large, developed parks -- Dodge and Fairmount -- with two other large undeveloped tracts, Lakeview and Island Parks and with a series of small neighborhood parks, playgrounds, and civic squares.[232] In Dubuque, Robinson's endorsement of Eagle Point Bluff as a stunning park site led Judge Oliver P. Shiras and other private landowners to convey their holdings in the area to the city. Eagle Point Park, situated on a promontory overlooking the Mississippi, opened in 1909, and over the next thirty years the city continued to expand and develop the site.[233]

In Des Moines, park planning inevitably revolved around the state capitol. During the 1910s, Edgar R. Harlan, curator of the Historical, Memorial, and Art Department of Iowa and a member of the first State Board of Conservation, instigated a plan which became known as the Capitol Extension Project. His involvement in this affair came about in 1909, when he was appointed to serve as a member of the Allison Commission, a body authorized by statute to select a sculptor to design a monument in memory of Senator William B. Allison and also to select a permanent site for its placement. Harlan turned this relatively straightforward assignment into an opportunity to advance ideas voiced by successive governors -- Larrabee, Shaw, Cummins, Garst, Carroll, and Clarke -- all of whom urged an expansion of the capitol grounds to include a park-like setting. After four years of study, the commission unveiled a plan reaching far beyond the erection of a single monument to include the acquisition of land around the capitol for a distance of approximately two blocks in each direction, the relocation of some buildings, the construction of new office buildings as well as a Supreme Court building, the construction of an executive mansion, and the laying out of a parade ground, all integrated by ornamentally landscaped grounds.[234]

In 1913 the state legislation authorized the improvement of the State Capitol grounds. During the next decade, Harlan worked with architects to plan a complex of architecturally compatible buildings to house the various departments of state. To plan the landscaping, Governor Harding appointed a Plant Life Commission, which consisted of Harlan, Thomas MacBride,

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232 Charles Mulford Robinson, *Report on a Park System for Council Bluffs, Iowa* (Council Bluffs, 1913).

233 Helen Mercer, draft NRHP nomination for Eagle Point Park, August 1989.

234 E.R. Harlan, "Proposed Improvement of the Iowa State Capitol Grounds," *Annals of Iowa* 11 (1913): 96-114.

and Louis Pammel. Harlan contended and his fellow commissioners agreed, that "the planting plan should illustrate typical Iowa." To a certain degree, this type of plan was carried out by landscape architect L.E. Fogelson, creating a park-like setting around the state capitol.[235]

While the City Beautiful Movement has been portrayed as largely an urban phenomenon, Iowa's smaller towns and regional centers were no less affected by the parks movement. The City of Decorah established a Park Commission in 1911 and acquired its first site the same year, a twelve-acre parcel paid for with public subscriptions. By 1948, the city owned no fewer than seven parks totalling 224 acres. Most of the acquisitions came as donations or through bequests that enabled the city to purchase additional lands, and many of the park improvements were built with the aid of the Civilian Conservation Corps and the Works Progress Administration.[236]

Between 1894 and 1917, eight sites were donated to the City of Fort Dodge for use as parkland. By 1927, when the city acquired a ninth park site, the city had managed to improve only five of the parks. The WPA program enabled the city the improve four parks during the late 1930s and early 1940s. These projects may have been conceived as a result of Albert M. Husted's 1928 plan for developing the city's recreational facilities. Working under Professor P.H. Elwood at Iowa State College, Husted completed this assignment as his master's thesis in Landscape Architecture.[237]

Another of Elwood's graduate students, Jerome C. Miller, designed a park and recreation plan for the City of Ames in 1932. At that time, Ames had only two parks: the city park donated in 1884 by the Blair Town and Lot Company, original owners of the town, and Brookside Park,

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235 Louis H. Pammel, "The Arbor Day, Park and Conservation Movements...," cont. (January, 1930):231-232; Christensen, p. 353, fn. 85.

236 Fred Biermann, "History of Decorah's Park System," unpublished ms., 1956; courtesy of Decorah Parks and Recreation Commission.

237 A.M. Husted, *A Preliminary Plan for the Development of Park, Boulevard and Recreational Facilities for the City of Fort Dodge, Iowa.* Master of Science Thesis in Landscape Architecture, Iowa State College, 1928; Box 14 of the WPA photograph collection at SHSI, Iowa City, contains photographs of WPA projects carried out at Loomis Park, Hydroelectric Park, City Park, and Oleson Park between 1935 and 1941.

an eighteen-acre site purchased in 1925.[238] For an important urban center, Ames was definitely a late-comer to the parks movement, and there is no indication that the city utilized New Deal programs to enhance its park and recreation facilities. With respect to P.H. Elwood, John Fitzsimmons, and Iowa State College, further research is needed to determine the full extent to which the landscape architecture department worked with individual cities to develop parks during the 1920s and 1930s. Collections of park designs located at Iowa State University and the Iowa Department of Natural Resources contain a small number of drawings for municipal park structures, suggesting there existed some formal or informal program of extension work with municipalities through the Central Design Office.

In some communities, public squares or other areas set aside for public use metamorphosed into city parks. In Lake City, for instance, a square block in the center of town served as the location of Calhoun County's first courthouse from 1857 to 1876. After the county seat was transferred to Rockwell City, the site remained in public use as a commons. During the late 1880s and early 1890s, the city installed a public well, a watering trough, a bandstand, and a flagpole, and also fenced the area with hitching chain. Further improvements were made during 1914-1915 when the Ladies' Civic Society initiated efforts to lay a system of paved walkways, install drinking fountains, and enhance the park with an ornamental water fountain surrounded by flower beds.[239]

From a vantage point peering across the environmental decade of the 1970s, it is difficult to perceive a common bond between the drive to establish municipal parks, focused on scenery and recreation, and the broader purposes of the early twentieth century conservation movement as a whole. Nonetheless, at the time, advocates of municipal parks were considered to be within the mainstream of the conservation movement, and women, especially social feminists, provided a strong link between the two. Speaking before the Iowa Forestry and Conservation Association in 1917, Mrs. H.J. Taylor of Sioux City issued an impassioned defense of municipal parks as necessary for the "conservation of life." Drawing heavily on Jacob Riis's *How the Other Half Lives*, she stated,

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238 Jerome C. Miller, *A Park and Recreation Plan for the City of Ames*, Master's Thesis in Landscape Architecture, Iowa State College, 1932.

239 Lake City Historic Preservation Commission, Iowa Site Inventory for "City Park/Courthouse Square," September 1987, and Rebecca Conard, draft National Register nomination for the site of the first Calhoun County Courthouse, both on file at the Iowa Bureau of Historic Preservation, Des Moines.

> My plea is not for fewer parks but for more parks placed in the congested localities to conserve life for better citizenship. So long as it takes a street car and five cents to reach a park, there will be a 'submerged tenth' who have neither the means nor the inclination to go....
>
> It is not enough that we have city parks to which all may go freely, we must take the city parks to those who have no automobiles, or horses, nor even street-car fare. We must take our parks 'down on the bottoms' to 'little Russias' and 'Assyrias' wherever the congested or foreign grouped citizens of our cities are found. We need to know these members of the human family, not as charity workers, but as friends and neighbors, taking to their doors opportunity for more abundant life....
>
> The waste of our fields, our soils, our forests, our birds, our flowers, has led us to emphasize conservation. The waste of human life needs also the cry of conservation for its protection and preservation.[240]

Mrs. Taylor's sentiments seem to have been shared by women's groups all over the state. One organization in particular deserves special mention, as noted before: the Iowa Federation of Woman's Clubs. In about 1908, the Iowa Federation set aside March 10th as an annual Rally Day to promote the establishment of municipal parks.[241]

Mrs. Cora Call Whitley of Webster City was chief among the many IFWC members who supported conservation. She served as chairwoman of the National Federation's forestry and wild life refuges committee during the 1920s. She also wrote a pamphlet "A Plea for the Wild Flowers," which the IFWC distributed freely in the 1920s. In it, she promoted nature study courses to educate children in conservation values. Her concern, shared by other members of the Federation, prompted the State Board of Conservation to advocate state legislation that would help to stop the thoughtless destruction of wildflowers by florists, gardeners, and sight-

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240 Mrs. H.J. Taylor, "Conservation of Life Through City Parks," *Iowa Conservation* 1:1 (January-March 1917):13.

241 Jane Parrott, "Our Trees, Parks and Forests," *Report of the Iowa State Horticultural Society for the Year 1908* 43 (1909):131.

seeing motorists.[242] Whitley was elected vice president of the Iowa Conservation Association in 1926. She also served as a lecturer at the American School of Wildlife Protection. Whitley Forest in Lake Ahquabi was planted and named in her honor as the Iowa Federation's contribution to a nationwide project sponsored by the General Federation. A "chain" of Federation Forests in every state was intended to ...stand forever as a memorial to the farsightedness of clubwomen and their enormous interest in the conservation of the nation's forest wealth."[243]

Quantitative figures on municipal parks in Iowa are scarce, and existing studies fail to include all small towns, which, as of the early 1940s, would still have held a sizable percentage of the state's population. In 1917, Mrs. Taylor casually remarked that most of Iowa's towns and cities had established parks by then, though the number of people and type of population served she considered inadequate.[244] The U.S. Bureau of Labor Statistics began compiling statistics during the 1920s. In its first report, issued in 1928, the bureau listed twenty-six Iowa municipalities with 5000 population and over as having established parks.[245] A second report, issued in 1932, contained fewer state-by-state figures, but noted that, overall, park acreage in the United States had grown by at least thirty percent between 1925 and 1930.[246]

In 1935, the National Park Service, in cooperation with the National Recreation Association, updated statistics compiled by the Bureau of Labor. The joint study relied on circulating questionnaires to 3165 cities in the United States with populations of 2500 or more, as determined by the 1930 census. Slightly less than half responded. Of the 1409 cities nationwide supplying data, 1200 reported having parks; 209 were without.[247] In Iowa, thirty-

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242 "A Plea for Wild Flowers," *Iowa State Parks Bulletin* 2 (1925): 12.

243 Mildred White Wells, *Unity in Diversity: A History of the General Federation of Womens's Clubs* (Washington, D.C.: GFWC, 1953):194.

244 Taylor, p. 13.

245 See Table 2 of "Park Recreation Areas in the United States" (May 1928):18-30.

246 "Park Recreation Areas in the United States, 1930," *Bulletin of the U.S. Bureau of Labor Statistics*, No. 565 (Washington, D.C., May 1932):8.

247 George D. Butler, *Municipal and County Parks in the United States*, (Washington, D.C,: National Park Service in cooperation with the National Recreation Association, 1937):Table p. 7.

one cities reported having park facilities developed with everything from bandstands and ball diamonds to tennis courts and toboggan slides. The smallest city reporting data was Clarion, with a population of 2578; the largest, of course, was Des Moines, with a population of 142,559 at the time.

Municipal Parks with Recreation Facilities and Buildings
in Cities of Over 2500 Population in Iowa, 1935[246]

City and State	Population	Athletic fields	Bandstands	Baseball diamonds	Bathing beaches	Bridle trails (miles)	Camp center groups	Children's playgrounds	Dance pavilions	Golf courses, 9 holes	Golf courses, 18 holes	Ice-skate rinks	Nature trails	Outdoor fireplaces	Outdoor theaters	Picnic centers	Ski jumps	Stadiums	Swimming pools	Tennis courts	Toboggan slides	Tourist camps	Wading pools	Aquaria	Bathhouses	Boathouses	Camp cabins	Camp buildings	Museums	Recreation buildings	Airport buildings	Administration buildings	Comfort stations	Dwelling houses	Greenhouses	Shelters	Workshops
IOWA																																				
Atlantic	5,588	1		1			1	1	1				1	3		2			1			1	1		1		2		1	1		4	1			
Belle Plaine	2,230																																			
Boone	11,836	2	1	2				1	1										1			1	1									1			1	
Cedar Rapids	56,097		1	1	1	0.1	1	6		1		1		16		5				12	3	1	3		1							4	2	3	7	8
Centerville	8,147		2	2			1	1					2	4		1			1	4					1										2	
Clarion	2,578	1						1				1											1													
Clear Lake	3,066																					1														
Council Bluffs	42,048			1		10.0		4				1	1	1		8			1	4					1			1			1	8	4	1	3	3
Creston	8,615	1	1	2	1		1	1	1					1		4				3		1	1		1	1	1					4	1			2
Davenport	60,751		2	2			2	3	2			2	4	6		3				6		1	3								1	8	2	5	5	4
Decorah	4,581	1					2	1						25		8				3		1														
Denison	3,905		1	1															1	2																
Des Moines	142,559		1	29	1			14	1		2	6			1	9			1	47			13						9	2		20	6	1		1
Dubuque	41,679												1	14		2				6			1									4	1	1	2	1
Estherville	4,940																		1	4					1											
Fairfield	6,619		1					1						7	1	8													1			2	1			1
Fort Dodge	21,895		2									4	6	15		10				2	1		1				1								
Iowa City	15,340			1				1						5						1			1								1	3		3	1
Keokuk	15,106		3	2				3						3		4		1		1		1	1				1					4	1		2	1
Maquoketa	3,595			1																																
Marshalltown	17,373		1	3				3						12					1	2	1		1		2					1		12	1		1	1
Mason City	23,304	1	1	4				2				2		10		2				8			1									2			2	
Mount Pleasant	3,743		1				1	1					1	1		1							1													
Newton	11,560							3		1						2				2												3	1		1	
Oskaloosa	10,123													6		3																				
Perry	5,881																								1			1				2				1
Red Oak	5,778	1		1												1			1			1			1							3				
Sioux City	79,183		1	5	5	1.5				1		16		20		4			5	7			2													
Tama	2,626	1	1	1				1						3		2				1		1													1	
Waterloo	46,191	1		3	1					1	1			7		3				14		1	1		1											
Waverly	3,652	1	1	1				1		1						1			1	3																

246 Exerpted from Butler, p. 93 (Table C).

A New Deal for Municipal Parks: 1933-1942

As was true with state parks, the development of Iowa's municipal parks benefited greatly from New Deal programs. However, whereas the Civilian Conservation Corps had a greater presence in the state parks, municipal park work was generally carried out under the auspices of the Works Progress Administration. Iowa communities vastly improved their roadways, public buildings, waterworks, and other public facilities with WPA assistance. Park improvements have proved to be the most enduring of these civil works projects. An untold number of towns and cities in Iowa used WPA funds to improve municipal parks with shelter houses, bathhouses, swimming pools, artificial ponds or lakes, bandshells, tennis courts, toilets, entrance portals, roadways, bridges, and other structures.[249] Native stone provided the basic building material for many of the WPA structures, in keeping with the architectural guidelines for rustic park architecture disseminated through the National Park Service. Where parks were situated adjacent to rivers or lakes, erosion control works, such as rip-rap along the banks, dams, or terraces, were sometimes included as part of the overall project.

Several of these New Deal municipal parks projects were quite extensive. Eagle Point Park in Clinton, for instance, was vastly developed with WPA funds. The park, first known as Joyce's Park, was developed as a railway park during the late 1880s by the Clinton and Lyons Railway, an interurban line. In 1925 the company sold the park, including the park improvements, to the City of Clinton. During the mid-1930s, hundreds of WPA workers were employed to construct a stone observation tower, a stone and concrete bridge, a pavilion, a rock stairway down the cliffs to the Mississippi River, a waterfall and lily pond, hard-surfaced drives, and several miles of trails.[250]

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249 The Iowa State Historical Society at Iowa City holds a sizable collection of photographs of WPA projects taken during the 1930s. This collection includes views of park projects located in 44 towns and cities, erosion control projects (both rivers and lakes) in 21 areas, fish rearing ponds constructed in another 4 communities, and several state park projects. An index to these conservation and parks projects was compiled as part of this investigation and is on file both at the Bureau of Historic Preservation at Des Moines and the Historical Society library in Iowa City.

250 "Eagle Point Park," anonymous history dated May 1980; courtesy of the Clinton Park and Recreation Department.

Dubuque's Eagle Point Park, also overlooking the Mississippi River, was extensively improved under the direction of designer Alfred Caldwell. With the aid of WPA funds, Caldwell and a crew of over 200 men quarried several tons of local limestone, using the native material to construct an intricate park design that included a cluster of buildings and bridges known as "The City in a Garden," an elaborate "ledge garden," a "Council Ring" for informal outdoor meetings, and stone hearths. An impressive design accomplishment, Caldwell's structures have been called "poetry in stone." Speaking more prosaically, President Franklin D. Roosevelt is said to have pronounced it "Some boondoggle!" when he and Eleanor visited the park in 1937.[251]

Edmundson Park in Oskaloosa was another large WPA municipal park project. The park is named for William Edmundson, first sheriff of Mahaska County, and his son, James DePew Edmundson, the latter of whom donated $20,000 to purchase the sixty-acre park site in 1937. The city immediately set to work improving the park with the aid of 125 local men employed by the WPA. Using native limestone, the WPA crew built an impressive complex containing shelter houses, stone fireplaces, a bathhouse and pool, bridges and culverts, entrance portals, steps and walls, playgrounds, toilets and a sewer system, and a road system.[252]

Among the smaller communities which took advantage of the WPA program to develop parks, the City of LeMars in Plymouth County stands out. Facilities built there between 1936 and 1938 include two artificial lakes, a shelterhouse/bathhouse, Adirondack cabins, a Boy Scouts' meeting house, entrance portals, an outdoor amphitheater with dressing rooms, a golf course with a clubhouse and caddy shack, a custodian's residence, service buildings, roadways, and landscaped grounds.[253]

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251 Charles W. Roberts, "Poetry in Stone," *The Iowan* 25:1 (September 1976): 22-25; William E. Wilkie, *Dubuque on the Mississippi* (Dubuque: Loras College Press, 1987):427; Helen Mercer, Eagle Point Park draft National Register nomination, 1989; the WPA photograph collection contains several photographs of the structures in this park.

252 Mrs. Stillman Clark, "Edmundson Park Dedication Ceremonies Took Place of Fourth of July in 1937," *Oskaloosa Tribune-Press*, June 26, 1965; Box 8 of the WPA photograph collection at SHSI, Iowa City, contains several photographs of the structures in this park.

253 Box 9 of the WPA photograph collection contains an extensive set of photographs of this project.

V. CONSERVATION OF NATIVE FLORA: 1909-1942

To a certain degree, the movement to conserve Iowa's native plant species was tied to the parks movement. Louis H. Pammel appears to have taken a special interest in the parks movement precisely because he saw parks as the vehicle for saving precious plant species. In 1915-1916, Pammel participated in the Highway Commission's lake study, directing an investigation into lake vegetation. Shortly thereafter, he took it upon himself to investigate land prices in specific areas in order to estimate what it would cost the state to set aside small acreages in four specific areas where rare plants were on the verge of extinction. His investigations indicated that in would cost the state an insignificant amount, approximately $6000, to acquire thirty acres of the Ledges (Boone County) to protect Reindeer lichen, another thirty acres in Steamboat Rock to protect yellow birch and white pine trees, thirty acres along the Yellow River in Allamakee County to protect a Balsam fir grove, and another thirty acres in the Wyoming Hill region in Muscatine County to preserve white pines as well as a number of other typically Southern plants.[254] Studies such as this one provided supporters of the park movement with specific data and proposals to lay before politicians.

Further evidence of the intimate connection he saw between plant preservation and parks comes from his numerous writings and speeches. A 1924 speech on state parks, for instance, emphasized the variety of plant species one could observe in any given state park.[255] Likewise, in an information sheet on state parks he developed for the Iowa State Extension Service, Pammel highlighted unusual trees and flowering plants that could be found in specific locations.[256] Always, Pammel focused on the scientific value of parks.

MacBride's one-time student and colleague, Bohumil Shimek, also took a special interest in parks, pointing out that parks:

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254 L.H. Pammel, "The Cost of Purchasing Interesting Spots in Iowa for State Parks," *Iowa Conservation* 1:1 (January-March 1917):11.

