

Iowa's Lost National Forests

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Iowa is primarily an agricultural landscape. It is perhaps then not a surprise that Iowa lacks a national forest. This initial reaction, however, misses the fact that Iowa very nearly had several national forests covering thousands of acres in the state. This Article explores this history, examines why these national forests did not materialize, and provides context for the use of other potential tools for securing contemporary conservation objectives in the state.

To this end, Section II of this Article explores the state's landscape history. Section III provides a history of the U.S. Forest Service and the creation of the eastern National Forests. Section IV specifically explores Iowa's efforts towards establishing national forests. Section V briefly touches upon the state's subsequent conservation efforts, while Section VI explores why more recent efforts to facilitate large-scale federal purchases have not materialized. Last, Section VII considers how current conservation tools may replicate at least some of the benefits that extensive national forests would have provided. Ultimately, Iowa's lost national forests can help us to understand the process of National Forest formation, evolving conservation priorities, and the lasting benefits of landscape-level conservation efforts and how such projects can be pursued today.

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"Let us walk in these beautiful woods, Watson, and give a few hours to the birds and the flowers."¹

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1. ARTHUR CONAN DOYLE, *The Adventure of Black Peter*, in II THE ANNOTATED SHERLOCK HOLMES 398, 405 (William S. Baring-Gould ed., 1967).

I. INTRODUCTION

Iowa was historically the land of tallgrass prairie,² bison,³ and the wetland marsh.⁴ Iowa is now the land of corn and soybean fields and large-scale hog production.⁵ Iowa has seldom been regarded as a forested landscape.⁶ As a result, it is perhaps unsurprising that Iowa is one of only ten states that lack a national forest.⁷ However, this quick

2. DOROTHY SCHWEIDER ET AL., IOWA PAST AND PRESENT 1-15 (2011); *see also* Leslie Hewes, *The Northern Wet Prairie of the United States: Nature, Sources of Information, Extent*, 41 ANNALS OF THE ASSOC. OF AM. GEOGRAPHERS 307, 307-23 (1951) (profiling the extent of this prairie type in Iowa); Katy Heggen, *Remanent Prairie: A Closer Look at Iowa's Rarest Landscape*, IOWA NAT. HERITAGE FOUND. (Aug. 24, 2017), <https://www.inhf.org/blog/blog/remnant-prairie-a-closer-look-at-iowas-rarest-landscape> [<https://perma.cc/XGH4-FVUE>]. Iowa's remaining prairie habitat has long been a preservation priority given the massive level of loss. *See* Deborah Q. Lewis, *Ada Hayden: Champion of Iowa Prairies*, 17TH ANN. PROC. N. AMERICAN PRAIRIE CONF. 215, 215-19 (2001) (profiling prairie loss and Hayden's early work to protect several remaining prairie fragments as state preserves).

3. *See, e.g.*, *Four Animals You Didn't Know Lived in Iowa*, IOWA DEP'T OF NAT. RES. (Jan. 7, 2015), <https://www.iowadnr.gov/About-DNR/DNR-News-Releases/ArticleID/188/Four-Animals-You-Didnt%E2%80%99t-Know-Lived-In-Iowa> [<https://perma.cc/6ZZX-TLFZ>] (profiling the bison, lynx, elk, and black bear's historic presence in the state); *see also* JAMES DINSMORE, *A COUNTRY SO FULL OF GAME: THE STORY OF WILDLIFE IN IOWA* 15 (1994) (providing additional detail about the bison's historic range in the state); L. H. Pammel, *Buffalo in Iowa*, 27 ANNALS OF IOWA 403, 403-34 (1930) (same).

4. CORNELIA F. MUTEL, *THE EMERALD HORIZON: THE HISTORY OF NATURE IN IOWA* 35-75 (2008). These ecosystems supported a wide variety of other species, including considerable populations of ducks and other waterfowl. *See* Mark Petrie & John Coluccy, *Ducks in Wild Abundance*, DUCKS UNLIMITED, <https://www.ducks.org/conservation/waterfowl-research-science/ducks-in-wild-abundance> [<https://perma.cc/EW8H-ZMKZ>] (last visited Jan. 24, 2021) (explaining that Iowa may have once had two million breeding pairs of ducks—numbers comparable to the Dakotas—but now much reduced owing to wetland habitat loss); *see also* JACK D. MUSGROVE, *WATERFOWL IN IOWA* (1943) (exploring historic waterfowl species in the state).

5. *See, e.g.*, Paul W. Brown & Lisa A. Schulte, *Agricultural Landscape Change (1937-2002), in Three Townships in Iowa, USA*, 100 LANDSCAPE AND URBAN PLANNING 202, 202-212 (2011) (exploring land use change in townships in Adair, Clinton, and Emmet counties over a sixty-five-year period to support expanded agricultural production). Iowa currently produces roughly one-eleventh of the nation's food supply (including 18.1% of corn, 13.3% of soybeans, 13.3% of eggs, 34.8% of pork, and 14% of cattle used for beef production). *See* IOWA AREA DEV. GRP., *FOOD INGREDIENTS*, <https://www.iadg.com/iowa-advantages/value-added-agriculture-food-ingredients/> [<https://perma.cc/9NRF-Q7ZW>] (last visited Dec. 27, 2020).

6. *See, e.g.*, Daryl D. Smith, *Iowa Prairie – An Endangered Ecosystem*, 88 PROC. IOWA ACAD. SCI. 7, 7-10 (1981) (noting that “Iowa is the only state that lies almost entirely within the region of the tallgrass prairie”); *see also* G.B. MacDonald, *Forestry and the Iowa Farmer*, 10 AMES FORESTER 59, 59 (1922) (explaining that “[t]he fact that Iowa has such a preponderance of agricultural land sometimes is responsible for disregard of forest values in the state.”).

7. *Forest Service Schedule of Proposed Actions – Iowa*, USDA FOREST SERV., <https://www.fs.fed.us/sopa/state-level.php?ia> [<https://perma.cc/J9CY-MZYZ>] (last visited Feb. 1, 2021). Iowa also lacks a national park, although there have been occasional calls to create a national park or other federal management area out of portions of the Loess Hills (a unique landscape feature in western Iowa) and in other parts of the state. *See* Mike Klein, *Why Doesn't Iowa Have a National Park?*, DES MOINES REG. (Apr. 9, 2016),

assessment misses the fact that Iowa very nearly did have a national forest, in fact several.⁸ These proposed national forests were slated to be formed during the Great Depression from what were, at the time, referred to as submarginal lands.⁹ National forests were established in Iowa's neighboring states of Illinois and Missouri and in several other corn belt states such as Indiana and Ohio.¹⁰ This Article is focused on the question of why a national forest has never been established in Iowa, and uses the case of Iowa's lost national forests to explore New Deal land use planning and to provide context for future landscape-level conservation efforts in Iowa and beyond.

As to the specific question of why Iowa lacks a national forest, it was my initial assumption that Iowa's lands may not have scored as highly as other regions in comparing where to deploy competitive appropriated funds or that political pushback against federal acquisition (perhaps led by farm groups concerned about the potential loss of farmland and the corresponding impacts on farmland values) may have led to the effort's failure.¹¹ While these factors may have played an indirect role, the story is more complex. In fact, there was a broad-based state effort to facilitate the Forest Service's purchase of hundreds of thousands, if not millions, of acres of submarginal Iowa farmland.¹² As

<https://www.desmoinesregister.com/story/travel/2016/04/09/why-doesnt-iowa-have-national-park/82438974/> [<https://perma.cc/8TH5-FMRE>] (profiling the reasons and reviewing federal management areas in Iowa).

8. See, e.g., G.B. MacDonald, *The Beginning of a National and State Forestry Program in Iowa*, 23 AMES FORESTER 15 (1935) (profiling the status of contemporary efforts to establish national forests in the state).

9. LESTER E. CLAPP & CHARLES B. ELKINGTON, IOWA LAND PLANNING CONSULTANTS, NATIONAL PLANNING BOARD, LAND-USE ADJUSTMENT SURVEY FOR IOWA 6 (1934). Submarginal lands were generally referred to as those lands that are not suited for agricultural use. See, e.g., L.C. Gray, *Objectives and Methods in the Local Definition of the Extensive Margin in Agriculture*, in PROCEEDINGS OF THE SECOND INTERNATIONAL CONFERENCE OF AGRICULTURAL ECONOMISTS 258, 259 (1930).

10. See *Find a Forest or Grassland*, USDA FOREST SERV., <https://www.fs.usda.gov/> [<https://perma.cc/3JPQ-2AN4>] (last visited Oct. 14, 2020) (providing a search by state feature for grasslands and national forests); see also *Nebraska National Forest*, ATLAS OBSCURA, <https://www.atlasobscura.com/places/nebraska-national-forest> [<https://perma.cc/RLU7-WLL2>] (profiling America's largest "man-made" forest); see also IOWA NAT. HERITAGE FOUND., *Hawkeye National Forest - A 1930's Idea for the 1980s?*, HERITAGE, Spring 1985, at 4, 4 (noting the creation of substantial national forests in adjacent states).

11. For a modern analog, see Rob Nicholson, *Summer 2019*, SIERRA CLUB, IOWA CHAPTER, <https://www.sierraclub.org/iowa/central-iowa/summer-2019> [<https://perma.cc/QK7H-XF7Z>] (last visited Dec. 27, 2020) (profiling the passage of Senate Bill 548 which blocked use of a revolving loan fund for land acquisition based on the fact that such efforts might raise farmland prices and block new and beginning farmers from accessing land (despite the fact that these programs typically target non-agricultural lands to achieve the ecological benefits desired).

12. IOWA STATE PLAN. BD., THE SECOND REPORT 19 (1935) (profiling these efforts) (hereinafter SECOND REPORT). The New Deal period also saw calls for more comprehensive land reform, such

will be explored, this was not just a theoretical exercise—it led to Forest Service's purchase of thousands of acres of land in Iowa (and even more acreage was put under option agreements that were ultimately not exercised).¹³ The reason that Iowa did not end up with national forests appears to be the relative cost of procuring land in the state as compared to conservation opportunities elsewhere coupled with a change in policy during President Franklin D. Roosevelt's second term that focused acquisition on areas where the Forest Service's purchase programs were further along (a policy which would eventually be reversed, but not in time for Iowa's proposed national forest units).¹⁴ As will be examined, these factors combined to limit Forest Service purchases in Iowa to a non-viable scale (capped at thousands, not tens or hundreds of thousands, of acres). The relatively small quantity of purchased lands, in turn, led to the eventual abandonment of the Iowa purchase units and the agency's disposal of the acquired lands in the 1960s.¹⁵ Although there has been an interest in federal-led conservation in the state since the 1930s, Iowa still does not have either a national forest or national park,¹⁶ demonstrating the impact of having missed this unique historical window.

as relocating farmers from so-called submarginal lands to lands that might prove more fruitful and relocating city residents to subsistence farmsteads. See, e.g., RICHARD S. KIRKENDALL, *SOCIAL SCIENTISTS AND FARM POLITICS IN THE AGE OF ROOSEVELT* 71-75 (1966); Theresa Glanz, *Federal Land-Use Policy and Resettlement on the Great Plains: An Experiment in Community Development During the New Deal Years, 1933-1941* (unpublished PhD thesis, Univ. of Nebraska 2020), <https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1038&context=geographythesis> [<https://perma.cc/T53Z-BXB9>] (profiling the work of this agency); Philip M. Glick, *The Federal Subsistence Homesteads Programs*, 44 *YALE L. J.* 1324 (1935) (exploring a similar program focused on relocating urban poor to subsistence farms); see also Gerald E. Vaughn, *Rexford G. Tugwell and the Economic Basis of the Public Interest*, *CHOICES*, First Quarter 2000, at 34 (noting prominent administration progressive Rexford Tugwell's view that "[t]his process of land adjustment is the basis of a long-term program and must be judged as such, and not as an emergency relief measure to be abandoned with the first economic upturn").

13. Rebecca Conrad, *Iowa's State Parks: A Various Language*, 104 *J. IOWA ACAD. SCI.* 34, 36 (1997) ("Between 1933 and 1935, [the program head] negotiated the acquisition of 11,000 acres of cut-over woodlands, brush-covered tracts, and worn out fields, principally located in four southeastern counties—Lucas, Monroe, Lee and Van Burden—and two northeastern counties—Allamakee and Clayton."). The Iowa Conservation Commission would eventually purchase these lands from the federal government in the 1960s for inclusion in the state park system. See George Mills, *Iowa's Planning Programs of the Past and Present*, 42 *THE ANNALS OF IOWA* 583, 585 (1975).

14. See, e.g., *Forestry on the Farm*, 35 *IOWA CONSERVATIONIST*, June 1976, at 8, 9 (exploring the relative cost of Iowa land and that "[f]rom a strictly national standpoint, the delayed action on the Iowa program was probably justified although the state lost an opportunity for needed forest demonstration areas").

15. Mills, *supra* note 13, at 584.

16. *Making the Case for Effigy Mounds as a National Park*, *IOWA PUB. RADIO*, June 17, 2019, <https://www.iowapublicradio.org/show/talk-of-iowa/2019-06-17/making-the-case-for->

To explore these issues, Section II provides a short history of Iowa land use—exploring the state’s historic landforms and forest resources and the state’s rapid shift toward its current farmed landscape. Section III considers the history of the National Forest System, with a focus on the eastern national forests, which have been acquired by the federal government, rather than those forests formed out of lands that never left the public domain in the west.¹⁷ Section IV examines Iowa’s experience and explains why Iowa ultimately missed its opportunity to add its lands to the national forest system. Section V provides context for Iowa’s conservation efforts since the failed national forest proposal. Last, Section VI offers some general thoughts on the potential for additional conservation actions and initiatives to provide at least some of benefits that the Forest Service acquisitions could have provided if these efforts had been successful. Notably, Iowa has among the lowest percentage of public land ownership of all the states—approximately 1 percent of its land area. Federal acquisitions could have addressed this shortfall and provided considerable benefits that are not currently available to the state’s residents.¹⁸

Overall, the establishment of the American system of national forests did not simply happen based on a comparative analysis of competing natural systems or upon the merit of the areas in which these now exist on the landscape.¹⁹ National forests, particularly those in the east, were consciously formed to address very specific public policy needs—both environmental and economic.²⁰ This legacy is important, as it created a system of forests which provide significant environmental, recreational, and other public benefits across the nation, but these benefits are not evenly geographically distributed.²¹ It also

effigy-mounds-as-a-national-park [<https://perma.cc/P82W-UJXG>]; see also SIERRA CLUB, IOWA CHAPTER, IOWA PUBLIC LAND BY THE NUMBERS, <https://www.sierraclub.org/sites/www.sierraclub.org/files/sce/iowa-chapter/wildlands-wildlife/IAPublicLand.pdf> [<https://perma.cc/P733-48YF>] (last visited Oct. 19, 2021) (exploring the lack of public land in the state generally).

17. CHRISTOPHER JOHNSON & DAVID GOVATSKI, *FORESTS FOR THE PEOPLE: THE STORY OF AMERICA’S EASTERN NATIONAL FORESTS* 117-20 (2013).

18. Gene Hertel, *Response by Gene Hertel, State Forester for Iowa*, IOWA NAT. HERITAGE FOUND. NEWSL., Spring 1985, at 5, 5.

19. *Id.*

20. Tom Tidwell, Chief, USDA Forest Serv., *The Weeks Act: A Story of Perseverance* (June 7, 2011), <https://www.fs.usda.gov/speeches/weeks-act-story-perseverance> [<https://perma.cc/267Q-R85Z>] (profiling the legislative history behind the passage of the Weeks Act).

21. Location-based issues are not the only challenge in providing opportunities for greater public benefit from these lands. See David Flores et al., *Recreational Equity: Is the Forest Service*

demonstrates, perhaps, the long-lasting impacts of federal acquisition of lands and the unique suite of amenities public ownership affords versus other conservation strategies.²² Understanding this history provides context into thinking about long-term land use and how to obtain conservation priorities with the tools currently available.

II. A HISTORY OF IOWA LAND USE: THE SHIFT TO A FARMED LANDSCAPE

For context, this section provides a brief overview of Iowa's landscape—including its landscape pre-statehood, its rapid transition to an agricultural landscape, and the character of Iowa's forest resources today.

A. Iowa's Historic Landscape

Iowa's landscape has evolved significantly over time.²³ Nearly 13,000 years ago, when the first known Iowans occupied the state, the state was typified by "cool, moist, spruce and fir forests interspersed with open meadows and wetlands. . . . As the climate continued to warm . . . more hardwood forests grew up, with prairies gradually pushing up from the south and west."²⁴ There were, however, notable landscape differences across the state by region.²⁵ In northern Iowa, much of the state was typified by prairie potholes or wetlands.²⁶ In

Serving Its Diverse Publics?, 116 J. FORESTRY 266, 266-72 (2018) (exploring how to provide more recreational access to an increasingly diverse society).

22. See, e.g., Susan Charnley et al., *Forest Management Policy, Amenity Migration, and Community Well-Being in the American West: Reflections from the Northwest Forest Plan*, 36 HUMAN ECOLOGY 748 (2008) (discussing forest amenities and associated public benefit generally).

23. JEAN C. PRIOR, LANDFORMS OF IOWA 1-13 (1991); see, e.g., Steven E. Jungst et al., *Iowa's Changing Forest Resources*, 105 IOWA ACAD. SCI. 61, 61-66 (1988) (profiling continued landscape change in the state).

24. IOWA DEP'T OF NATURAL RESOURCES, IOWA'S FORESTS TODAY: AN ASSESSMENT OF THE ISSUES AND STRATEGIES FOR CONSERVING AND MAINTAINING IOWA'S FORESTS 17 (2010), <https://www.stateforesters.org/wp-content/uploads/2018/07/SAS-IA201006180739-002.pdf> [<https://perma.cc/D5PU-KYWH>].

25. George W. Thomson, *Iowa's Forest Area in 1832: A Reevaluation*, 94 PROC. IOWA ACAD. SCI. 1 (1987).

26. R.A. Bishop et al., *Iowa's Wetlands, Present and Future with a Focus on Prairie Potholes*, 105 J. IOWA ACAD. SCI. 89, 89-93 (1998); Richard Doak, *The Story of Pioneer Iowa: From Wetland to Farmland*, DES MOINES REG. (Mar. 11, 2015), <https://www.desmoinesregister.com/story/opinion/columnists/2015/03/01/story-pioneer-iowa-wetland-farm-land/24212331/> [<https://perma.cc/3PZ7-YG9C>] (noting the role of drainage in making northern Iowa farmable); see also Alisa L. Gallant et al., *Changes in Historical Iowa Land Cover as Context for Assessing the Environmental Benefits of Current and Future Conservation Efforts on Agricultural Lands*, 66 J. SOIL & WATER CONSERVATION 67A (2011) (noting that "[s]ettlement and agricultural development in Iowa increased at a rapid rate during the second half of the 1800s,

the southern counties of the state, tallgrass prairie defined land use even more significantly than in other ecoregions.²⁷ By western settlement “what is now Iowa was mostly prairie, with forests covering about 18 percent of the area.”²⁸ Although prairie largely predominated, large forested landscapes defined significant areas of the state, in whole or part.²⁹

B. The Impact of Settlement and Cultivation

1. Clearing Iowa’s Forests

“Iowa is the most ecologically altered state in the entire union; since 1850, it has lost 99% of its prairies, 95 of its wetlands have been drained, and 75% of its forests have been cut.”³⁰ This degree of transformation occurred as Iowa was rapidly converted from an agricultural landscape, as it had been since European settlement,³¹ to an agricultural working landscape in the nineteenth and early twentieth centuries.³² This means that extensive efforts were made to convert forest and prairie to agricultural use, largely related to commodity crops of corn, oats, wheat, and later soybeans.³³ To enable this

with extensive draining of wetlands in the 1900s, often in response to federal, state and local programs enacted to encourage wetland drainage.”).

27. Daryl D. Smith, *Tallgrass Prairie Settlement: Prelude to the Destruction of the Tallgrass Ecosystem*, in PROCEEDINGS OF THE TWELFTH NORTH AMERICAN PRAIRIE CONFERENCE 1990, at 195 (1990), <http://images.library.wisc.edu/EcoNatRes/EFacs/NAPC/NAPC12/reference/econatres.napc12.dsmith.pdf> [<https://perma.cc/R8T9-67VY>] (profiling the original extent of and rapid loss of this ecosystem).

28. USDA FOREST SERV., IOWA’S FORESTS 3 (2003), https://www.nrs.fs.fed.us/pubs/rb/rb_nc266a.pdf [<https://perma.cc/2AD9-T3WC>]; Thomson, *supra* note 25, at 1 (noting that the reasons that this estimate is only an estimate relying on very rough historic data); CHARLES M. GENAUX & JOHN G. KUENZEL, IOWA STATE COLLEGE, AGRICULTURAL EXPERIMENT STATION, DEFECTS WHICH REDUCE QUALITY AND YIELD OF OAK-HICKORY STANDS IN SOUTHEASTERN IOWA, 24 RSCH. BULL. 269, 410 (1939) (noting that “[h]istorical accounts of forests in Iowa are meager. Estimates of the original forest area vary from less than one-eighth to one-fifth of the total area of the state.”).

29. IOWA ASSOC. OF NATURALISTS, IOWA’S BIOLOGICAL COMMUNITIES 5 (2001), <https://www.iowa-naturalists.org/wp-content/uploads/2018/07/IAN0201.pdf> [<https://perma.cc/8S72-UAMQ>]; see also Thomas H. MacBride, *Landscapes of Iowa: The Historical Record*, 7 PALIMPSEST 283, 283-93 (1926).

30. IOWA ASSOC. OF NATURALISTS, *supra* note 29.

31. Daryl D. Smith, *Iowa Prairie: Original Extent and Loss, Preservation and Recovery Attempts*, 105 J. IOWA ACAD. SCI. 94, 96 (1998) (noting that farms were often located near woodlands but the primary focus remained converting the landscape to agricultural use).

32. Leland Searles, *On Prairie Loam: Impressions of History and Farming in Iowa*, 50 SKETCH 17, 17-21 (1985) (profiling the historical development of Iowa farming—both pre-statehood into its modern form).

33. EARLE D. ROSS, IOWA AGRICULTURE: A HISTORICAL SURVEY 12-23 (1951).

conversion, the majority of these lands were drained, cleared, or plowed to accommodate agricultural production.³⁴ While an important resource, the use of felled timber was generally a secondary concern to clearing the land for farming.³⁵

Despite not being the primary goal, the logged timber was used within the state (creating fences and farm structures) and for export.³⁶ The state's "forests were decreased from 6,680,926 acres . . . during the original forest survey of 1832-1859 to 2,524,792 acres . . . by 1875."³⁷ In short, Iowa's timber was rapidly exploited to facilitate the conversion of land use and was put to productive use in a variety of activities related to the state's early settlement.³⁸

Early land use patterns in Iowa were also heavily shaped by lands granted by the federal or state government to various railroad companies in exchange for constructing railroad lines (with the idea that these subsidies would spur establishment of these transportation lines).³⁹ The railroad companies then sold these lands to farmers interested in converting them to farms (for which there was considerable interest).⁴⁰ By the Civil War and certainly by the dawn of the twentieth century, Iowa had taken on its predominantly agricultural aspect.⁴¹ "Ecologically, the system went from that originally encountered by the Europeans—a grassy plain with a complex ecological system similar to that of the Serengeti Plains of Africa—to a simple

34. *See, e.g.*, Bishop, *supra* note 26, at 89-93 (profiling this landscape level conversion); *see also* Gallant, *supra* note 26. (2011).