255 "Iowa Keeps Nature's Gift: What the State is Doing to Preserve Plant Life and Scenic Beauties," ms. of 1924 speech (L.H. Pammel Papers: Conservation Lecture Trips, 1924).

256 "Iowa Parks," an information sheet developed for the Program Service for Rural Organizations, a division of the Iowa State Extension Service (L.H. Pammel Papers: Conservation Lecture Trips, 1924).

> would serve a very useful purpose if they simply preserved a part of our native fauna and flora for scientific purposes.... The various schools of the State are finding it harder each year to get materials for study in botany and zoology, and, moreover, the native flora offers the best measure of those conditions which determine the possibilities of plant cultivation in our State, and we should preserve a part of this measure.[257]

Samuel Calvin, MacBride, Shimek, and Pammel were among the first scientifically trained natural historians to study Iowa's plant communities. Shimek, in particular, made major contributions to the study of prairie ecology and of the Loess hills, its geologic origins and vegetation.[258] Both Pammel and Shimek, however, saw the preservation of plant communities as part and parcel of the larger effort to establish a state park system, to protect the complex cultural and natural environment of the Upper Mississippi Valley by whatever means possible, and to preserve woodlands. Much of their non-academic energy went toward political and educational activities to further these goals.

Thomas MacBride contributed greatly to the scientific side of floral conservation by founding the Iowa Lakeside Laboratory at Okoboji in 1909. Calvin, MacBride, and Shimek had been collecting specimens in the lakes area since the late 1890s because, in MacBride's words, the "peculiar topography" created a "field of special floral display difficult to illustrate anywhere else within such narrow limits."[259] Here collectors could hunt specimens of forest flora, prairie flora, and fungi. Under MacBride's directorship from 1909 through 1913 and then Shimek's, the facility became a major research center for field studies in the natural sciences, attracting students and faculty from among all of Iowa's colleges as well as from outside the state.[260] The laboratory began on a five-acre tract of land and gradually increased in size. Today, the property contains over 126 acres. Research on prairie ecology benefited greatly

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257 B. Shimek, "Iowa's Natural Parks," *Iowa Conservation* 1:1 (January-March 1917), p. 16.

258 See Cornelia F. Mutel, "*Fragile Giants: A Natural History of the Loess Hills* (Iowa City: University of Iowa Press, 1989):24, 193; Bohumil Shimek, "The Prairies," *University of Iowa Laboratory, Natural History Bulletin* 6 (1911): 169-240; Shimek, "Geology of Harrison and Monona Counties," *Iowa Geological Survey, 1909 Annual Report* 20 (1910):271-486.

259 Thomas H. MacBride, "The Okoboji Lakeside Laboratory," *Palimpsest* 66:2 (March/April 1985): 67.

260 See Debby J. Zieglowsky's excellent brief history in "Thomas MacBride's Dream: Iowa Lakeside Laboratory," *Palimpsest* 66:2 (March/April 1985): 42-65.

when, in 1930, the laboratory acquired approximately sixty acres of land that had been grazed heavily but was said never to have been plowed. Botanists immediately began to renew the prairie, using it as a laboratory for experimenting with plant succession.[261]

For Pammel, scientific work often took a back seat to public outreach. Fortunately, he had two dedicated colleagues at Iowa State College, Charlotte King and Ada Hayden. King was associated with the Botany Department at Iowa State College from 1894 until her death in 1937, both as a botanical artist and as a seed analyst. Beginning in about 1900, she and Pammel collaborated on a series of papers documenting the seed germination patterns of various trees and plants. King also co-edited a two-volume series published by the Iowa Geological Survey, one on the weed flora of Iowa, the other on honey plants.[262]

Hayden also assisted Pammel with his research and, after his death, emerged as the leading activist for prairie conservation.[263] She stands as a key figure linking the conservation movement of the early twentieth century with the post-World War II environmental movement. Hayden wrote her doctoral dissertation on Iowa prairie plants under Pammel's supervision, and in 1919 she penned a short article entitled "Conservation of Prairie."[264] Until 1934, however, she remained very much in the background of the conservation movement, operating quietly in her mentor's shadow. In that year, she became curator of the herbarium which now bears her name, and for the remainder of her life she worked tirelessly to develop the collections as a major research resource.[265] From 1934 to 1942 she spent her summers at the Iowa State

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261 W.A. Anderson, "Development of Prairie at Iowa Lakeside Laboratory," *American Midland Naturalist* 36 (1946): 431.

262 Lois Hattery Tiffany, "Reflections on Women Scientists and the Iowa Academy of Science," *Proceedings Iowa Academy of Science* 82 (1975): 94-95.

263 Duane Isley's short biography of Hayden is the most informative account of her life and work so far published. See Isley, "Ada Hayden: A Tribute," *Journal Iowa Academy of Science* 96:1 (1989): 1-5.

264 Ada Hayden, "Conservation of Prairie," *Iowa Parks: Report of the State Board of Conservation* (Des Moines: State Printer, 1919): 283-284.

265 Hayden Herbarium is presently located on the 3rd floor of Bessey Hall at Iowa State University (telephone communication from Duane Isley, Professor of Botany at ISU to Rebecca Conard, November 5, 1990).

College Agricultural Experiment Station near Okoboji-Spirit Lake studying the native flora of the northern lakes region.[266]

During the 1930s, Hayden became more actively involved in prairie conservation through her association with the National Research Council. She was a member of the Grassland Research Foundation, organized in 1939 by a subcommittee of the Division of Biology and Agriculture within the National Research Council, and of the NRC's Committee on the Ecology of Grasslands, formed in 1944. The Grassland Research Foundation was to have been incorporated in Iowa, probably because of her involvement, but the choice ultimately went to Oklahoma, where state law permitted the non-profit organization to hold land.[267]

In the early 1940s Hayden also became a member of the Conservation Committee of the Iowa Academy of Science, and, supported by a $100 grant from the organization, she began to survey prairie remnants and make recommendations for preservation.[268] This survey came in response to a recommendation contained in the *Twenty-Five Year Conservation Plan*, which called for preserving at least one large tract of native vegetation. Hayden's survey also dovetailed with the aims of the NRC Committee on the Ecology of Grasslands, which sought "ways and means for aid in the solution of the...underlying causes for widespread erosion, misuse, and poverty throughout the plains and prairies."[269]

In 1944, Hayden prepared an extensive report for the State Conservation Commission detailing the criteria which ideally should guide the selection of a major prairie preserve.[270] This report was supplemented in 1945 by recommendations which described twenty-two prairie

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266 Hayden, "A Botanical Survey in the Iowa Lake Region of Clay and Palo Alto Counties," *Iowa State College Journal of Science* 17 (1943): 277-416; Jan Lovell, "She Fought to Save Iowa's Prairies," *The Iowan* 36:2 (1987): 56.

267 Ada Hayden, "The Iowa Lakeside Laboratory - A Prairieless Field Laboratory," *Proceedings Iowa Academy of Sciences* 55 (1949):167.

268 Lovell, p. 26.

269 Hayden, "The Iowa Lakeside Laboratory...," p. 166.

270 Ada Hayden, "The Selection of Prairie Areas in Iowa Which Should be Preserved," *Proceedings Iowa Academy of Sciences* 52 (1945):127-148.

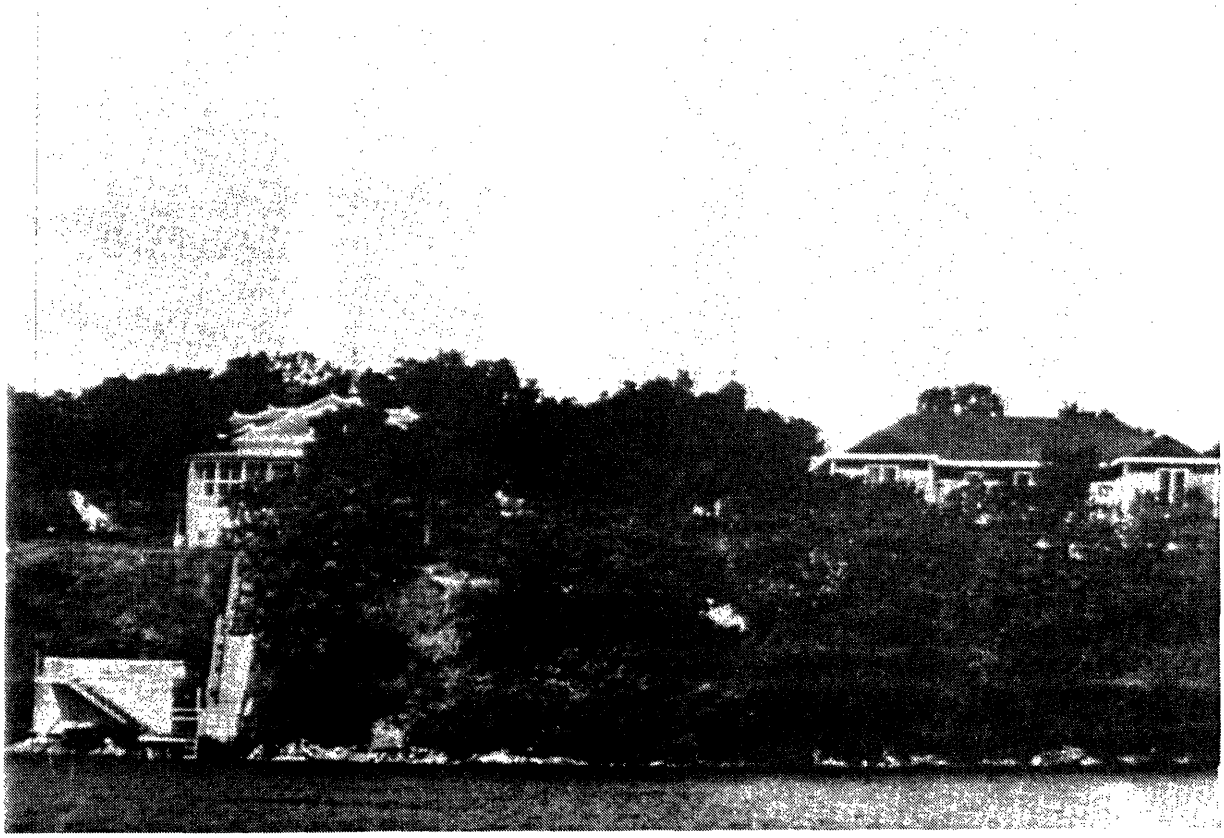
remnants worthy of preserve status.[271] Shortly thereafter, the Iowa Legislature voted to appropriate funds to acquire six areas of virgin prairie according to Hayden's recommendations, which was sponsored by the IAS.[272] One of the first tracts acquired was a 240-acre site in Howard County, and it was named Hayden Prairie in her honor after she died in 1950. In 1966, Hayden Prairie was designated a National Landmark.[273]

271 Ada Hayden, Frank F. Riecken, and George O. Hendrickson, "A Progress Report on the Preservation of Prairie," *Proceedings Iowa Academy of Sciences* 53 (1947):45-82.

272 Hayden undated TS for "The Iowa Lakeside Laboratory - A Prairieless Field Laboratory," p. 4 (located in Louise [Mrs. Addison] Parker Papers, ISU), p. 6.

273 Lovell, pp. 26, 57.

Iowa Lakeside Laboratory as it appeared c. 1930. Main Cottage is on the left, the first laboratory on the right. The laboratory was razed after new facilities were constructed in 1936-1937. Photo courtesy of Iowa Lakeside Laboratory.



Library (center) and four stone laboratories constructed by CCC Camp B.F. 1 at Iowa Lakeside Laboratory in 1936-1937. Photo courtesy of Iowa Lakeside Laboratory.

Main Cottage as it appears today. Photo: R. Conard, November 1990

Shimek Library as it appears today. Photo: R. Conard, November 1990.

VI. SOIL AND WATER CONSERVATION: 1909-1942

In 1898, Thomas MacBride challenged his colleagues in science to join him in protest against the practice of draining wetlands. "The insidious tiles exhaust the bed of the slough, and highway ditches on every square mile prevent all accumulation of surface water."[274] As a result, he observed, streams failed. Eroding soil from deforested and plowed hillsides choked river channels and sealed up springs. MacBride urged the Iowa Academy of Science to call upon the legislature to investigate its waterways. He also suggested that the state and local governments emulate New York City by purchasing watersheds in order to protect water resources.

Studies conducted by another Academy member, G.G. Wheat, buttressed MacBride's concerns. Wheat noted that prior to 1900 flooding was infrequent because marshes, ponds, and lakes caught most of the runoff, which generally prevented rivers from overflowing and soils from seriously eroding. By the turn of the century, all that had changed. With the exception of bonafide lakes, most of the natural reservoirs were fast being drained, either by underground tile systems or by open ditches.[275]

Loss of wetlands can be traced in part to the Swamp Land Act of 1850 which gave the State of Iowa nearly two million acres of land for reclamation, including marshes, bogs, prairie potholes, sloughs, wet meadows and river overflow lands.[276] The state turned the land over to the counties, which generally sold the land cheaply -- or gave it away -- to immigration companies or to railroad land companies. In return, the counties got public roads and bridges and the promise of new settlers. Reclamation and land settlement would have happened without the Swamp Land Act, but the federal government's generosity increased the pace. There are no precise statistics on how much of the original two-million-acre grant was actual wetlands, but a 1906 U.S. Department of Agriculture survey found only 930,000 acres of wetlands left.

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274 Thomas MacBride, "The President's Address," *Proceedings Iowa Academy of Sciences* 5 (1898):17.

275 As reported in Swisher, 1931, p 353.

276 Arnold L. Haugen, ed. "Report on Iowa's Outdoor Resources" by the Governor's Committee on Conservation of Outdoor Resources, December 16, 1964.

MacBride's and Wheat's impressionistic data were probably not far off the mark. By 1922, wetlands had been reduced to 368,000 acres.[277]

MacBride's call for a state investigation of waterways did not materialize until 1909, when the state legislature created the Iowa State Drainage Waterways and Conservation Commission. MacBride was among the commission appointees. When the commission reported in 1911, it recommended that Iowa's lakes be placed under special jurisdiction.[278] Commissioner MacBride insisted that practical conservation implied use.

> When we advocate the conservation of a lake, therefore, we do not mean simply that we would have a body of water occupying so much area on the ground, but we urge that wherever such body of water of convenient size and depth occurs it shall be kept, and *kept in order, and used* [MacBride's emphasis]. It shall be open to all the people for their use and benefit, for their enjoyment.[279]

Bohumil Shimek, who authored the report section entitled "The Conservation of Our Woodlands," advocated state control over all rough lands bordering streams in order to rebuild woodlands which would, in turn, prevent vast amounts of soil from washing into waterways as well as provide wild game habitats.[280] Shimek felt that the problem was serious enough to warrant use of the state's police power to obtain jurisdiction; however, the commission opted for a much less radical recommendation, simply calling the establishment of forestry stations

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277 Richard A. Bishop, "Iowa's Wetlands," *Proceedings Iowa Academy of Sciences* 88:1 (1981):11.

278 "Recommendations," *Report of the Iowa State Drainage Waterways and Conservation Commission* (Cedar Rapids: The Torch Press, 1911):.

279 "The Conservation of Our Lakes and Streams" in *Report of the Iowa State Drainage Waterways and Conservation Commission*, p. 188. Pammel identifies MacBride as the author of this section in "The Arbor Day, Park and Conservation Movement...," (April 1930), p. 282. MacBride's view, as expressed in the quote, echoed the emerging scientific resource management school of conservationist thought, which is interesting because he came out of the nineteenth century moral conservationist mold and, judging by his later critique of state park development plans in the 1930s, seems to have returned to that point of view late in life.

280 "The Conservation of Our Woodlands," *Report of the Drainage Waterways and Conservation Commission*, pp. 201-206.

where the "whole problem of our agriculture as affected by the cultivation of trees" could be studied.[281]

Degradation of the natural environment was not the only reason to be concerned about water resources. Water purity had a direct bearing on human health and sanitation issues. During the early twentieth century, members of the Iowa Academy of Sciences began to notice that underground waters as well as stream beds were becoming polluted by sewage. As a result, there were calls for a comprehensive survey of the state's water supply.[282]

Thus, while the Drainage Waterways Commission was conducting its investigation, the Iowa Geological Survey undertook the first systematic study of subsurface waters in the state. Under the direction of W.H. Norton, three investigators studied artesian waters, the waters of the drift and country rock, and the chemical qualities of all ground waters in the state. The foremost purpose of this study was to aid towns and cities in developing reliable water supplies. However, the chemical investigation of well waters, conducted by W. S. Hendrixson, pinpointed the extent of water pollution in the state and, in effect, provided baseline data for future studies of water quality. Leakage from privies into artesian wells, for instance, had caused outbreaks of typhoid fever at Waterloo, Cedar Falls, the Chicago and North Western shops at Clinton, and the Asylum for Feeble-minded Children at Glenwood. Several town wells were disasters waiting to happen because they were so situated that the outfall from privy vaults, cesspools, and storm sewers percolated through the soil surface to the water supply.[283]

The reports of the Drainage Waterways and Conservation Commission and the IGS water supply survey contributed to growing concern over water resources. After 1918, the State Board of Conservation took the issue under its wing. The loss of lakes was of particular concern during the 1920s. The story is told of an Iowa family who set out on vacation during

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281 "Recommendations" of the *Report...*, p. 26.

282 Swisher (1931), pp. 360-361; Robert W. Hanson, "The Iowa Academy of Science: 1875-1975," *Proceedings Iowa Academy of Sciences* 82:1 (March 1975):5.

283 *Iowa Geological Survey, Annual Reports, 1910 and 1911 with Accompanying Papers*, 21 (Des Moines: Iowa Geological Survey, 1912), see especially pp. 226-229, "Municipal and Domestic Supplies."

the summer of 1920 and, using an old map, motored to one of the state's charted lakes -- only to find it planted in corn.[284]

Loss of lakes and wetlands was only one problem; those that remained were declining in water quality. With increasing incidence, algae bloom disagreeably fouled lakes, providing evidence that decaying organic matter was polluting more and more of the state's waters. In 1931, the Board recommended to the state legislature that at least twenty-five lakes be dredged in order to remove built-up silt deposits and destroy spoor beds. In making its recommendations, the board noted that in about 1920 the City of Emmetsburg had dredged Medium Lake, successfully clearing the waters and, in the process, using the spoil to build up the lakeshore to create a city park as well as private building lots.[285]

In an agricultural state, farmers inevitably were the targets of soil and water conservation efforts. "Uncle Henry" Wallace made sure that conservation of soil fertility was a recurrent topic in *Wallace's Farmer*, the magazine he co-founded with his sons, Henry C. and John P., in 1895. Above all, he urged that farmers adopt crop rotation methods, frequently writing and lecturing on the benefits of clover as a soil-building crop. As a result of his journalistic efforts on behalf of soil conservation, Wallace was chosen to serve as president of the National Conservation Congress in 1910.[286]

During the 1890s, the U.S. Department of Agriculture began its agricultural engineering activities, much of which focused on irrigation and large-scale reclamation projects for western states. However, the USDA took up the problem of soil erosion as early as 1894, when it issued Bulletin No. 20, "Washed Soils: How to Prevent and Reclaim Them." In 1917, the department began to conduct research on the hydrology of agricultural watersheds.[287]

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284 Edgar R. Harlan, "Who Owns the Lakes, Anyway?" *Annals of Iowa*, third series, 16:2 (October 1927): 100.

285 Iowa State Board of Conservation, *Administration of Iowa Parks, Lakes and Streams* (Des Moines: State Printer, 1931):12-13.

286 "Life Story of Henry Wallace, the New Head of Conservation," *Des Moines Register and Tribune*, October 2, 1910.

287 Eugene C. Buie, *A History of Water Resource Activities of the United States Department of Agriculture* (Washington, D.C.: USDA Soil Conservation Service, 1979): 2,4.

The State Drainage Waterways and Conservation Commission also took up the general question of preserving soil fertility in 1909. Although systematic data were not assembled to ascertain how much Iowa's soils had suffered from the combined effects of farming and timber removal, the commission's report nonetheless noted that "thousands" of farmers were writing to agricultural experiment stations for information about the application and use of commercial fertilizers, a phenomenon which was interpreted as evidence of declining soil fertility across the state.[288] In response, the commission recommended to the legislature that Iowa State College be authorized to establish experiment stations for the purpose of conducting soil studies, the findings of which should be reported back to a permanent state conservation commission.[289]

None of this translated into real conservation activity in Iowa until about 1920, under the auspices of the county extension agents. Extension work was an outgrowth of the 1887 Hatch Act, which authorized federal funds to set up agricultural experiment stations at land-grant colleges. Extension leaders, who were college-based, provided the main point of contact between agricultural scientists and farmers. Through agricultural institutes, farmers' clubs, demonstration plots, movable schools, exhibits, contests, and other devices, such as Iowa's own Seed Corn Train, extension leaders promoted scientific farming methods. As this liaison work took on greater importance, appropriations for it increased. The Smith-Lever Act of 1914 extended the liaison one step further by authorizing a system of county-based field agents who worked more closely with individual farmers and specific farm problems.[290]

The Smith-Lever Act also specified that county agents were to be funded jointly by the USDA, the associated land-grant college, and the county to which the agent was assigned. In Iowa, the county appropriation further depended upon the presence of a farmer organization with at least 200 members and a minimum of $1000 in annual dues. This requirement meant, in practice, that county agents worked almost exclusively with Farm Bureau members, since that was the only farmer organization with sufficiently high membership.[291]

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288 *Report of the Iowa State Drainage Waterways and Conservation Commission*, pp. 181-182.

289 *Ibid.*, p. 25.

290 Gladys Baker, *The County Agent* (Chicago: University of Chicago Press, 1939):3-8.

291 Baker, pp. 136-137.

As part of their formal duties, county agents in Iowa were required to submit an annual narrative report and an annual statistical report to Iowa State College. These reports indicate that as early as 1920, some county agents were involved in soil erosion work. It is not clear whether the impetus for soil erosion control came from farmers or from the agents themselves. However, in Plymouth County the agent reported that soil erosion was a serious problem in the "western half and south third" of the county and that in 1921 "practically every township in these affected areas...called for demonstrational help on its prevention."[292] The Polk County agent reported that two soil erosion demonstrations had been held during 1921, though attendance had not been large. Nonetheless, the agent noted that "in the past few years we have put in quite a number of dams and have scattered them over the county so that if anyone is interested they can see the principles of construction."[293] In Pottawattamie County thirty-seven farmers had been given direct assistance with constructing soil erosion dams; in Ringgold County as many as fifty farmers had turned out for demonstrations or consulted the agent for information.[294] Not all county agents were reporting soil conservation activities, but as of 1921 perhaps as many as one-third of the county agents had started demonstration programs. By later standards, the soil erosion techniques being demonstrated were crude. They consisted almost entirely of building small brush or woven wire dams across gullies and eroding ditches in order to trap runoff silt. Nonetheless, it was a beginning.

The USDA became directly involved in promoting practical soil conservation as a result of the Buchanan Amendment to the Agricultural Appropriations Bill for fiscal year 1930, which authorized funding to establish regional soil erosion experiment stations. Five of the forty-six experiment stations organized as a result of this act were located in Iowa: Clarinda, Cortana, Beaconsfield, Independence, and Seymour.[295]

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292 Narrative Report of Plymouth County Agent, 1922, in "Annual Narrative Reports, County Extension Agents, 1922," Vol. 5.

293 *Ibid.*, Narrative Report of Polk County Agent, 1922.

294 *Ibid.*, Narrative Reports for Pottawattami and Ringgold Counties, 1922.

295 Buie, p. 5.

Of the five, Clarinda was the most important. The "station" was a 200-acre tenant farm, situated between the towns of Shenandoah and Clarinda in Page County, which the USDA Bureau of Chemistry and Soils and the Division of Agricultural Engineering in the Bureau of Public Roads selected as a experimental farm because its soil type was typical of the Missouri River Loess problem area and because seventy-five years of cultivation had left the soil severely eroded. Work began early in 1931 after the Iowa Agricultural Experiment Station leased the farm, and the Page County Farm Bureau as well as the chambers of commerce of Clarinda and Shenandoah assumed payment of property taxes.[296] At the Clarinda station, agricultural scientists from the USDA and from Iowa State College measured soil and water losses under different cropping systems and experimented with various soil erosion control techniques. The work conducted here contributed substantially to scientists' knowledge of sheet erosion, in particular, and led to recommendations for conservation techniques applicable to approximately twenty million acres of like soils.[297]

Between 1933 and 1937 the federal government took several steps designed in whole or part to foster soil conservation on a national scale. The first federal boost came in 1933, when the Soil Erosion Service (SES) was established within the Department of Interior. In Iowa, the SES embarked on a large-scale watershed project that included portions of Page and Montgomery counties. The West Tarkio watershed project covered a 105,000 acre which fed into the Tarkio River, with watershed lands located in these two counties and in a portion northwestern

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296 G.W. Musgrave and R.A. Norton, "Soil and Water Conservation Investigations at the Soil Conservation Experiment Station, Missouri Valley Loess Region, Clarinda, Iowa," USDA Technical Bulletin No. 558 (February 1937). According to Ervin O. Aust, Area Conservationists for the SCS, a small portion of the experimental farm is now known as Pioneer Park and operated by the Page County Conservation Board. In 1973, the largest portion of the farm was sold to Don Fienup of rural Shenandoah. The only extant structure associated with the Clarinda station, according to Aust, is located on the Fienup farm: "a concrete bunker (cave) that was used to house experiment equipment, collect runoff after rain storm events, etc." (letter of September 14, 1990 from Ervin O. Aust to PHR Associates). This information is contradicted by survey data collected in 1991 by the Highway Archaeology Program, which identified five extant buildings on the Feinup farm that are historically associated with the Clarinda station. (See Davidson, *A Historic Architectural Survey of Primary Roads Project DE-2-2(22) & (27)--2A-73, Page County, Iowa*, prepared by Iowa Highway Archaeology Program, 1991.

297 Letter of report entitled "Land Utilization and Policy with Reference to Erosion Control, Missouri Valley Loess Region," G.W. Musgrave, Supt. Soil Erosion Experiment Station, Clarinda, to Dr. R.V. Allison Bureau of Chemistry and Soils, Washington, D.C., October 18, 1934 (National Archives, RG 114, Soil Conservation Service, Box 32).

Missouri. The land treatment methods under experimentation here included contour farming, terracing, diversion dams, and reforestation along denuded gullies.[298]

In 1935, the SES was transferred from Interior to the Department of Agriculture under the auspices of the Soil Conservation Act of 1935. Secretary of Agriculture, Henry A. Wallace, grandson of the founder of *Wallace's Farmer,* appointed the country's leading expert on soil conservation, Hugh Hammond Bennett, to direct the new federal agency. Within the USDA, soil erosion activities were unified by transferring the erosion control experiment stations from the Bureau of Agricultural Engineering and the Bureau of Chemistry to SES. Among the experiment stations transferred was the one at Clarinda, Iowa. The status of the other four Iowa stations is as yet undetermined, but they do not seem to have figured in activities which followed.[299]

Title III of the Bankhead-Jones Farm Tenant Act authorized the federal government to purchase submarginal land and improve it for sustained use. This act also authorized the USDA to cooperate with farmers and public agencies to develop programs in range management, rural zoning, water development, and fire prevention. The Flood Control Act of 1935 and the Omnibus Flood Control Act of 1936 authorized a complex and cooperative program of watershed investigation and protection to be carried out by the Bureau of Agricultural Economics, the Forest Service, the Army Corps of Engineers, and the War Department.[300] The Norris-Doxey Cooperative Farm Forestry Act of 1937 established a program aimed at increasing woodlands and woodlots on farms and promoting farm forestry practices in agriculture. Jointly carried out by the Soil Conservation Service, the Forest Service, the Agricultural Extension Service, the state experiment stations, state foresters, and the Bureau of Agricultural Economics, the program consisted of advising farmers, training technical service personnel in farm forestry, and distributing planting stock to farmers.[301]

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298 Don Muhm, *Iowa Soil Conservation, 1939-1979* (NP: Iowa State Soil Conservation Committee, 1984):19-20.

299 Buie, p. 7.

300 Hugh Hammond Bennett, *Soil Conservation* (New York: McGraw-Hill, 1939):315.

301 *Ibid.*, p. 316.

In addition, the National Resources Committee undertook a number of land-use studies. The Iowa State Planning Board, for instance, made extensive surveys of Iowa river basins in 1936 as part of a nationwide water resources study. The state board also contributed data to the National Resources Committee's drought survey.[302] Support of federal activities also was implicit in the *Twenty-Five Year Conservation Plan*, which did not recommend land acquisition for purposes of erosion control alone. Rather, the framers of the plan considered soil conservation an integral part of forest, park, and preserve acquisition. In addition, it was clear by the early 1930s that soil erosion control on private lands would require a long-term and cooperative effort. The conservation plan thus recommended a joint effort between Iowa State College, the state, and the county Farm Bureau organizations, with the State Board of Conservation acting as the coordinating agency.[303] However, establishment of the Soil Erosion Service in 1933, the same year the conservation plan emerged, averted the need for state action.

Typical of New Deal operations, however, federal programs were often at odds with one another. For instance, the Agricultural Appropriation Act of 1932 included provisions for developing efficient and economical methods of draining and irrigating land. Likewise, the Pope-Jones Water Facilities Act of 1937 was designed to help farmers develop water supplies in arid and semiarid areas, which, as studies have since shown, gave farmers license to drain the major aquifers in the Southwest. Hugh Hammond Bennett, among others, saw these programs as aiding conservation in agriculture, even though the underlying motives were obviously contrary to his own dogmatic belief that the "proper use of land" is governed by immutable physical factors.[304]

The federal agency which had the greatest impact in Iowa was the Soil Conservation Service. By late 1935, the SCS was operating 489 Emergency Conservation Camps (CCC camps) across the country, through which the USDA provided technical assistance, manual labor, and materials necessary to construct erosion control measures on privately owned lands.[305]

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302 "Cooperation with National Resources Committee," *Iowa Planning News*, January 1937, p. 4.

303 Crane and Olcott, pp. 41-46.

304 Bennett, p. 313.

305 Buie, p. 8.

In Iowa, CCC camps involved in soil conservation work were assigned to either the Soil Conservation Service or to the Bureau of Agricultural Engineering. SCS soil conservation camps, which were by far the most numerous, planted trees, seeded gullies, built dams and dikes, built terraces, quarried and crushed rock, rechanneled waterways, and constructed wildlife feeding shelters and stations. Camps assigned to the Bureau of Agricultural Engineering were engaged exclusively in rehabilitating drainage ditches. Between April 1 and December 31, 1935, for instance, SCS camps in Iowa sloped the banks of 961,522 yards of gullies, built 250 permanent (concrete and masonry) dams in gullies, seeded 1,330 acres of gullies, planted trees in 1,110 acres of gullies, built 34 miles of diversion ditches and dikes, built 54 miles of terraces, dredged 17.5 miles of outlet channels, seeded 174 acres of terrace outlets, built 130 permanent dams and 831 temporary dams in terrace outlet channels, quarried 13,610 tons of rock, crushed 8,445 tons of rock, hauled 7,805 tons of rock, improved 68 acres of forest, and collected 45 tons of seed. During the same period, five BAE drainage camps were rehabilitating ditches in Monona, Pottawattamie, Louisa, Wright, and Kossuth counties.[306]

The extent of soil erosion in Iowa was revealed in a 1936 report. Studies conducted under the direction of Bennett revealed that about fourteen percent of the state had lost anywhere from one-fourth to one-half of its topsoil. About one-third of the state showed evidence of some sheet erosion, and only thirteen percent of the state was free of serious erosion problems.[307]

CCC soil conservation assignments included such large-scale demonstration projects as the Clarinda Demonstration Farm and the West Tarkio Watershed Project. Similar demonstration projects were established at Greenfield, Knoxville, Marion, and McGregor. In 1941, smaller projects were conducted at Spirit Lake and Waterloo.[308]

One of the most extensive erosion control projects took place in Monona County: the Jones Creek Watershed Project, constructed between 1934 and 1941. Enrollees stationed at the

306 G.B. MacDonald, "Report on the Status of Emergency Conservation Work in Iowa," *Thirty-Sixth Annual Year Book, Part VI* (Des Moines: Iowa Yearbook of Agriculture, 1935):185-187.

307 As reported in Muhm, pp. 28-29.

308 *Ibid.*, p. 20.

Moorhead CCC camp provided most of the labor. The project covered a 1400-acre hill area that drains into the Soldier River. Several decades of farming had contributed to sheet, rill, and gully erosion that left the area susceptible to flooding, with attendant sediment and debris deposits on the flatlands. Over the seven-year course of the project, hillsides were terraced, trees were planted, grassed waterways were established, and a system of eight gully control dams and an earthen fill dam/reservoir were constructed. The Jones Creek Watershed Project later served as a model for the Little Sioux Flood Prevention Project, authorized by Congress in 1936.[309]

With passage of the 1937 State Soil Conservation Districts Law, the SCS was restricted to providing erosion control assistance on private lands only where farmers had organized soil conservation districts. This led the Iowa legislature to pass its own soil conservation district law in 1939. As a result, eight districts were organized in 1940, and formation continued steadily until 1952 when Howard County organized the last district.[310]

The *Twenty-Five Year Conservation Plan* also addressed water conservation, noting that erosion control was only one of many problems to be addressed. Sewage , barnyard wash, and industrial waste were also major contributors to water pollution. The plan included a schedule for restoring approximately twenty lakes and marshes that had been drained, dredging another twenty-five lakes in order to reduce algae content and restore water quality, and constructing as many as thirty artificial lakes in order to increase public access to recreational waters.[311] During the 1930s, much of this program was carried out under the auspices of State Conservation Commission, with lake and river improvements accomplished through the CCC, the WPA, or other New Deal relief/conservation programs.

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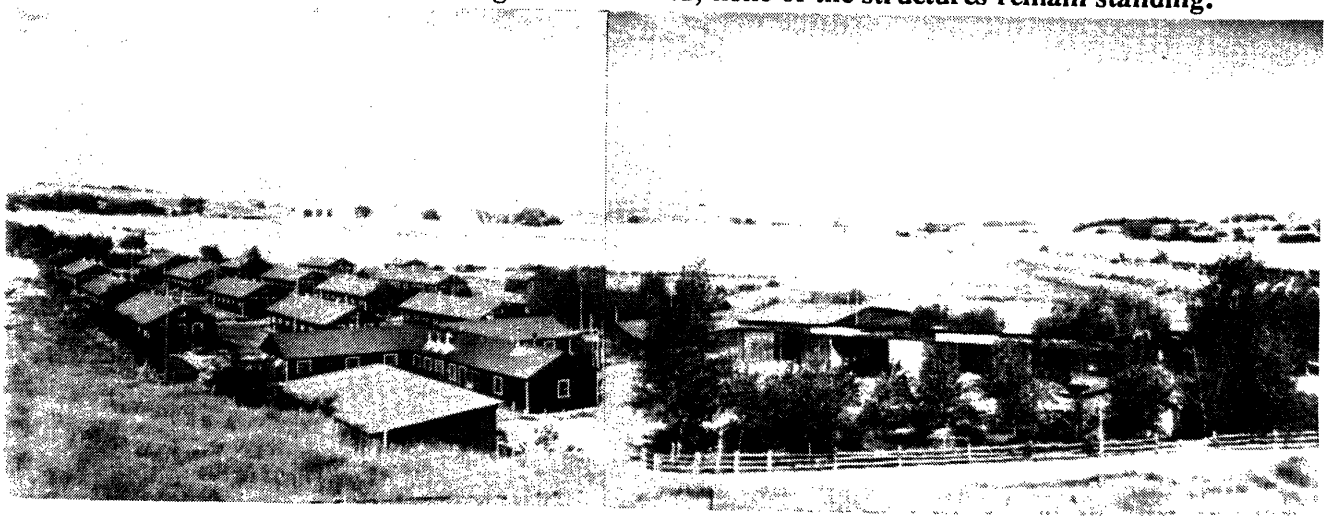
309 [Bob Zimmerman}, *Jones Creek Watershed: A Pioneer* (Monona County Soil Conservation District, 1978).

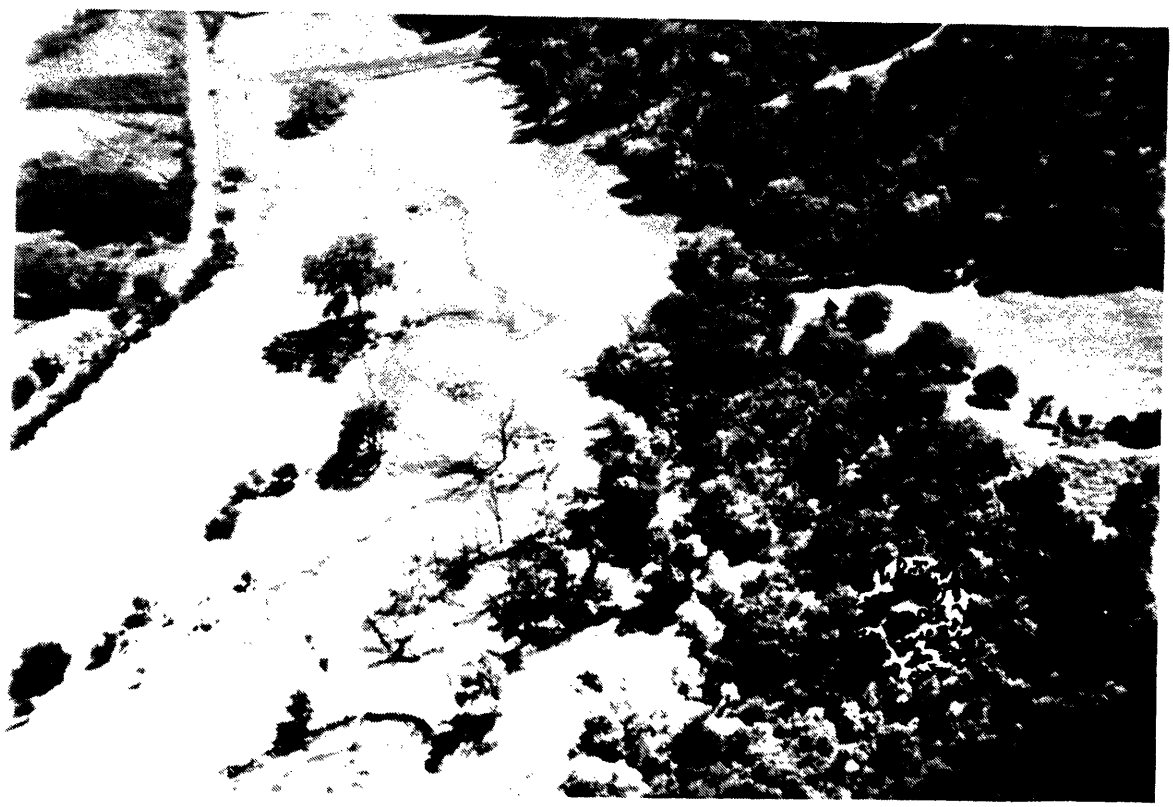
310 Muhm, pp. 39-40, 69.

311 Crane and Olcott, pp. 47-68.

Moorhead CCC Camp which housed enrollees working on the Jones Creek Watershed Project. Photo courtesy of Monona County Soil Conservation District, Onawa. The camp was located on the southeast edge of Moorhead; none of the structures remain standing.



Aerial photograph of Jones Creek detention dam, taken by Wallace Jones, date unknown. The earthen dam is visible top left. Photo courtesy of Monona County Soil Conservation District, Onawa.