35. Smith, *supra* note 31, at 96 (noting that farms were often located near woodlands but the primary focus remained converting the landscape to agricultural use); *see also* Gene Hertel, *The Iowa Forest—At the Crossroads*, 65 AMES FORESTER 22, 22 (1978) (noting that "[t]he average woodlot owner in Iowa has not usually considered his forest land as a particularly valuable part of his farm. This has been due to many causes, including irregular markets for surplus timber products and to the overshadowing importance of agriculture to the state . . .").

36. MUTEL, *supra* note 4, at 158-59.

37. Dean M. Roosa, *Iowa Natural Heritage Preservation: History, Present Status and Future Challenges*, 88 PROC. IOWA ACAD. SCI. 43, 43 (1981); *see also* DOUGLAS W. MACCLEERY, AMERICAN FORESTS: A HISTORY OF RESILIENCY AND RECOVERY 13-23 (1993) (discussing the use of forests as part of the Industrial Revolution).

38. IOWA DEP'T OF NAT. RES., FAMOUS AND HISTORICAL TREES OF IOWA 4-5 (1996) (profiling this focus and the fact that early settlers often focused on forested tracts given the multitude of benefits provided by having access to forest products which they could put to use in developing their farms).

39. ROSCOE L. LOKKEN, IOWA PUBLIC LAND DISPOSAL 236 (1942) (profiling these grants within Iowa).

40. *Id.* at 263.

41. IOWA STATE HIST. SOC'Y, TIME PERIODS: OVERVIEW OF IOWA HISTORY 3 (2004), https://iowaonline.uni.edu/prairievoices/images/Time_Periods.pdf.[<https://perma.cc/FEJ5-ET92>].

ecological system but a very complex and highly specialized industrial system” focused on commodity crop production.⁴²

2. The New Agricultural Landscape

Beyond the ecological impacts of the significant land use conversion across the state, Iowa’s land use shift was not without environmental, economic, and social consequences.⁴³

a. Environmental Impacts

Farming in Iowa’s early days was done often with little conscious regard of its environmental impacts.⁴⁴ The most pressing issue was soil erosion and the lack of affirmative efforts to prevent soil loss, including the use of contour plowing and basic terracing.⁴⁵ This loss of soil (both health and quantity) would later have profound consequences⁴⁶ not just in Iowa, and would lead to the creation of the Soil Conservation Service.⁴⁷ The environmental concerns remain today as

42. INST. OF MED. OF THE NAT’L ACADS., REBUILDING THE UNITY OF HEALTH AND THE ENVIRONMENT IN RURAL AMERICA: WORKSHOP SUMMARY, (2006), https://www.ncbi.nlm.nih.gov/books/NBK56972/pdf/Bookshelf_NBK56972.pdf [<https://perma.cc/U6CD-4EKB>].

43. See E. E. EASTMAN & J. S. GLASS, SOIL EROSION IN IOWA, 183 RSCH. BULL. 1 (2017) (summarizing the state of soil loss in the state in the 1910s.); see also M. SCOTT ARGABRIGHT ET AL., NAT RES. CONSERVATION SERV., HISTORICAL CHANGES IN SOIL EROSION, 1932–1992: THE NORTHERN MISSISSIPPI VALLEY LOESS HILLS (1996) (profiling soil erosion changes in a portion of northeastern Iowa over time).

44. See, e.g., J.F. Obrycki & D.L. Karlen, *Optimizing Iowa’s Land Use: Past Perspectives for Current Questions*, 73 J. SOIL & WATER CONSERVATION 693 (2018) (profiling historic soil loss/impacts from earlier farming techniques); USDA, INVESTIGATION IN EROSION CONTROL AND THE RECLAMATION OF ERODED LAND AT THE MISSOURI VALLEY LOESS CONSERVATION EXPERIMENT STATION, CLARINDA, IOWA, 1931–1942 (1948) (noting that in the approximately eighty years this formerly prairie soil had been farmed nearly half of the topsoil had already been lost to erosion); see also EDWARD H. FAULKNER, PLOWMAN’S FOLLY 157-59 (1944) (discussing the impacts of contemporary farming practices and soil loss).

45. *The Erosion of Soils*, SCIENCE, Feb. 1, 1929 at xlvi (discussing Hugh Hammond Bennett’s (founder of the Soil Conservation Service) trip to Iowa and his conclusions regarding soil loss); J. B. PETERSON & L. E. CLAPP, *Following the Contour: How to Strip Crop Iowa Land*, 2 BULL. P53, Feb. 1943 (explaining the need/soil conservation benefit of contour plowing). Addressing soil erosion became one of the hallmarks of New Deal conservation efforts. See ARTHUR M. SCHLESINGER, JR., THE COMING OF THE NEW DEAL 340-42 (1959) (profiling some of these efforts).

46. Obrycki & Karlen, *supra* note 44, at 693 (reviewing 1930’s era analysis of how to address conservation-related concerns and evaluating their application to today’s agricultural landscape).

47. See, e.g., Richard Lowitt, *Agricultural Policy and Soil Conservation: Comment*, 59 AGRICULTURAL HISTORY, 320, 320-325 (Apr. 1985); see also Jess R. Phelps, *A Vision of the New Deal Unfulfilled? Soil and Water Conservation Districts and Land Use Regulation*, 11 DRAKE J. AGRIC. L. 353 (2006) (discussing the rise of soil conservation efforts within USDA and the creation of the SCS). Farm tenancy was also viewed as being part of the problem, the logic being that if tenants were

the federal government invests billions of dollars annually to incentivize farmers to improve stewardship practices.⁴⁸ Farm organizations and farmers are also actively engaged in trying to mitigate soil loss and the other environmental impacts.⁴⁹ The nature and type of conservation concerns have also evolved to include a broader suite of concerns about the more concentrated air, water, and other impacts associated with larger-scale contemporary agricultural production (an agricultural system of which Iowa is the exemplar).⁵⁰

b. Economic Impacts

Economic considerations played a role in fueling land use change and the correlated environmental impacts. First, land tenure mattered. If a farmer rented the land or was in severe danger of losing the farm to their lender, it was difficult to justify anything other than maximizing production and minimizing the costs of getting the crop out that specific crop year.⁵¹ Iowa's lands were also of an uneven quality.⁵² Some areas featured soils that were among the best in the country, if not the world.⁵³ Others were more marginal and were more

converted to landowners, they would take a longer-term view and be better land stewards. See Chris Rasmussen, *“Never A Landlord for the Good of the Land”: Farm Tenancy, Soil Conservation, and the New Deal in Iowa*, 73 AGRIC. HIST. 70, (Winter 1999) (discussing soil erosion issues generally—particularly with tenant farming during this period).

48. See, e.g., Gabriel Medina et al., *Iowa Farm Environmental Leaders' Perspectives on the U.S. Farm Bill Conservation Programs*, FRONTIERS IN SUSTAINABLE FOOD SYSTEMS (Sept. 29, 2020), <https://www.frontiersin.org/articles/10.3389/fsufs.2020.497943/full> [<https://perma.cc/V7GZ-MSFG>] (summarizing the extent and reach of conservation programs in the state); see also CONG. RSCH. SERV., 2018 FARM BILL PRIMER: TITLE II CONSERVATION PROGRAMS, May 3, 2019, <https://sgp.fas.org/crs/misc/IF11199.pdf> [<https://perma.cc/9JT4-5PRR>] (profiling current levels of expenditures in this area).

49. See, e.g., IOWA ASS'N OF NATURALISTS, IOWA AGRICULTURAL PRACTICES AND THE ENVIRONMENT (1999) (summarizing various environmental issues associated with conventional farming practices in the state).

50. See, e.g., Neil D. Hamilton, *Essay: Food Democracy and the Future of American Values*, 9 DRAKE J. AGRIC. L. 9, 11-12 (2004) (charting these impacts).

51. See, e.g., Jacob L. Crane, Jr., *The Iowa Conservation Plan: Its Bearing on General Land Planning*, 9 J. LAND & PUB. UTIL. ECON., 247, 248 (Aug. 1933) (“If the insurance company, the bank, the county, or some other tenant is going to get the farm next year or the year after, the present landowner is not in a position to conserve woodlands, to rotate crops properly, and to check erosion in the way that he himself would wish if he were secure in his tenure.”).

52. ROSS, *supra* note 33, at 8-11; see also SECOND REPORT, *supra* note 12, at 18 (“[I]t is believed that there are rather extensive areas in southern Iowa, and to a lesser extent in other parts of the state, where the natural fertility of the soil, the thinness of the top soil, the erosive character of the land or other factors make it economically sound to place these areas in forest production.”).

53. *Iowa Soils*, IOWA PBS, <http://www.iowapbs.org/iowapathways/mypath/iowa-soils> [<https://perma.cc/G7UP-ZEKC>] (last visited Oct. 25, 2020) (profiling Iowa agricultural soils generally); see also USDA Natural Resource Conservation Services Iowa, *Soils*, (last visited Oct.

likely to be impacted by soil erosion and were not well suited for agricultural use.⁵⁴ Farmers seeking to make a living off of these lands often struggled to do so.⁵⁵ When the Great Depression hit the state, prevailing land use patterns would play a prominent role in how and where land use planners would attempt to address longstanding problems associated with these so-called submarginal lands.⁵⁶ In the view of land use planners, these lands should not have been cultivated.⁵⁷ They believed there was a compelling need to restore balance to the working landscape, often by reacquiring these lands and restoring pre-existing forest cover.⁵⁸ In Iowa, as elsewhere, submarginal land use planning efforts generally did not have much impact in shifting targeted lands out of agricultural production (other than those states that were successful in facilitating Forest Service acquisitions in certain targeted purchase areas).⁵⁹

In Iowa, given the lack of success in promoting large-scale land use conversion, lands generally either stayed in active agricultural use for row crop production or use as pasture ground. Land ownership patterns, however, began to change as smaller farmers increasingly found their landholdings to not be viable, starting the process of farm ownership concentration that continues to play out.

25, 2020), <https://www.nrcs.usda.gov/wps/portal/nrcs/ia/soils/> (compiling resources on Iowa soil quality and characteristics).

54. P.E. Brown, *Some Problems of Land Use in the Cornbelt*, 28 AGRONOMY J., Mar. 1936, at 173; Alvin L. Bertrand, *A Dilemma of Land Use*, 18 J. OF LAND & PUB. UTIL. ECON. 220, 220-22 (May 1946). 1930's planners estimated that "approximately 550,000 tons of good surface soil per square mile, or a total for the state of 30,000,000,000 tons." See IOWA STATE PLAN. BD., RESTORE THE FOREST COVER 10, 15 (1935). The degree of historic soil loss is perhaps best visualized at an Iowa rest stop, near Adair, Iowa on Interstate 80 which uses five pillars to depict soil loss over time. See STEPHANIE ANDERSON, ONE SIZE FITS NONE: A FARM GIRL'S SEARCH FOR THE PROMISE OF REGENERATION AGRICULTURE 46 n.10 (2019) (explaining the visual impact of this depiction of soil loss).

55. Frank Yoder, *Staying on the Farm: Surviving the Great Depression in an Iowa Township, 1920-1950*, 51 ANNALS OF IOWA 53, 53 (summarizing the economic hardships caused by this period generally).

56. SECOND REPORT, *supra* note 12, at 20 (explaining that "[t]he entire land adjustment problem in the state involves the human element to a considerable extent" and further noting that "[m]any of the people in these localities are now on relief" and would benefit from selling the land/potential employment with the Forest Service); see also W.D. Nuckolls, *Program of the Federal Government for the Purchase and Use of Submarginal Lands*, 17 J. FARM ECON., 63, 63-65 (Feb. 1935) (summarizing this issue on the national level).

57. TIM LEHMAN, PUBLIC VALUES, PRIVATE LANDS: FARMLAND PRESERVATION POLICY, 1933-1985 12-15 (1995).

58. *Id.* at 12-15.

59. See, e.g., SARAH T. PHILLIPS, THIS LAND, THIS NATION: CONSERVATION, RURAL AMERICA, AND THE NEW DEAL 125-26 (2007) (discussing the efficacy of this component of the New Deal).

C. Iowa's Forests Today

Today, despite the continued prominence of agricultural use as the defining land use form,⁶⁰ Iowa still has about 2.9 million acres of forest land.⁶¹ This is roughly a quarter of the original forests and only 10 percent of these forests are under public ownership.⁶² Iowa's remaining forests are largely in private ownership and subject to the management of private individuals.⁶³ Iowa's current forest stands consist of approximately a billion trees—including sixty-eight different tree species.⁶⁴ "Hardwood or deciduous trees occupy 97 percent of Iowa's forest area. Oak/hickory forests are the most extensive and include mostly white oaks, northern red oaks, bur oaks, and a mix of upland hardwood trees. Softwood or conifer dominant stands cover only 1 percent of forest area in Iowa."⁶⁵ "Although forest area has declined over the years, woods and wooded river bottoms are scattered throughout Iowa, providing an array of services and benefits to Iowans and visitors alike. They reduce air pollution, enhance water quality, promote plant diversity, provide wildlife habitat, produce timber, are used for recreation and relaxation, and increasingly are places where people build their homes."⁶⁶ In short, Iowa's forests, although reduced substantially from their original context, still are highly valuable resources for the state and will continue to provide these enumerated functions.⁶⁷

Iowa's forests, however, are under increasing threat. In recent years, the number of forested acres has dropped for the first time in

60. See, e.g., BROWN & SCHULTE, *supra* note 5, at 202-11 (summarizing the extent of this defining land use and the changes in agricultural land use forms over a sixty-five year period).

61. USDA FOREST SERV., FORESTS OF IOWA (2016), https://www.fs.fed.us/nrs/pubs/ru/ru_fs111.pdf [<https://perma.cc/MU3G-PUVS>] (profiling forest cover in the state and noting that the state lost over 100,000 acres of forest land between 2011 and 2016). This cover percentage is actually an increase from lows in the 1970s of nearly a million acres. USDA FOREST SERV., IOWA'S FORESTS (2006), https://www.nrs.fs.fed.us/pubs/rb/rb_nc266a.pdf [<https://perma.cc/8DMK-5G5R>].

62. IOWA ASS'N OF NATURALISTS, IOWA WOODLANDS 21-22 (2001). These lands within the public domain are owned by local and state governments. *Id.*

63. 16 U.S.C. §§ 473-82, 551; see also Robert Bassman, *The 1897 Organic Act: A Historical Perspective*, 7 NAT. RES. LAW. 503, 503 (1974).

64. USDA FOREST SERV., *supra* note 61, at 7.

65. *Id.*

66. *Id.* at 3.

67. See, e.g., Billy Beck, *Roles of Trees May Change from Lee to Lyon, but Their Value to Iowa Farmers Doesn't Waiver*, IOWA STATE UNIV. EXTENSION AND OUTREACH (Nov. 22, 2019), <https://naturalresources.extension.iastate.edu/blog/dr-billy-beck/roles-trees-may-change-lee-lyon-their-value-iowa-farmers-doesn%E2%80%99t-waver> [<https://perma.cc/G3NR-BNWX>] (discussing the value of trees generally to the state).

decades.⁶⁸ This loss has been largely driven by conversion of forested tracts to agricultural use.⁶⁹ Agricultural conversion is not the only risk factor. Notably, a recent natural disaster, the 2020 derecho event that devastated a large section of central Iowa, is estimated to have flattened approximately a quarter of the state's trees.⁷⁰ Recovery from this event will take substantial time, although work has already begun.⁷¹ As natural disasters increase in the face of climate change, these events will put further pressure on the remaining forested landscape.

To summarize, Iowa is an agricultural landscape.⁷² The conversion of ecosystems of all forms toward agriculture has resulted in Iowa being one of the most, altered landscapes in the world.⁷³ Iowa farmers have been, and are, highly productive and have made the state an agricultural powerhouse.⁷⁴ Today, the challenge facing Iowa conservationists and farmers is how to balance the economic and the environmental impacts of the existing agricultural and economic production paradigm in the face of rising concerns related to the climate, soil, air,

68. Donnelle Eller, *Iowa is Losing Millions of Trees—And Its Hurting Water Quality*, *Experts Say*, DES MOINES REG., July 16, 2016, <https://www.desmoinesregister.com/story/money/agriculture/2016/07/16/iowa-losing-millions-trees-and-is-hurting-water-quality/87074442/> [<https://perma.cc/N7UL-RLK9>] (profiling this degree of forest loss).

69. *Id.*

70. Perry Beerman, *State: Derecho Flattened a Quarter of Iowa's Forests*, DES MOINES REG. (Nov. 14, 2020), <https://www.desmoinesregister.com/story/news/2020/11/14/state-derecho-flattened-quarter-iowas-forest/6271797002/> [<https://perma.cc/BNP4-76EG>].

71. See, e.g., Dustin Renwick, *How One Iowa City Plans to Recover from Losing Most of Its Trees*, NAT'L GEOGRAPHIC (Dec. 10, 2020) <https://www.nationalgeographic.com/environment/article/how-one-city-plans-to-recover-from-losing-all-of-its-trees> [<https://perma.cc/HR74-4VXA>] (exploring Cedar Rapids' experience and recovery plans); see also Rich Patterson, *August's Devastating Derecho Has a Silver Lining*, IOWA NAT. HERITAGE FOUND. (Sept. 10, 2020) <https://www.inhf.org/blog/blog/augusts-devastating-derecho-has-a-silver-lining/> [<https://perma.cc/DGZ4-RFCS>] (placing this event in historic context and considering forest regeneration).

72. See, e.g., Richard Doak, *The Story of Pioneer Iowa: From Wetland to Farmland*, DES MOINES REG. (Mar. 11, 2015), <https://www.desmoinesregister.com/story/opinion/columnists/2015/03/01/story-pioneer-iowa-wetland-farmland/24212331/> [<https://perma.cc/U323-B5JP>] (discussing this process within the context of wetlands).

73. IOWA DEP'T OF NAT. RES., *supra* note 24, at 31 (noting that "the transformation of native permanent vegetation resulted in one of the most altered landscapes in the world.").

74. Lisa Schulte Moore, *Iowa's Farmers—and American Eaters—Need a National Discussion on Transforming U.S. Agriculture*, THE CONVERSATION (Oct. 16, 2019), <https://theconversation.com/iowas-farmers-and-american-eaters-need-a-national-discussion-on-transforming-us-agriculture-114902> [<https://perma.cc/54Q3-9F8Y>] (noting the state's role as a leading producer of agricultural commodities in the context of also addressing the challenges associated with modern agricultural production).

and water quality impacts of these productive activities.⁷⁵ With this baseline in mind, the following sections will consider whether this degree of landscape alteration was inevitable, whether its impacts are irreversible, and what can be done to preserve, conserve, restore, and provide ecosystem services across Iowa's landscape to facilitate this balance.

III. A BRIEF HISTORY OF THE FOREST SERVICE AND FOREST ACQUISITION

Understanding the history of the U.S. Forest Service and the goals that various forest acquisition-related acquisition programs were seeking to accomplish in Iowa also requires additional context.⁷⁶ This section will quickly discuss the origins of the National Forest System, with a particular focus on the shift from protecting lands remaining in the public domain under the Forest Reserve Act (largely in the Western United States) to utilizing the authority of the Weeks Act to acquire lands and restore forest cover (and acquire and form the Eastern national forests).⁷⁷ The use of the Weeks Act authority to acquire and restore impacted agricultural and cut-over lands to forest cover and generally address economic and environmental ills was the key reason why parts of Iowa were strongly considered for inclusion in the National Forest System in the 1930s.⁷⁸

75. See, e.g., Anna Jones, 'What They Put on the Fields Contaminates Our Water': Iowa's Pollution Problem, THE GUARDIAN (Sept. 26, 2019), <https://www.theguardian.com/environment/2019/sep/26/nitrate-problem-iowa-dont-use-the-tap-water-for-babies> [<https://perma.cc/94SF-8VM8>] (profiling water quality challenges in Griswold, Iowa (located in the southwest part of the state)).

76. To clarify, the distinction between the National Forests and National Parks is that the National Forests have a mixed-use mandate (representing the conservationist strain in the Pinchot/Muir divide) and the National Parks is administered by the National Park Service within the Department of Interior, representing the preservationist perspective. See Federico Cheever, *The United States Forest Service and National Park Service: Paradoxical Mandates, Powerful Founders, and the Rise and Fall of Agency Discretion*, 74 DENV. U.L. REV. 625, 630-31 (1996); see also PHILLIPS, *supra* note 59, at 7-8 (discussing this use of this dichotomy within environmental history and its impact on assessing the New Deal).

77. HAROLD K. STEEN, USDA FOREST SERV., THE BEGINNINGS OF THE NATIONAL FOREST SYSTEM iii-iv (1991); see also Wilson B. Sayers, *The Changing Land Ownership Pattern in the United States*, 9 FOREST HIST. NEWSL. 2, 2-9 (1965) (charting the various periods in public land ownership including the shift towards the federal government purchasing privately-owned lands for return to the public domain—in Sayers' view, the fourth phase of this ongoing evolution).

78. GEORGE CAMERON COGGINS ET AL., FEDERAL PUBLIC LANDS & RESOURCES LAWS 136 (2007).

A. Early Origins/Legal Authorities

The Forest Service's roots date back to the 1870's when there was a growing interest in protecting western forests.⁷⁹ Prior to this period, the federal government's primary focus was on the acquisition of lands and conveying this land for settlement (and, in turn, often using the proceeds to promote other social objectives, such as funding infrastructure development and establishing public schools).⁸⁰ By the 1870s, public interest in changing how these lands were managed was driven by strong concern over the pace of forest loss and the impacts of the extensive cutover lands that were being left behind across the American landscape.⁸¹

In 1891, Congress passed the Forest Reserve Act, which allowed President Harrison to create the first forest reserve—the Yellowstone Park Timberland Reserve (parts of which would eventually become the Shoshone and Bridger-Teton National Forests).⁸² “Attached to the bill was a one sentence amendment—Section 24— that allowed the president to proclaim forest reserves, later called national forests, from timber-covered public domain.”⁸³ Under the Forest Reserve Act, fifteen forest reserves, consisting of more than 94 million acres, were set aside from the public domain and placed under the authority of the Department of the Interior.⁸⁴ “A distributional problem, however,

79. Harold K. Steen, *The Origins and Significance of the National Forest System*, in *THE ORIGINS OF THE NATIONAL FORESTS* 3, 6-7 (Harold K. Steen ed., 1992); see also Scott W. Hardt, *Federal Land Management in the Twenty-First Century*, 18 *HARV. ENV'T L. REV.* 345 (1994). The actual first action in this regard was an 1876 appropriation of \$2,000 for a federal study/forester. “It was of little apparent significance then, but of greater significance in retrospect, that the appropriation was to the Commissioner of Agriculture rather than the Department of Interior.” James L. Huffman, *A History of Forest Policy in the United States*, 8 *ENV'T L.* 239, 245 (1978); see also GERALD W. WILLIAMS, *USDA FOREST SERVICE, THE USDA FOREST SERVICE – THE FIRST CENTURY* 5 (2005) (profiling the impact of the appointment of Dr. Franklin Hough, which led to the 1881 temporary creation of the USDA's Division of Forestry).

80. Steen, *supra* note 79, at 6-7.

81. Char Miller, *The Pivotal Decade: American Forestry in the 1870s*, 98 *J. OF FORESTRY*, Nov. 2000, at 6, 6-10 (summarizing these concerns and the eventual federal intervention).