F. Associated Property Types

I. Name of Property Type _____

II. Description

III. Significance

IV. Registration Requirements

☒ See continuation sheet

☐ See continuation sheet for additional property types

G. Summary of Identification and Evaluation Methods

Discuss the methods used in developing the multiple property listing.

☒ See continuation sheet

H. Major Bibliographical References

☒ See continuation sheet

Primary location of additional documentation:

- ☒ State historic preservation office
- ☐ Other State agency
- ☐ Federal agency
- ☐ Local government
- ☐ University
- ☐ Other

Specify repository: Iowa Bureau of Historic Preservation

I. Form Prepared By

name/title Dr. Rebecca Conard, Principal Investigator
organization PHR Associates date July 5, 1991
street & number 275 Crescent Park Dr. telephone 712/657-3347
city or town Lake View state Iowa zip code 51450

SECTION F: ASSOCIATED PROPERTY TYPES

Introduction

The legacy of the conservation movement is evident in many aspects of Iowa's landscape. For instance, interventions designed to prevent soil erosion meant that check-row fields gradually gave way to contour farming methods with field terraces, grassy waterways, and settling ponds. Interventions designed to conserve woodlands arrested the depletion of timber resources. Interventions designed to restore vitality to human resources bequeathed landscaped parks and recreation areas on town and countryside. Physical evidence of the conservation movement abounds, but physical evidence does not necessarily imply human activity. By definition, many places associated with the history of conservation are natural areas which were set aside to preserve sites of geologic, botanic, zoologic, or scenic value. Thus, some places which figure importantly in the history of the conservation movement have no associative cultural resources. In addition, it is imperative to look beyond the obvious settings to identify individuals who or organizations which were instrumental in conserving natural resources. Urban locations may have direct links with key personalities, events, and/or activities which were a part of the movement's history.

The property typology devised for this context is correlated with the subsections of Section E. That is, buildings, structures, features, and sites likely to be associated with wildlife conservation are discussed as a property type, those associated with forest conservation as another property type, and so on. This categorization method necessarily results in a typology that is extremely loose, although the advantage of flexibility outweighs the lack of precision. Given the breadth of the historical context and the great variety of associative cultural resources, it is somewhat illogical to circumscribe a typology by primary reference to architectural style, building periods, building types, or other physical design characteristics. There is no simple answer to the question, "How will I know one when I see one?". In many cases, site-specific research will be paramount to establish whether there is a important link between history and resource: there will be no design clue. For instance, in outward appearance there may be little or no difference between a fish rearing pond, a settling basin, or a water-filled quarry pit. Likewise, any number of utilitarian building types were adapted for site-specific use as administrative, storage, or service structures. Conversely, a residential or

fraternal building notable for its architectural design may have been linked in the past with an individual or an organization prominent in the conservation movement. The only time design will be a reliable indicator is when Park Rustic architecture is present, since this particular style is associated almost exclusively with conservation and park development. Beyond the Park Rustic style, there do not appear to be constant diagnostic elements one can use as organizing devices.

1. ***Property Type:*** Buildings, structures, sites, and features associated with wildlife conservation.

a. Description: Some cultural resources associated with the conservation of fish and wildlife can be broadly categorized by function: hatcheries and farms for species propagation, such as the Guttenberg National Fish Hatchery; structures especially designed for wildlife transportation and distribution, such as the fish cars; research facilities, such as the Fairport Fisheries Biological Station; and education/public outreach, such as the American School of Wild Life Protection and the Fish and Game Pavilion at the Iowa State Fairgrounds. Eligible resources will also include buildings, structures, or sites associated with individuals active in the wildlife conservation movement, such as John F. Lacey, Jay Norwood "Ding" Darling, T.C. Stephens, and Ira Gabrielson. The Starker-Leopold Historic District (NRHP) in Burlington, for instance, contains the family home of both Aldo and Frederic Leopold. Places associated with conservation organizations should are also eligible under this context. Private sportsmen's organizations were among the first to call for wildlife conservation, though all frequently these "rod and gun clubs" had self-serving motives and sought only to replenish the stock of their favored species. The Izaak Walton League, founded in 1922, is a notable exception, for it proved to be the strongest advocacy group in the nation and in Iowa during the 1920s. The National Wildlife Federation, founded by Ding Darling in the 1930s, later became the leading voice for wildlife conservation. Other important groups include birding societies, such as the Ornithologists' Union and the Audubon Society. Thus, the range of resource types associated with wildlife conservation is potentially very broad, and there is no meaningful way to categorize property by architectural style or building type.

There are, of course, many natural areas associated with the history of wildlife conservation which have no cultural features, such as the magnificent Upper Mississippi Valley Wildlife Refuge, a portion of which lies within Iowa's borders. In addition, state parks, forests, and preserves serve multiple functions; while these areas may have been set aside principally to provide public recreation areas and protect certain natural features, they also preserve faunal habitats. There are also many county parks administered by county conservation boards which are maintained chiefly as preserves and secondarily as recreation areas and which have not been developed with buildings or other structures.

b. Significance: Dwindling populations of fish and game were the first natural resource problems to attract attention; thus, wildlife protection has a long history in Iowa which dates from 1857. Resources associated with wildlife conservation may derive significance from one or more aspects. Two early goals and techniques of conservation remained constant over the decades: species propagation combined with restrictive game laws. By the early twentieth century, however, it was obvious that captive breeding and bag limits were losing the battle to economic values and public ignorance. Thus, wildlife conservation took on new dimensions. First, naturalists and nature-lovers sought to educate sportsmen, farmers, children, and anyone else with a tuned ear. The thinking behind such efforts was that the more people knew about birds, fish, waterfowl, carnivores, and herbivores, the more likely they would be to make a place for them in nature, rather like the "conscience-raising" groups which came with the 1960s social revolution. Second, scientists realized how little they actually knew about reproductive cycles, population distributions, and the effects of environment. Research thus became an important key to sustaining resources.

Out of research and education emerged a new approach to fish and wildlife conservation: habitat preservation. Gradually, it became clearer that fish and wildlife conservation should not be separate from forest and flora conservation; in fact, they were two sides of the same coin. In Iowa this shift in thinking resulted in the merger of the Fish and Game Commission with the State Board of Conservation in the 1930s. Resources, therefore, may be significant for their association with restrictive game legislation, with efforts to propagate species, with wildlife education, with research, and with habitat protection.

c. *Registration Requirements*

Criterion A: Under this criterion, properties may be significant if there is a direct association with an important activity in the history of wildlife conservation for a definable period of time between 1857 and 1942. It is much more likely that important associations will not be with single events but with long-term projects or ongoing undertakings. Thus, properties directly associated with one or more of the subthemes listed above should be considered eligible. It is also important to recognize that the conservation movement comprised disparate goals and groups. Indeed, one can speak of a movement chiefly because diverse organizations and individuals shared certain values out of which evolved a fluid network linking local, state, and national interests. While this particular study has been focused on identifying places of state-level significance, there will be many places which are primarily significant at the local level and some which are significant at more than one level. The range of eligible property types includes, but is not limited to, captive breeding facilities, research laboratories, fisheries stations, and educational facilities.

Many of the places that one can directly link to wildlife conservation have already disappeared. Thus, resource rarity should be considered in determining integrity. Substantial modifications may be acceptable provided the historic character is reasonably discernible and the resource has potential as an interpretive vehicle. The resource, however, must embody some quality which associates it with important activities at a particular place and/or period of time. Setting may be integral to property significance and should therefore be given careful attention in determining boundaries. As a general rule, boundaries should be drawn to encompass the whole of the property as it existed during its period of significance, or to include as much of the natural environment associated with a cultural feature/s as is necessary to interpret resource significance. Conversely, if a cultural feature has been removed from its associated physical environment, such as Althea Sherman's chimney swift tower, its historical integrity may have been seriously compromised.

Criterion B: Properties associated with specific individuals who were active in one or more aspects of wildlife conservation between 1857 and 1942 are eligible under this criterion. Generally, eligible properties are those associated with the productive life of the individual in the field in which he or she achieved significance at the local, state, and/or national level. Thus, research laboratories or field stations linked with a particular individual might be eligible under this criterion. However, the activities of important individuals associated with the many aspects of wildlife conservation did not always take place in a permanent or particular structure. Aldo Leopold's game survey, for instance, was not based at any field station. Therefore, under this context, eligible properties will include residential properties of important individuals associated with the individual during the period in which his or her contributions to conservation were made. Standard NRHP integrity considerations should apply to properties considered significant under this criterion.

Criterion C: There are no specific designers, architectural styles, or building types associated with wildlife conservation. Therefore, this criterion is not generally applicable, although it is possible that properties significant under criteria A and/or B would also be exemplary architectural resources regardless of historical context. Standard NRHP integrity considerations should apply to properties considered significant under this criterion.

Criterion D: Sites of nonextant structures, such as the state fish hatcheries constructed at Anamosa and Orleans during the nineteenth century, may contain deposits of cultural material. Such deposits should be intact in a reasonably undisturbed physical setting. To be considered significant, the artifacts, features, or other remains should either supply information that cannot be found in the documentary record or substantially augment the archival record.

d. Eligible Properties:

Properties nominated with this submittal

American School of Wildlife Protection Historic District, McGregor Heights, Clayton County
Backbone State Park Historic District, Delaware County [includes former Backbone Trout Hatchery]
Jay Norwood (Ding) Darling Residence, Des Moines
Fish and Game Pavilion and Aquarium, Iowa State Fairgrounds, Des Moines
Guttenberg National Fish Hatchery and Aquarium Historic District, Guttenberg, Clayton County
Guttenberg National Fish Hatchery Rearing Ponds, Twelve Mile Island, Clayton County
Iowa Lakeside Laboratory, West Lake Okoboji, Dickinson County
Lansing Fisheries Building, Lansing, Allamakee County

Properties previously listed on the National Register

Backbone State Park [three areas listed]
Starker-Leopold District, Burlington

2. ***Property Type:*** Buildings, structures, sites, and features associated with forest conservation

a. Description: Places associated with forest conservation are, by and large, native woodlands and cutover areas that have been reforested and planted forests. These include Shimek State Forest; Stephens State Forest; Yellow River State Forest; Barkley State Forest; Pine Lake State Park (Hardin County), which contains old stands of pines and white birches; Wildcat Den State park (Muscatine County), which holds the most southerly distribution of pines in the state; Pecan Grove State Preserve (Muscatine County), the largest remaining natural stand of pecan trees in Iowa; the Tama County Centennial Forest, established through the efforts of the Tama County Federated Woman's Clubs; and similar preserves throughout the state. There is one planted forest in Iowa which is very specifically associated with the conservation work of the Iowa

Federation of Women's Clubs: the Whitley Forest, a fifty-acre stand located within Ahquabi State Park. The Daughters of the American Revolution also sponsored reforestation projects throughout the state.

The historical significance of forest conservation is perehaps best exemplified through extant buildings, structures, and features associated with key organizations or individuals, such as G.B. MacDonald, the first state forester. Old Botany Hall at Iowa State University, which was the academic home of MacDonald as well as Louis H. Pammel, Ada Hayden, and other important faculty members is listed on the National Register of Historic Places. Bohumil Shimek, of the State University of Iowa and T.C. Stephens, Morningside College, were also ardent champions of plant conservation, and they have been memorialized in the forests which bear their names. Historical markers and other commemorative features also figure prominently among properties closely associated with forest conservation.

Plant nurseries, both temporary and permanent, were established at various locations throughout the state to produce the plant materials necessary for reforestation. Structures and features typically associated with plant nurseries include fencing, tool sheds, and storage buildings. Most CCC camps in Iowa were assigned to forestry and soil erosion control projects at one time or another. The camps typically held a number of simply designed and inexpensively constructed wooden buildings, and possibly tent platforms. There are no reports of extant CCC camps in Iowa, though isolated buildings may remain and there undoubtedly are several sites of potential archaeological significance.

b. Significance: Although Iowa had no magnificent ancient forests such as those of the Pacific Northwest, forestry conservation was no less important here. In national perspective, forest conservation in Iowa is of minor importance, but in state perspective, loss of timber and other native vegetation had enormous ramifications on soil and water quality. Given the economic importance of agriculture, remaining and strategically planted woodlands assumed considerable value. Forest conservation in Iowa is therefore more closely tied to economic issues than to aesthetic values.

c. Registration Requirements

Criterion A: Properties directly associated with one or more of the subthemes in the history of forest conservation between 1866 and 1942, including legislation, research, advocacy organizations, plant propagation, and reforestation are eligible under this criterion. The range of property types includes but is not limited to, research laboratories, tree plantation facilities, and educational/public outreach facilities. Commemorative markers also should be considered eligible under this criterion since such features often stand as the only cultural symbol of an important historic event or activity. Because forestry conservation is closely tied to park development in Iowa, cultural resources which exemplify the role of state and county parks in the conservation movement may also be significant under forestry. Local organizations, such as garden clubs, women's clubs, scouts, and other youth groups often provided the public outreach which sustained the conservation movement at the grassroots level. Tree planting freqently was the activity of choice for imparting conservation values. Thus, horticulture and tree planting are a related subtheme of forest and flora conservation in Iowa. However, during the late nineteenth and early twentieth centuries these activities also were closely associated with agricultural development and ornamental gardening. Historic resources associated with prominent horticultural organizations therefore will not necessarily be linked with the conservation movement. Careful site-specific research generally will be required in order to demonstrate an important historical association under this context.

Integrity considerations which apply to properties associated with wildlife conservation generally apply here, too. Setting, in particular, may be integral to properties which are significant under Criterion A; therefore special attention should be given to boundary determination. As a general rule, boundaries should be drawn to encompass the whole of the property as it existed during its period of significance, or to include as much of the natural environment associated with cultural features as is necessary to demonstrate why the property is historically important. If a cultural feature has been removed from its associated natural environment, its integrity will have been seriously compromised.

Criterion B: Eligible properties are buildings, structures, or features associated directly with individuals who played a leading, pivotal, or important role in forest conservation between 1866 and 1942 at the local, state, and/or national level. It is likely that such individuals also were influential or active in other areas of conservation, particularly soil conservation or the conservation of native flora. There were many pioneer horticulturists and advocates of tree planting in Iowa, however, whose careers will demonstrate a closer affinity with the history of agricultural development or ornamental gardening. Such individuals should be considered significant under this context only if it can be established that he or she also was active in some other aspect of the conservation movement in addition to horticulture. The range of eligible property types includes, but is not limited to, residential buildings and research facilities. Standard NRHP integrity considerations should apply to properties considered significant under this criterion.

Criterion C: There are no specific designers or architectural styles associated with forest conservation. Therefore, this criterion is not generally applicable, although it is possible that properties significant under criteria A and/or B would also be exemplary architectural resources regardless of historical context. Standard NRHP integrity considerations should apply to properties considered significant under this criterion.

Criterion D: Many of the CCC camps operating in Iowa were involved in forestry work at one time or another. None of these camps remain standing. Sites which contain intact surface or subsurface deposits of cultural material in a reasonably undisturbed physical setting have the potential to yield information that cannot be obtained through the documentary record. At the very least, archaeological testing can provide or verify locational information, which is generally missing from project records.

d. Eligible Properties:

Properties nominated with this submittal

G.B. MacDonald residence, Ames, Story County
Louis H. Pammel residence, Ames, Story County
Bohumil Shimek residence, Iowa City, Johnson County

Backbone State Park Historic District, Delaware County; contains white pines planted under the direction of State Forester G.B. MacDonald and stands of timber sponsored by the Iowa Daughters of the American Revolution

Properties previously listed on the National Register

Backbone State Park, Delaware County [portion containing remains of CCC camp]

Agricultural Hall (Old Botany), Iowa State University, Ames, Story County

3. ***Property Type:*** Buildings, structures, sites, and features associated with municipal, county, state, and national parks and park movements

a. Description: Property types associated with parks can be divided into two broad categories: 1) historic and prehistoric resources associated with properties acquired chiefly for their historical and scientific value, such as Ft. Atkinson State Park and Effigy Mounds National Monument, and 2) buildings, structures, and features associated with park development. With regard to the latter, the structures built during the 1920s and 1930s are, by and large, examples of the rustic architectural style which was an integral aspect of the parks movement during the early twentieth century. Historic resources moved into parks or resources acquired with park land acquisitions which were not selected for the purpose of historic preservation are excluded from this context, though, of course, they may meet NRHP eligibility standards as individual properties or under another historical context.

The Park Rustic style represents a distinctive blend of architecture and landscape architecture, the emergence of which was nurtured by the National Park Service, particularly under directors Horace Albright and Stephen Mather. The rustic style combined an attention to natural setting with elements of vernacular traditions based on the use of native materials such as log, stone, and adobe; Adirondack camp architecture; and the Craftsman aesthetic. By the mid-1930s, Park Rustic architecture was a well-developed set of principles and design types which emphasized the rustic treatment of native materials (undressed stone, peeled logs, rough-cut wood siding,

wood shingles), low massing, rectilinear plans, loose clusters of buildings intimately nestled into natural surroundings, and a reliance on master planning to preclude overdevelopment. As a group, the designers and offices responsible for producing building and park plans created buildings, circulation systems, and settings that were highly attractive, functionally successful, and minimally intrusive. Few design styles have been so comprehensive in scope and so respectful of the natural landscape.

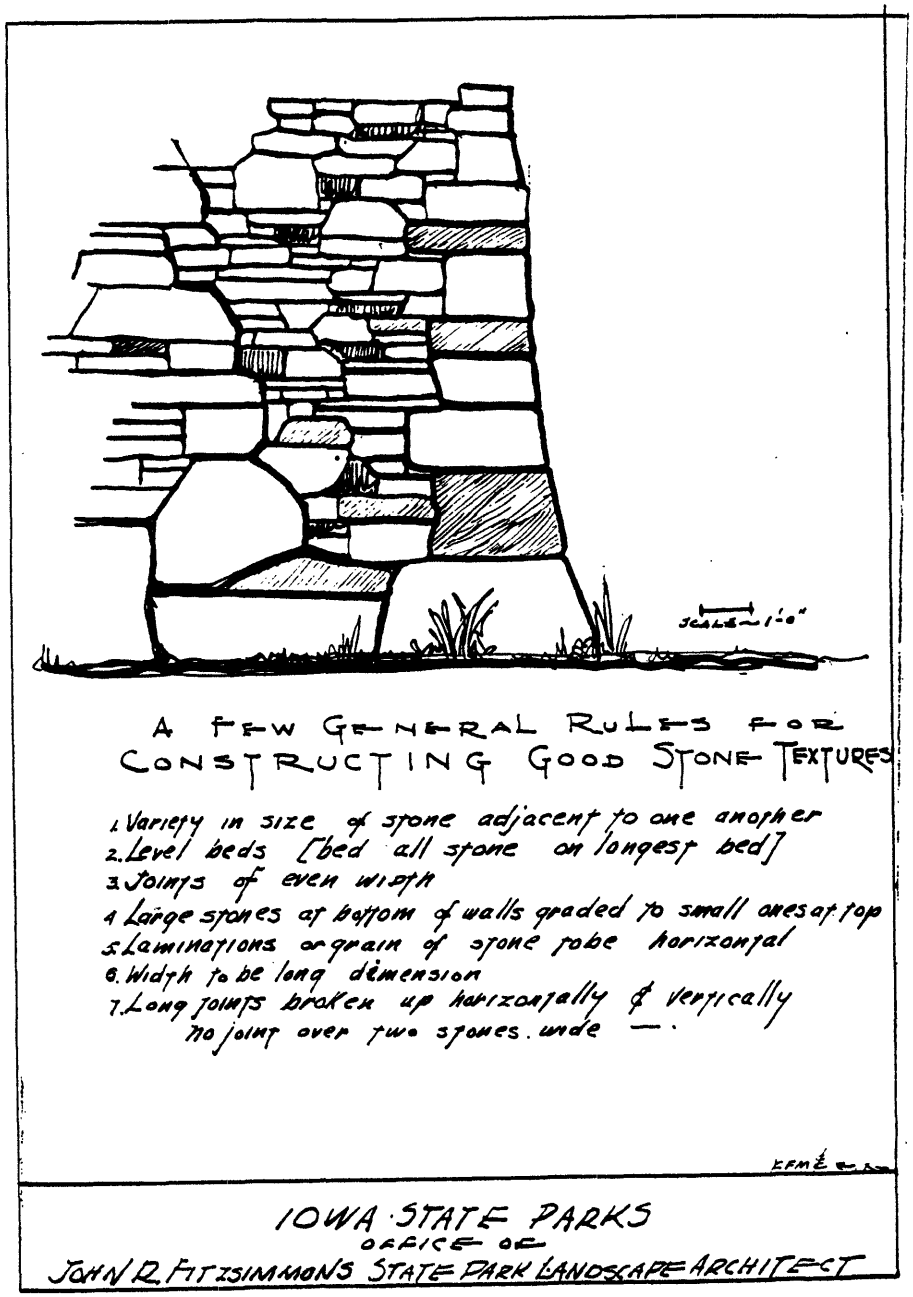
The style had reached its apogee when Albert Good codified the basic precepts and design types in his 1938 work, *Park and Recreation Structures*. Since then, Good's three-volume treatise has become the standard categorization of building types associated with Park Rustic architecture. He divides park architecture into three categories based loosely on function: 1) administrative and basic service facilities; 2) recreational and cultural facilities; and 3) organized and overnight camp facilities.