82. Act of Mar. 3, 1891, Ch. 562, § 24, 26 Stat. 1103, repealed by 16 U.S.C. § 471; see also John E. Mitchell, *Back to the Future: Forest Service Rangeland Research and Management*, *RANGELAND MGMT.*, June 2005, at 19 (profiling the competing use of these lands).

83. John R. McGuire, *The National Forests: An Experiment in Land Management*, 26 *J. FOREST HISTORY*, 84, 84-91 (1982); see also Steen, *supra* note 79, at 3, 6-7 (profiling the political movement towards the passage of this legislation).

84. A Historic Context: Identifying and Preserving Historic Bridges, *USDA FOREST SERV.*, <https://www.fs.fed.us/eng/pubs/htmlpubs/htm00712854/page05.htm> [<https://perma.cc/86WY-EY3P>] (Nov. 6, 2019) (exploring this history and the eventual transfer of roughly 63 million acres of the forest reserves from the Department of Interior to the Department of Agriculture); see also David E. Conrad, *Creating the Nation's Largest Forest Reserve*, 46

was that the public domain (unclaimed public land) was almost all in the West.”⁸⁵ This left a gap in what was being set aside (both geographical and as far as the land types that were being protected) that conservationists would eventually address through additional legislation.⁸⁶

B. Creation of the USDA Forest Service

The Forest Service was formally created in 1905 and consolidated many scattered forestry initiatives into one agency under the control of the Department of Agriculture.⁸⁷ Much of the land that had been set aside under the Forest Reserve Act was then transferred to USDA from the Department of Interior, and the Forest Service's holdings would continue to grow (to its current 193 million acres).⁸⁸ Early Forest Service thinking was shaped by its first chief, Gifford Pinchot, who espoused a progressive-era conservation ethic shaped by a utilization desire to have the lands provide the greatest good for the greatest number.⁸⁹ “To repair the land required an organization whose

PACIFIC HISTORICAL REVIEW. . . 65 (1977) (profiling the use of this authority to create Alaska's Tongass National Forest); William E. Shands, *The Lands Nobody Wanted: The Legacy of the Eastern National Forests*, in *THE ORIGINS OF THE NATIONAL FORESTS*, at 19, 26 (Harold K. Steen ed., 1992); Charles F. Wilkerson, *The Forest Service, A Call to a Return to First Principles*, 5 PUB. LAND L. REV. 1, 5 (1984) (charting the transfer of the forest reserves to the USDA and the origins of the national forests); Robert Bassman, *The 1897 Organic Act: A Historical Perspective*, 7 NAT. RES. 503 (1974) (same).

85. GERALD W. WILLIAMS, USDA FOREST SERV., *THE BEGINNINGS OF THE NATIONAL FORESTS IN THE SOUTH: PROTECTION OF WATERSHEDS* (2003), https://foresthistor.org/wp-content/uploads/2017/02/ProtectionofWatersheds_Williams.pdf [<https://perma.cc/5XTS-NE9G>]; see also Gerald W. Williams & Char Miller, *At the Creation, The National Forest Commission of 1896-97*, FOREST HISTORY. TODAY, Spring/Fall 2005, at 32, https://foresthistor.org/wp-content/uploads/2016/12/FHT05_NatlForestComm_at-the-creation.pdf [<https://perma.cc/H9NT-L4ES>] (summarizing the passage of the Organic Act and the eventual transfer of the forest reserves to USDA).

86. Char Miller, *The Weeks Act: A Centennial Retrospective*, 109 J. OF FORESTRY 120, 120-21 (2011); see also James L. Huffman, *Managing the Northern Forests: Lessons from the West*, 19 VT. L. REV. 477 (1994) (discussing the historic differences in ownership of these lands).

87. WILLIAMS, *supra* note 79, at 5 (profiling this early history); see also Henry S. Graves, *Federal Forestry*, 38 SCIENCE, Nov. 28, 1913, at 753-58 (discussing the early work/goals of the Forest Service); ROBERT UTLEY & BARRY MACINTOSH, DEPARTMENT OF INTERIOR, *THE DEPARTMENT OF EVERYTHING ELSE: HIGHLIGHTS OF INTERIOR HISTORY*, https://www.nps.gov/parkhistory/online_books/utley-mackintosh/interior6.htm (profiling the conservation movement and the shift of these acres from Interior to Agriculture; Charles F. Wilkerson & H. Michael Anderson, *Land and Resource Planning in the National Forests*, 64 OR. L. REV. 1, 18 (1985) (same).

88. WILLIAMS, *supra* note 79, at 17-26.

89. *Gifford Pinchot (1865-1946)*, FOREST HIST. SOC'Y, <https://foresthistor.org/research-explore/us-forest-service-history/people/chiefs/gifford-pinchot-1865-1946/> [<https://perma.cc/3EX4-59ZZ>] (last visited Oct. 12, 2020); see also Charles Wilkerson, Speech, “*The Greatest Good for the Greatest Number in the Long-Run*”: TR, Pinchot, and the Origins of

mission was to restore what had been destroyed. Replant, regenerate, repair: this would be the agency's environmental ethos for its first forty years: from 1905 through 1945," when the Forest Service's priorities began to change to active management of the wood supply.⁹⁰

As noted above, the early national forests were essentially lands that had remained in the public domain throughout the settlement period.⁹¹ By the early twentieth century, the Forest Service had been established and was focused on actively managing the lands under its jurisdiction in the West.⁹²

C. The Weeks Act and the Eastern National Forests

During the late nineteenth and early twentieth centuries, conservationists began to also push for expansion of the National Forest system to the Eastern states.⁹³ As almost all of the land in the East had already been conveyed into private ownership, this would require the federal government to purchase lands for this purpose.⁹⁴ The efforts were opposed by some in Congress due to concerns about states' rights (as many were opposed to federal acquisition of lands) and constitutional limits of federal authority to make these purchases or the

Sustainability in America, 26 COLO. NAT. RES., ENERGY & ENV'T L. 69 (2015); William E. Shands, *National Forests and the Human Legacy: Some History*, in USDA FOREST SERV., SILVICULTURE: FROM THE CRADLE OF FORESTRY TO ECOSYSTEM MANAGEMENT, PROCEEDINGS OF THE NATIONAL SILVICULTURE WORKSHOP 3 (1993). For more background on Gifford Pinchot and the early years of the Forest Service, see JAMES G. LEWIS, *THE FOREST SERVICE AND THE GREATEST GOOD: A CENTENNIAL HISTORY* (2005).

90. Char Miller, *The Once and Future Forest Service; Land-Management Policies and Politics in Contemporary America*, 21 J. POL'Y HIST. 89, 91 (2009); see also Douglas Quirke, *Between Community Stability and the 'Greatest Good': Legal Obligations of the U.S. Forest Service Toward Rural Communities, 1891-2016*, 32 J. ENV'T L. & LITIG. 169 (2016) (profiling the varying roles and perspectives of the Forest Service in attempting to fulfill its multiple use mandate—balancing economic and environmental benefits).

91. James L. Huffman, *A History of Forest Policy in the United States*, 8 ENV'T L. 239 (1977).

92. W.W. Ashe, *The Place of the Eastern National Forests in the National Economy*, 13 GEOGRAPHICAL REV. 532 (1923) (noting that "[t]he eastern Forests are being built up of lands acquired by purchase from private owners."); see also GLEN O. ROBINSON, *THE FOREST SERVICE* 11 (1975).

93. Williams & Miller, *supra* note 85, at 32 (noting the work behind creation of the forest reserves); see also G. Michael McCarthy, *The Forest Reserve Controversy: Colorado Under Cleveland and McKinley*, 20 FOREST & CONSERVATION HIST. 80, 90 (1976) (profiling the debates over this land use form); Ashe, *supra* note 92, at 532 (noting early interest in creating Eastern national forests).

94. Eric J. Curtis, *"For the Snark was a Boojum, You See": Counseling with Caution in Administering Acquired Eastern National Forest Lands Since NEPA*, 1 LAND & WATER L. REV. 21 (1974) (exploring myriad issues associated with administering acquired lands from the USDA Office of General Counsel perspective).

appropriateness of doing so.⁹⁵ Concerns about federal acquisition of land were addressed by requiring states to consent to any federal acquisitions.

To tie into clear constitutional authority, the program was structured to assist with flood control and water supply protection.⁹⁶ Owing to severe floods⁹⁷ and, in other cases, water quantity and quality concerns,⁹⁸ there was a strong push to ensure that headwaters of navigable waters were protected.⁹⁹ Linking the land acquisition to the constitutional authority of the federal agencies tasked with acquiring these lands enabled them to act under the power granted by the Commerce Clause.¹⁰⁰ The use of the Commerce Clause to promote these efforts originally required a showing from the U.S. Geological Survey that the lands being protected would be of value in promoting the continued navigability of connected streams/waterways as part of the acquisition evaluation.¹⁰¹

In 1911, the Weeks Act authorized the U.S. government to purchase eastern lands to restore forest cover to the landscape to promote these goals.¹⁰² This authorized the Secretary of Agriculture, “to

95. USDA FOREST SERV., CHEROKEE NATIONAL FOREST, CELEBRATING A CENTURY OF CONSERVATION: THE WEEKS ACT TURNS 100 (Mar. 17, 2011), https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5286259.pdf [<https://perma.cc/PP3R-T738>]; see also Remarks by F. Dale Robertson, Associate Chief, USDA Forest Service (June 19, 1986), 75th Anniversary of the Weeks Act and the White Mountain National Forest, https://foresthistor.org/wp-content/uploads/2017/01/Robertson_75th.pdf [<https://perma.cc/EMM2-4P3Q>] (discussing the constitutional debate over the Weeks Act and the ongoing resistance by House Speaker Joseph Cannon to spending “one red cent for scenery.”).

96. HAROLD K. STEEN, THE U.S. FOREST SERVICE: A HISTORY 122-28 (1976); Shands, *supra* note 84, at 15; see also J.N. Flowers, *The Purchase by the Federal Government of Lands Within the States*, 17 MISS. L. J. 20, 21 (1945) (discussing these purchases).

97. JOHNSON & GOVATSKI, *supra* note 17, at 96-98.

98. WILLIAM E. SHANDS & ROBERT G. HEALY, THE LANDS NOBODY WANTED: A CONSERVATION FOUNDATION REPORT 14 (1977).

99. Ashe, *supra* note 92, at 532 (explaining that “[t]he act provided for the acquisition of lands located on waters of navigable streams of such character, in the view of the Geological Survey, that the maintenance of a forest cover thereon would be of value in promoting their navigability.”).

100. Shands, *supra* note 84, at 19, 40.

101. See *Passing the Weeks Act*, FOREST HIST. SOC'Y, <https://foresthistor.org/research-explore/us-forest-service-history/policy-and-law/the-weeks-act/passing-weeks-act/> [<https://perma.cc/9JY-432U>] (last visited Jan. 17, 2021).

102. SAMUEL P. HAYS, THE AMERICAN PEOPLE AND THE NATIONAL FORESTS: THE FIRST CENTURY OF THE U.S. FOREST SERVICE 60-61 (2009); see also Al Hester, *Establishing the Francis Marion: National Forest History in South Carolina's Lowcountry, 1901-36*, FOREST HIST. TODAY, Spring/Fall 2011, at 56, 56 (profiling the goals/objectives of forest advocates, which were secured through the Weeks Act funding mechanism); see also ROBINSON, *supra* note 92, at 11. A related challenge has been the extent of the property interest that the federal government actually acquired. See Jonathan Thorpe, *Minard Run Oil Co. v. United States Forest Service*, 36 HARV. ENV'T L. REV. 567,

purchase forested, cutover, or denuded lands within the watersheds of navigable streams,” and would eventually add nearly 20 million acres of land to the National Forest System.¹⁰³ As a result, “[t]he eastern national forests mainly are purchased forests—land bought from willing sellers on an opportunistic basis. Geology, soil, aspect, a landowner’s farming ability, and his economic ambition or necessity, all helped determine which lands were made available to the federal government.”¹⁰⁴

“The [Weeks] act established the National Forest Reservation Commission (NRFC), which consisted of government officials, to identify purchase areas for acquisition. Specific purchase boundaries were then delineated by the Forest Service and approved by the secretary of agriculture. When sufficient land had been acquired as a purchase unit, that unit was designated as a national forest.”¹⁰⁵ “Working on behalf of the commission, purchase agents would select an area, organize it into a purchase unit, and then submit the unit to the commission for approval. . . If purchase units were approved but not enough land could be purchased, the purchase unit would be ‘abandoned.’”¹⁰⁶

The nature of the Weeks Act and the fact that the Forest Service had to acquire these lands led to two distinguishing characteristics of the eastern national forests as compared to those of the west.¹⁰⁷ First, the

568 (2012) (noting protracted litigation related to private mineral rights owners seeking access over lands in the Allegheny National Forest to their reserved minerals, where the federal government, in acquiring these lands, generally only acquired the surface estate).

103. Lincoln Bramwell, *1911 Weeks Act: The Legislation that Nationalized the U.S. Forest Service*, 30 J. ENERGY & NAT. RES. L. 325, 325-26 (2012); see also *Weeks Law Purchase Units, 1911-1932*, FOREST HIST. SOC’Y, <https://foresthistor.org/research-explore/us-forest-service-history/policy-and-law/the-weeks-act/weeks-law-purchase-units-1911-1932/> [https://perma.cc/2HAL-2DPZ] (last visited Jan. 15, 2021) (providing a list of forest units approved before the New Deal).

104. Shands, *supra* note 84, at 19; see also L.F. Kneipp, *Uncle Sam as a Buyer of Forest Lands*, 31 J. OF FORESTRY 778, 778 (1933) (discussing federal acquisition programs).

105. SALLY K. FAIRFAX ET AL., *BUYING NATURE: THE LIMITS OF LAND ACQUISITION AS A CONSERVATION STRATEGY, 1780-2004*, at 70-71 (2005) (discussing the process for creating a national forest under the Weeks Act authority); see also James B. Snow, *Implementing the Weeks Act: A Lawyer’s Perspective*, FOREST HIST. TODAY, Spring/Fall 2011, at 70, 71 (discussing the history and variability of state enabling legislation).

106. *Protection and Restoration*, FOREST HIST. SOC’Y, <https://foresthistor.org/research-explore/us-forest-service-history/policy-and-law/the-weeks-act/protection-and-restoration/> [https://perma.cc/J556-QA32] (last visited Jan. 5, 2021). For a graphical depiction of how approved forest purchase units evolved over time, see *Map Series of the Weeks Law Purchase Units: 1915, 1933, 1936, 1954, 1976*, FOREST HIST. SOC’Y, <https://foresthistor.org/research-explore/us-forest-service-history/policy-and-law/the-weeks-act/map-series-of-weeks-law-purchase-units-1915-1933-1936-1954-1976/> [https://perma.cc/8KY3-ZRVD] (last visited Jan. 25, 2021).

107. ROBERT H. MOHLENBROCK, *THIS LAND: A GUIDE TO EASTERN NATIONAL FORESTS* (2006). The Forest Service today administers over 193 million acres of federally-owned land. See *By the*

pattern of ownership is far more mixed (often described as a crazy quilt), with public and private lands interspersed.¹⁰⁸ In short, the federal government took advantage of those purchase opportunities that were available when they were available.¹⁰⁹ Second, “[m]anagement of the national forests emphasized improving the quality of life not only for those living in and around the forests, but for residents of urban areas, too.”¹¹⁰ This was also more initially critical in the East where the forest acquisitions also served a role in addressing economic and perceived social challenges associated with some working lands.¹¹¹

D. The Great Depression and the Acquisition of Submarginal Lands

During the Great Depression, these efforts accelerated “and the Eastern National Forests were part of the engine of national recovery. Federal funds [were] used to purchase and reforest worn out, often abandoned farmland, [and] pumped money into distressed local economies.”¹¹² President Roosevelt’s support for expanded forestry

Numbers, USDA FOREST SERV., <https://www.fs.usda.gov/about-agency/newsroom/by-the-numbers> [https://perma.cc/QF3N-CZLB] (last visited Jan. 16, 2021).

108. Shands, *supra* note 84, at 21; *see also* Dennis L. Lynch & Stephen Larrabee, *Private Lands Within National Forests: Origins, Problems, and Opportunities*, in *THE ORIGINS OF THE NATIONAL FORESTS* 198, 198, 202-12 (Harold K. Steen ed., 1992) (profiling the roots and challenges of interspersed ownership). This does not, however, mean that inholdings do not exist in western national forests, even in wilderness areas. *See* Randy Tanner, *Inholdings within Wilderness: Legal Foundations, Problems, and Solutions*, 8 *INT’L J. OF WILDERNESS* 9, 9-14 (2002).

109. SHANDS & HEALY, *supra* note 98, at xii-xiii (“Because they were purchased, not carved from large blocks of public land, the eastern forests are characterized by a fragmented ownership pattern, creating a patchwork of public and private lands.”). Only about half of the land within each National Forest is publicly owned and, in at least one forest, the percentage of public ownership is as low as twenty percent. *Id.* This mixture of public/private ownership has created management challenges and the Forest Service maintains a robust program of acquisition and land exchanges to try to improve its landownership.

110. Shands, *supra* note 84, at 21.

111. *Id.*

112. *Id.* Despite the massive uptick in federal intervention during the New Deal in the land use arena, in many ways, the stage for these acquisitions was set by the Hoover Administration’s work. *See* SARA M. GREGG, *MANAGING THE MOUNTAINS: LAND USE PLANNING, THE NEW DEAL, AND THE CREATION OF A FEDERAL LANDSCAPE IN APPALACHIA* 97-99 (2010) (summarizing the renewed focus on submarginal land conversion and conservation during this period). The forest purchases were but one of a whole suite of programs designed to address economic and social issues in farm country. *See, e.g.,* Wayne D. Rasmussen, *The New Deal Farm Programs: What They Were and Why They Survived*, 65 *AM. J. AGRIC. ECON.* 1158, 1158-62 (1983) (profiling New Deal era farm programs generally). Many of these national forests were created to address cutover lands where agriculture was not feasible. *See* Joseph J. Jones, *Transforming the Cutover: The Establishment of National Forests in Northern Michigan*, *FOREST HIST. TODAY*, Spring/Fall 2011, at 48, 48

practices helped fuel this expansion during the early days of the New Deal¹¹³ as did the severity of the economic issues the Administration was working to address.¹¹⁴ Due to the amount of land that was being abandoned, the federal government stepped into the void to purchase these lands¹¹⁵ and to deliver a conservation benefit.¹¹⁶ Many of the Eastern National Forests were either established or substantially expanded during this period.¹¹⁷ Significant resources were devoted to acquiring these lands.¹¹⁸ As one example, the Green Mountain National Forest in Vermont was established during this period (in 1932), as hill farms, or farms potentially lacking the opportunities to support continued operation and with highly erodible land, were acquired and added to the national forest boundaries.¹¹⁹ Overall, “[d]uring the 1930’s, some 26 national forests were established, ranging from the Clark and the Mark Twain on the Ozark Plateau of Missouri, to the Green Mountains in Vermont; from the Chequamegon and Nicolet in Wisconsin to the Osceola and Apalachicola in Florida.”¹²⁰

(“Regional boosters, lumbermen, and state political leaders proclaimed that the plow would follow the ax, encouraging homesteaders throughout ‘the cutover’ . . . but farming thrived only in select areas. Where agriculture was tenable, intensive farming methods quickly depleted the soil. Homesteaders abandoned much of the land, leaving it susceptible to more fore and erosion while undermining the local property tax base.”).

113. See, e.g., Letter from William G. Howard, Director, Division of Lands and Forests, New York Conservation Department to Franklin D. Roosevelt (Dec. 28, 1932), in FRANKLIN D. ROOSEVELT AND CONSERVATION 1911-1945, at 126 (Edgar B. Nixon ed., 1957) (providing reaction to Roosevelt’s planned purchase program); Letter from Gov. Gifford Pinchot of Pennsylvania to President Franklin D. Roosevelt (Jan. 20, 1933), in FRANKLIN D. ROOSEVELT AND CONSERVATION 1911-1945, at 129, 129-32 (Edgar B. Nixon ed., 1957). Roosevelt had a deep and abiding appreciation for forestry practices, having worked to reforest his own family property in Hyde Park and having promoted forestry while governor of New York. See, e.g., DOUGLAS BRINKLEY, RIGHTFUL HERITAGE: FRANKLIN D. ROOSEVELT AND THE LAND OF AMERICA 138-40 (2016) (profiling some of these efforts and discussing soil conservation).

114. See, e.g., SCHLESINGER, JR., *supra* note 45, at 27-67 (profiling this period and emerging farm policies).

115. The Forest Service actually proposed much larger purchases in its 1933 *A National Plan For American Forestry*, which “proposed a gargantuan twenty-year program in which federal and state governments would purchase 224 million acres of private forestland, more than 1.5 times the size of the existing National Forest system.” FAIRFAX ET AL., *supra* note 105, at 109.

116. See ROBERT MARSHALL, THE PEOPLE’S FORESTS 13-22 (1933) (exploring the conservation impacts of prevailing land use patterns and the potential benefits of federal intervention).

117. PHILLIPS, *supra* note 59, at 36.

118. John Leshy, *FDR’s Expansion of Our National Patrimony: A Model for Leadership*, in FDR AND THE ENVIRONMENT 177, 179-80 (Henry L. Henderson & David B. Woolner eds., 2005) (discussing the use of the Weeks Act authority during this period).

119. GREGG, *supra* note 112, at 140-75; see also John A. Douglass, *The Forest Service, The Depression, and Vermont Political Culture: Implementing New Deal Conservation and Relief Policy*, 34 FOREST & CONSERVATION HIST. 164, 164-75 (1990).

120. SHANDS & HEALY, *supra* note 98, at 16.

Closer to Iowa, its neighboring states of Missouri, Illinois, Wisconsin, and Minnesota were also slated for national forests, and the Forest Service had better success securing the necessary lands to convert purchase units into actual national forests.¹²¹ Illinois, for example, passed enabling legislation (authorizing the Forest Service to purchase lands in the state) in 1931, and its acquisitions began in early 1933. Illinois acted with a sense of urgency as the limited available funds for forest purchases were seemingly up for grabs and Illinois prioritized securing these funds.¹²² By 1939, nearly 60,000 acres in Illinois had been acquired for what became the Shawnee National Forest, largely out of farmland that would be reforested for public use.¹²³

The economic exigencies created by the New Deal, coupled with the need to address land management issues to reduce soil erosion, created an opening for federal intervention.¹²⁴ “Equally significant was the era’s political arithmetic—agriculture comprised a larger fraction of the economy in the 1930s than it does today, and numerous influential senators and representatives promoted agricultural concerns,” which made spending large amounts of federal funding on farm support-related efforts possible.¹²⁵ Federal acquisition of submarginal lands, under the authority of the Weeks Act and through relief appropriations, sought to bring a better balance (economic and environmental) to the rural countryside.¹²⁶ Given this mix of conservation need and political support, it is not surprising that Iowa was a

121. JOHNSON & GOVATSKI, *supra* note 17, at 117; *see also* IOWA NAT. HERITAGE FOUND., *supra* note 10. (discussing the use of forests to remove submarginal lands from farming and the creation of the Shawnee National Forest (Illinois), Hoosier National Forest (Indiana), and Wayne National Forest (Ohio)).

122. Mary R. McCorvie, “*Suitable Only for Tree Crops*”: *The Story of the Shawnee National Forest*, USDA FOREST SERV., <https://www.fs.usda.gov/detailfull/shawnee/learning/history-culture/?cid=stelprdb5151363> [<https://perma.cc/CQ2K-FAUD>] (last visited Oct. 28, 2020). The Shawnee National Forest has continued to grow and now is approaching 300,000 acres. *Shawnee National Forest, About the Forest*, USDA FOREST SERV. <https://www.fs.usda.gov/main/shawnee/about-forest#:~:text=Spanning%20289%2C000%20acres%2C%20Shawnee%20National,the%20Ohio%20and%20Mississippi%20rivers> [<https://perma.cc/L3MZ-3BAF>] (last visited Jan. 25, 2021).

123. *Shawnee National Forest, About the Forest*, *supra* note 122.

124. *See, e.g.*, Mark B. Lapping & Sandra L. Gray, *Changing Times: Shifting Rural Landscapes*, 15 VT. J. ENV'T L. 103, 115 (2013) (profiling this dynamic within the context of the creation of the Green Mountain National Forest).

125. Harold F. Breimyer, *Agricultural Philosophies and Policies in the New Deal*, 68 MINN. L. REV. 333 (1983).

126. Char Miller, *Rewilding the East: The Weeks Act and the Expansion of Federal Forestry*, FOREST HIST. TODAY, Spring/Fall 2011, at 22, 24; *see also* L.C. Gray, *The Resettlement Land Program*, AM. FORESTS, August 1936, at 3 (discussing the need to realign land uses to address greater social needs).

potential contender for Forest Service intervention, particularly in the state's southern counties where the needs were most acute.

IV. IOWA'S LOST NATIONAL FORESTS¹²⁷

A. Defining the Land Use Problem

In the early twentieth century, as now, Iowa primarily defined itself as an agricultural state.¹²⁸ Iowa's economy has historically been agriculturally-focused by virtue of its soils, but the importance of farming goes beyond that in the state's collective imagination.¹²⁹ Even in 2021, when Iowa's economy has diversified to other sectors and the proportion of citizens living on farms or primarily involved in farming continues to fall, agriculture still has an outsized importance in the state's economy both in reality and perception.¹³⁰

Iowa, however, was not immune to the economic impacts of the Great Depression, which hit the state's agricultural economy particularly hard.¹³¹ "During the depression years of the early 1930's, land was farmed intensively to increase income in order to avoid farm mortgage foreclosure and tax delinquency."¹³² Farm foreclosure rates were high and state planners wrestled with how to deal with the farm

127. This section focuses on the historical roots of the National Forest System's purchase efforts in the state. There are four primary reports investigating conditions on the ground that are worth mentioning. These reports all were issued during the period from 1933-1935. This Article addresses them in order of how they fit within the overall efforts to achieve land use change, rather than year of publication. For ease of reference and to avoid reader confusion, these reports are: (1) THE REPORT ON THE IOWA TWENTY-FIVE YEAR CONSERVATION PLAN (1933); (2) THE IOWA FOREST AND WASTELAND SURVEY (1933); (3) THE LAND-USE ADJUSTMENT SURVEY FOR IOWA (1934); and (4) THE IOWA STATE PLANNING BOARD - THE SECOND REPORT (1935). The extensive analysis provided by these reports shows the considerable work and attention given these efforts in the state during this period.

128. See, e.g., IOWA STATE COLL. & IOWA AGRIC. EXPERIMENT STATION, A CENTURY OF FARMING IN IOWA, 1846-1946 (1946); see also FEDERAL WRITERS PROJECT, IOWA: A GUIDE TO THE HAWKEYE STATE 65-67 (1938) (profiling Iowa's agricultural prowess).

129. Jessica Veenstra, Fifty Years of Agricultural Soil Change in Iowa 6-10 (2010) (Ph.D. thesis, Iowa State University), <https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=2447&context=etd> [<https://perma.cc/9F99-ZMZQ>] (explaining the state's land use history and the impact of continued farming generally).

130. See, e.g., DARCY DOUGHERTY MAULSBY, IOWA AGRICULTURE: A HISTORY OF FARMING, FAMILY AND FOOD (2020) (profiling the significance of farming to the state).

131. ROSS, *supra* note 33, at 163-77; see also Donald E. Fish, *The Emergency Years: Remembrances of a County Agent in the Great Depression*, 72 THE PALIMPSEST 90, 90-103 (1991) (providing a focused perspective of this period); see also R. DOUGLAS HURT, AMERICAN AGRICULTURE: A BRIEF HISTORY 263-66 (1994) (profiling the Great Depression's impact on Iowa farmers and the farmers' holiday movement).

132. JAMES A. GIBSON & JOHN F. TIMMONS, CTR. FOR AGRIC. AND RURAL DEV., LAND USE INVENTORY AND PROJECT MODEL WITH APPLICATION TO IOWA AND ITS SUBREGIONS 4 (1978).

crisis.¹³³ Land use planning was to play a role in this process by diverting farmers from lands that were viewed as incapable of providing farmers with a living.¹³⁴ Henry Wallace,¹³⁵ the Iowan then serving as Secretary of Agriculture, summarized the USDA's efforts as follows:

First, we are inducing producers of major crops to keep some of their land out of production temporarily, but we are encouraging them to use this opportunity to build up fertility on these idle acres; second, we are buying several million acres of submarginal land (submarginal for farming, that is) to be kept out of commercial production permanently; third, we are offering thousands of distressed families, both rural and urban, an opportunity to relocate in areas where they can at least produce their own food, and eventually obtain their cash income from industry; fourth, we are trying to make secure our vast assets in publicly owned land, not only because of the effect on that public property itself, but also because of the effect on private property within the sphere of influence.¹³⁶

The Great Depression and the economic conditions it created heightened existing farm state interest in the Forest Service and other acquisition programs to help rebalance the agricultural economy and readjust land use patterns across the rural landscape.¹³⁷

133. KIRKENDALL, *supra* note 12, at 39; *see also* RICHARD J. CARLSON & CHERIE E. HAURY-ARTZ, OFF. OF STATE ARCHAEOLOGIST, BUILDING JOBS IN IOWA: NEW DEAL DAMS OF THE WAPSIPINICON RIVER WATERSHED IN NORTHEAST IOWA 3-4 (2015) (profiling the impacts of the Depression on the Iowa economy).

134. L.C. Gray, *Federal Purchase and Administration of Submarginal Land in the Great Plains*, 21 J. FARM ECON. 123, 123 (1939); *see also* Crane, *supra* note 51, at 247.

135. For more background on Henry A. Wallace, *see* JOHN C. CULVER & JOHN HYDE, AMERICAN DREAMER: A LIFE OF HENRY A. WALLACE (2000).

136. Henry A. Wallace, *Our Land Policy Takes Shape*, 23 AMES FORESTER 9, 11-12 (1935) (emphasis added). For context on the last prong of these efforts, *see also* George S. Wehrwein, *The Place of Government in a National Land Program: Discussion*, 16 J. FARM ECON. 70, 70-71 (1934) (discussing the various policy proposals and considerations shaping both forest land and farmland). The Forest Service was not the only agency working to address the submarginal land question. As Agricultural Adjustment Administration General Counsel Philip Glick noted, there were thirty-nine agencies active in acquiring lands (with another nine former agencies that had also been involved). Memorandum from Philip Glick, Chief Attorney, Off. Gen. Couns., Agric. Adjustment Admin., Discussing Agencies in the Federal Government Engaged in Land Acquisition, Land Administration and Land Planning (Dec. 12, 1934) (on file with author).

137. DAVID CONRAD, THE LAND WE CARED FOR: A HISTORY OF THE FOREST SERVICE'S EASTERN REGION 67-89 (1997) (profiling this shift in the agency's work); JESS GILBERT, PLANNING DEMOCRACY: AGRARIAN INTELLECTUALS AND THE PLANNED NEW DEAL 80-85 (2015) (exploring this policy direction). Recognition of the submarginal land use problem by land use planners and policy specialists and interest in taking measures to address these issues pre-dates the New Deal. *Id.* at 51-53 (discussing the impact of L.C. Gray and other conservation planners who urged that efforts "must now advance from public forest land to private farmland.").

B. Solving the Submarginal Lands Issue

As briefly introduced above, one of the most critical issues in Iowa and many other states was how to deal with the problem of submarginal lands.¹³⁸ Submarginal lands were generally defined to encompass lands that struggled to provide income to farm families due to poor soil, steep incline, or other topographical concerns.¹³⁹ In Iowa, they were generally centered in the southern part of the state.¹⁴⁰ State planners in Iowa and other states experimented with plans to acquire submarginal lands and relocate farmers from these areas to other lands where production might offer better opportunities to make a livelihood from farming.¹⁴¹ In short, the plan was that the federal government would step into the void to address these lands—ultimately converting these from agricultural use (by individual farmers) to forest use (under public ownership and management).¹⁴²

In Iowa, the submarginal land problem was studied by planning consultants Lester Clapp and Charles Elkington, whose report for the National Planning Board, “The Land-Use Adjustment Survey for Iowa

138. Paul H. Landis, *Probable Social Effects of Purchasing Submarginal Land in the Great Plains*, 17 J. FARM ECON. 513, 513-21 (1935); C.F. Clayton, *Program of Federal Government for the Purchase and Use of Submarginal Land*, 17 J. FARM ECON. 55, 55-63 (1935).

139. John D. Black, *Notes on ‘Poor Land’ and ‘Submarginal Land’*, 27 J. FARM ECON. 345, 345 (1945) (discussing the debate over how to define this term); Rupert B. Vance, *What of Submarginal Areas in Regional Planning?*, 12 SOC. FORCES 315 (1933) (exploring the literature of this time related to this term and the proposed public policy solutions). Defining submarginal lands was somewhat subjective and some recent scholarship has critiqued the use of submarginal land as pretext for supporting removal of rural communities from lands targeted for inclusion in federal ownership during this period. See GREGG, *supra* note 112, at 38-39. Similar concerns were also raised by contemporary writers. See T.J. Cauley, *An Error of Identity*, 235 N. AM. REV. 57, 57-62 (1933) (critiquing this movement to identify submarginal land). Another dimension of the submarginal land problem was the rural poor. They were not seeking to farm but who were living on these lands as it was all they could afford, indicating that this was not just a land use problem. See, e.g., Leonard A. Salter, Jr., *Social Security: A New Consideration in Submarginal Land Policy*, 16 J. LAND & PUB. UTIL. ECON. 468, 468-70 (1940).

140. J.A. Larsen & J.R. Dilworth, *Notes on the Forests of Southern Iowa*, 46 PROC. IOWA ACAD. SCI. 141, 145 (1939) (explaining and exploring the nature of the forests in southern Iowa and noting the reasons why forest cover was more prevalent in this geography).

141. M.L. Wilson, *A Land Use Program for the Federal Government*, 15 J. FARM ECON. 217, 217 (1933); see also George S. Wehrwein & J.A. Baker, *Relocation of Non-Conforming Land Users of the Zoned Counties in Wisconsin*, 12 J. LAND USE & PUB. UTIL. ECON. 248, 248 (exploring the use of land use planning mechanisms to relocate farmers from submarginal lands in neighboring Wisconsin).

142. See GILBERT, *supra* note 137, at 83 (exploring land use planning and adjustment as a core of New Deal agricultural policy). Beyond submarginal lands, there was also the issue of how to improve environmental stewardship of farmland to reduce soil loss through erosion. See, e.g., Obrycki & Karlen, *supra* note 44, at 693-704 (summarizing county agricultural planning committee meetings during the 1930s on issues of environmental management).

1934," made significant recommendations for reordering land use in the state.¹⁴³ This report noted the importance of farming and that, as a result, "land problems in Iowa are, therefore, almost entirely agricultural problems, and cover every phase of farming as a business and as a mode of life."¹⁴⁴ The report specifically designated areas of low productivity where farming was uneconomic and where land use should be adjusted through purchase programs.¹⁴⁵ Chief amongst these lands were townships with more than half of their lands in forest cover or "waste lands" as those areas had been previously identified by the 1933 Forest and Waste Land Survey (the state's initial investigative work designed to inform potential USDA Forest Service purchases).¹⁴⁶

The correlated problem was what to do to with these lands post-acquisition.¹⁴⁷ Forest cover and use for the public good was the proposed solution in most areas.¹⁴⁸ National grasslands in other areas, such as in Kansas, were also used as a way to manage these lands' return to the public domain.¹⁴⁹ In the early days of the New Deal, many states grappling with submarginal lands issues looked to Forest Service acquisition as a strong tool to reorder, ideally permanently, their state's agricultural economy and improve land use patterns.¹⁵⁰ "The plight of depression-ridden agriculture was the main reason for this. Commodity prices sank to disastrous levels. . . . Property taxes went unpaid on as much as forty-nine percent of the lands in some townships. Insurance companies and other big lenders had to foreclose on many thousands of farm mortgages."¹⁵¹ This stark economic reality created an opening for these conservation opportunities.¹⁵²

143. CLAPP & ELKINGTON, *supra* note 9, at 1.

144. *Id.* at 2.

145. *Id.*

146. *Id.* at 3. The Report notes that "practically all of the land [identified in this category was located] in townships . . . in virgin timber before 1876" and profiles the extensive erosion caused by converting these lands to agricultural use.

147. See, e.g., NAT'L LAND USE PLAN. COMM., THE PROBLEMS OF 'SUBMARGINAL' AREAS, AND DESIRABLE ADJUSTMENTS WITH PARTICULAR REFERENCE TO PUBLIC ACQUISITION OF LAND 1-3 (1933) (profiling this challenge and the policy considerations involved with acquisition and use).

148. Earle H. Clapp, *Broadening Horizons in Public Forest Administration*, 1 PUB. ADMIN. REV. 374, at 374-380 (1941).

149. Geoff Cunfer, *The New Deal's Land Utilization Program in the Great Plains*, 21 GREAT PLAINS Q., 193, at 193 (2001) (charting New Deal land use planning in the western context).

150. See, e.g., CHAR MILLER, PUBLIC LANDS, PUBLIC DEBATES: A CENTURY OF CONTROVERSY 76-90 (2012).

151. Mills, *supra* note 13, at 584.

152. SECOND REPORT, *supra* note 12, at 1-8 (laying out the state's economic case for land adjustment).

C. Iowa's National Forest Proposal

Looking at federal and state planning documents during this period shows the full extent of the proposed Iowa national forests in the midst of the greater expansion of the National Forest System.¹⁵³ As will be profiled, there was an impressive and sustained effort by the state of Iowa to gain access to the funds available for the Forest Service acquisition of submarginal lands, which fits into the larger context of Iowa land use planners looking to improve land use in the state.

1. Early Planning Efforts

By the early twentieth century, conservation planners were already looking at how to improve Iowa's land use on a variety of fronts.¹⁵⁴ The state, for several years, had been looking at acquiring parkland and creating state preserves.¹⁵⁵ In 1931, the state legislature appropriated funds to commission a comprehensive twenty-five-year plan laying out the state's conservation priorities.¹⁵⁶ The 1933 Report on the Iowa Twenty-Five Year Conservation Plan addressed a variety of topics, including expanding recreational areas, addressing soil erosion, and creating state forests.¹⁵⁷ The 1933 Report discussed

153. R. Douglas Hurt, *Federal Land Reclamation in the Dust Bowl*, 6 GREAT PLAINS Q. 94, 94-96 (1986) (noting New Deal planning at the federal level).

154. Obrycki & Karlen, *supra* note 44, at 693-704.

155. Rebecca Conard, *Hot Kitchens in Places of Quiet Beauty: Iowa State Parks and the Transformation of Conservation Goals*, 51 ANNALS OF IOWA 441, 444-46 (1992) (exploring early parks efforts in Iowa). Iowa, for example, had focused on planning for state parks and addressing conservation needs through state efforts as early as 1919. See, e.g., IOWA STATE BD. OF CONSERVATION, IOWA PARKS: CONSERVATION OF IOWA HISTORIC, SCENIC AND SCIENTIFIC AREAS (1919) (profiling early work throughout the state in identifying and creating conservation lands). For a summary of other early conservation efforts, see G.B. MacDonald, *State Forestry in Iowa: The Early Period*, 4 IOWA CONSERVATIONIST, April 1945, at 123.

156. See JAMES A. GIBSON & JOHN F. THOMAS, CTR. FOR AGRIC. AND RURAL DEVELOP., IOWA STATE UNIV., LAND USE INVENTORY AND PROJECTION MODEL WITH APPLICATION TO IOWA AND ITS SUBREGIONS 4 (1978) ("Interest in land use planning during the 1930's was substantiated by the establishment of the National Planning Board in 1934 and the subsequent establishment of State Planning Boards in most states, including Iowa. Within Iowa, land use planning committees were formed in each of Iowa's 99 counties.").

157. JACOB L. CRANE, JR. & GEORGE WHEELER OLCOTT, REPORT ON THE IOWA TWENTY-FIVE YEAR CONSERVATION PLAN 24 (1933) (hereinafter "CONSERVATION PLAN REPORT"); Crane, *supra* note 51, at 247-51 (profiling the plan and its intended use). This plan was driven, in part, by conservationist Jay (Ding) Darling and called for seventeen state parks, a system of preserves, and other designated management areas. See Conard, *supra* note 13, at 32 (discussing Darling's role in the creation of this influential state report); see also Einar L. Henrikson, *The C.C.C. in Iowa*, 22 AMES FORESTER 23 (1934) (profiling this program's impact in Iowa). This report also made recommendations regarding made important recommendations on protecting prairie remnants. See Ada Hayden, *The Selection of Prairie Areas in Iowa Which Should Be Preserved*, 52 PROC. IOWA ACAD. SCI. 127, 127 (1945) (discussing this report's recommendations).

reforesting “waste cut-over lands” to forest cover if lands reverted to the state for failure to pay taxes, including indicating that “[it] is quite likely that agriculture in Iowa would profit as a whole if all of the two and a half million acres of cutover land were reforested, and that much pasture and crop land removed from competition.”¹⁵⁸

This was not the only investigation of these conditions. In 1935, the Iowa State Planning Board¹⁵⁹ published a brochure, “Restore the Forest Cover,” which explained that “[i]n Iowa—particularly southern Iowa—a great need for land adjustment in certain areas can and should be met with a program of reforestation.”¹⁶⁰

2. Iowa's Enabling Legislation

As the Depression took hold, Iowa increasingly focused on the potential of using the Forest Service's purchase programs as part of its economic recovery efforts.¹⁶¹ To be eligible for Forest Service purchases, the Weeks Act required a state to first consent to the federal government purchasing these lands.¹⁶² This requirement went back to the passage of the legislation in 1911, but many states had not actually authorized federal acquisitions of those lands covered by the Act¹⁶³ until more funding became available during this period and the economic imperative became clear.¹⁶⁴

158. CONSERVATION PLAN REPORT, *supra* note 157, at 73.

159. For a general background on the work of the Iowa State Planning Board, see IOWA STATE PLAN. BD., WHO, WHAT, WHY? (1936), <https://digital.lib.uiowa.edu/islandora/object/ui%3Aatstidep.1216#page/2/mode/2up> [<https://perma.cc/E3R4-ACZZ#page/1/mode/2up>].

160. IOWA STATE PLAN. BD., *supra* note 54, at 1. *Restore the Forest Cover* also noted that “Iowa's native forest cover was most extensive, and is now most depleted, in the southern counties. Perhaps as a penalty for land misuse, these counties have the lowest net farm income and land values in the state.” *Id.* In addition to land use efforts, another program, the Civilian Conservation Corps (CCC) also had a significant impact on land use in the state by employing out-of-work individuals to address conservation concerns. See, e.g., REBECCA CONARD, THE LEGACY OF HOPE FROM AN ERA OF DESPAIR: THE CCC AND IOWA STATE PARKS 15, 16-17 (1996); see also NEIL M. MAHER, NATURE'S NEW DEAL (2008) (exploring the impact of the CCC generally).

161. G.B. MacDonald, *Progress of the Land Acquisition Program in Iowa*, 25 AMES FORESTER 49, 50-51 (1937) (“[S]oon after the beginning of the emergency conservation program in 1933, an effort was made . . . to secure a survey of the forests and wastelands of the state. . . . [I]n anticipation of the need for information if national or state forest lands were to be acquired in Iowa.”).

162. Snow, *supra* note 102, at 70, 71 (“[T]here was a precondition for state consent before any lands could be purchased within the state. Ultimately, 39 states and Puerto Rico enacted enabling legislation consenting to Forest Service acquisition of lands. Eleven states have never given consent.”).

163. The Act covered federal acquisitions of forested, cut-over, or denuded lands within the watersheds of navigable waters. 16 U.S.C. § 515.

164. *Id.*

Iowa passed enabling legislation allowing federal land acquisition on December 30, 1933.¹⁶⁵ Iowa was not an early adopter, but Iowa was not the last state in Region 9 of the Forest Service to authorize federal acquisition.¹⁶⁶ Indiana, for example, would not consent to federal purchases until 1935.¹⁶⁷ Some states conditioned their authorization of federal acquisition on meeting certain requirements.¹⁶⁸ Missouri limited the number of acres that could be acquired in a given county before eliminating this restriction in 1937.¹⁶⁹ Iowa imposed no such conditions or limitations upon federal purchase of submarginal lands, evidencing a willingness for federal intervention in the state.¹⁷⁰

3. Exploring and Defining Purchase Areas

From 1933 to 1934, the Forest Service made initial investigations of lands in southeastern Iowa for possible inclusion in the National Forest System.¹⁷¹ A formal report came out of this work, led by Professor G.B. MacDonald¹⁷² at Iowa State College, entitled “The Forest and

165. Iowa’s enabling legislation did not restrict federal purchase to certain areas or limit acreage, unlike some neighboring states. For example, Missouri’s legislation initially limited the size of individual purchases to 25 acres and limited the number of acres that could be acquired in a single county to 2,000. These limitations would ultimately be removed by subsequent amendments to the state’s enabling legislation. See USDA FOREST SERV., HISTORICAL SUMMARY OF LAND ADJUSTMENT AND CLASSIFICATION, REGION 9, 1929-1962, at 38 (1962) (hereinafter REGION 9 REPORT); see also Katherine Markwell, *Recent State Law on Forestry*, 36 J. OF FORESTRY 300 (1938) (summarizing state consents to federal acquisition of lands).

166. REGION 9 REPORT, *supra* note 165, at 37.

167. USDA FOREST SERVICE, HOOSIER NATIONAL FOREST, THE EVOLUTION OF A FOREST IN INDIANA – 75 YEARS OF STEWARDSHIP IN 2010!, https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5298743.pdf [<https://perma.cc/JA5Y-J2SU>]. Interestingly, Indiana would try to withdraw this consent in 1984. USDA’s Office of General Counsel rejected the state’s attempt. See Snow, *supra* note 102, at 71.

168. REGION 9 REPORT, *supra* note 165, at 37-39.

169. David Benac & Susan Flader, *History of Missouri Forests in the Era of Exploitation and Conservation*, in UPLAND OAK ECOLOGY SYMP. 36, 39-40 (Martin A. Spetich ed., 2004) (summarizing this process for authorizing Forest Service purchases in Missouri).

170. CRANE, *supra* note 51, at 247-51. The 1933 National Plan for Forestry indicated that these efforts were progressing. It documented the need for intervention and noting that “it is not, therefore, a question so much of putting forest where it has not previously grown, as in restoring it.” See S. DOC. NO. 12, at 402 (1933), <https://www.biodiversitylibrary.org/item/59621#page/5/mode/1up>.

171. REGION 9 REPORT, *supra* note , at 14; see also MacDonald, *supra* note 165, at 60-62 (summarizing Forest Service efforts to survey and identify lands for purchase in the state).