Structures which fall into the first category, administrative and basic service facilities, include entranceways and checking stations, barriers, walls, fences, signs, administrative buildings, custodian and staff housing, equipment and maintenance buildings, pumphouses and other water storage tanks, drinking fountains, latrines, sewer and water lines, incinerators, trails steps and associated trails, culverts, crossings, tunnels, vehicle and foot bridges, service roads, river walls, other erosion control structures, designed landscapes, and related landscape features. Structures which fall into the second category, recreational and cultural facilities, include picnic shelters, associated latrines, fireplaces, picnic tables, concessions, refectories, trailside seats and benches, overlooks, dams, artificial lakes, pools, bathhouses, boathouses, bridle paths, stables, toboggan runs, golf courses, warming shelters for ice skating and other winter sports, markers, museums, auditoriums, campfire circles, and amphitheaters. The third category, overnight and organized camp facilities, includes lodges, tent camp sites, cabins, associated road and water supply systems, washrooms, and laundries, and any combination of residential, dining, service, and recreational buildings arranged for organized group use. Good's three-volume work (1938) contains a thorough discussion of these building categories and includes photographs of several structures built in Iowa state parks. *Civilian Conservation Corps Properties in Iowa State Parks: 1933-1942* (McKay, 1990) provides a useful summary of Good's categories with a focus on CCC-constructed properties in state parks.

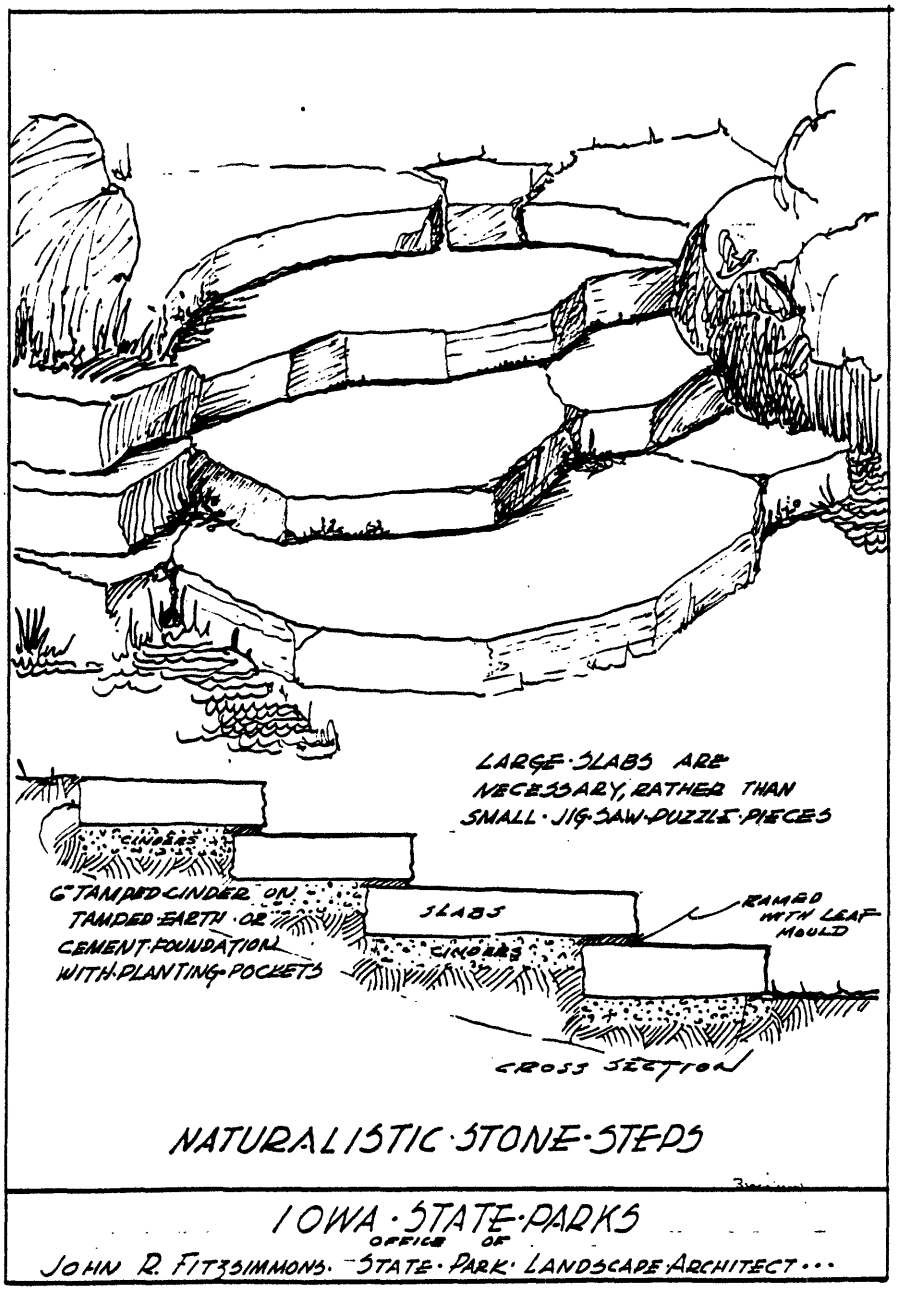
With the advent of federally funded relief and conservation programs beginning in 1933, park development in Iowa followed rather closely the tenets of Park Rustic architecture as promulgated by the National Park Service. The Central Design Office at Iowa State College, the State Planning Board, and the State Conservation Commission worked closely with designers in the National Park Service and other federal agencies to produce site plans and individual buildings plans. As a result, the style reached a degree of homogeneity that simply would have not been possible without the local-state-federal partnership inspired by New Deal planning. Thus, one finds great similarity among buildings, structures, and other features constructed in municipal, county, and state parks between 1933 and 1942, regardless of which federal program provided funding for labor and/or materials.

Prior to 1933, one finds less homogeneity among park building types and designs, but the emerging Park Rustic aesthetic is nonetheless evident. John Fitzsimmons and the Central Design Office at Ames deserve particular mention in this regard. Throughout the 1920s and into the early 1930s, Fitzsimmons functioned in a semi-official capacity as the state landscape architect, assisting the Board of Conservation with park development. The drawings and plans which survive from this period provide evidence that Fitzsimmons and those who worked under him in the Central Design Office were called upon to produce master plans, even though the Board of Conservation routinely gave priority to land acquisition rather than park development. Fitzsimmons also produced conceptual drawings which clearly attempted to integrate buildings as well as landscape structures and features into the natural setting, solid evidence that his design ideas were in the mainstream of the emerging Park Rustic style. Representative samples of his work are illustrated on the following pages.

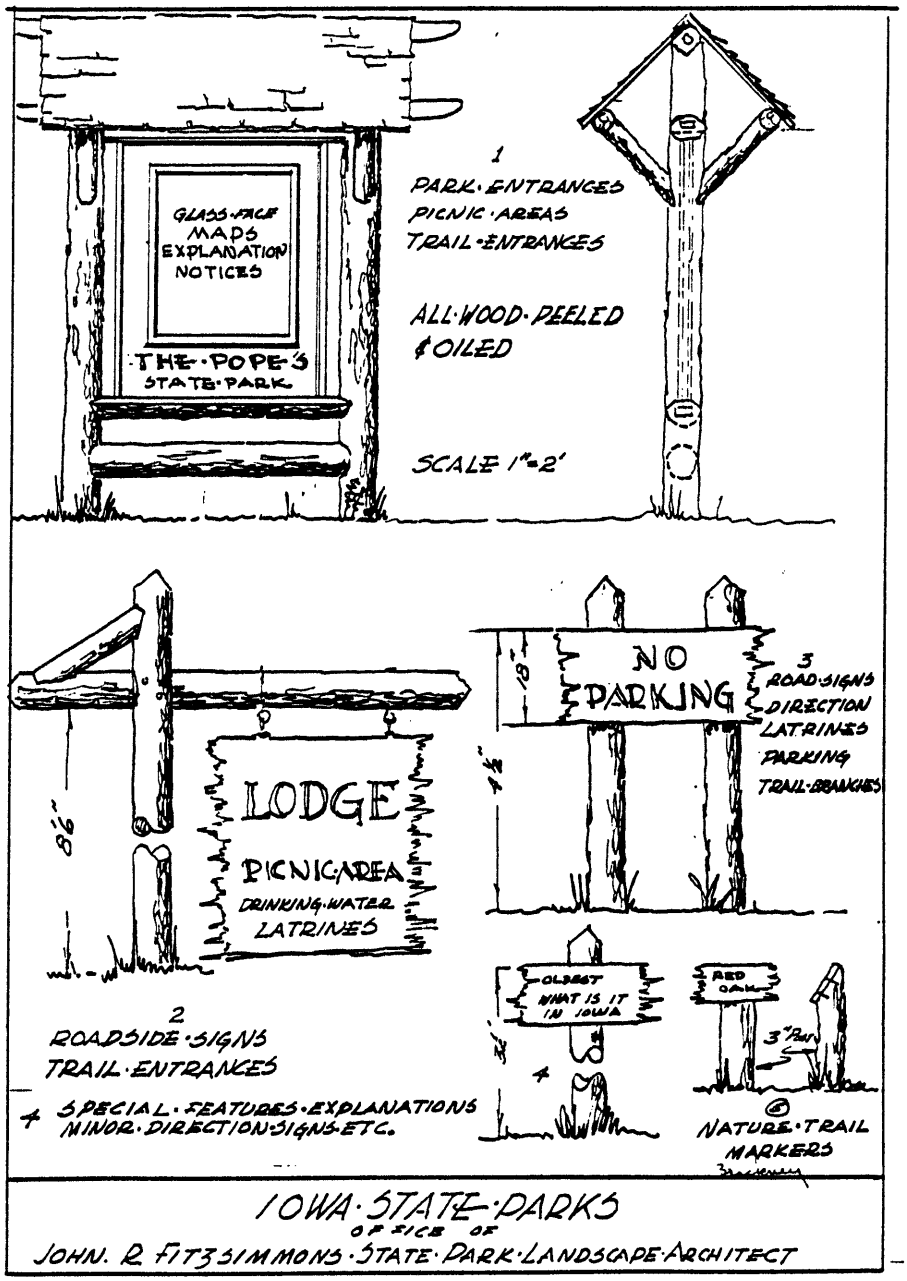
General Rules for Constructing Good Stone Textures
Undated drawing, Fitzsimmons Collection, Iowa State University, College of Design



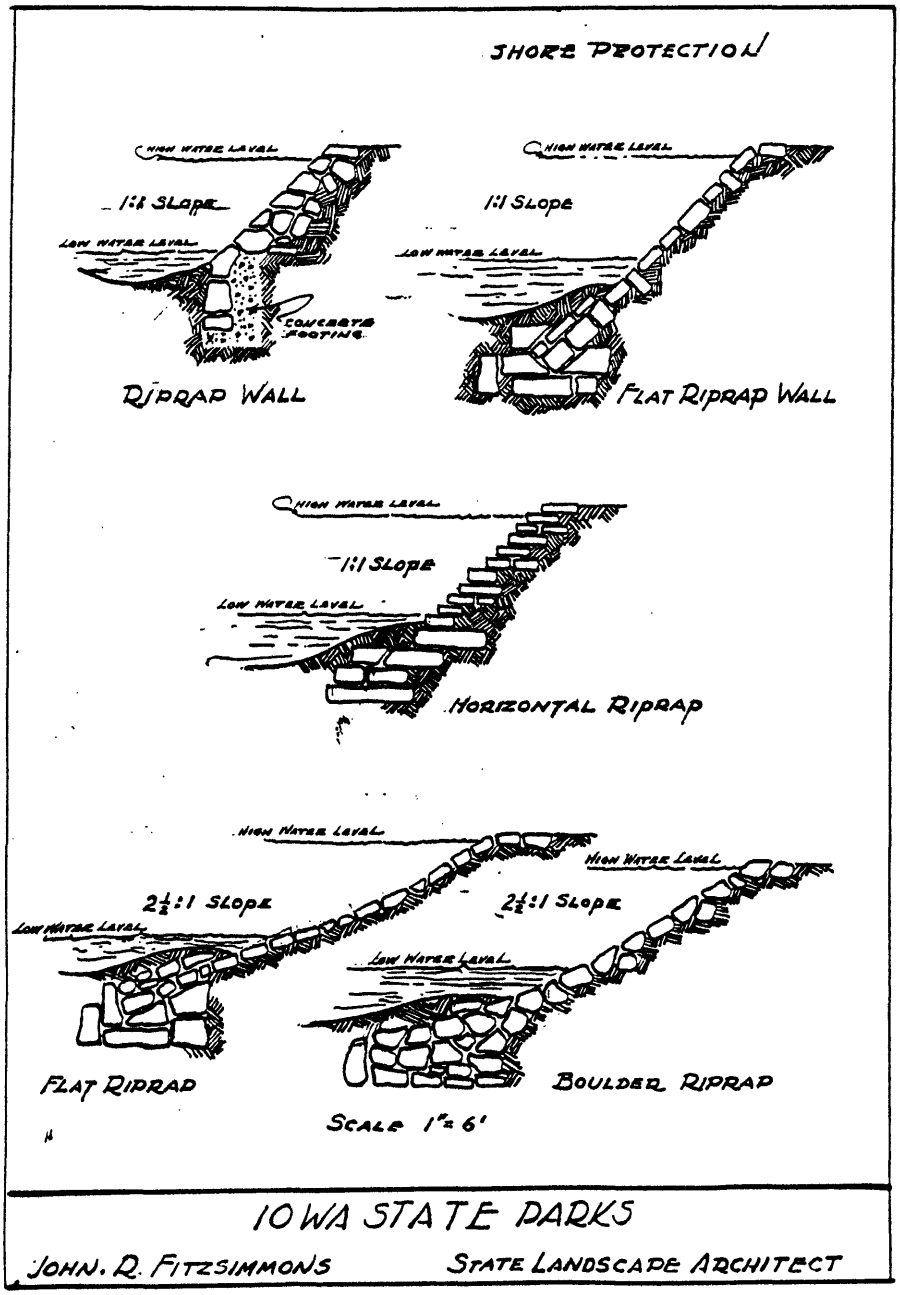
Naturalistic Stone Steps for Iowa State Parks
Undated drawing, Fitzsimmons Collection, Iowa State University, College of Design



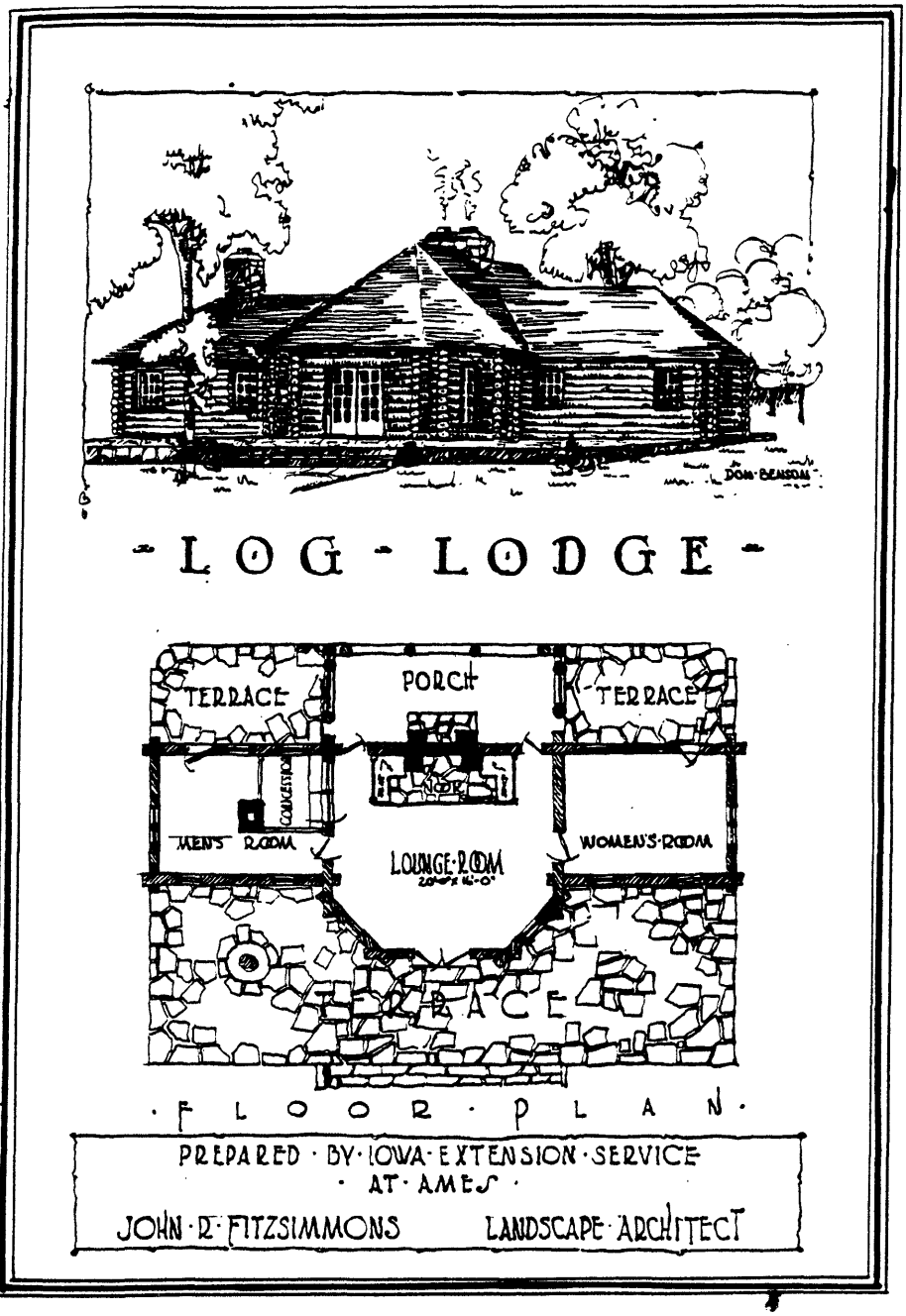
Roadside Signs and Trail Entrances for Iowa State Parks
Undated drawing, Fitzsimmons Collection, Iowa State University, College of Design



Shore Protection for Iowa State Parks
Undated drawing, Fitzsimmons Collection, Iowa State University, College of Design