172. For more information about Professor MacDonald, who was a catalyst for this entire project, see Harold S. McKnabb, Jr., *Prof. Mac: Iowa’s Forester*, 90 AMES FORESTER 7 (2003); see also ELIOT ZIMMERMAN, USDA FOREST SERV., A HISTORICAL SUMMARY OF STATE AND PRIVATE FORESTRY IN THE U.S. FOREST SERVICE 53 (1976) (“The state of Iowa had, for many years, graduated forests from Iowa State College but, until 1934, the state had no forestry department for State Forester.

Waste Land Survey.”¹⁷³ This report was the basis for the state’s recommendations to the Forest Service concerning which areas might be suitable for incorporation into the National Forest System.¹⁷⁴

In 1934, the state recommended to the Forest Service that the Forest Service acquire considerable acreage over time.¹⁷⁵ This recommendation identified purchase areas including over eight hundred thousand acres with over five hundred thousand acres believed to be appropriate for acquisition as follows:¹⁷⁶

Forest Purchase Unit	Gross Acreage	Acreage to be Acquired ¹⁷⁷	Counties
Keosauqua ¹⁷⁸	126,080 acres	91,663 acres	Van Buren, Lee
Chequest ¹⁷⁹	224,040 acres	138,397 acres	Appanoose, Van Buren, Davis, Monroe, Wapello
Chariton ¹⁸⁰	151,520 acres	85,787 acres	Appanoose, Marion, Monroe, Lucas

G.B. MacDonald was appointed the first State Forester in that year, and plunged immediately into the state-wide CCC program.”).

173. REGION 9 REPORT, *supra* note 165, at 14.

174. G.B. MacDonald, *Acquiring State Forests*, 4 IOWA CONSERVATIONIST 137, 142 (1945) (profiling this work and noting that “[t]he State Planning Reports make definitive recommendations as to areas where either state or national forests might be appropriate from an economic standpoint”).

175. MacDonald, *supra* note 8, at 15, 17.

176. *Id.* Although ultimately not an approved purchase unit, a similarly sized tract (279,100 acres) in northeastern Iowa was also considered for inclusion in a potential Mississippi Bluff Unit (along with much larger acreage in Minnesota and Wisconsin). See REGION 9 REPORT, *supra* note 165, at 18 (noting the examination of this area and that it would have been designed to focus on preventing soil erosion).

177. NAT’L FOREST RSRV. COMM’N, ANNUAL REPORT OF THE NATIONAL FOREST RESERVATION COMMISSION, FISCAL YEAR ENDING JUNE 30, 1935, at 10 (1936), <https://www.docdroid.net/Cm002BX/ra-11f1529a1eba45a0-1-43-pdf> [<https://perma.cc/27U7-77CL>].

178. See REGION 9 REPORT, *supra* note 165, at 64 (providing map of purchase unit).

179. See *id.* at 67 (providing map of purchase unit). The original name of the Chequest purchase area was the Wapello purchase area, which was changed in February of 1935 “to eliminate confusion with the name of an established purchase unit in Missouri named ‘Wappapello.’” See *id.* at 15.

180. See *id.* at 66 (providing map of purchase unit).

Grand River	307,360 acres	193,046 acres	Clarke, Lucas, Decatur, Union, Ringgold
Totals	829,000 acres ¹⁸¹	508,893 acres	13 counties

The National Forest Reservation Commission approved the initial purchase units on January 21, 1935.¹⁸² Establishment of a purchase area was the first step in the Forest Service's actions to create a new national forest.¹⁸³ By the fall of 1935, the National Forest Service had acquired options on over 10,000 acres of land for potential inclusion in these forest purchase units.¹⁸⁴ Collectively, the Iowa purchase areas or units were referred to as the Hawkeye Purchase Units.¹⁸⁵

In its 1935 annual report, the National Forest Reservation Commission (NFRC) indicated that, for the new purchase units in Iowa, Ohio, and Indiana, "[t]he Forest Service is now engaged in buying land in these units for national forest purposes, part of this land was formerly marginal farmland. Here, unquestionably, the forest will be made up of much smaller blocks of Government land than has been previously managed by the Forest Service."¹⁸⁶ The NFRC further noted that these areas will be "managed as woodlot, demonstrational areas, and will be intermingled with land in agricultural use" and that these purchases would "require[] the very highest possible correlated land use planning and will surely serve a very definite purpose as the purchase units are located in highly industrialized and agricultural sections, heavily populated."¹⁸⁷

181. The Region 9 Report has the acreage at 829,116 and has some small variation in the size of the various purchase units. *See id.* at 14-15.

182. NAT'L FOREST RSRV. COMM'N, ANNUAL REPORT OF THE NATIONAL FOREST RESERVATION COMMISSION, FISCAL YEAR ENDING June 30, 1935, at 1 (1936) (including the four approved Iowa units in the list of new units approved that fiscal year); MacDonald, *supra* note 8, at 49. Ferdinand Silcox, Chief of the Forest Service, noted the Iowa work in his 1935 report to Congress. *See* FERDINAND A. SILCOX, REPORT OF THE CHIEF OF THE FOREST SERVICE 18 (1935), <https://babel.hathitrust.org/cgi/pt?id=osu.32435025991746&view=1up&seq=140&skin=2021> [<https://perma.cc/TWN6-6FW8>].

183. NAT'L FOREST RSRV. COMM'N, A REPORT ON PROGRESS IN ESTABLISHING NATIONAL FORESTS 6 (1961), <https://foresthistor.org/wp-content/uploads/2017/01/NationalForestsReport1961.pdf> [<https://perma.cc/PP8A-H964>].

184. MacDonald, *supra* note 8, at 49. The Forest Service had also established a nursely at Keosauqua to assist with the intended effort to reforest the federally-purchased ground. *See* NAT'L FOREST RSRV. COMM'N, *supra* note 177, at 33.

185. REGION 9 REPORT, *supra* note 165, at 14.

186. NAT'L FOREST RSRV. COMM'N, *supra* note 177, at 36.

187. *Id.*

In 1935, Iowa's state planning board proposed adding to the four already approved purchase units the following:¹⁸⁸

Forest Purchase Unit	Acreage	Acreage to be Acquired	Counties
Pottawattamie	330,820	160,000	Plymouth, Woodbury, Monona, Harrison, Pottawattamie, Mills, Fremont
Kate Shelley	119,687	56,000	Humboldt, Webster, Boone, Dallas, Polk
Winneshiek	253,080	157,000	Winneshiek, Allamakee, Clayton, Delaware, Dubuque
Cedar River	211,582	95,000	Muscatine, Johnson, Washington, Louisa, Jefferson, Henry, Des Moines
Totals	915,169	468,000	24 counties

The 1935 State Report to the National Planning Board noted that “the lands proposed for national forest use are strictly timber or sub-marginal in character. A large percentage of the areas to be acquired would be in the class of those which are permanently tax delinquent.”¹⁸⁹ The Report noted the following benefits would be provided by the national forest acquisitions: (1) production of valuable timber crops; (2) production of game and fish resources; and (3) provision of recreational activities.¹⁹⁰

At some point, a Mississippi Bluff Unit was also proposed (which would have been multistate in nature).¹⁹¹ “This area was located in western Wisconsin, northeastern Iowa, and southeastern Minnesota. It was proposed primarily as an erosion control unit by the Lake States Experiment Station. It included an area of 1,430,400 acres in Wisconsin, 891,500 acres in Minnesota, and 279,100 acres in Iowa.”¹⁹² Efforts for planning for this unit, at least in Iowa, do not appear to have made material progress.

188. IOWA STATE PLANNING BOARD, *supra* note 12, at 19.

189. *Id.*

190. *Id.* at 20. The State Planning Board Report also noted that some of the national forest land could still be suitable and available for livestock grazing.

191. REGION 9 REPORT, *supra* note 165, at 18.

192. *Id.*

Overall, in the period from 1933–1935, the state of Iowa had legislatively consented to the federal purchase of forest lands in the state, conducted a survey to give the Forest Service information and guidance as far as which areas it thought should be targeted for purchase, worked to obtain approval of four initial purchase areas, and also recommended that four more purchase units be added to increase the scope and ability of the state to facilitate federal acquisition of these lands. All of these efforts seemed to be moving towards a robust Forest Service presence on the state's landscape.

D. The Closing Window and the 20 Percent Rule

For Iowa, despite the extensive work and planning that had occurred, the window had already started to close for having the Forest Service acquire lands in the state at greater scale.¹⁹³ By 1936, the National Forest Reservation Commission determined that greater focus was needed in its acquisition efforts.¹⁹⁴ “The limited funds at the disposal of the [National Forest Reservation Commission] at that time precluded more extensive purchases and made it difficult for the Forest Service to administer economically the limited areas of acquired lands.”¹⁹⁵ To achieve this focus, the Commission elected to devote the majority of federal funding to efforts in forest purchase areas where twenty percent of the forest acquisitions had been completed.¹⁹⁶ This essentially paused purchases in Iowa, as none of the Iowa purchase units were anywhere close to the 20 percent threshold by the time this policy went into effect.¹⁹⁷

The Forest Service was not the only agency within USDA interested in acquiring lands within these regions of Iowa.¹⁹⁸ The Bureau of

193. *Forest Lands of the United States: Hearings Before the J. Comm. on Forestry*, 75th Cong. 1414 (1938).

194. G.B. MacDonald, *Progress of Forest Land Acquisition Program in Iowa*, 25 AMES FORESTER 49, 51-52 (1937) (explaining the application of this rule given the limited funds left for forest acquisitions at the time).

195. *Forestry on the Farm*, *supra* note 14, at 2.

196. NAT'L FOREST RSRV. COMM'N, REP. OF THE NAT'L FOREST RESERVATION RSRV. COMM'N, FISCAL YEAR ENDED JUNE 30, 1938, at 39 (1938) (noting the impact of this limitation on purchases within approved purchase units in the north-central region).

197. REGION 9 REPORT, *supra* note 165, at 16.

198. Beyond the Bureau of Agricultural Economics, there were other efforts to address conservation on lands that had been acquired by the Soil Conservation Service but were administratively transferred to the Forest Service. Nearly 2,000 acres in southern Iowa were under a long-term lease between the Forest Service and Iowa State College. *See id.* at 34-36.

Agricultural Economics (BAE)¹⁹⁹ “was interested in beginning a program to purchase submarginal land in Iowa.²⁰⁰ Their first choice of a project was within the boundaries of the Grand River Unit.”²⁰¹ To avoid competing with another agency for these lands, the Forest Service abandoned this purchase unit, and the National Forest Reservation Commission formally approved abandonment of this purchase unit on November 14, 1938, before any lands had been acquired.²⁰² The BAE’s efforts to acquire lands for resettlement purposes also were ultimately not successful.²⁰³

The twenty percent rule ultimately was reversed in fiscal year 1940, at least for Ohio and Indiana,²⁰⁴ but at that time, Iowa had very few parcels of land under contract.²⁰⁵ “[I]t became evident that the United States could not carry out its intentions in the State of Iowa and recommended a resumption of a purchase program and a reduction of a purchase program and a reduction of the gross area of the three [approved] units from 519,820 acres to 218,671 acres.”²⁰⁶ Purchases in fiscal year 1940 totaled 3,943 acres in the Chequest and Keosauqua purchase units—the majority of the land which would ultimately be acquired by the Forest Service.²⁰⁷

The limited purchases in fiscal year 1940, however, would be the highwater mark of forest acquisition purchases in Iowa. One of the most critical factors that slowed or halted focus on purchasing Iowa lands was the comparative cost of its lands.²⁰⁸ Forest Service data bears this out. Iowa lands were purchased on average for ten dollars

199. See Richard S. Kirkendall, *L.C. Gary and the Supply of Agricultural Land*, 37 AGRIC. HIST. 206, 206-214 (1963) (summarizing this agency’s work and its leader).

200. REGION 9 REPORT, *supra* note 165, at 15.

201. See NAT’L FOREST RSRV. COMM’N, REPORT OF NATIONAL FOREST RESERVATION COMMISSION, FISCAL YEAR 1939, at 4 (1939).

202. REGION 9 REPORT, *supra* note 165, at 16.

203. *Id.*

204. NAT’L FOREST RSRV. COMM’N, REPORT OF THE NATIONAL FOREST RESERVATION COMMISSION FOR THE YEAR ENDED JUNE 30, 1940, at 37 (1940).

205. G.B. MacDonald, *Forestry Progress in Iowa*, 29 AMES FORESTER 7 (1941).

206. REGION 9 REPORT, *supra* note 165, at 16.

207. NAT’L FOREST RSRV. COMM’N, *supra* note 204, at 6.

208. IOWA CONSERVATIONIST, *supra* note 14, at 2. The author acknowledged that “[f]rom a strictly national standpoint the delayed action on the Iowa program was probably justified, although the state lost an opportunity.” *Id.* See also Robert G. Healy, *The Weeks Act as a Public Investment*, FOREST HIST. TODAY, Spring/Fall 2011, at 26, 27, https://foresthistor.org/wp-content/uploads/2016/12/2011_Weeks_Act_as_Public_Investment.pdf [<https://perma.cc/M37U-455G>] (profiling acquisition costs for national forests during this period generally). Cost has long been a barrier to public forestry efforts in the state. See G.B. MacDonald, *The Forestry Program*, 9 AMES FORESTER 7, 10 (1921) (discussing the relative price of Iowa farmland as a challenge for conserving remaining forest lands).

an acre, where lands in other states often went for a fraction of this cost.²⁰⁹ Overall, in Iowa only 4,749 acres were purchased within the designated purchase units.²¹⁰ Approximately 40,000 additional acres were optioned, but the options were not exercised.²¹¹

For the 4,000 acres that were acquired, “the price averaged around \$9 an acre. Prices of other tracts were too high, and the national forest [acquisitions in Iowa] came to a halt.”²¹² In short, the Iowa lands were potentially too expensive, and not enough lands had been acquired to make the forests viable by the time funding for the eastern forests became more constrained and the agricultural economy had also rebounded, eliminating some of the demand for these purchases within the state. From an economic perspective, this rationale makes sense: scarce Forest Service funding was dedicated to those areas where lands could be acquired more cheaply, but at the expense of Iowa’s forest purchase units. In short, even Iowa’s submarginal land was more expensive than other acquisition opportunities, and this relative cost led the Forest Service to prioritize more efficient acquisition of land over providing equal distribution of forests across the various states.

E. World War II and the Unwinding of the Iowa Purchase Program

On June 30, 1942, the Forest Service formally halted its purchase program in Iowa.²¹³ As of that date, only 4,749 acres of land and a forest nursery site had been acquired.²¹⁴ World War II marked a turning point as funding for land acquisition and other priority programs went by the wayside, never to be fully reconstituted.²¹⁵

In 1953, the Forest Service recommended to the National Forest Reservation Commission that the Iowa purchase units be

209. IOWA CONSERVATIONIST, *supra* note 14, at 9 (noting that “[t]he Iowa purchases were postponed presumably because forest lands in some other states were available for purchase for one-fifth the price of the optioned Iowa lands.”).

210. REGION 9 REPORT, *supra* note 165, at 16.

211. MacDonald, *supra* note 205, at 14-15.

212. MILLS, *supra* note 13, at 584.

213. REGION 9 REPORT, *supra* note 165, at 16.

214. *Id.*; see also NAT’L FOREST RSRV. COMM’N, ANNUAL REPORT OF THE NATIONAL FOREST RESERVATION COMMISSION FOR THE FISCAL YEAR ENDING JUNE 30, 1975, at 9 (1976) (summarizing the NFRC’s commitments in Iowa over the life of the NRFC, and noting that this investment totaled \$43,251.99 or about \$9 an acre).

215. GILBERT, *supra* note 137, at 21 (summarizing the impact of the conflict on agrarian reforms, including land use).

abandoned.²¹⁶ In 1956, this recommendation was accepted and the purchase units were officially abandoned.²¹⁷ A 1958 planning report prepared for the Iowa Conservation Commission noted the potential benefits of additional land for public use and explained the status of the land then owned by the Forest Service: “[t]he federal forest land in southern Iowa, consisting of about 4,700 acres purchased nearly 20 years ago as a start toward a national forest in that area, became, after abandonment of the project, a sort of “no man’s land.” Its disposal has been discussed for many years, but nothing has been done about it to date. It is strongly recommended that it be transferred to the state to become part of the state forest properties.”²¹⁸

This recommendation was acted upon. To wind down the forest service holdings in Iowa, Congress enacted legislation in 1960 to convey a 100-acre nursery to the city of Keosauqua at fair market value.²¹⁹ This transfer closed on March 1, 1961, for \$12,925.00.²²⁰ On October 4, 1961, Congress authorized the sale of the remaining forest service lands in Iowa at fair market value.²²¹ Under this legislation, the state had two years to enter a purchase and sale agreement with USDA, and if the state failed to move to purchase these lands, the Secretary of Agriculture was instructed to divest these lands through a third party sale.²²² These lands were acquired for public ownership, as the state of Iowa appropriated \$72,000 to acquire these lands from the Forest Service in 1964.²²³ The acquired lands were made part of

216. REGION 9 REPORT, *supra* note 165, at 16.

217. *Id.*

218. WILDLIFE MGMT. INST., A TEN-YEAR PROGRAM FOR THE IOWA STATE CONSERVATION COMMISSION 129 (1958).

219. REGION 9 REPORT, *supra* note 165, at 16. The National Forest Reservation Commission itself would be abolished a few years later in 1976, with its final report being issued that year. *See* NAT’L FOREST RSRV. COMM’N, *supra* note 214, at 9.

220. REGION 9 REPORT, *supra* note 165, at 16.

221. Act of Oct. 4, 1961, Pub. L. No. 87-376, 75 Stat. 805 (listing the townships/acreages where the Forest Service owned land); *see also* Act of Oct. 23, 1962, Pub. L. No. 87-848, 76 Stat. 1118 (amending this initial authorization and allowing the sale of the land to the state at fair market value upon the condition that it be used for public purposes); REGION 9 REPORT, *supra* note 165, at 17.

222. REGION 9 REPORT, *supra* note 165, at 17.

223. S. JOURNAL, 60th Gen. Assemb., Extra. Sess., at 116 (Iowa 1964) (introducing a concurrent resolution to authorize this expenditure to purchase approximately 4,649 acres in Appanoose, Davis, Van Buren, and Lee Counties).

the state's forest system, mostly for Shimek State Forest²²⁴ and Stephens State Forest, each in the southern part of the state.²²⁵

F. Periodic Efforts to Revive the Iowa National Forest Concept

In the 1980s, the Iowa Natural Heritage Foundation's newsletter featured an article focused on whether the time had again come for a "Hawkeye National Forest"—or federally owned forests to be established in Iowa.²²⁶ A contemporaneous state legislative study similarly noted that the economic conditions associated with the Farm Crisis and environmental conditions approximating the earlier climate for large scale land use reallocation during the worst days of the Great Depression.²²⁷ This report noted the failure of the 1930s effort to create a national forest in Iowa, and included recommendations for a possible congressional role "encourag[ing] the re-evaluation of the potential for a national or other alternative such as a special pilot project in the acquisition of marginal lands as a 'Demonstration Resource Conservation Project.' A detailed, nationally led study with state involvement could set the stage for reduction of marginal agricultural lands and their conservation to permanent, productive and higher value use."²²⁸ These efforts appear to have ended with the Farm Crisis and made no discernable progress.²²⁹

V. SUBSEQUENT STATE EFFORTS

Although Iowa missed its window in the principal period for large scale forest purchases, this does not entirely mean that the state has

224. See *Shimek State Forest*, VILLAGES OF VAN BUREN CTY., <https://villagesofvanburen.com/directory.html?item=1434> [<https://perma.cc/Z42T-7QWE>] (last visited Oct. 20, 2020) (explaining that this state forest's roots date back to the 1930s, and that "through an appropriation by the Iowa General Assembly in 1964, an additional 3,000 acres were added in a purchase from the U.S. Forest Service.").

225. WILDLIFE MGMT. INST., *supra* note 218, at 1.

226. IOWA NAT. HERITAGE FOUND., *supra* note 10, at 4.

227. RECREATION, TOURISM, AND LEISURE INTERIM STUDY COMM., FINAL REPORT 31 (1984). Notably, this report indicated support for federal acquisition to "provide high returns to Iowa and the nation through conservation of troubled marginal farmland, reduction of soil erosion, enhancement of wildlife and recreational opportunities, and support of lowered land values." *Id.* Again, this focus was, in part, a response to the conditions of the 1980s Farm Crisis in Iowa. See, e.g., Sue Ann Atkinson, *The Farm Crisis of the 1980's in Iowa: Its Roots and Innerworkings* (1999) (M.A. thesis, Iowa State University), <https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=17848&context=rtd> [<https://perma.cc/5AN5-BKJX>] (profiling this period).

228. RECREATION, TOURISM, AND LEISURE INTERIM STUDY COMM., *supra* note 228, at 30.

229. See, e.g., Barry J. Barnet, *The U.S. Farm Crisis of the 1980s*, 74 AGRIC. HIST. 366, 366-80 (discussing this period and its impact on farming and farmers).

not made some progress in land conservation. This section will focus on a few of the primary mechanisms that the state has utilized to fill the void left by federal forest purchase programs and to provide conservation and recreational amenities to the state: (1) the expansion of the state forest system; (2) use of the state's forest reserve law; (3) the success of conservation NGOs in conserving lands through conservation easements; and (4) the use of the federal Forest Legacy funding to acquire lands.

A. Iowa's State Forest System

Iowa's emerging state forest system picked up some of the slack and, as noted in the prior section, ultimately acquired many of the lands that were purchased by the Forest Service.²³⁰ During the same period as the Forest Service purchases, Iowa's legislature itself appropriated funds to purchase approximately 12,500 acres for inclusion in the state forest system.²³¹ Since this time, Iowa has gradually expanded the state forest network to its current total of over 43,000 acres.²³² These purchases have largely been funded through state lottery proceeds, and state ownership continues to expand through opportunistic purchases of approximately 500 acres a year.²³³ The most recent addition is the Loess Hills State Forest (in 1985), which now consists of more than 11,000 acres.²³⁴ The lands that have been acquired by the state in this purchase area appear to be some of the same lands (located in Harrison and Monona Counties) in the proposed Pottawattamie federal forest purchase unit which was never established.²³⁵

230. Conard, *supra* note 13, at 36 (discussing state acquisitions during this period); *see also* MacDonald, *supra* note 171, at 142.

231. U.S. DEPT. OF INTERIOR, NAT'L PARK SERV., NATIONAL REGISTER OF HISTORIC PLACES MULTIPLE PROPERTY DOCUMENTATION FORM, THE CONSERVATION MOVEMENT IN IOWA, 1857-1942, at E63-64 (1991), https://npgallery.nps.gov/NRHP/GetAsset/NRHP/64500151_text [<https://perma.cc/Y8LK-MLZQ>].

232. *Iowa's State Forests*, IOWA DEP'T OF NAT. RES., <https://www.iowadnr.gov/places-to-go/state-forests> [[https://perma.cc/JXA8-6D\]6](https://perma.cc/JXA8-6D]6)] (last visited Oct. 29, 2020). In addition to the state forests, the state has been increasing its park system. *See Iowa's State Parks and Forests*, IOWA DEP'T OF NAT. RES., <https://www.iowadnr.gov/Places-to-Go/State-Parks/Iowa-State-Parks> [<https://perma.cc/MSX6-3Z3N>] (last visited Jan. 10, 2021). The other category of state-owned conservation lands are state preserves, which are dedicated for "maintenance as nearly as possible in its natural condition." IOWA CODE § 465C.1 (2020).

233. *Iowa's State Forests*, IOWA DEP'T OF NAT. RES., <https://www.iowadnr.gov/places-to-go/state-forests> [[https://perma.cc/JXA8-6D\]6](https://perma.cc/JXA8-6D]6)] (last visited Oct. 29, 2020).

234. *Id.*

235. *Id.*

B. Iowa's Forest Reserve Law

Although the program has existed since 1906 in some form, Iowa has long had a landowner tax incentive program that reduces or eliminates property tax in an attempt to incentivize private landowners to keep forested land forested.²³⁶ The program requires that a forest parcel be at least two acres in size and contain more than 200 trees to receive preferential tax treatment.²³⁷ Agricultural activities are not allowed on enrolled lands.²³⁸ As of 2007, the Iowa DNR noted that 43,979 parcels consisting of nearly 650,000 acres of land were enrolled (or roughly 1/3 of the state's total forests).²³⁹ This preferential tax treatment has undoubtedly prevented the conversion of some forested tracts to agricultural use, providing at least some of the benefits that federal ownership would have offered.²⁴⁰ The protection afforded by this program, however, is limited. First, the program is voluntary and allows a landowner to withdraw lands at any point if they want to convert the lands to a more intensive use. Second, the program is purely targeted at avoiding conversion and does not provide for public access or public use of the resources on the landscape. Notably, even the continued viability of this preferential tax treatment is under ongoing legislative threat due to the expense and the criticism from other landowners that these lands are receiving more favorable tax treatment.²⁴¹

C. The Iowa Natural Heritage Foundation

Some of the void left by the lost national forest acquisitions has also been filled by the consistent and focused work of one of the country's most innovative and successful statewide land trusts, the Iowa Natural Heritage Foundation (INHF).²⁴² Founded in 1979, INHF has

236. See IOWA CODE § 427C.1 (2020); see also IOWA DEP'T OF NAT. RES., THE FOREST RESERVE LAW IS AN EFFECTIVE TOOL FOR RETAINING PRIVATE FORESTS IN IOWA, https://www.iowadnr.gov/portals/idnr/uploads/forestry/forestreserve_findings.pdf [<https://perma.cc/YLL9-6V77>].

237. IOWA CODE § 427C.1.

238. *Id.*

239. *Id.*

240. See, e.g., Dave Bartemes, *Iowa Senate Bill Would Gut Forest Reserve*, DES MOINES REG. (Feb. 7, 2019), <https://www.desmoinesregister.com/story/opinion/columnists/iowa-view/2019/02/07/iowa-senate-bill-would-gut-forest-reserve/2792857002/> [<https://perma.cc/54F9-TLXJ>] (discussing the impact of this program and noting that a senate bill sought to end this program in the 2019 legislative session).

241. *Id.*

242. Mark Ackelson, *Conservation Issues in the Midwest*, in PRIVATE OPTIONS: TOOLS AND CONCEPTS FOR LAND CONSERVATION, at 156, 156-57 (1982) (discussing the challenges of conservation in the Midwest through the lens of INHF's early work).

protected nearly 200,000 acres across the state.²⁴³ One of the more significant roles that the INHF plays in the state is to purchase lands that will ultimately come into public ownership – as INHF is able to act more quickly than a governmental body that has limitations based on appropriations and process requirements (and INHF can later convey purchased lands to the state once funds become available).²⁴⁴ This reliance on private conservation tools and private philanthropy to accomplish goals with regard to providing public conservation amenities has certainly helped to fill some, but not all, of the void left by the Forest Service's withdrawal.²⁴⁵ Specifically, the INHF is able to acquire lands in fee and transition these to public ownership to be used similarly to how the Forest Service would have used conserved lands in the 1930s. Perhaps the largest distinction in the relative purchase programs is the scale as the INHF is limited to fundraising or securing philanthropic gifts and, as a result, the projects are far smaller than the areas which were targeted for federal acquisition a generation earlier.

D. The Forest Legacy Program

Lastly, Iowa has been able to draw upon limited funds from the federal Forest Legacy Program to support some state acquisitions. The Forest Legacy Program, established in 1990, is designed to allow the Forest Service to work with state agencies to protect lands through either the purchase of conservation easements or fee purchases.²⁴⁶ Iowa prepared an Assessment of Need in 2001, a prerequisite for obtaining FLP funding, and established goals for acquisitions in the state

243. *About Us*, IOWA NAT. HERITAGE FOUND., <https://www.inhf.org/about-us/> [<https://perma.cc/2F8B-HRZH>] (last visited Oct. 29, 2020); see also STORY CLARK, *A FIELD GUIDE TO CONSERVATION FINANCE* 159 (2d ed. 2007) (profiling some of the early efforts of the INHF).

244. *Land, Water & Wildlife Protection*, IOWA NAT. HERITAGE FOUND., <https://www.inhf.org/what-we-do/protection/> [<https://perma.cc/KME6-EGB6>] (last visited Oct. 29, 2020).

245. See, e.g., Mark Ackelson, *Case Study: The Iowa Natural Heritage Foundation and the Mississippi Bluffs Alliance: Protecting Spectacular and Threatened Natural Resource Features in the Upper Midwest*, in *PROTECTING THE LAND: CONSERVATION EASEMENTS PAST, PRESENT, AND FUTURE*, at 321, 321-26 (Julie A. Gustanski & Roderick H. Squires eds., 2000) (profiling one exemplary INHF project).

246. 16 U.S.C. § 2103(c); see also Jessica Owley & Stephen J. Tulowiecki, *Who Should Protect the Forest?: Conservation Easements in the Forest Legacy Program*, 33 *PUB. L. & RES. L. REV.* 47, 59 (2012) (providing an overview of the program).

of using FLP matching funds to prevent forest conversion, fragmentation, and to protect ecologically-sensitive lands.²⁴⁷

One example of a project receiving this support is further acquisitions related to Preparation Canyon State Park.²⁴⁸ In 2010, FLP provided over one million dollars to support the acquisition of a conservation easement over nearly 2,000 acres on the western edge of the state park—expanding the protection of this resource.²⁴⁹ As of January 1, 2020, eight projects in Iowa have received FLP funds.²⁵⁰ While there are indications that the Forest Legacy Program may start to receive additional funding,²⁵¹ the FLP purchases are also far smaller than what would have been acquired by the Forest Service during the Great Depression. Additionally, the lands being acquired generally are significant ecological resources and are not lands that are being targeted for restoration. As a result, these important efforts are one piece of the puzzle to provide landscape-level conservation benefits, but not a full solution.

Overall, Iowa conservationists have creatively worked to protect many of the state's remaining natural resources through a mixture of public/private efforts and tools (encompassing both acquisition and non-acquisition-based strategies) which have delivered significant conservation benefits.

VI. EXPLORING WHY FEDERAL PURCHASE EFFORTS HAVE NOT REMATERIALIZED

Although Iowa has had conservation successes, there are a few potential reasons why these efforts have not had the same success—

247. STATE OF IOWA, FOREST LEGACY PROGRAM ASSESSMENT OF NEED 25 (2001), <https://www.iowadnr.gov/portals/idnr/uploads/forestry/forestlegacy.pdf> [https://perma.cc/Q2JE-HVCH].

248. *Preparation State Park*, IOWA DEP'T OF NAT. RES., <https://www.iowadnr.gov/Places-to-Go/State-Parks/Iowa-State-Parks/ParkDetails/ParkID/610160/idAdminBoundary/23> [https://perma.cc/X4F3-STDU] (last visited Jan. 30, 2021).

249. USDA FOREST SERV., FISCAL YEAR 2010 PRESIDENT'S BUDGET OVERVIEW (2010), <https://grist.org/wp-content/uploads/2009/08/overview-fy-2010-budget-request.pdf> [https://perma.cc/3YCW-D4H9] (providing overview of this project).

250. *Forest Legacy Interactive Map*, USDA FOREST SERV., <https://usfs.maps.arcgis.com/apps/webappviewer/index.html?id=9d083b89bd254c23acf56f8143e0c119> [https://perma.cc/9NBP-CJHE] (select "Iowa" from right-hand menu) (last visited January 24, 2021).

251. *See, e.g.*, Press Release, USDA, President Biden's Budget Invests \$2.8 Billion to Support Economies, Outdoor Recreation, and Access to Public Lands (June 3, 2021), <https://www.usda.gov/media/press-releases/2021/06/03/president-bidens-budget-invests-28-billion-support-economies> [https://perma.cc/3NB4-TMHD] (proposing increasing FLP funding).

even setting aside for the moment current federal-level conservation funding constraints.²⁵² These include: (1) an increasing reliance on an expanding mix of USDA conservation programs; (2) changes in the farming sector; and (3) the ongoing challenge of the high value of Iowa farmland.

A. Increasing Reliance on USDA Conservation Programs

One factor potentially lessening the need for more significant Forest Service acquisitions in the state is the general increase in types of programs utilized by the USDA to address the conservation impacts of working lands and the economics of the farm economy²⁵³ – the two largest initial rationales for submarginal land acquisition. This happened in a few different ways: (1) through the development of land retirement initiatives such as the land bank and its contemporary successor program, the Conservation Reserve Program;²⁵⁴ and (2) the introduction of baseline conservation compliance and other programs provided for in the Conservation Title of the Farm Bill (that have improved environmental management of working lands).²⁵⁵ Other USDA programs have also entered this arena to fill somewhat of a gap in conservation of working lands.²⁵⁶ Since the 1985 Farm Bill, there has been an increasing mix of programs designed to facilitate conservation gains in three primary areas:²⁵⁷ (1) land retirement; (2) working

252. See, e.g., Nicholas Pevzner, *The Green New Deal, Landscape, and Public Imagination*, LANDSCAPE ARCHITECTURE MAG., July 2019, <https://landscapearchitecturemagazine.org/2019/07/23/the-green-new-deal-landscape-and-public-imagination/> [<https://perma.cc/WJ6T-XJ4C>] (discussing what expanded conservation funding at the federal level might look like today).

253. See, e.g., MEGAN STUBBS, CONG. RSCH. SERV., R43504, CONSERVATION PROVISIONS IN THE 2014 FARM BILL 1-5 (2014) (exploring the scope of these programs and efforts to simplify the programmatic mix in the 2014 Farm Bill).

254. Clark Gantzer & Stephen H. Anderson, *The Soil and Water Conservation Society: The Society's Beginning*, in SOIL AND WATER CONSERVATION: A CELEBRATION OF 75 YEARS 1, 5-6 (Jorge A. Delgado et al. eds., 2020) (discussing the history and evolution of this program).

255. Significantly, the primary conservation agency within USDA during the New Deal, the Soil Conservation Service, was renamed the Natural Resources Conservation Service in the 1994 Farm Bill to express its increasing mandate beyond addressing soil erosion. See *Eighty Years of Helping People Help the Land*, NAT. RES. CONSERVATION SERV., <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/pr/newsroom/features/?cid=nrcseprd343657> [<https://perma.cc/7SH4-KUUE>] (last visited Feb. 1, 2021).

256. Linda A. Malone, *A Historical Essay on the Conservation Provisions of the 1985 Farm Bill: Sodbusting, Swampbusting, and the Conservation Reserve*, 34 U. KAN. L. REV. 577 (1986) (providing a summary of the history of the policy rationale for the adoption of these transformative Farm Bill provisions).

257. Jess R. Phelps, *Conservation, Regionality and the Farm Bill*, 71 ME. L. REV. 293 (2019).

lands programs;²⁵⁸ and (3) conservation easements.²⁵⁹ Additionally, it is worth discussing the expansion in public policy directions over nearly the past century, which farmland preservation efforts somewhat represent, to evaluate whether submarginal land purchases actually address the most pressing societal conservation concerns. As a result, this section will explore: (1) voluntary land retirement efforts; (2) conservation compliance; (3) working lands programs; and (4) farmland preservation efforts.

1. Voluntary Land Retirement

After World War II, the rise of a different form of conservation programs, more focused on temporarily taking cropland out of active production, began to take at least some of the pressure off for dealing with submarginal lands through acquisition strategies.²⁶⁰ These land retirement programs—focused on short-term rental contracts with landowners who agreed not to farm enrolled lands, and which often involved planting timber on the non-farmed lands—enjoyed some success, particularly in the southeastern United States where high percentages of replanted lands stayed in forest use after the rental contract expired.²⁶¹ By 1955, G.B. MacDonald, the leading Iowa national forest proponent, summarized this shift: “[i]t is interesting to note that at this time that there is interest in the press, and officially, that the acquisition of public lands for forest production might serve a useful propose in furthering the “land bank movement”, the retirement of questionable farm crop lands to be used for the production of timber crops. . . . This move might well be undertaken in Iowa as an

258. *Conservation Programs – An Overview*, NAT’L AGRIC. L. CTR., <https://nationalaglaw-center.org/overview/conservation-programs/> [<https://perma.cc/79R2-AE69>] (last visited Jan. 29, 2021) (providing an overview of land retirement and working lands programming and discussing the shift towards working lands programs in recent Farm Bills).

259. Jess R. Phelps, *Defining the Role of Agriculture in Agricultural Conservation Easements*, 45 *ECOLOGY L. Q.* 647, 672-74 (2018).

260. The trends towards an expanded federal role in other non-acquisition-based modalities are largely in parallel with the forest purchase programs. See Phelps, *supra* note 47, at 353 (profiling the 1930’s creation and efforts of soil conservation districts designated to address soil erosion issues); see also LEHMAN, *supra* note 57, at 43-44 (noting the post-New Deal decline of conservation programs and their reemergence).

261. J. DOUGLAS HELMS, USDA, NAT. RES. CONSERVATION SERV., *BRIEF HISTORY OF THE USDA SOIL BANK PROGRAM* (1985), https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1045666.pdf [<https://perma.cc/ZTJ2-6X7R>] (noting that these programs paid farmers a rental payment for taking lands out of agricultural production for the agreed upon rental term).

aid in partial solution of vexing problems over overproduction in agricultural crops.”²⁶²

By the 1980s, other programs took even greater prominence in addressing problematic land use patterns through voluntary, and temporary, land retirement.²⁶³ One of the most prevalent, particularly in southeastern Iowa, was and is the Conservation Reserve Program (CRP).²⁶⁴ CRP is a short-term land retirement program, where a farmer, in exchange for receiving land rental payments, agrees to not farm their land for the contract period (ten years).²⁶⁵ Not surprisingly, CRP is a more popular program when commodity prices are lower, and less popular in rising markets.²⁶⁶ CRP, administered by the Farm Services Agency, often results in the protection of submarginal land.²⁶⁷ The reason submarginal land is often enrolled in CRP is that CRP is a voluntary program and relies on farmers to enroll their land in these rental contracts.²⁶⁸ Given the option farmers are likely to enroll their least productive lands in the program, resulting in the protection of perhaps some of the same lands which may have been targeted for federal acquisition and reforestation in an earlier generation, instead of short-term land retirement (and now typically

262. HURT, *supra* note 131, at 352-53; *see also* John F. Hart, *Loss and Abandonment of Cleared Farmland in the Eastern United States*, 58 ANNALS OF THE ASS'N OF AM. GEOGRAPHERS 417 (1968) (profiling the impact of the land bank program on farm abandonment).

263. *See* Frederick Steiner, *The Evolution of Federal Agricultural Land Policy in the United States*, 4 J. RURAL STUDIES 349, 349-63 (1988) (discussing the shift in U.S. agricultural land use policy away from acquisition of working lands towards other programming).

264. Thomas J. Daniels, *America's Conservation Reserve Program: Rural Planning or Just Another Subsidy?*, 4 J. RURAL STUDIES 405, 405-11 (1988) (profiling the new program and expressing doubts as to its long-term benefits as compared to cost); *see also* Neil Hamilton, *State Initiatives to Supplement the Conservation Reserve Program*, 37 DRAKE L. REV. 251, 257 (1987) (discussing this program in Iowa and the potential for the state to further the program's impact).

265. MEGAN STUBBS, CONG. RSCH. SERV., R42783, CONSERVATION RESERVE PROGRAM (CRP): STATUS AND ISSUES (2013) (summarizing the program's current function).

266. *See* MEGAN STUBBS, CONG. RSCH. SERV., R43504, CONSERVATION PROGRAMS IN THE 2014 FARM BILL 3 (2014) (noting the shift in funding away from land retirement based on the economic situation of farmers entering into the 2014 Farm Bill); *see also* Silvia Secchi & Bruce A. Babcock, *Impact of High Corn Prices on Conservation Reserve Program Acreage*, 13 IOWA AGRIC. REV., 4 (2007).

267. Daniel M. Hellerstein, *The US Conservation Reserve Program: The Evolution of an Enrollment Mechanism*, 63 LAND USE POL'Y 601, 601-10 (2017) (exploring various goals of the program over time); *but see* Joshua Galperin et al., *Eating is Not Political Action*, 13 J. FOOD L. & POL'Y 113, 120-21 (2017) (critiquing this program based on the short-term nature of the gains achieved).

268. Michael J. Roberts & Ruben N. Lubowski, *Enduring Impacts of Land Retirement Policies: Evidence from the Conservation Reserve Program*, 83 LAND ECON. 516, 516-19 (2017).

short-term conversion to grassland habitat).²⁶⁹ Moving from federal acquisition of these lands (which results in permanent conservation gain) to offering voluntary, short-term incentives to provide protective benefit is a notable shift.²⁷⁰ This may reflect a recognition of what is possible, but CRP's failure to provide permanent protection continues to be levied as a critique of the program's effectiveness.²⁷¹

2. Conservation Compliance

During the 1980s, conservation compliance was added to the Farm Bill, which requires farmers who wish to maintain eligibility for USDA programs to comply with basic conservation practices.²⁷² Specifically, this requires farmers not to convert wetlands to farmland (Swampbuster) and to avoid harming highly erodible land (at least without a highly erodible land plan designed to minimize soil erosion) (Sodbuster).²⁷³ "Conservation compliance is based in the implicit assumption that the public has a right to a minimum level of environmental quality."²⁷⁴ Although there are enforcement gaps, this requirement has had an impact on farming practices on the most sensitive lands, specifically in reducing erosion and conversion of wetlands away from that critical ecosystem function.²⁷⁵ From a land conservation perspective, this program likely helped mitigate the worst erosion incidents and soil loss, which helped avoid creating untenable lands that would need federal acquisition to mitigate even more extreme landscape degradation.

269. See, e.g., Atkinson, *supra* note 227 (charting the farm bill programs that were used to address land use issues during the 1980s farm crisis, which did not result in similarly progressive policy proposals as flowed out of the New Deal).

270. MEGAN STUBBS, CONG. RSCH. SERV., R40763, AGRICULTURAL CONSERVATION: A GUIDE TO PROGRAMS (2010) (providing a summary of the principal categories of NRCS conservation title programs and program design).

271. DANIEL BIGELOW ET AL., THE FATE OF LAND IN EXPIRING CONSERVATION RESERVE PROGRAM CONTRACTS, 2013-16 (2020), <https://www.ers.usda.gov/webdocs/publications/95642/eib-215.pdf> [<https://perma.cc/CVN6-8L72>].

272. Neil D. Hamilton, *Legal Issues in Enforcing Federal Soil Conservation Programs: An Introduction and Preliminary Review*, 23 U.C. DAVIS L. REV. 637, 640-41 (1990).

273. *Conservation Compliance*, USDA FARM SERV. AGENCY, https://www.fsa.usda.gov/programs-and-services/payment-eligibility/conservation_compliance/index [<https://perma.cc/Q4ZY-HR5R>] (last visited Jan. 1, 2021); but see Laurie Ristino, & Gabriela Steier, *Losing Ground: A Clarion Call for Farm Bill Reform to Ensure a Food Secure Future*, 42 COLUM. J. ENV'T. L. 59, 59-68 (2016) (critiquing conservation compliance and the limitations of this requirement).

274. Austin Holland et al., *Complying with Conservation Compliance? An Assessment of Recent Evidence in the US Corn Belt*, 15 ENV'T RSCH. LETTERS 1 (2020).

275. See, e.g., Konstantinos Giannakas & Johnathan D. Kaplan, *Policy Design and Conservation Compliance on Highly Erodible Lands*, 81 LAND ECON. 20 (2005).

3. Working Lands Programs

In the working lands conservation context, there has been a strong interplay between soil conservation efforts and submarginal lands. The USDA has increasingly developed programs to help farmers manage their lands in a more conservation-focused manner.²⁷⁶ Similar to Conservation Compliance, these programs have helped avoid creating land use conditions similar to the Great Depression, where relatively unmitigated soil erosion led to economic decline and a collapsing rural economy. Current working lands programs include the Environmental Quality Incentives Program (EQIP), which provides matching funds to farmers looking to install conservation-related structures (such as terracing) and forest stand improvement,²⁷⁷ and the Conservation Stewardship Program (CSP), which provides payments to farmers for employing agreed-upon practices on the landscape (including a suite of approved activities related to improved forest management).²⁷⁸ Working land programs constitute an increasing share of Farm Bill conservation spending and work directly to improve land management on farmed acres, which again, have helped mitigate some environmental impacts on the working landscape.²⁷⁹

4. Agricultural Conservation Easements

Agricultural conservation easements also play a sizable role in NRCS's conservation program mix.²⁸⁰ There are currently two primary conservation easement programs: (1) Agricultural Conservation Easement Program–Agricultural Land Easement (ACEP-ALE) (which focuses on keeping farmland farmed);²⁸¹ and (2) Agricultural

276. See, e.g., M.V. Santlemann et al., *Assessing Alternative Futures for Agriculture in Iowa, U.S.A.*, 19 *LANDSCAPE ECOLOGY* 357, 363 (2004) (discussing farmers' use of CRP).

277. *Environmental Quality Incentives Program*, NAT. RES. CONSERVATION SERV., <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/> [<https://perma.cc/93KV-S8SJ>] (last visited Jan. 29, 2021) (providing overview of program).

278. *A Closer Look at the 2018 Farm Bill: Working Lands Conservation Programs*, NAT'L SUSTAINABLE AGRICULTURE COAL. BLOG (Jan. 14, 2019) <https://sustainableagriculture.net/blog/a-closer-look-at-the-2018-farm-bill-working-lands-conservation-programs/> [<https://perma.cc/5MLS-55VE>].

279. See, e.g., *Environmental Quality Incentives Program*, NAT'L SUSTAINABLE AGRIC. COAL. <https://sustainableagriculture.net/publications/grassrootsguide/conservation-environment/environmental-quality-incentives-program/> [<https://perma.cc/4X78-AZ7T>] (last visited Feb. 1, 2021).

280. *Agricultural Conservation Easement Program*, NAT. RES. CONSERVATION SERV., <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/acep/> [<https://perma.cc/4KHL-MFUA>] (last visited Jan. 29, 2021).

281. *Id.*

Conservation Easement Program–Wetland Reserve Easement (ACEP-WRE) (which focuses on restoring converted cropland back to wetland use).²⁸² Conservation easement funding from the USDA has a significant economic impact in providing farmers funding (by either paying 100 percent of the land value to convert lands back to wetland use or 50 percent of the funding to acquire the development rights on conserved farmland) in addition to the preservation or conservation efforts that are also secured.²⁸³ This focus on agricultural conservation easement acquisition, rather than acquisition of the actual fee lands, allows advocates to secure protection of targeted conservation benefits without paying the full cost of the land or paying for its ongoing management. In both focus and results, these current programs certainly differ from the New Deal era purchase programs.