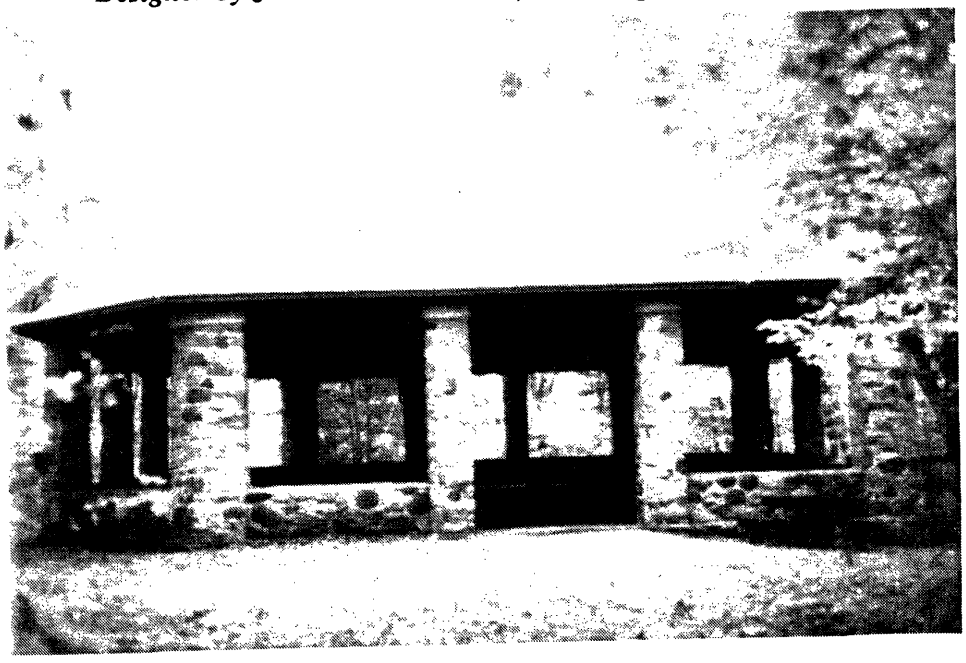


Log Lodge Plan for Iowa State Parks
Undated drawing, Fitzsimmons Collection, Iowa State University, College of Design



Custodian's Residence, Maquoketa Caves State Park
Designed by John R. Fitzsimmons, Landscape Architect; 1931

Auditorium, Backbone State Park
Designed by John R. Fitzsimmons, Landscape Architect; 1931



Buildings, structures, and landscape features associated with municipal park development in Iowa prior to 1920, for there were only municipal parks prior to then, will require separate intensive survey and analysis. It is premature at this point to define precise categories other than to point out that ornamental and commemorative structures were much more highly valued during the late nineteenth and early twentieth centuries. The kiosks, gazebos, bandstands, fountains, statues, formal gardens, and decorative park benches which one associates with municipal parks of this period generally were not elements of park design after 1920 -- or, when they were there was greater use of native materials in a more natural setting. The formality and attention to ornamentation associated with early-day parks reflects the relative value society placed on leisure and civic improvement as opposed to recreation and the protection of natural scenery and places of historic or scientific interest. These parks and the cultural resources are nonetheless important aspects of this context because they embody the aesthetic dimension of the conservation movement.

b. Significance: Conservationists scored their greatest victories by merging resource protection with park development. The park idea grew out of the municipal reform movement, particularly the city beautiful aspect. As more people moved into urban areas, planned open space appeared as an antidote to the unhealthful side effects of crowding. During the early twentieth century, park advocates developed the argument a bit further and began promoting parks as a vehicle for preserving society, which meant everything from providing neighborhood centers for social mingling to preventing juvenile crime. The notion of preserving societal values formed a convenient bridge to bring resource conservationists and park enthusiasts together. In Iowa there is no better demonstration of this than the close ties which developed between the Iowa Federation of Women's Clubs and the Iowa Conservation Association (aka Iowa Park and Forestry Association, Iowa Forestry and Conservation Association) during the 1910s. This union of purposes coincided with technological and economic changes which gave people increasing access to leisure time and to motor vehicles. The result was great popular demand for public recreation facilities. All of these factors stood behind the creation and tremendous growth of Iowa's state park system beginning in 1918 and continuing until World War II intervened. Resource conservationists continually stressed the scientific and historic values of state parks, but it was recreation potential which snagged state appropriations for land acquisition and park development.

There were four levels of concern and activity within the larger parks movement: municipal, county, state, and national. Larger cities in Iowa began developing urban parks during the 1890s, and gradually regional centers and small towns began to set aside areas for public use. Although there were calls for a county park system as early as 1895, counties did not really begin to respond until the 1930s. It was New Deal conservation and relief programs which dramatically altered Iowa's park map. Cities as well as the state took advantage of assistance offered through the Civilian Conservation Corps, the Works Progress Administration, the Civil Works Administration, the Public Works Administration, and other New Deal agencies. Various relief and conservation programs, plus the technical services offered through Iowa State College, the State Conservation Commission, and the State Planning Board enabled many cities to develop their first parks. The federal-state-local partnership also enabled Iowa to advance its state park plan well ahead of schedule. In addition, this same partnership allowed the rustic design aesthetic to flow beyond the confines of isolated expression to become the hallmark of park development at all levels between 1933 and 1942. The seeds of the county park system are to be found in the success of the state park program. During the 1920s, the state acquired many properties which were, for various reasons, unsuitable as state parks. As the state system grew, it became imperative to deploy staff and financial resources efficiently. Thus, the State Conservation Commission began to transfer custodianship and/or ownership of some properties to local agencies. Most transfers occurred after 1958 when state enabling legislation initiated the county conservation board system; however, the process began in the 1930s. Finally, Iowa played a small but important role in the national park movement. Activities originally focused on creating a national park in the Upper Mississippi River Valley succeeded in establishing a national wildlife refuge and a national monument along the Mississippi River in northeastern Iowa. In addition, fervor for a national park fanned enthusiasm for a state park system and sparked greater concern for conservation of natural resources along the river.

c. ***Registration Requirements***

Criterion A: Cultural resources integral to parks established and developed prior to 1942 or properties directly associated with activities of the parks movement at the local, county, state, and/or national level are eligible under this criterion. Eligible property types includes but are not limited to administrative, service, recreational, and ornamental buildings, structures, and features as previously described. Setting will always be integral to resources in parks. Boundaries should include the geographical extent of any given park as of 1942 unless there are good reasons to exclude portions based on integrity considerations. As a rule the cultural features within park boundaries must reflect the historical character of the park as a whole. Individual resources may have been altered but still evince the feel of a particular period of time. Post-1942 structures will almost always intrude on the setting; these should simply be treated as noncontributing elements. If a preponderance of the historic cultural features within park boundaries have been removed or substantially altered, however, the historic character of the park should be considered seriously compromised. In such cases, isolated or small collections of buildings, structures, or other features may meet National Register eligibility criteria as individual properties or as districts within a park. Boundaries should then include the immediate natural or landscaped setting and any associated historic cultural features such as fences, walls, walkways, etc. Cultural features that have been removed from their associated park environment are not eligible under this criterion.

Properties eligible under Criterion A also include buildings, structures, or features associated with organizations or groups which were prominent in the parks movement at the local, state, and/or national level. Standard NRHP integrity considerations should apply to such properties.

Criterion B: Properties associated with specific individuals who played key or important roles in the parks movement at the local, state, and/or national level between roughly 1890 and 1942 are eligible under this criterion. Individuals who attained prominence as park advocates at the state level no doubt will have

also contributed to other aspects of the conservation movement. As a rule, eligible properties will be residential buildings, and these should be associated with an important individual during the period in which his or her contributions were made. Standard NRHP integrity considerations should apply to properties considered significant under this criterion.

Criterion C: Eligible properties include park buildings, structures, or features which reflect the design aesthetics and principles associated with the Park Rustic style; which were designed by or under the supervision of landscape architect John Fitzsimmons -- or the designs of which emanated from the Central Design Office; which were designed by any other individuals who contributed to the development of the Park Rustic style; which were constructed under the auspices of New Deal relief/conservation programs such as the Civilian Conservation Corps, the Works Progress Administration, the Project Works Administration, and the Civil Works Administration; which are associated with civic planners, landscape architects, architects, or other designers who made important contributions to the history of park design at the local, state, and/or national level; and which reflect important aspects of landscape design principles associated with the development of parks and recreational facilities prior to 1942. Post-1942 modifications are allowable if the resource in question still contributes to the overall character of its associated park, if the modifications are reversible, or if the modifications harmonize with the historic fabric. However, structures nominated as individual properties generally should meet standard NRHP integrity requirements.

Criterion D: Given the great number of extant historic structures associated with park development at all levels and the quantity of available archival data in national, state, and local repositories, it is doubtful that historic archaeology could, for now and into the foreseeable future, add substantive information to the historical record. Circumstances could change, though, if large numbers of park resources happen to be lost in the next few decades.

Sites known or believed to contain prehistoric cultural materials sometimes were acquired for the purpose of protection within a national, state, county, or

municipal park. These resources may be considered significant under this context; however, in such cases, Criterion A would be more appropriate. Also, such sites will be chiefly significant for some other association.

d. Eligible Properties:

Properties nominated with this submittal

American School of Wild Life Protection Historic District, McGregor Heights, Allamakee County
Backbone State Park Historic District, Delaware County [portions NRHP]
Maquoketa Caves State Park Historic District, Jackson County
Perry Holdoegel Residence, Rockwell City, Calhoun County
Louis H. Pammel Residence, Ames, Story County
Squirrel Hollow County Park Historic District, Greene County
LeMars Municipal Park and Golf Course Historic District, LeMars, Plymouth County

Properties nominated separately but related to this MPDF

Lakeside Park Historic District, Lake View, Sac County

Properties previously listed on the National Register

State

Backbone State Park, Delaware County [three CCC districts]
Beeds Lake State Park, Franklin County [CCC district]
Black Hawk State Park, Sac County [three CCC districts]
Dolliver State Park, Webster County [two CCC districts]
Geode State Park, Henry County [CCC district]
Gull Point State Park, Dickinson County [two CCC districts]
Lacey-Keosauqua State Park, Van Buren County [three CCC districts]
Lake Ahquabi State Park, Warren County [three CCC districts]
Lake Keomah State Park, Mahaska County [two CCC districts]
Pikes Peak State Park, Dickinson County [CCC district]

Pillsbury State Park, Dickinson County [CCC district]
Pilot Knob State Park, Hancock County [five CCC districts]
Springbrook State Park, Guthrie County [CCC district]
Trappers Bay State Park, Dickinson County [CCC district]
Wanata State Park, Clay County [CCC district]
Wild Cat Den State Park, Muscatine County [portions]

City

Crapo Park and Arboretum Historic District, Burlington
Decorah Ice Cave, Decorah
Phelps Park Historic District, Decorah

Properties determined eligible for the National Register

Ft. Atkinson State Park, Winneshiek County

4. ***Property Type:*** Buildings, structures, sites, and features associated with the conservation of native flora.

a. Description: Places associated with the conservation of native flora by and large consist of prairie remnants, such as Hayden Prairie in Howard County, and plant preserves that are part of parks or other historic properties, such as the open space surrounding Iowa Lakeside Laboratory. Wildlife refuges and forests, of course, also serve as preserves for native plant life. The historical significance of flora conservation is probably best exemplified through buildings, structures, and features associated with important individuals and organizations, such as Ada Hayden, who led the movement to establish prairie preserves, and botanists such as such as Thomas MacBride, Louis Pammel, Charlotte King, Bohumil Shimek, and Henry Conard, who assembled important collections of native plant materials for research and educational purposes and/or made important scholarly contributions to the study of native plant communities in Iowa.

b. Significance: Prior to 1942, the conservation of plant communities was not a cause for action in and of itself, in large part because it was difficult to generate much public interest in preserving what appeared to the unscientific eye to be little more than weed

patches. However, conservation of native grasses, wildflowers, and other plants frequently was a consideration in determining which properties should and would be accepted into the state park system. In addition, there was great scholarly interest in identifying and locating indigenous plant species and communities. Early-day collections provided baseline data which informed much of the research on regeneration and restoration of native flora. During the 1940s a movement to preserve native prairie remnants took shape under the guiding hand of Ada Hayden, and it seems to have been linked rather closely with the national movement to set aside grasslands. While the movement to conserve native prairie land is outside the purview of the present context, it is an important topic that should be fully addressed when the context is revised to incorporate post-1942 history .

c. ***Registration Requirements***

Criterion A: Eligible properties include buildings, structures, and features directly associated with research and education aimed at increasing knowledge about Iowa's indigenous plant species, legislation to protect native flora, and native plant propagation and restoration at the local, state, and/or national level between 1909 and 1942. Properties associated with organized groups which promoted the preservation or restoration of native flora would be eligible under this criterion. Properties which are significant under Criterion A chiefly for their association with forest conservation or parks may also have an important association with floral conservation. Integrity considerations which apply to properties associated with forest conservation generally apply here, too. Setting, in particular, may be integral to significance. Boundaries should be drawn to encompass the whole of a property as it existed during its period of significance, or to include as much of the natural environment associated with cultural features as is necessary to demonstrate why the property is historically important.

Criterion B: Eligible properties include buildings, structures, or features associated directly with individuals who played a leading, pivotal, or important role in the conservation of native flora between 1909 and 1942 at the local,

state, and/or national level. Standard NRHP integrity considerations should apply to properties considered significant under this criterion.

Criterion C: There are no specific designers or architectural styles associated with flora conservation. Therefore, this criterion is not generally applicable, although it is possible that properties significant under criteria A and/or B would also be exemplary architectural resources. Standard NRHP integrity considerations should apply to properties considered significant under this criterion.

Criterion D: While there undoubtedly are parks and preserves which contain sites of paleobotanical interest, the only time such sites would be eligible under this criterion is when historical research established that the site in question was included included in a park or preserve for the express purpose of preserving this particular type of antiquity.

d. Eligible Properties:

Properties nominated with this submittal

Iowa Lakeside Laboratory, West Lake Okoboji, Dickinson County
Louis H. Pammel Residence, Ames, Story County
Bohumil Shimek Residence, Iowa City, Johnson County

Properties listed on the National Register

Agricultural Hall (Old Botany), Iowa State University, Ames

5. *Property Type:* Buildings, structures, sites, and features associated with soil and water conservation.

a. Description: To a large degree, water conservation has been bound up with efforts to establish preserves, wildlife refuges, and parks -- particularly lake parks. Conservation activities often took the form of lake dredging, riprapping streams and lake beds with stone to prevent bank erosion, and controlling the intake as well as the outflow of water with channels and earthen berms. Likewise, soil conservation

activities generally entailed landform modifications, such as terracing hillsides, planting grass waterways, and excavating catch basins. Thus, there are relatively few cultural features of a permanent nature that one can identify directly with soil and water conservation, and resources may take the form of a historic landscape. Structures such as dams or other waterflow structures designed to control water runoff, including floodwaters are among the more prominent resource types. Dams associated with soil and water conservation, however, should not be confused with dams designed principally to develop water resources for power, navigation, or municipal purposes. Other eligible property types include research facilities designed solely or principally to study soil and water conservation, or properties associated with important individuals active in soil and water conservation. The remains of CCC camps assigned to soil conservation activities, including reforestation, are another important property type.

b. Significance: Soil and water conservation has its roots in the concern over loss of wetlands. A corollary concern was river and stream degradation caused by soil erosion. By the turn of the century both of these problems were sufficiently evident to cause alarm. Resources may derive significance from association with one or more important subthemes which run through the history from about 1909 to 1942. More than any other aspect of the Iowa's conservation history, soil erosion and water quality were linked to agricultural practices. Conservation goals and techniques took two forms. On the one hand, there was a concerted effort to reclaim, literally, the lakes and marshes which were under the sovereign jurisdiction of the state. On the other, there was a propensity to experiment with mechanical and technological solutions. This was especially true of soil conservation methods. The crude wire and brush dams built during the 1920s, which essentially plugged gullies, were gradually replaced with more sophisticated systems of flumes and detention dams, hillside terraces, windbreaks, grassy waterways, and contour field patterns. Soil fertility and water quality were also important subthemes. Various individuals and specific research stations contributed to the scientific knowledge about the loss and regeneration of soil fertility as well as the cause and control of wind and water erosion. This knowledge was disseminated through demonstration plots, experimental farms, and by a host of public programs, many of them funded or sponsored by federal government agencies. During the 1930s, CCC camps often were assigned to soil erosion control projects on private lands, thereby forging an important link between soil conservation experts and landowners.

c. *Registration Requirements*

Criterion A: Properties directly associated with one or more aspects of soil and/or water conservation between 1909 and 1942 at the local, state, and/or national level are eligible under this criterion. These include but not limited to watersheds, dams or other flood control structures, erosion control structures, experimental and demonstration facilities, and research facilities constructed between 1909 and 1942. Properties associated with the development of water resources, such as dams or power houses, should not be considered under this context. As is true of properties associated with other aspects of conservation, properties may be significant if there is a direct association with an important event in soil and/or water conservation history, but it is more likely the association will be with ongoing efforts over a period of years. Setting will often be integral to property significance and should therefore be given careful attention in determining boundaries. Individual structures associated with a watershed project, for instance, would have little meaning or interpretive value outside the topographic context in which they exist. Boundaries should be drawn to include the geographical extent of the property as of 1942 or as much of the natural environment associated with cultural features as is necessary to demonstrate its historical significance. Landform modifications associated with soil and water conservation may not even register as permanent features on the landscape, but they are nonetheless the product of human intervention. In such cases, properties should be treated as historic landscapes. Properties eligible under this criterion frequently will have undergone some degree of alteration as environmental conditions changed, a circumstance which may actually contribute to resource significance in the case of demonstration and experimental facilities. Post-1942 modifications are allowable so long as the historic character is still intact.

Criterion B: Eligible properties include those associated with specific individuals who were active in one or more aspects of soil and water conservation at the local, state, and/or national level. Generally, eligible properties are those associated with the productive life of the individual in the

field in which he or she achieved significance. However, important individuals rarely will be directly linked with the same sites where important soil or water conservation activities took place, since the latter are often quite literally "in the field." Therefore, under this context, eligible properties will include residential properties of important individuals which were associated with the individual during the period in which his or her contributions to conservation were made. Standard NRHP integrity considerations should apply to properties considered significant under this criterion.

Criterion C: There are no specific designers, architectural styles, or structural types associated exclusively with soil and water conservation. Therefore, this criterion is not generally applicable, although it is possible that properties significant under criteria A and/or B would also be exemplary architectural or engineering resources regardless of historical context. Standard NRHP integrity considerations should apply to properties considered significant under this criterion.

Criterion D: Many of the CCC camps operating in Iowa were involved in soil conservation work at one time or another. None of these camps remain standing. Sites which contain intact surface or subsurface deposits of cultural material in a reasonably undisturbed physical setting have the potential to yield information that cannot be obtained through the documentary record. At the very least, archaeological testing can provide or verify locational information, which is generally missing from project records.

d. Eligible Properties:

Properties nominated with this submittal

Jones Creek Watershed, Monona County

SECTION G: SUMMARY OF IDENTIFICATION AND EVALUATION METHODS

Introduction

Field investigations resulted in site documentation on thirty-seven properties located throughout the state of Iowa. Approximately half of the historic resources documented with site forms, a total of 117, are located in twenty state parks. Based on archival research and survey data, sixteen properties were selected for nomination to the National Register of Historic Places. They are listed below and located on the map which follows. Within these sixteen properties, there are a total of 114 contributing resources, 71 noncontributing resources, and 71 resources previously listed on the National Register. Nine of the nominations are for historic districts; seven are for individual properties.

Nominated Properties

American School of Wild Life Protection Historic District, McGregor Heights, Clayton County
Backbone State Park Historic District, Delaware County [includes 70 resources previously listed in three CCC districts]
Jay Norwood (Ding) and Genevieve Pendleton Darling House, Des Moines, Polk County
Guttenberg National Fish Hatchery and Aquarium Historic District, Guttenberg, Clayton County
Guttenberg National Fish Hatchery Rearing Ponds, Twelve Mile Island, Clayton County
Perry C. and Mattie Forrest Holdoegel House, Rockwell City, Calhoun County
Iowa Lakeside Laboratory Historic District, West Lake Okoboji, Dickinson County
Fish and Game Pavilion and Aquarium, Iowa State Fairgrounds, Des Moines, Polk County [1 resource previously listed NRHP]
Jones Creek Watershed Historic District, Monona County
LeMars Municipal Park and Golf Course Historic District, LeMars, Plymouth County
Lansing Fisheries Station, Lansing, Allamakee County
Gilmour B. and Edith Craig MacDonald House, Ames, Story County
Maquoketa Caves State Park Historic District, Jackson County
Louis Hermann and Augusta Emmel Pammel House, Ames, Story County
Bohumil Shimek House, Iowa City, Johnson County
Squirrel Hollow County Park Historic District, Greene County

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Properties Nominated to the National Register

Research Objectives

The objectives of this project were to 1) develop a historical context that would cover all aspects of the Conservation Movement as it existed in Iowa, using 1942 as a cut-off date; 2) to identify the approximate number and type of historic resources, statewide, that exemplify the various themes of this context; 3) to determine which associated resources were significant or potentially significant under National Register of Historic Places criteria; and 4) to nominate fifteen properties to the National Register as a multiple property submittal.

The project was an outgrowth of work which began in 1985, when Dr. Kenneth Acrea prepared a preliminary report on the history of the conservation movement in Iowa focusing on the Progressive and New Deal eras. Dr. Lowell Soike augmented Acrea's report in 1986, adding discussions related to associated property types, National Register and preservation considerations, and recommended preservation activities. In December of 1987 the Iowa Bureau of Historic Preservation issued the Acrea-Soike report under the title of *Iowa Conservation/Parks Movements: Historic Context Report*. Following this period of planning, Dr. Joyce McKay directed a survey and nomination project in 1989-1990 which was designed to identify properties in Iowa's state parks that were built under the auspices of the Civilian Conservation Corps, the rationale being that these structures would constitute the greatest quantity of historic resources associated with conservation work. McKay's investigation, conducted in cooperation with the Iowa Department of Natural Resources, identified over 700 extant CCC resources in the state parks system alone. Of these, 225 historic resources in fifteen state parks were listed on the National Register under the MPDF *CCC Properties in Iowa State Parks: 1933-1942* (1990). CCC structures represent a major component of the conservation movement as it existed during the 1930s, but the CCC was of course only one aspect of what was a multifaceted and long-lived historical phenomenon. This project therefore also expands McKay's work and places it in a broader historical perspective.

The project area covered the entire State of Iowa. The number of resources originally was estimated to be somewhere between 150 and 200. The study as a whole shows this estimate to have been low. Site inventory forms were prepared for 204 resources. Reconnaissance data indicate that there are an undetermined number of resources in at least 62 additional locations.

Project Team

A project of this historical scope and geographical coverage necessarily required coordinated assistance from a great number of people. Principal Investigator Rebecca Conard was responsible for the research design, intensive-level fieldwork, data analysis, writing the Multiple Property Document Form, and preparing NRHP registration forms. She also conducted some of the research in primary source materials. She holds a Ph.D. in history from the University of California Santa Barbara and has thirteen years of professional experience in cultural resources management and historic preservation.

Tracy Cunning was principally responsible for identifying, contacting, and maintaining records of contact with individuals and organizations involved in conservation activities in Iowa. These contacts provided the major source of information concerning the location and physical condition of historic resources outside state parks. In addition, Ms. Cunning researched and prepared a summary of state and federal legislation pertinent to the history of Iowa's conservation movement. She also researched and prepared biographical summaries of individuals who figured prominently in the movement. Ms. Cunning holds a B.A. in history from Drake University and has over three years of experience in cultural resources management and historic preservation.

Michel Nellis spent a long week researching federal records located in Washington, D.C. This part of the investigation covered pertinent records of the Soil Conservation Service (RG 114), the Civilian Conservation Corps (RG 35), and the Works Progress Administration (RG 69), housed in the National Archives and the Federal Records Center at Suitland, Maryland. It also included research in the papers of Bohumil Shimek which are located at the Smithsonian Institution. Ms. Nellis holds an M.A. in public history from the University of California Santa Barbara.

Leah Rogers conducted research in the papers of Jay N. Darling and Thomas MacBride, both collections located at the University of Iowa, Iowa City. Ms. Rogers holds an M.A. in anthropology from Michigan State University, and she has thirteen years of professional experience in historical archaeology and historic preservation. Virginia Cunning researched portions of the extensive papers of Louis Hermann Pammel, located at Iowa State University in Ames. Mrs. Cunning holds an M.A. in anthropology from Drake University.

Christine Savage was responsible for compiling the initial working bibliography for the project. She also located and obtained copies of most of the published books, articles, and government reports cited in the bibliography. Ms. Savage holds an M.A. in public history from the University of California Santa Barbara.

Jennifer Hudson also assisted with bibliographic work. In addition, she typed photograph logs, organized photographs and site inventory forms, labeled photographs, and entered computer data for site inventory forms. Ms. Hudson is completing her work for an M.A. in public history from the University of California Santa Barbara. Ellen Keegan-Palacio along with Ms. Hudson capably handled myriad clerical details.

Iowa Department of Natural Resources park rangers mapped, photographed, and prepared site inventory forms for historic resources in state parks which had not previously been recorded as part of the 1989-1990 study of CCC properties conducted by Joyce McKay. James E. Scheffler, Assistant Chief of the DNR Parks Management Bureau, coordinated the survey work and also acted as liaison for obtaining access to historical materials located in various DNR administrative divisions housed in the Wallace Office Building in Des Moines. Nine park rangers participated in the survey: Mike Abel, Terry Gaines, Jim Hansen, Ken Hyman, Kirk Irwin, Brent Laning, Rod Nelson, Kevin Pape, and Robert Schaut. Collectively, they compiled site records for 117 resources.

Many individuals volunteered assistance with the intensive-level fieldwork and site-specific research. Steve Kettering assisted with fieldwork at Squirrel Hollow County Park, Jones Creek Watershed, and Lewis & Clark State Park. Patricia Wiegel held the tape and logged photographs at Iowa Lakeside Laboratory, Maquoketa Caves State Park, the former fisheries station at Sabula, and LeMars Municipal Park. She also researched newspapers for historical information on LeMars Municipal Park. Mary Sturges, Executive Director of the LeMars Arts Council, supplied additional historical information gathered from local sources. Bob Zimmerman served as field guide through the Jones Creek Watershed and obtained access to historical materials located at the Monona County Soil Conservation District Office in Onawa. Charles and Hazel McCue Wallis supplied personal information about the genesis of the watershed project. Dan Towers, Director of the Greene County Conservation Board, researched local sources for information on Squirrel Hollow County Park. John Bickel of McGregor opened up his personal archives for research on the American School of Wild Life Protection and also provided a guided tour through the site. G.I. Hoilien of Harpers Ferry

served as guide to locate the Lansing fisheries building and also provided introductions to local residents with first-person knowledge about the facility. Rick Martens, DNR fisheries biologist stationed at Manchester, shared historical information from his personal files about Lansing and other state fisheries. Gary Ackerman, fisheries biologist at Guttenberg, researched local sources and office files for historical information. He, along with Robyn Tangeman, former fisheries technician with the U.S. Fish and Wildlife Service, provided access to and a guided tour of the fish rearing ponds located on Twelve Mile Island in the Mississippi River.

Marlene Armbrecht of Rockwell City researched the local newspaper for information about the Holdoegel House, shared other historical materials from her personal collection, and assisted with the photography. Steve Vande Woude of Iowa City provided research assistance for the Bohumil Shimek House. Robert Cruden, Acting Director of Iowa Lakeside Laboratory, along with Mark Wehrspann, resident manager, and Debby Zieglowski-Baker, librarian and author of an article on the history of ILL, provided both research and field assistance. Helen McRoberts of Ames provided copies of original architectural drawings for the G.B. MacDonald House. The MacDonald family -- Mary Janet Dunlap, Dr. Donald Craig MacDonald, and Col. G.C. MacDonald -- supplied biographical information on their father and personal recollections about the family home. Carolyn Hunter and Christopher Koss provided valuable information concerning the Darling House. Greg Beisker of Ames helped to locate Althea Sherman's chimney swift tower and also shared pertinent historical information from his personal files.

These individuals represent perhaps a third of the people who should be individually acknowledged for making important contributions to the success of the project. Countless others took the time to respond to questionnaries and written queries with detailed letters, answer questions posed in follow-up phone calls or personal conversations, share research materials not readily obtainable through libraries or other repositories, help locate archival materials, provide introductions and referrals, and generally point the way.

Research Methods and Sources

The research design specified a three-phase project: reconnaissance survey and initial study, field survey, and preparation of submittal documents. During the reconnaissance phase we established a local contact network and sent out letters of inquiry, 2) reviewed existing site data, 3) completed additional archival research, 4) maintained ongoing consultation with local contacts to obtain reconnaissance-level data, 5) developed a draft historical context and property

typology, and 6) identified a survey population for intensive-level fieldwork. Field survey work was divided between state parks and areas outside state parks. DNR park rangers conducted survey work within state parks under the direction of the principal nvestigator. The PI conducted all other field investigations.

Work commenced on March 20, 1990. Reconnaissance survey and initial study tasks began then and were substantially complete by mid-September, although follow-up contact and bibliographic work continued until early 1991. A preliminary draft context and property typology were submitted to the Bureau of Historic Preservation on August 10. A workshop meeting was held at the State Historical Building in Des Moines on September 26 in order to review field recordation procedures with DNR park staff members assisting with the survey work. Site recordation in state parks began in October and was substantially complete by the end of the year. Fieldwork on sites outside state parks began in late September and continued on an intermittant basis until mid-April 1991. Draft National Register nominations were submitted on April 4, 1991. Revised nominations for properties within CLG jurisdictions were submitted on June 7; the remaining nominations and the final draft MPDF were submitted on July 8, 1991.

Reconnaissance Study

The first step involved establishing a local contact network which compriseed agencies, groups, and individuals active or interested in some aspect of conservation and/or parks. Initial contacts were made with assistance from the Department of Natural Resources and the Iowa Natural Heritage Foundation, which provided names, addresses, telephone numbers, and sometimes a contact person for various organizations, agencies, and individuals. In general, contact was established by means of a questionnaire circulated with a cover letter briefly describing the project (Exhibits 1 and 2).

Contacts included county conservation boards; retired conservation and park officials; selected city park boards; other state and/or federal agencies; and statewide organizations with a long-time involvement in conservation, such as the Audubon Society, the Iowa Wildlife Federation, the Isaak Walton League, the Iowa Federation of Women's Clubs, the Iowa Natural History Association, the Iowa Association of Naturalists, the Iowa Park and Recreation Association, the Iowa Society of American

Foresters, the Nature Conservancy, and others which are affiliated with the Iowa Resource Enhancement and Protection (REAP) Conservation Alliance.

The goal was to reach an initial contact network of approximately five individuals/organizations in each of Iowa's 99 counties through the mail questionnaire. With some qualification, this goal was met. Approximately 475 questionnaires were sent out, and an undetermined number of additional contacts were established via telephone. Contacts, however, were not evenly spread across the state; higher concentrations initially prevailed in and around urban areas. To some degree we compensated for this by making an extra effort to contact county conservation boards by telephone.

We realized an estimated twenty-five percent return ratio for mailed questionnaires, higher than average but considerably less than hoped for with a selected mailing list. Follow-up phone calls suggest that part of the reason for this was the questionnaire format, which was purposefully designed to elicit a broad range of responses and not limit the type of information people would supply. Specificity, however, was often the key to obtaining useful information. For instance, if we asked for information about a certain city or county park, inevitably we were referred to the right person who could answer questions.

Several organizations would not, as a matter of policy, release their mailing lists but offered to publicize the project in their newsletters. As a result, press releases (Exhibit 3) were sent to Ducks Unlimited, the Des Moines and Dubuque chapters of the Audubon Society, the League of Women Voters, the Iowa Conservation Education Council, the Nature Conservancy, the Isaak Walton League, the Iowa Natural History Association, the Iowa Association of Naturalists, and the Iowa Parks and Recreation Association. Four of these organizations -- the League of Women Voters, the Iowa Parks and Recreation Association, the Iowa Conservation Education Council, and the Iowa Association of Naturalists -- verified their cooperation by sending copies of the newsletter carrying our announcement. While the press release did not result in any voluntary contacts, it may have fostered a minimal level of awareness about the project among the public at large.

The questionnaires served to establish the initial contact with many people, but the most useful information came from follow-up telephone calls and letters. In this manner, we were able to clarify or augment information, such as locational data, type of resource, physical condition, history and background data, and names and addresses of other individuals who might have additional information about the resource. About a dozen individuals also photographed resources and either sent the film to PHR for processing or sent labeled prints. Information from the questionnaires, additional records of contact, and photographs were used to compile a preliminary list of resources for intensive-level field investigation.

A separate questionnaire was sent to DNR district park rangers for information about non-CCC resources in state parks (Exhibits 4 and 5), for which there was a 100 percent return. This information was used in conjunction with existing site data in order to identify examples of property types already represented on the National Register, identify data gaps, and prepare an initial list of properties for intensive-level survey. This step included a review of McKay's project files for CCC properties, the Land and Water Conservation files, National Register files, and any other pertinent files at the BHP. It also included a review of DNR files including property brochures, park plans, and other pertinent information about parks established prior to 1942. Finally, it included a review of the WPA photograph collection (5000 images) located at the State Historical Society in Iowa City. This collection contained photographs for over 100 WPA projects related to some aspect of conservation work or parks development during the 1930s.

The working bibliography was compiled from a number of reference materials, including citations contained in the 1987 Acrea-Soike report, *Iowa History and Culture: A Bibliography of Materials Published Between 1952 and 1986* (Patricia Dawson and David Hudson, 1989), *Disseration Abstracts, A Guide to Resources for the Study of the Recent History of the United States: University of Iowa Libraries* (Boyd Swigger, 1977), and the on-line collections' catalogs for Iowa State University and the University of California.

Libraries, archives, and other repositories consulted during the course of the reconnaissance phase include the State Historical Society in Iowa City, the State Library/Archives in Des Moines, the Iowa Department of Natural Resources, the

University of Iowa library, Iowa State University library, Drake University library, the University of California Santa Barbara library (including interlibrary loan from UCLA, UC Berkeley, and other libraries), the National Archives in Washington, D.C., the Federal Records Center in Suitland, Maryland, and the Smithsonian Institution in Washington, D.C..

Serial and occasional publications that were researched systematically include *Transactions of the Iowa Horticultural Society, Proceedings of Iowa Park and Foresty Association, Proceedings of the Iowa Academy of Science, Iowa Conservation, Iowa Conservationist, Bulletin Iowa State Parks, Iowa Planning News, Annals of Iowa, Iowa Journal of History and Politics,* and *Ames Forester.* Key manuscript collections were selectively researched for pertinent information. These included the Bohumil Shimek Papers at the University of Iowa and the Smithsonian Institution; the Thomas MacBride Papers, University of Iowa; the J.N. (Ding) Darling Papers, University of Iowa; the Louis H. Pammel Papers, Iowa State University; the Louise (Mrs. Addison) Parker Papers, Iowa State University; the E.R. Harlan Papers, Iowa State Archives; and the County Extension Agent Reports, Iowa State University.

The draft historical context and property typology (Sections E and F of the MPDF) were based on an analysis of archival information and reconnaissance survey data. The historical context also incorporated information contained in the 1987 Acrea-Soike report and the findings of McKay's 1990 study.

Field Survey

DNR staff members inventoried non-CCC resources within state parks between October and December 1990. Data were recorded on standard Property Characteristics and Iowa Site Inventory forms. It was requested that typewritten forms be submitted to PHR containing locational information, physical descriptions, and sketch maps (PHR to supply the evaluation). However, most of the site forms came back handwritten rather than typed. Nonetheless, park properties were well-photographed, with more than one view of buildings or other substantial structures. All resources were adequately located on standard park maps, and most of the surveyors included sketch maps showing floor plans, building dimensions, and/or special architectural details. Nine park rangers,

identified in the Project Team section, completed site inventory forms for 117 resources located in twenty state parks.

Intensive-level fieldwork conducted by the principal investigator began in late September. To some extent sites were grouped geographically, and survey work was scheduled at intervals. This allowed us to coordinate field investigations with the availability of local contacts. Twenty days were allocated initially for intensive-level field survey and field check tasks. No more than thirty sites were to be given intensive-level survey. The amount of time proved to be adequate, although another ten days easily could have been devoted to fieldwork. Winter weather conditions prevented access to some sites that could have been investigated within the allotted time; others required return visits because of weather. Altogether, the PI visited twenty sites, four of them state parks. Fieldwork entailed photography, mapping, recording property characteristics, assessing historic integrity and physical condition, and conducting additional research in local sources when necessary. These investigations yielded another eighty-seven site inventory forms.

Additional repositories consulted for site-specific information include the regional branches of the National Archives/Federal Records Center located in Chicago and Kansas City, the St. Paul and Rock Island Districts of the U.S. Army Corps of Engineers, the Des Moines Public Library, the LeMars Public Library, the McGregor Public Library, the Iowa City Public Library, and a number of private collections.

Preparation of Multiple Property Analysis Document and National Register Nomination Forms

The research design specified fifteen NRHP nominations for individual properties and/or districts representing as wide variety of historical context themes and property types as possible. Nominated properties were selected in consultation with BHP staff. The number of nominations submitted with this MPDF totals sixteen, although these nominations actually represent fifteen properties. Two separate nominations were prepared for the Guttenburg National Fish Hatchery because the hatchery buildings and the rearing ponds are in two separate locations. This avoided the problems inherent in a discontiguous district nomination. The individual nominations are identified and located on the map at the beginning of Section G.

Future Research Recommendations

The general topic of park development in Iowa -- state, county, and municipal parks -- offers the greatest opportunity for further research and survey because of the sheer number of as-yet-undocumented cultural resources and because park resources are ideal vehicles for public interpretation.

Historic properties located in state parks by and large are accorded the greatest degree of protection at present. In addition to the CCC structures located in state parks which were placed on the National Register in 1990, two entire state parks have been submitted for listing with this document. The Bureau of Historic Preservation and the Department of Natural Resources also have entered into an agreement to evaluate historic structures on a case-by-case basis whenever ongoing maintenance or park operations decisions will affect such structures.

However, there are a few structures built during the 1920s and early 1930s by the original Board of Conservation which should be researched and evaluated as a special group. These represent the initial phase of park development, and the documentary record regarding this period is spotty. Board minutes contain very little information about existing structures on park land acquisitions or structures for which the board authorized construction. Thus, the minutes tend to reinforce an analysis of park development based mainly on the board's policy of defering park improvement in favor of allocating funds to land acquisition and surviving structures, which represent only the more substantial structures. Conceptual and building plans held by the Iowa Department of Natural Resources files and the College of Design at Iowa State University in Ames add an interesting wrinkle to this picture, however. These drawings represent whatever remains of the work produced by or under the direction of landscape architect John Fitzsimmons for the Board of Conservation. There is no way of knowing, at this point, whether the two separate collections represent the whole or the bulk of his work for the board. Nonetheless, a comparison of the two collections suggests ongoing discussions concerning appropriate types of structures and design plans for state parks, since many design proposals were not implemented. Conversely, there are structures in parks which appear to pre-date the New Deal building era, but for which there are no drawings. Oftentimes, oral history is the best or only source of information concerning provenience. A systematic study of scattered references to structures in parks prior to 1935, existing drawings and plans, and extant

structures, together with oral interviews, is needed in order to grasp fully the history of park development between 1919 and 1935.

Landscape Architect John Fitzsimmons appears to have been in the mainstream of the emerging design aesthetic for parks. His contributions to Park Rustic architecture, a unique blend of landscape architectural principles and building types which are adaptable to native materials, have not been documented. Since Iowa was in the forefront of state park development during the 1920s and 1930s, it is reasonable to speculate that his contributions may have been substantial. This study did not locate any collection of Fitzsimmons's personal papers, although copies of letters and memos written by or to him are scattered in other collections. Nonetheless, the discovery of his personal papers, if such exist, would add immeasurable value to an examination of his professional career and his working relationship with the State Board of Conservation.