Overall, the evolving mix of programming designed to improve farmers' operations and environmental stewardship has likely taken some of the pressure off of the federal government's acquisition and conversion of land to a non-agricultural use (and in creating the conditions that required this degree of intervention).²⁸⁴

5. Farmland Preservation

Lastly, within USDA and state land use planning efforts, there has been a significant shift towards farmland preservation.²⁸⁵ Farmland preservation efforts are designed to keep agricultural land in agricultural use, rather than taking submarginal land out of agricultural production.²⁸⁶ These initiatives were initially driven by the recognition that development pressures were continuing to impact prime farmland.²⁸⁷ These preservation efforts focused less on converting lands to a different conservation-related use, and more on preventing their

282. USDA, NAT. RES. CONSERVATION SERV., SAVING THE NATION'S WETLANDS (2020), https://www.nrcs.usda.gov/wps/PA_NRCSCConsumption/download?cid=nrcseprd1398820&ext=pdf [<https://perma.cc/U5MN-NVHD>].

283. See ANDREW SEIDL ET AL., ESTIMATED ECONOMIC IMPACT OF FEDERAL AGRICULTURAL CONSERVATION EASEMENT PROGRAMS (ACEP) ON COLORADO, 2009-2017 (2018), <https://s30428.pcdn.co/wp-content/uploads/sites/2/2020/02/csu307173-RuralLandResearch-bk-www.pdf> [<https://perma.cc/Z856-MNSR>].

284. See, e.g., LEHMAN, *supra* note 57, at 267-70 (charting this and the evolution of farmland preservation thinking generally).

285. THOMAS L. DANIELS & DEBORAH BOWERS, HOLDING OUR GROUND: PROTECTING AMERICA'S FARMS AND FARMLAND 75 (1997).

286. THOMAS L. DANIELS & JOHN C. KEENE, THE LAW OF AGRICULTURAL PRESERVATION IN THE UNITED STATES 11-15 (2018) (charting the origins of the farmland preservation movement).

287. WILLIAM H. WHYTE, JR., THE LAST LANDSCAPE 1-14 (1968) (providing a summary of the impacts of farmland loss).

development and blunting suburban sprawl.²⁸⁸ In 1981, the USDA passed the Farmland Protection Policy Act – which made the protection of farmland a focus nationally.²⁸⁹ Different supporters came to the forefront to advocate for the preservation of these lands—typically through the use of agricultural conservation easements and relying on a diverse array of local, state, and federal funding to accomplish their objectives.²⁹⁰ These efforts relate to the earlier submarginal lands efforts in that they form a different piece of the American land use puzzle—rather than trying to take remedial action related to lands that may not have been well suited for farming, these efforts are designed to keep the best agricultural lands available for that function.²⁹¹ These efforts generally are designed to achieve a broad suite of objectives, but they are most often tied to food security (ensuring that farmland remains available for producing food) and preventing more intensive land use, showcasing the expansion of land use goals over the last century in the rural countryside.²⁹² While these efforts conceivably could have drawn funding away from other conservation priorities in agricultural regions,²⁹³ they also show a continued focus on addressing land use challenges through available and expanding toolsets.²⁹⁴

B. Changes in the Farm Sector

Beyond the expansion of USDA programs to take some land use pressure off of rural land use through voluntary programs, it is also

288. Aaron W. Thompson & Linda S. Prokopy, *Tracking Urban Sprawl: Using Spatial Data to Inform Farmland Preservation Policy*, 26 *LAND USE POL'Y* 194, 194 (2009); see also Tamara Mullen, *The McMansion: Architecture's Role in Facilitating Urban Sprawl and Farmland Loss*, 12 *DRAKE J. AGRIC. L.* 255, 257-59 (2007) (exploring urban sprawl generally).

289. USDA, Nat. Res. Cons. Serv., Farmland Protection Policy Act, <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/> (last visited Nov. 4, 2021).

290. See, e.g., Jess R. Phelps, *Defining the Role of Conservation in Agricultural Conservation Easements*, 44 *ECOLOGICAL Q.* 627, 645-46 (2017).

291. Craig A. Peterson & Claire McCarthy, *Farmland Preservation by Purchase of Development Rights Programs in the United States*, 26 *DEPAUL L. REV.* 447 (1977) (profiling first generation efforts to keep farmlands farmed).

292. See, e.g., Phelps, *supra* note 290, at 632-43 (exploring the wide variety of policy rationales that support farmland preservation efforts).

293. The same argument has been made regarding conservation easement acquisitions—that an increasing reliance on acquiring conservation easements rather than fee purchases has had a negative impact on public land acquisition generally. See FAIRFAX ET AL., *supra* note 105, at 263 (exploring this phenomenon while noting the mixture of public/private interests that are embedded in contemporary conservation practice).

294. Henry R. Rodegerdts, *Land Trusts and Agricultural Conservation Easements*, 13 *NAT. RES. & ENV'T* 336, 336 (1998).

worth considering whether the changing nature of the farm also has played a role.²⁹⁵ Some of the goals of the New Deal generation – alleviating rural farmer poverty, as opposed to rural poverty writ large – were potentially somewhat addressed by virtue of continuing consolidation within the farm sector throughout the twentieth century.²⁹⁶ American agriculture underwent a substantial shift in the twentieth century – dramatically expanding its capacity while relying on fewer farmers to carry out this activity.²⁹⁷ This shift towards fewer and larger farm operators removed some of the economic impetus behind submarginal land programs of the New Deal, as farmers no longer play such an outsized role in the economy that they merit such a redistributive effort or the specific type of effort contemplated during that period.²⁹⁸ Other financial supports, in addition to conservation programs noted above, may also have contributed to lessening pressure on the federal government to intervene to take submarginal land out of active production.²⁹⁹

C. The High Cost of Iowa Farmland

The high value of Iowa farmland—one of the historic root challenges to the Forest System acquisitions initially—also remains an

295. CAROLYN DIMITRI ET AL., USDA, ECON. RSCH. SERV., ECON. INFO. BULL. NO. 3, THE 20TH CENTURY TRANSFORMATION OF U.S. AGRICULTURE AND FARM POLICY (2005).

296. *Farming and Farm Income*, USDA ECON. RSCH. SERV. (Sept. 2, 2021), <https://www.ers.usda.gov/data-products/ag-and-food-statistics-charting-the-essentials/farming-and-farm-income/> [<https://perma.cc/8TGS-J73Q>]. This is a separate issue from rural poverty generally, which remains a crucially important social issue. See, e.g., Ann Eisenberg, *Rural Blight*, 12 HARV. L. & POL'Y REV. 183 (2018) (discussing rural poverty and economic challenges).

297. PAUL K. CONKIN, A REVOLUTION DOWN ON THE FARM: THE TRANSFORMATION OF AMERICAN AGRICULTURE SINCE 1929, at 1-25 (2008) (profiling some of these shifts); Neil D. Hamilton, *Feeding Our Future: Six Philosophical Issues Shaping Agricultural Law*, 72 NEB. L. REV. 210, 213-20 (1993) (exploring the “industrialization” of farming). Iowa agriculture, however, is not static and may be changing in ways to lessen the separation of consumers and the land and lessen the environmental impacts of such a system. See Jerry L. Anderson, *Neil Hamilton, Aldo Leopold, and the Ethics of Conservation*, 24 DRAKE J. AGRIC. L. 199, 205-06 (2019) (exploring potential signs of change in the food production system and Iowa agriculture).

298. JAMES M. MACDONALD ET AL., USDA, ECONOMIC RES. SERV., ECON. INFO. BULL. NO. 189, THREE DECADES OF CONSOLIDATION IN U.S. AGRICULTURE (2018) (charting this shift and its impacts). Despite the reduced proportion of the economy actively engaged in farming, for a variety of reasons, including political, farmers continue to receive outsized governmental support. See, e.g., Alan Rappoport, *Trump Funnels Record Subsidies to Farmers Ahead of Election*, N.Y. TIMES (Oct. 12, 2020), <https://www.nytimes.com/2020/10/12/us/politics/trump-farmers-subsidies.html> [<https://perma.cc/A6Z5-DS9E>] (discussing farm subsidies in 2020 and the motivations behind these payments).

299. Christopher R. Kelley, *Rethinking the Equities of the Federal Farm Programs*, 14 N. ILL. U. L. REV. 659, 659-61 (1994).

ongoing factor. The price of Iowa farmland has remained relatively high in comparison to other farmland in other regions.³⁰⁰ As of January 2021, Iowa farmland ranges in price from \$3,849 per acre (Decatur County) to \$10,549 per acre (Sioux County).³⁰¹ The relative price of farmland has likely discouraged discussion of large-scale land use and land conversion away from production agriculture as highest and best economic use.

Overall, Iowa had a window to add some of its lands to the National Forest System, but this opportunity ultimately did not work out given the cost of the state's lands coupled with a change in acquisition policy that steered resources to forest purchase units with a higher percentage of acquisition (and lower costs). By the time this restriction was removed, Iowa's efforts so were so fledgling as to be untenable, and the efforts were eventually abandoned in face of increasing land costs and other priorities. Iowa has since used several tools (tax abatement, conservation easements, and state-level purchases) to provide some of the benefits the National Forests would have afforded, but these practices are qualitatively and quantitatively different. To date, there has not been the degree of resources or efforts to facilitate projects on the order of what was proposed in the early 1930s in southern Iowa.

VII. THE FUTURE OF IOWA LANDSCAPE-LEVEL CONSERVATION

Although Iowa missed the window of large-scale Forest Service System land acquisition under the Weeks Act,³⁰² this does not mean that the state's lands are not worth protecting or that the state would not benefit from a federally-owned forest system or additional efforts to restore balance to the state's working landscape.

Iowa conservationists have long recognized exactly what they missed by not having lands enrolled in the National Forest System.³⁰³ As Iowa conservationists noted in the 1980s, if the Iowa National Forests had been established, "we could assume that the [Hawkeye

300. See, e.g., David Whitaker, *How Are Farmers Affording High Land Prices?*, SUCCESSFUL FARMING (Mar. 22, 2018), <https://www.agriculture.com/farm-management/farm-land/how-are-farmers-affording-high-land-prices> [[https://perma.cc/R57B-TS\]F](https://perma.cc/R57B-TS]F)] (charting the recent strength of land prices across the state).

301. WENDONG ZHANG, IOWA STATE UNIV. AG DECISION MAKER, 2020 FARMLAND VALUE SURVEY (2020), <https://www.extension.iastate.edu/agdm/wholefarm/pdf/c2-70.pdf> [<https://perma.cc/Q2V2-G6WP>].

302. See George W. Thomson & H. Gene Hertel, *The Forest Resources of Iowa in 1980*, 88 PROC. IOWA ACAD. SCI. 2, 5 (1981) (noting that, as of 1980, it is "unrealistic to assume that there will be interest in establishing National Forests in Iowa").

303. See, e.g., *id.* at 4 (discussing same).

National Forests] would be comparable in size and producing goods and services that would be equivalent to the Wayne [National Forest]” in southeast Ohio.³⁰⁴ This summary article noted that this area would have driven millions of recreational visits to southeastern and south-central Iowa – including timber harvests, wildlife habitat benefits, and supporting federal staff focused on natural resource management.³⁰⁵ In short, Iowa lost the opportunity to obtain substantial economic, recreational, and conservation benefits at a scale that is difficult to replicate/replace in the current climate.

This section will focus on a few possible options that could provide at least some of the benefits that the lost national forests could have had on Iowa’s landscape, specifically: (1) charting a future federal role; (2) examining the current and future use of conservation easements; and (3) potential ecosystem service markets (particularly, carbon offsets). Some of these options already play a role in Iowa land conservation strategies but are worth noting here given that the intent of this Article is to discuss the impact of Iowa’s lost national forests. Examining these tools through the lens of what benefit these tools provide (while also noting gaps) helps to provide meaningful context to this retrospective/prospective evaluation.

A. Future Federal Roles

Iowa still has not entirely abandoned efforts to potentially secure a federally managed forest or national park or some other form of federally-managed land.³⁰⁶ For several decades, Iowa has focused attention on securing federal assistance in conserving the Loess Hills in the western part of the state.³⁰⁷ The Loess Hills are a unique natural feature that “extend in a narrow band that borders the full length of the Missouri River valley in western Iowa . . . the topography is sharp-featured, with alternating peaks and saddles that dip and climb and along

304. IOWA NAT. HERITAGE FOUND., *supra* note 10, at 1.

305. *Id.*

306. *See, e.g.*, S. JOURNAL, 60th Gen. Assemb., Extra. Sess., at 31-32 (Iowa 1964) (profiling various conservation initiatives that could be pursued including re-evaluation of a forest service role in submarginal land acquisition and federal involvement in protecting the Loess Hills).

307. Sam H. Samuels, *Prairie Islands*, SIERRA CLUB MAG., Mar.–Apr. 2005, at 56 (profiling this region’s significance); Dean M. Roosa et al., *Preserving Natural Diversity in Iowa’s Loess Hills: Challenges and Opportunities*, 93 PROC. IOWA ACAD. SCI. 163, 163-65 (1986) (discussing the history of management and conservation efforts on this landform and the 1986 designation of the part of the landform as National Natural Landmark); Peggy Petrzalka, *The (Loess) Hills: Power and Democracy in a “New” Landform* (1999) (Ph.D. thesis, Iowa State University), <https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=13600&context=rtd> [<https://perma.cc/MGM9-WNHS>].

narrow ridge crests.”³⁰⁸ In the late 1990s and early 2000s, the state, in partnership with the National Park Service, considered whether this area should be considered for incorporation into the National Park System.³⁰⁹ During the Clinton Administration, Secretary of the Interior Bruce Babbitt visited the area to evaluate its potential for National Park status.³¹⁰ Despite determining that the area has national significance and should be protected,³¹¹ the National Park Service determined in 2002 that creating a national park in this area would not be feasible given the high degree of private ownership.³¹²

The current focus appears to be on obtaining national reserve status, which apparently will allow for focused attention to this area and assist for its conservation through a mixture of private and public acquisition efforts.³¹³ The benefits of such status, according to the Sierra Club, Iowa Chapter, would be to focus greater attention on the area

308. Iowa Geological Survey, *Loess Hills*, <https://www.ihr.uiowa.edu/igs/loess-hills/> [<https://perma.cc/4WXE-C9ST>] (last visited Oct. 31, 2020) (explaining this unique landscape); see also Dustin A. Farnsworth et al., *Evaluation of Current and Alternative Spatial Patterns of Grassland in the Loess Hills*, 22 NORTH AMERICAN PRAIRIE CONFERENCE, at 9, 9 (2010), https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1012&context=nrem_conf [<https://perma.cc/7LJY-J7XP>] (profiling the environmental significance of this landform).

309. DENNIS PROUTY, IOWA LEG. FISCAL BUREAU, LOESS HILLS AND THE NATIONAL PARK SYSTEM (1999), <https://www.legis.iowa.gov/docs/publications/IR/895.pdf> [<https://perma.cc/99ZY-LHNJ>] (profiling the options of attempting to secure federal designation as a national park, national monument, and related management areas); see also COMM. ON ENERGY AND NAT. RES., LOESS HILLS PRESERVATION STUDY ACT OF 1999, S. REP. NO. 106-66 (1999) (authorizing the Secretary of Interior to evaluate this region for federal designation). This park proposal also had strong support in the media, with the then editor of the editorial pages of the Des Moines Register vowing not to give up until “we rung out of ink.” See Petrzelka, *supra* note 307. Interestingly, part of the focus of the Register’s attention on this issue was trying to stop out-migration from the state and to improve quality of life/access to outdoor recreational opportunities. See *id.* at 40-41.

310. Petrzelka, *supra* note 307, at 7.

311. See, e.g., *Preserving the Loess Hills*, THE ECONOMIST (NOV. 25, 1999), <https://www.economist.com/united-states/1999/11/25/preserving-the-loess-hills> [<https://perma.cc/LR56-WDSG>] (discussing this effort); *Report Says No Park Status for Loess Hills*, RADIO IOWA (July 5, 2002), <https://www.radioiowa.com/2002/07/05/report-says-no-park-status-for-loess-hills/> (summarizing 2002 NPS determination as a result of the 1999 study bill); see also PROUTY, *supra* note 309 **Error! Bookmark not defined.** (defining a “national reserve” as “an area where the National Park Service provides technical assistance, but the majority of land is privately owned.”).

312. Katie Peikes, *Environmental Group Acquires More Than 830 Acres in the Loess Hills to Protection From Development*, IOWA PUB. RADIO (May 30, 2019), <https://www.iowapublicradio.org/environment/2019-05-30/environmental-group-acquires-more-than-830-acres-in-loess-hills-to-protect-from-development> [<https://perma.cc/W28B-YKUQ>].

313. See, e.g., Bennett Goldstein, *Campaign to Protect Loess Hills*, LEMARS DAILY SENTINEL, (Jan. 20, 2014), <https://www.lemarssentinel.com/story/2043093.html> [<https://perma.cc/4YGY-4PNU>] (discussing the ongoing work of the Loess Hills Alliance to create a Loess Hills National Reserve).

and make it possible to obtain more federal assistance.³¹⁴ This would, however, not provide any affirmative protection to the area through acquisition or land use regulation.³¹⁵ It is unclear the prospects for obtaining this degree of incorporation into the National Park System at this time, but efforts continue to progress for securing portions of this ecologically significant area through state and conservation NGO acquisitions.³¹⁶

An expanded federal role, whether through a national park, a national forest or grassland, or some other heightened land management designation, would depend on whether it would involve land acquisition. Despite resources that might merit such attention and focus, it does not immediately seem to be in the cards. Iowa conservationists' current focus on other types of arrangements, which might provide greater assistance and guidance, seems to be the best short-term goal (with state and non-governmental efforts taking the lead in acquisition-based conservation strategies at least in the Loess Hills example profiled above). Over the longer-term, such efforts may keep future options for a greater federal role open – if that is what Iowans ultimately decide is best suited for protecting important resources in the state.

B. Future USDA Conservation Programs

Another tactic that could potentially fill gaps left by the lack of an Iowa national forest would be more creative use of the programs provided under the conservation title of the Farm Bill and future iterations.³¹⁷ As noted in Section VI, USDA conservation programs have

314. *Loess Hills*, SIERRA CLUB IOWA CHAPTER, <https://www.sierraclub.org/iowa/issues/loess-hills> [<https://perma.cc/BRL5-ZKFJ>] (last visited Dec. 30, 2020).

315. *Id.*

316. *See, e.g.,* Iowa Natural Heritage Found., *Loess is More*, <https://www.inhf.org/blog/blog/loess-is-more/> (last visited Dec. 29, 2020) (summarizing a 500-acre property co-owned by INHF and the Iowa TNC chapter which will eventually be conveyed to state ownership in Mills County). The Iowa TNC chapter has set a goal of protecting 100,000 acres in this region through purchase or through conservation easements. *See* The Nature Conservancy, *The Loess Hills*, <https://www.nature.org/en-us/get-involved/how-to-help/places-we-protect/the-loess-region/> [<https://perma.cc/L8X8-EBML>] (last visited Dec. 29, 2020).

317. *See, e.g.,* Phelps, *supra* note 257, at 313-24 (providing overview of conservation title programs). In addition to the programs noted, there is an increasing recognition that more could be done through the USDA's conservation programming to address climate considerations on working lands, which may also facilitate additional funding and efforts in this area. *See, e.g.,* Emile Elias et al., *County-Level Climate Change Information to Support Decision-Making on Working Lands*, 148 CLIMATE CHANGE 335, 355-369 (2018) (exploring some of these efforts through USDA's climate hubs).

already provided some of the same benefits that the submarginal land acquisition programs were originally intended to provide.

Recent Farm Bills, in particular, have expanded the flexibility of NRCS to work through partnerships to address landscape-level conservation priorities.³¹⁸ One of the more recent programmatic developments is the Regional Conservation Partnership Program (RCPP).³¹⁹ RCPP seeks to use federal funding to match partner funding to facilitate projects that use innovative solutions to conservation challenges.³²⁰ Through its flexibility, RCPP has the potential to provide significant resources to address working lands issues and, to the extent that submarginal lands issues exist, states and conservation nonprofits have the opportunity to use this (and other existing programs) to achieve some of the results the New Deal purchase programs were intended to provide across Iowa. One example of a recently funded project is the creation of the Soil and Water Outcomes Fund, which seeks to use RCPP funding to develop and pay for performance models to achieve nitrogen and phosphorus reductions.³²¹ The mix of

318. See, e.g., Robert Bonnie, *Financing Private Lands: Conservation and Management Through Conservation Incentives in the Farm Bill*, in *FROM WALDEN TO WALL STREET* 183, 183 (James N. Levitt ed., 2005) (profiling the increasing impacts of these programs in addressing working land issues).

319. USDA, NAT. RES. CONSERVATION SERV., REGIONAL CONSERVATION PARTNERSHIP PROGRAM, FACT SHEET (2019), <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/rcpp/> [<https://perma.cc/Z9J5-VEZ5>]. RCPP has also revived the opportunity to secure working forest conservation easements through the Healthy Forest Reserve Program, or under the 2018 Farm Bill, efforts to directly secure forest protection through this program. See AM. FOREST FOUND., *FORESTS IN THE FARM BILL: A 2017 PROGRESS REPORT AND RECOMMENDATIONS* (2017), <http://static.politico.com/0e/14/4ff710834b0d83f9fac115afb075/fifb-2017report-9-25final-pages.pdf> [<https://perma.cc/48TL-SGP3>].

320. Jamie Konopacky & Laurie Ristino, *The Healthy Watershed Framework: A Blueprint for Restoring Nutrient-Impaired Waterbodies Through Integrated Clean Water Act and Farm Bill Conservation Planning and Implementation at the Subwatershed Level*, 47 ENV'T L. 647, 667 (2017) (profiling this program).

321. The Soil and Water Outcomes Fund is an Alternative Funding Arrangement (AFA). AFAs provide even more flexibility to NRCS to partner with specific entities through grant-like awards. See USDA, RCPP Alternative Funding Arrangements (AFA) FY2020 Project Selections, <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/financial/rcpp/?cid=nrcseprd1654221> [<https://perma.cc/35ZM-ET2D>] (last visited Dec. 31, 2020). A similar program was funded in Vermont to enroll 150 farms along Lake Champlain to address longstanding water quality issues (moving from payment for practices to actual environmental performance); see also Iowa Soybean Association, *USDA Partnership Will Scale Up Soil and Water Outcomes Fund's Work with Midwest Farms*, Sept. 17, 2020, <https://www.iasoybeans.com/newsroom/press-release/usda-partnership-will-scale-up-soil-and-water-outcomes-funds-work-with-midwest-farmers> [<https://perma.cc/J54E-WZG5>] (explaining the development of this program to create market structures to create incentives and compensation models related to water quality improvement and carbon sequestration gains); see also Heather Clancy, *Inside Cargill's Experiment to Pay Farmers for Carbon Sequestration*, GREENBIZ, (June 15, 2020),

programming designed to improve farmers' operations and environmental stewardship has likely taken some of the pressure off of the federal government's acquisition and conversion of land to a non-agricultural use.³²²

There is also the potential for even more programmatic innovation within USDA, which could potentially involve a dedicated conservation easement program focused on working forest acquisitions (with a restoration component) or some other initiative focused on carbon sequestration as the NRCS plays an increasingly important role in conservation on privately-owned lands.³²³

C. Conservation Easements

Conservation easements are another important tool to protect Iowa's most significant landscapes.³²⁴ In fact, advocates have been working to fill some of the protective void with conservation easements for several decades across the state.³²⁵ One of the largest developments in the conservation movement in the past half century is the expanded use of the conservation easement,³²⁶ a tool designed to

<https://www.greenbiz.com/article/inside-cargills-experiment-pay-farmers-carbon-sequestration> [<https://perma.cc/ZH9E-RR2A>] (profiling Cargill's role in this program as part of its sustainability-related goals).