County parks offer another fruitful venue for cultural resource investigations. Most county parks in Iowa date from 1958, when the state legislature authorized the creation of county conservation boards. However, those which were created prior to 1958 often were set aside to preserve areas that had special meaning to local communities and sometimes these areas contained historic structures. Such parks are similar to state historic parks, such as Ft. Atkinson, which were created to protect historic structures deemed to have statewide significance. County parks created after 1958 sometimes originated as state parks. Indeed, some of these parks, such as Swan Lake and Heery Woods, are still officially titled state parks but are managed by county conservation boards, and cultural resources are therefore outside the purview of the management agreement between the Department of Natural Resources and the Bureau of Historic Preservation. Thus, the evolution of county parks in Iowa deserves further study with a focus on the special relationship which exists between state parks and county parks, especially since several county parks contain structures built under the auspices of the Civilian Conservation Corps, the Works Progress Administration, or other New Deal agencies.

Given the latent development of a county park system, the system as a whole would not normally warrant a survey for cultural resources until the early twenty-first century. By then, however, it may be too late to effect any meaningful preservation planning for New Deal era or older structures located in county parks. The questionnaires returned to PHR Associates as part of this study identify several parks or preserves worthy of further investigation. This information provides baseline data which can be used to formulate new research questions and

survey methods. At this point in time, however, a targeted survey of county parks established prior to 1958 and state parks transferred to county conservation boards (either by transfer of title or by management agreement) would no doubt yield a substantial number of National Register-eligible properties.

Municipal parks present the greatest challenge to additional research and survey, but this is an area topic which warrants further investigation. Under the guises of conserving public open space and human resources, municipalities beautified certain areas with ornamental landscaping and erected countless recreational facilities. Although the process of municipal park development was well underway by the 1930s, New Deal programs stepped up the pace of development considerably. An untold number of city park improvements were erected under the auspices of the Works Progress Administration or related New Deal agencies. The collection of WPA photographs housed in the State Historical Society's library in Iowa City provides good data concerning the range and types of municipal park projects in Iowa. However, much more extensive research is needed in WPA project files and engineering records located in the National Archives, and, most of all, in local sources. This study did not include contacting the park boards of every Iowa community. Such a task was simply outside the realm of possibility given the scope of work and the schedule. However, we did attempt to obtain information about several park projects documented in the WPA photo collection at Iowa City, particularly projects which seemed to reflect an overall development plan, were fairly extensive, or had unusual design components. This information does not even come close to providing reliable baseline data, however. A separate study of historic resources in municipal parks would have to include an efficient method of eliciting fairly specific information from local park boards. Centennial histories might also be a good archival source of comparative data concerning the history of municipal parks.

A separate study of historic resources in municipal parks would illuminate the ways in which the history of civic planning, city beautification, and conservation were intertwined from the late nineteenth through the 1930s. Currently, there is some disagreement among historians about the relationship between the City Beautiful movement and the rise of city planning. Some scholars see the city planning movement as having evolved from the City Beautiful movement; revisionists such as William Wilson hold that engineers, planning specialists, and municipal officials who constituted the emerging profession of civic planners were actually rebelling against the idealism of the City Beautiful movement. Students of the City Beautiful movement and of city planning, however, almost always focus on large urban areas and/or prominent

individuals and rarely consider either phenomenon within the larger context of the Conservation Movement. Thus, a study of municipal parks from this perspective might prove to be fertile ground for analyzing the shift from beautification to recreation planning as a driving force behind park development efforts.

A statewide survey of municipal parks with a component focused specifically on New Deal era improvements would provide an excellent case study of the ways in which the local-federal partnership inspired by New Deal programs changed the image of Iowa's towns and cities. The *Twenty-Five Year Conservation Plan* gave Iowa an early advantage for tapping into federal emergency relief and conservation work funds during the great depression, but the degree to which that planning advantage translated into relatively more federal dollars, vis-a-vis other states, and more extensive plan implementation, vis-a-vis what might have happened without federal funding, awaits analysis. Extant structures in municipal parks, as well as those in state parks, provide an excellent means of measuring Iowa's progress toward realizing the goals contained in the twenty-five year plan.

Soil conservation and erosion control is another area where there is good potential for additional investigation. Such study is warranted because soil conservation activities probably changed the landscape as much as or more than did park development at all levels. Extension agents began promoting the use of soil erosion control structures and methods during the early 1920s, but it was not until the 1930s that soil conservation techniques were extensively applied when CCC enrollees were available as a cheap and disciplined labor force. Most of the landform modifications and structures were built on private land; thus, it is difficult to locate and identify intact systems which date from the 1930s or before. Sources of information available for the study historic resources associated with soil conservation in Iowa include the voluminous collection of county agent reports housed at Iowa State University, the records of local SCS district offices, and the U.S. Department of Agricuture, and Soil Conservation Service records (RG 114) located at the National Archives in Washington, D.C. and the Federal Records Center in Suitland, Maryland.

In general, there is much more research and resource identication work to be done at the local level. This investigation focused on identifying properties with historical significance at the state level. The history of the Conservation Movement in Iowa clearly indicates, however, that community-based organizations and locally prominent individuals were a vital dimension of the movement. Certified local governments should be encouraged to consult this historical context

when planning community- or county-wide surveys, to perpetuate the recordation of associated properties which are significant at the local level, and to prepare National Register nominations for those properties which meet eligibility requirements.

Properties Potentially Eligible for the National Register

The properties listed below are deemed worthy of further investigation to determine their National Register eligibility. This list should not be construed as complete. It is based on an analysis of data complied during the reconnaissance study and subsequent site visits. Thus, one will find some information about each of these places in the project files. The information often will include photographs, either current or historic. An "x" indicates that the property was field-checked as part of this project.

Wildlife Conservation

(x) Sabula Fisheries Building, Jackson County. As one of two extant buildings associated with state fisheries work prior to 1925, resource rarity would qualify this structure as eligible. Although the original design appears to be considerably altered, research may establish the modifications as historical and associated with fisheries work.

Trout raceways and abandoned fish rearing ponds at Twin Springs Park, Decorah. Rare resources, formerly associated with state fisheries work; local significance needs to be investigated.

(x) Althea Sherman's chimney swift tower, now at Andy Mountain Campground in Harpers Ferry, Allamakee County, has been removed from its original location at National, and the original setting has been completely supplanted with modern structures. However, the tower is a unique cultural resource, and it has considerable potential as an interpretive object. It might meet National Register eligibility criteria if it were relocated to another setting, particularly if that setting simulated elements of the original and created an environment where the interpretive value could be exploited.

Fairport Fisheries and Biological Station, Muscatine County; barn, tank house, and possibly one pre-1940 fish holding house are extant

Forest Conservation

Hartman Nature Reserve (aka Camp Hartman Reserve), Cedar Falls

Lake Ahquabi State Park; contains Whitley Forest and marker

(x) Cora Call Whitley House, Webster City

State Parks

[Note: Some of the parks listed below contain structures in addition to those included in existing NRHP districts which need to be evaluated for significance. Consult McKay's field records in addition to those for this project.]

(x) A.A. Call State Park, Kossuth County
(x) Bellevue State Park, Jackson County
Brush Creek Canyon Preserve, Fayette County
(x) Clear Lake State Park, Cerro Gordo County
(x) Dolliver Memorial State Park, Webster County
(x) Ft. Atkinson State Park, Winneshiek County
(x) Ft. Defiance State Park, Emmet County
Geode State Park, Henry County
Lacey-Keosauqua State Park, Van Buren County
Lake MacBride State Park, Johnson County
Lake of Three Fires State Park, Taylor County
Lake Wapello State Park, Davis County
(x) Lewis and Clark State Park, Monona County
Okamanpedan State Park, Emmet County
Palisades-Kepler State Park, Linn County
(x) Pammel State Park, Madison County
Pikes Peak State Park, Clayton County
(x) Pine Lake State Park, Hardin County

Preparation Canyon State Park, Monona County
Red Haw Hill State Park, Lucas County
Rice Lake State Park, Winnebago County
Springbrook State Park, Guthrie County
Stone State Park, Woodbury County
Twin Lakes State Park, Calhoun County
(x) Union Grove State Park, Tama County
Waubonsie State Park, Fremont County
(x) Walnut Woods State Park, Polk County
(x) Wapsipinicon State Park, Jones County
(x) Wild Cat Den State Park, Muscatine County

County Parks

[Note: Several parks listed here originated as state parks but are now under the ownership and/or management of counties; they are included here because the Iowa Department of Natural Resources no longer considers them under state jurisdiction and because, as a group, they reflect an important chapter in the development of the state's county park system.]

Appanoose County

Sharon Bluffs State Park (managed by County Conservation Board); CCC or WPA structures

Butler County

Beaver Meadows (former state park property now managed by Buter County Conservation Board); CCC and/or WPA structures

Heery Woods State Park (ownership transferred to City of Parkersburg; park managed by Butler County Conservation Board); WPA structures

Carroll County

Swan Lake State Park (managed by Carroll County Conservation Board); WPA structures

Fayette County

Echo Valley State Park (managed by Fayette County Conservation Board); CCC and WPA structures

Hancock County

Briggs Woods County Park
Bells Mill County Park

Hardin County

Lepley State Park (managed by County Conservation Board)

O'Brien County

Mill Creek State Park (managed by O'Brien County Conservation Board); WPA structures

Sioux County

Oak Grove State Park (managed by County Conservation Board); CCC structures

City Parks

[Note: information on resources in city parks is taken, in large part, from the WPA photo collection at Iowa City. In some cases, we verified whether structures are extant; in other cases, we did not.]

Bonaparte: Bonapart Community Park

WPA structures

Burlington: Dankwardt City Park

Cedar Falls: Island Park; Pfeiffer Springs Park; Washington Park; park development closely associated with Geo. Wyth, one-time member of State Board of Conservation and one of original members of the Cedar Falls Park Board; several WPA structures built, but many of them seem to have been removed

Clinton: Eagle Point Park

WPA structures

Columbus Junction: Columbus Junction City Park
WPA structures
Council Bluffs: Lewis & Clark Memorial (WPA); Carter Lake; Fairmont Park; Dodge Park; Lake Manawa
WPA structures
Creston: McKinley Park
WPA structures
Davenport: Lindsey Park; Duck Creek Park; Lafayette Square
WPA structures
Decorah: Will Baker Park; Palisades Park
WPA structures
Des Moines: Goode Park; Waveland Park; Greenwood Park; Hawthorne Park
WPA structures
Dubuque: Eagle Point Park
WPA structures; Alfred Caldwell, designer
Elma: Elma City Park
WPA structures
Fairfield: Fairfield City Park
WPA structures
Farmington: Indian Lake Park
WPA structures; one of the first state parks created in Iowa, ownership transferred to City of Farmington
Fort Dodge: Loomis Park; Hydroelectric Park; Oleson Park
WPA structures
Hubbard: Hubbard City Park
WPA structures
Iowa City: parkway along Iowa River
WPA structures
Iowa Falls: roadside park south of city
WPA structures
Keokuk: Rand Park
WPA structures
(x) Lake View: Speaker Park
park development associated with E.E. Speaker, one-time member of Fish and Game Commission

Lansing: Mt. Hosmer City Park
WPA or CCC structures
Marathon: Marathon City Park
WPA structures; park development closely associated with local citizen Norris Olney
Marion: Marion City Park
WPA structures
Marshalltown: Riverview Park
WPA structures
New Sharon: New Sharon City Park
WPA structures
Newton: Westwood Park
WPA structures
Oskaloosa: Edmundson Park
WPA structures
Paullina: Paullina City Park
WPA structures
Polk City: Polk City Town Square
WPA structures
Red Oak: Red Oak City Park
WPA structures
Sac City: Chautauqua Park
WPA structures
Sheldon: Hills Park
WPA structures
Story City: Story City Park
WPA structures
Williamsburg: Williamsburg City Park
WPA structures

Soil and Water Conservation

Clarinda Soil Conservation Experiment Station, Page County
Hydrologic Laboratory, University of Iowa, Iowa City

Exhibit 1

«DATA address Data»

PHR ASSOCIATES
Historical Research and
Environmental Consultants

16 April 1990

«Fname» «Lname»
«title»
«address»
«city», «state» «zip»

Dear Mr. «Lname»:

PHR Associates has been engaged by the State Historical Society of Iowa, in conjunction with the Department of Natural Resources, to try to find places that call attention to or that exemplify the Conservation and Parks Movements in Iowa between 1890 and 1940. As part of this project we will conduct a survey of historic features, sites and structures that were associated with these movements and still remain in the state. Field survey will be conducted in conjunction with the Department of Natural Resources, and when field work is completed several of the most significant sites will be nominated to the National Register of Historic Places.

We seek the following:

A. Information about the origins of municipal parks or other sites that may have statewide importance because they were well-publicized examples of city parks, served as a catalyst for the creation of a noteworthy park system, are outstanding examples of WPA or other New Deal projects, or served some other exemplary purpose.

B. Information about the origins of notable scenic areas, native habitats, natural features, or historic/cultural sites located outside State Parks but nonetheless of possible statewide importance.

C. Information about the individuals, organizations and institutions that advocated conservation legislation and better conservation practices.

D. Information about the individuals, organizations and institutions that promoted the study and protection of Iowa's waterfowl, fish, forests, native plants, waterways, and soil resources.

E. Information about notable natural areas owned and preserved by private individuals or privately funded organizations.

A short questionnaire is enclosed with this letter. We need information about local as well as state leaders in this movement, and any information you have regarding the early years of conservation in Iowa is highly appreciated.

Sincerely,

Rebecca Conard, Ph.D.
PHR Associates

725 Garden Street • Santa Barbara, CA 93101 • (805) 965-2357 • FAX (805) 966-1268

Exhibit 2

Your Name: _____
Address: _____
City: _____ State: _____ Zip Code: _____
Daytime Telephone: _____ County: _____

1.) List any places in your area that may be of local or state interest as part of the history of the Conservation and Parks Movements in Iowa (1890-1940). What do you know about these places?

2.) If you know about people in your area who were involved in the early Conservation and Parks Movements, please tell us about them.

3.) Do you know anyone else in your area whom we should also contact? Please include the person's name, address and daytime telephone number.

Name:
Address:
City/State/Zip:
Telephone:

Name:
Address:
City/State/Zip:
Telephone:

Please fold and staple this questionnaire before mailing. Thank you for answering our questions. Since we will follow up this initial questionnaire with a telephone call, please make sure your daytime number is shown above.

Exhibit 3

PHR ASSOCIATES
HISTORICAL RESEARCH AND
ENVIRONMENTAL CONSULTANTS

April 16, 1990

To: State Park Officers

From: Rebecca Conard, PHR Associates

Subject: Historic Resources Survey
Conservation and Parks Movement in Iowa Project

A year ago, you will recall, staff members from the Department of Natural Resources assisted Dr. Joyce McKay in the survey of buildings, structures, and other features in State Parks that were built during the 1930s by the Civilian Conservation Corps. That project was conducted in cooperation with the Bureau of Historic Preservation (BHP) as part of the DNR's ongoing resource management planning and maintenance program and the BHP's ongoing efforts to identify historic properties that exemplify important themes of Iowa's heritage. This year, the DNR is again cooperating with the BHP to survey the remaining historic resources in State Parks. The theme of this year's survey is "The Conservation and Parks Movement in Iowa," and our firm is under contract to the BHP to direct the effort.

In September, after the visitor season winds down, a small group of DNR staffers will, once again, assist with the field survey. In order to plan the fieldwork and balance assignments, we need to know where to go and what to look at. Thus, I would appreciate it if you would take a few minutes to list the buildings, structures, or features in your park which were constructed prior to 1942. A form is provided for your convenience. On it there are blanks to identify each structure by name and/or type (e.g., visitor lodge, entry gate, etc.), its date of construction, and the agency responsible for building the structure (e.g., State Conservation Commission, WPA, CWA, PWA, etc). If there are no pre-1942 structures in your unit, check the space provided for this information. Would you please return the completed form to your district supervisor by May 15?

Thank you in advance for your help. We look forward to meeting some of you in the fall.

Sincerely,

Rebecca Conard

Rebecca Conard, Ph.D.
Project Director

725 Garden Street · Santa Barbara, CA 93101 · (805) 965-2357 · FAX (805) 966-1268

Exhibit 4

INVENTORY OF PRE-1942 BUILDINGS, STRUCTURES, AND FEATURES

PARK NAME _____

STRUCTURE		DATE ORIGIN

_____ No pre-1942 buildings, structures, or features.

Notes:

_____ Date: _____
Preparer

Exhibit 5

PRESS RELEASE--16 April 1990

For Immediate Release

The Rise of the Conservation and Parks Movements in Iowa, 1890-1940

Articles regarding the preservation of Iowa's flora, fauna, water and mineral resources frequently receive front-page status in the state's newspapers these days, but the concern for Iowa's natural heritage is not a new phenomenon. Since the late 1800s Iowans have become increasingly aware of the need to set aside pieces of the state's diverse natural landscape.

The present wave of environmental awareness is an outgrowth of an earlier conservation movement that gained momentum in Iowa during the 1890s and early 1900s. To better understand these beginnings the State Historical Society of Iowa, in conjunction with the Department of Natural Resources, has engaged the historical consulting firm PHR Associates to prepare a history of the Conservation and Parks Movements between 1890 and 1940.

During 1990 the firm, assisted by DNR staff, will conduct a survey of the remaining historic sites, structures and features that were associated with these movements in the state. When the field work is completed, several of the most significant sites will be nominated to the National Register of Historic Places.

PHR Associates seeks information about the establishment of local parks or other sites that emphasized the appreciation and protection of natural resources, habitats, or natural features. The firm also seeks information about the individuals and organizations who participated in park/preserve establishment, who advocated conservation legislation, and who promoted the study of Iowa's plant life, wildlife, and mineral/soil resources between 1890 and 1940.

Individuals with information about the history of the early years of conservation in the state, or the location of places associated with the movement should contact Rebecca Conard or Tracy Cunning at the following address before July 15, 1990:

PHR Associates
725 Garden Street
Santa Barbara, CA 93101
(805) 965-2357

If you write, please include your return address and daytime telephone number.


MINNESOTA
SO. DAKOTA
NEBRASKA
MISSOURI
ILLINOIS
WISCONSIN
Lyon
Osceola
Dickinson
Emmet
Kossuth
Winnebago
Worth
Mitchell
Howard
Winneshiek
Allamakee
Sioux
O'Brien
Clay
Palo Alto
Hancock
CerroGordo
Floyd
Chickasaw
Plymouth
Cherokee
Buena Vista
Pocahontas
Humboldt
Wright
Franklin
Butler
Bremer
Fayette
Clayton
Woodbury
Ida
Sac
Calhoun
Webster
Hamilton
Hardin
Grundy
Black Hawk
Buchanan
Delaware
Dubuque
Monona
Crawford
Carroll
Greene
Boone
Story
Marshall
Tama
Benton
Linn
Jones
Jackson
Harrison
Shelby
Audubon
Guthrie
Dallas
Polk
Jasper
Poweshiek
Iowa
Johnson
Cedar
Clinton
Scott
Muscatine
Pottawattamie
Cass
Adair
Madison
Warren
Marion
Mahaska
Keokuk
Washington
Louisa
Mills
Montgomery
Adams
Union
Clarke
Lucas
Monroe
Wapello
Jefferson
Henry
Des Moines
Fremont
Page
Taylor
Ringgold
Decatur
Wayne
Appanoose
Davis
Van Buren
Lee
Iowa Lakeside Laboratory
Lansing Fisheries Station
American School of Wild Life Protection
LeMars Municipal Park
Guttenberg National Fish Hatchery
Backbone State Park
Holdoegel House
Maquoketa Caves State Park
Jones Creek Watershed
MacDonald House
Pammel House
Squirrel Hollow County Park
Darling House
Fish and Game Pavilion/Aquarium
Shimek House

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