322. See, e.g., LEHMAN, *supra* note 57, at 267-70 (1995) (charting this and the evolution of farmland preservation thinking generally).

323. See, e.g., Callie Eideberg, *5 Reasons Why the Senate Farm Bill is a Conservation Powerhouse*, ENVIRONMENTAL DEFENSE FUND, June 27, 2018, <http://blogs.edf.org/growingreturns/2018/06/27/5-reasons-senate-farm-bill-conservation/> [<https://perma.cc/K25D-YK4T>] (providing examples of innovation in the Senate's version of the last Farm Bill); see also Thomas P. Holmes, *Opportunities for Systematically Valuing Ecosystem Service Benefits Produced by Federal Conservation Programs*, 49 AGRICULTURAL & RESOURCES ECONOMICS REV., 178, 178-80 (2020) (discussing potential programmatic gains that could be achieved by greater focus on ecosystem services within these programs).

324. Jessica Owley & Adena Rissman, *Trends in Private Land Conservation: Increasing Complexity, Shifting Conservation Purposes, and Allowable Private Uses*, 51 LAND USE POL'Y 76, 76-80 (2016) (profiling the evolution of this tool as well as the challenges/potential for protecting significant landscapes); see also Federico Cheever & Nancy A. McLaughlin, *An Introduction to Conservation Easements in the United States: A Simple Concept and a Complicated Mosaic of Law*, 1 J. L. PROP. & SOC. 107 (2015) (providing comprehensive overview of this important conservation tool).

325. Iowa Natural Heritage Found., Iowa Landowner Options, Conservation Easement, <http://www.iowalandoptions.org/protection-options/private-ownership-options/conservation-easement/> [<https://perma.cc/8PQN-4USE>] (last visited Dec. 29, 2020) (providing an overview of this tool and its use in the state).

326. See, e.g., Harvey M. Jacobs, *Conservation Easements in the U.S. and Abroad: Reflections and Views Toward the Future*, LINCOLN INST. OF LAND POLICY (2014) (discussing the increasing importance of this conservation tool).

protect lands owned by a third party, to protect lands at scale.³²⁷ A conservation easement allows a conservation entity to protect a property without owning it, and the tool allows a conservation-minded landowner to conserve a property beyond their ownership (as a conservation easement is typically perpetual in duration).³²⁸

Conservation easements can take on a number of purposes or roles, fulfilling at least some of the objectives that the national forest system could have provided in Iowa. First, some conservation easements (known as working forest conservation easements) protect forests and keep these lands in forest cover.³²⁹ Second, some conservation easements encourage and require additional land management objectives – such as using increased buffers and incorporating greater conservation considerations in the management of lands being farmed (addressing some of the submarginal lands issues perhaps through such restrictions).³³⁰ Third, some environmentally-sensitive lands can be set aside and protected against development – showcasing the flexibility of this tool to fulfill different conservation objectives.³³¹

There are tradeoffs to acquiring conservation easements instead of fee acquisition. First, in the negative column, conservation easements often do not allow for public access.³³² Second, these agreements also do not allow for the same type of public management or planning for the resource, which may result in less effective management for some resource types (unless the landowner agrees to take these actions).

327. FAIRFAX ET AL., *supra* note 105, at 151-58.

328. Nancy A. McLaughlin, *Conservation Easements: Perpetuity and Beyond*, 34 *ECOLOGY L. Q.* 673, 704-08 (2007) (discussing this attribute—both the positives and the challenges presented).

329. Owley & Tulowiecki, *supra* note 246, at 48-50 (profiling working forest conservation easements within the context of the USDA's Forest Legacy Program).

330. Peter S. Stein & Marc Hiller, *New Partnerships for Conservation: Trends in Forestland Ownership and Conservation*, in *LANDS WORTH SAVING*, at 121, 126-28 (James G. Lewis ed., 2018) (providing an example of this type of conservation transaction).

331. ELIZABETH BYERS & KARIN M. PONTE, *THE CONSERVATION EASEMENT HANDBOOK* 1-20 (2d ed. 2005) (providing an overview of the various conservation objectives this tool can potentially secure); *see also* Mark Ackelson, *Some Alternatives for Multiple use Land Management in Southern Iowa*, IOWA ST. U., LEOPOLD CTR. FOR SUSTAINABLE AGRIC. at 42 (2004), https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1222&context=leopold_grantreports [<https://perma.cc/7QQL-8J2D>] (discussing the potential for conservation easements to be used in specific contexts in southern Iowa—particularly “protecting prairie and oak savanna remnants, as well as outstanding tracts of hardwood forests.”).

332. *See, e.g.*, Land Trust Alliance, *Conservation Options: Considerations When Deciding to use Fee Ownership or a Conservation Easement to Protect a Property*, <https://www.landtrustalliance.org/what-you-can-do/conserves-your-land/conservation-options> [<https://perma.cc/EWN3-B9WE>] (last visited Dec. 30, 2020).

Finally, there are accountability and traceability concerns with the use of public funds to secure the protection of private lands.³³³

Conservation easements do have some advantages in that they often reach lands that conservation organizations may not be able to purchase (either because they lack funding to pay the full property value or because of the landowner's reluctance to actually sell the land in fee).³³⁴ Working land easements also can be utilized to keep working forests working and farms farmed (preventing these landscapes from being converted to a more intensive land use).³³⁵ Conservation easements can, if the landowner is willing, help facilitate some of the same goals as public ownership, such as public access (if the landowner agrees to allow the public onto their lands),³³⁶ climate-related objectives such as sequestering carbon,³³⁷ and promoting wildlife habitats.³³⁸

One example of where conservationists have already utilized this tool is in Iowa's Loess Hills, as discussed above, to protect lands surrounding an existing state park. The work of the Iowa Natural Heritage Foundation across the state has also demonstrated over multiple decades that private land conservation efforts can have positive

333. Richard Coniff, *Why Isn't Publicly Funded Conservation on Private Land More Accountable?* YALE ENVIRONMENT 360 (July 23, 2019), <https://e360.yale.edu/features/why-isnt-publicly-funded-conservation-on-private-land-more-accountable> [<https://perma.cc/F7QD-UACK>].

334. See, e.g., Michael LeVert et al., *Willingness-to-sell Conservation Easements: A Case Study*, 15 J. FOREST ECON. 150 (2009) (profiling landowner considerations regarding forest conservation easement transactions); see also Ashley D. Miller, *Factors Impacting Agricultural Landowners' Willingness to Enter Into Conservation Easements: A Case Study*, 24 SOC'Y AND NAT. RES. 65, 65-73 (2010) (profiling landowner considerations regarding agricultural conservation easement transactions).

335. Peter R. Stein, *Conservation Easements*, SILVICULTURE, Winter 2010, at 6, 6-7 (providing an overview of this conservation tool); see also Bethany McCallum, *Completing the Cycle: How the Working Forest Fund Keeps Forests Working and Protected*, THE CONSERVATION FUND (Sept. 11, 2017), <https://www.conservationfund.org/blog/land/1709-completing-the-cycle-how-the-working-forest-fund-keeps-forests-working-and-protected> [<https://perma.cc/WW3Y-SPFL>].

336. Katherine Lieberknecht, *Public Access to U.S. Conservation Land Trust Properties: Results from a National Survey*, 75 J. AM. PLAN. ASS'N 479 (2009) (profiling public access on land trust properties (both fee owned and those protected by conservation easements) and providing recommendations for expanding public access as a goal).

337. Adena R. Rissman et al., *Adapting Conservation Easements to Climate Change*, 8 CONSERVATION LETTERS 68 (2015) (noting the need and potential for land trusts to expand the carbon sequestration benefits secured by conservation easements); but see Jessica Owley, *Conservation Easements at the Climate Change Crossroads*, 74 L. & CONTEMP. PROBS. 199 (2011) (discussing the challenges of using this tool to advance carbon-related objectives).

338. See, e.g., *State Recognizes Iowa Landowners*, IOWA NAT. HERITAGE FOUND., (Mar. 23, 2020), <https://www.inhf.org/blog/blog/state-recognizes-iowa-landowners/> [<https://perma.cc/4458-GZP5>] (providing summaries of various conservation easement transactions across Iowa in 2020 and the lands/benefits secured).

impacts in securing some of the same goals that federal acquisitions nearly a century ago sought to obtain.³³⁹

D. Markets for Ecosystem Services

There are also potential future options associated with sequestering carbon and efforts to address a warming climate as well as other markets for ecosystem services.³⁴⁰ This section will explore some of the established and emerging markets for ecosystem services that may help Iowa conservationists secure conservation gains in the state.

1. Carbon Markets

Over the past decade, the regulated market associated with California's cap-and-trade system³⁴¹ and the voluntary market³⁴² have created demand for certain carbon-related offsets.³⁴³ Specifically, within the regulatory and voluntary markets, the sale of offsets allows those who generate carbon sequestration benefits to sell these offsets to emitters (either regulated bodies looking to meet a binding emissions mandate or an individual or company seeking to offset, for example, the carbon impacts of their travel).³⁴⁴ One of the primary sources of carbon offsets, to date, has been forest carbon offsets (or offsets

339. Katy Heggen, *In Land We Trust*, IOWA NAT. HERITAGE FOUND., (Aug. 26, 2019), <https://www.inhf.org/blog/blog/in-land-we-trust/> [<https://perma.cc/R4TF-P2BX>] (profiling INHF's pioneering work in the use of conservation easements and in founding the Land Trust Alliance).

340. See, e.g., Christopher S. Galik & Robert B. Jackson, *Risks to Forest Carbon Offset Projects in a Changing Climate*, 257 FOREST ECOLOGY & MGMT. 2209, 2210 (2009) (noting that "when included as part of a larger cap-and-trade program, forest offsets have the potential to provide low-cost GHG mitigation, thus lowering the overall cost of climate policy implementation").

341. Global Warming Solutions Act of 2006, CAL. HEALTH & SAFETY CODE §§ 38500-599 (West 2021); Cal. Air Res. Bd., Compliance Offset Protocols, <https://ww3.arb.ca.gov/cc/capand-trade/offsets/offsets.htm> [<https://perma.cc/V96S-6ADE>]; see also Felicity Barringer, *Cap and Trade, the California Way*, N.Y. TIMES (Oct. 31, 2010), <http://green.blogs.nytimes.com/2010/10/31/cap-and-trade-the-california-way> [<https://perma.cc/8DKB-P2ZJ>].

342. See, e.g., *As Part of Its Plan to be Net Zero Carbon by 2040, Amazon Commits \$10 Million to Restore and Conserve 4 Million Acres of Forest in the Appalachians and other U.S. Regions in Partnership with The Nature Conservancy*, Amazon (Apr. 21, 2020), <https://press.aboutamazon.com/news-releases/news-release-details/part-its-plan-be-net-zero-carbon-2040-amazon-commits-10-million> [<https://perma.cc/28D5-XQPD>] (providing an example of a voluntary project where Amazon purchased offsets to mitigate some of the company's climate impacts).

343. ROSS W. GORTE & JONATHAN L. RAMSEUR, CONG. RSCH. SERV., FOREST CARBON MARKETS: POTENTIAL AND DRAWBACKS (July 3, 2008), <https://fas.org/sgp/crs/misc/RL34560.pdf> [<https://perma.cc/2Z7Z-JCEZ>].

344. Rob Jordan, *Allowing Polluters to Offset Carbon Emissions by Paying Forest Owners Effectively Reduces Greenhouse Gases, Stanford Study Finds*, STANFORD NEWS (Aug. 14, 2017), <https://news.stanford.edu/2017/08/14/carbon-offsets-wide-ranging-environmental-benefits/> [<https://perma.cc/XZ9U-8SVS>].

generated by forest landowners, typically for improving the level of forest management above common practice in a geographic area).³⁴⁵

Although the focus of carbon offsets is not land conservation per se, but instead the sequestration of carbon, achieving that goal requires affirmative management of the resource, which in turn often achieves conservation objectives.³⁴⁶ In a voluntary project, the carbon benefits are secured for a forty-year period.³⁴⁷ For a regulatory project, they are secured for a hundred-year term.³⁴⁸ Forestry-based offsets (the most common), the land's conversion to another more intensive use is prevented.³⁴⁹

While Iowa seems primarily positioned to benefit from emerging soil sequestration efforts (incentivizing farmers to better manage soil health),³⁵⁰ there may be some opportunities still in the forest carbon

345. Erin C. Kelly & Marissa B. Schmitz, *Forest Offsets and the California Compliance Market: Bringing an Abstract Ecosystem Good to Market*, 75 GEOFORUM 99 (2016).

346. Elizabeth L. Wroblecka, *Selling Carbon Offsets: A Potential Source of Funding for Forest Conservation*, SAVING LAND, Spring 2014, at 22. Considering the close alignment between carbon and other conservation objectives, the use of carbon offset agreements to accomplish land conservation objectives has become a greater focus for land trusts. See, e.g., *Land Trust Alliance Announces Pilot Project to Assist Land Trusts in Accessing Carbon Markets*, Land Tr. All. (Sept. 16, 2020), [https://www.landtrustalliance.org/land-trust-alliance-announces-pilot-project-assist-land-trusts-accessing-carbon-markets#:~:text=16%2C%202020\)%20%E2%80%94%20The%20Land,of%20conservation%20funding%20for%20land](https://www.landtrustalliance.org/land-trust-alliance-announces-pilot-project-assist-land-trusts-accessing-carbon-markets#:~:text=16%2C%202020)%20%E2%80%94%20The%20Land,of%20conservation%20funding%20for%20land) [<https://perma.cc/7Z6P-H4YV>].

347. See, e.g., Paula Chamas, *Forest Carbon Offsets*, Conservation Fin. Network (June 26, 2018), <https://www.conservationfinancenetwork.org/2018/06/26/forest-carbon-offsets> [<https://perma.cc/2PWE-G3HF>].

348. *Id.*; see also Emily Pontecorvo & Shannon Osaka, *This Oregon Forest Was Supposed to Store Carbon for 100 Years; Now It's On Fire*, GRIST (Sept. 18, 2020), <https://grist.org/climate/this-oregon-forest-was-supposed-to-store-carbon-for-100-years-now-its-on-fire/> [<https://perma.cc/WJN3-3M9L>] (illustrating the requirement for affirmative resource management and potential challenges associated with wildfire risk).

349. See, e.g., Andrea Tuttle, *Affirming California's Forest Offset Protocol: A Climate Tool Tailored to a Purpose*, Pac. Forest Tr. (Aug. 23, 2019), <https://www.pacificforest.org/wp-content/uploads/2019/08/tuttle-protocol-white-paper-20190823.pdf>.

350. Jesse Klein, *6 Differences Between Forestry and Soil Carbon Offsets*, GREENBIZ GRP. (Nov. 4, 2020), <https://www.greenbiz.com/article/6-differences-between-forestry-and-soil-carbon-offsets> [<https://perma.cc/NJT6-ZJSE>] (noting that and explaining why forest carbon offsets are more established than soil offsets); see also Tas Thamo & David J. Pannell, *Challenges in Developing Effective Policy for Soil Carbon Sequestration: Perspectives on Additionality, Leakage, and Permanence*, 16 CLIMATE POL'Y 973 (2016) (profiling some of the challenges in developing soil carbon projects). Iowa farmers would also likely benefit from carbon sequestration efforts designed to protect forested lands in other areas of the world from deforestation. See SHARI FRIEDMAN, DAVID GARDINER & ASSOCS., *FARMS HERE, FORESTS THERE: TROPICAL DEFORESTATION AND U.S. COMPETITIVENESS IN AGRICULTURE AND TIMBER* (2010) (arguing that protection of tropical forests would have significant positive economic benefits for U.S. farmers). See also Justina Vasquez, *Iowa Farmer Finds Fortune in Selling Carbon Credits to Shopify*, BLOOMBERG GREEN (Oct. 28, 2020),

area. One option for using carbon offsets to improve the degree of protection afforded Iowa's remaining forests is to look at emerging aggregation models.³⁵¹ Forest carbon projects have typically required a meaningful degree of scale (roughly 5,000 acres) to make the costs associated with inventorying the carbon and going through the process economical.³⁵² Forest aggregation models seek to essentially pool the carbon generated by various landowners into a single project to allow similar economies of scale to exist.³⁵³ This focus on smaller projects may allow Iowa forest owners to benefit from their forest management and to continue to use these woodlands to sequester carbon.³⁵⁴ Similar aggregation concepts may also apply to the soil carbon opportunities and provide conservation benefits to the Iowa landscape.³⁵⁵ One early example is the Soil and Water Outcomes Fund, which has started to pay farmers for these benefits.³⁵⁶

<https://www.bloomberg.com/news/articles/2020-10-28/iowa-farmer-finds-fortune-in-selling-carbon-credits-to-shopify> [<https://perma.cc/SYM2-6CWB>] (providing an example of a sale in the voluntary market).

351. Alisa E. White et al., *Small-Scale Forestry and Carbon Offset Markets: An Empirical Study of Vermont Current Use Forest Landowner Willingness to Accept Carbon Credit Programs*, PLOS One, Aug. 2018, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6091951/pdf/pone.0201967.pdf> [<https://perma.cc/KL8H-65NY>] (profiling these options and noting, unsurprisingly, that revenue goals generally drive landowner willingness to participate in such programs).

352. Dylan Jenkins, *Carbon Offsets: A Viable Opportunity for Forest Landowners?*, THE CONSULTANT, 2018, at 22.

353. See, e.g., Abby White, *A Local Solution with Global Impact: Carbon Offsets Protect Woodland and Rural Livelihoods*, Vt. Land Tr., <https://vlt.org/forests-wildlife-nature/local-solution-global-impact-forest-carbon> [<https://perma.cc/5YMM-PRHQ>] (last visited Oct. 22, 2021) (profiling the Vermont Land Trust's efforts to create a model for combining smaller forest owners' landholdings into an aggregated carbon project—enrolling 8,600 acres in the forest aggregated carbon project—created through ACR in the voluntary market).

354. See, e.g., Climate Action Rsrv., *Guidelines for Aggregating Forest Projects*, <http://www.climateactionreserve.org/how/protocols/forest/aggregation/> [<https://perma.cc/NV3S-TXJ9>] (last visited Dec. 30, 2020) (providing summary of one registry's guidelines for facilitating aggregated projects); see also M.M. Schoeneberger, *Agroforestry: Working Trees for Sequestering Carbon on Agricultural Lands*, 75 *AGROFORESTRY SYS.* 27 (2008) (exploring the potential for forestry-related activities to play a greater role in carbon sequestration on the agricultural landscape).

355. See CENT. MINN. REG'L SUSTAINABLE DEV. P'SHIP, *A LANDOWNER'S GUIDE TO CARBON SEQUESTRATION CREDITS* 9 (2008) https://www.cleanenergyresourceteams.org/sites/default/files/publication_files/LandownersCarbonSequestration_CentralRSDP.pdf [<https://perma.cc/EZY4-7474>] (discussing aggregation generally).

356. *About the Soil and Water Outcomes Fund*, Soil & Water Outcomes Fund, <https://www.theoutcomesfund.com/> [<https://perma.cc/FDV6-U8LB>] (last visited Sept. 16, 2021).

2. Other Emerging Markets

Beyond carbon, there is a growing recognition of the wider variety of benefits that conserved lands can provide.³⁵⁷ Some of these values include flood control, protecting water quality, and providing recreational opportunities, which are generally referred to as ecosystem services.³⁵⁸ Ecosystem services can be defined generally as follows:

Under the widely-adopted typology developed in the Millennium Ecosystem Assessment, ecosystem services flow to human communities in four streams: (1) provisioning services are commodities such as food, wood, fiber, and water; (2) regulating services moderate or control environmental conditions such as flood control by wetlands, water purification by aquifers, and carbon sequestration by forests; (3) cultural services include recreation, education, and aesthetics; and (4) supporting services, such as nutrient cycling, soil formation, and primary production, make the other three service streams possible.³⁵⁹

These values provide benefits to society but landowners typically have been able to rely upon them to generate revenue.³⁶⁰ This often means that a land manager is not managing the land with these values directly in mind, but that these values are instead an afterthought.³⁶¹

Over the past two decades, conservationists have been interested in exploring how creating markets and payment structures might help to facilitate better land management across the working landscape.³⁶² Payments for ecosystem services are generally “predicated on the opportunity for state and local governments to reduce infrastructure spending associated with residential and commercial development,

357. J.B. Ruhl & James Salzman, *The Law and Policy Beginnings of Ecosystem Services*, 22 J. OF LAND USE & ENV'T L. 157 (2007).

358. See, e.g., USDA Forest Serv., More About Ecosystem Services, https://www.fs.fed.us/ecosystemservices/About_ES/index.shtml [<https://perma.cc/4VKX-4DHW>] (last visited Jan. 9, 2021) (providing a general overview of the ecosystem services provided by forests).

359. J.B. Ruhl, *In Defense of Ecosystem Services*, 32 PACE ENV'T L. REV. 306, 309 (2016); see also *Conservation in a Changing Climate*, LAND TR. ALL., <https://climatechange.lta.org/ecosystem-services/> [<https://perma.cc/N59K-2TNT>] (last updated Jan. 15, 2021).

360. See, e.g., LEIGH WHELPTON & ANDREA FERRI, CONSERVATION FIN. NETWORK, PRIVATE CAPITAL FOR WORKING LANDS CONSERVATION: A MARKET DEVELOPMENT FRAMEWORK 7-10 (2018), https://www.conservationfinancenetwork.org/sites/default/files/Private_Capital_for_Working_Lands_Conservation.pdf [<https://perma.cc/L85A-VR49>].

361. See Danny Eastburn et al., *Multiple Ecosystem Services in a Working Landscape*, 12 PLOS ONE, Mar. 2017, at 102. This also applies to public lands. See also *Managing Land for Ecosystem Services on Public Land*, USDA FOREST SERV., https://www.fs.fed.us/research/highlights/highlights_display.php?in_high_id=72 [<https://perma.cc/BR7D-VWPL>] (last visited Jan. 15, 2021) (applying this to public lands).

362. Timm Kroeger & Frank Casey, *An Assessment of Market-Based Approaches to Providing Ecosystem Services on Agricultural Lands*, 64 ECOLOGICAL ECON. 321 (2007).

such as the need for increased water supply and maintaining water quality, by paying agricultural operations directly to deliver equivalents at lower cost in the form of ecosystem services.”³⁶³ Carbon is a good example of this trend, but not the only environmental market that has developed or is developing.³⁶⁴ New York City has, over the past several decades, used purchases of conservation easements as an alternative to gray infrastructure to address water quality.³⁶⁵ Similar market functions may develop as the importance of undeveloped lands continues to grow and may be able to provide some of the same benefits in Iowa (a protected or enhanced degree of environmental stewardship on the landscape).³⁶⁶

The downside, of course, to reliance on conservation easements, carbon offsets, or other ecosystem service markets, is that these are largely voluntary measures and the lands remain generally in private ownership.³⁶⁷ The measures also do not provide the full suite of benefits that the forest acquisitions would have entailed (chiefly, recreational benefits or public access rights).³⁶⁸ There are also concerns regarding using market-based approaches to address these issues, ranging from the commodification of nature³⁶⁹ to ensuring additionality (or providing that these projects actually provide the degree of carbon benefit that the purchaser and regulatory body are seeking to

363. J. B. Ruhl, *Agriculture and Ecosystem Services: Strategies for State and Local Governments*, 17 N.Y.U. ENV'T L.J. 424, 429 (2008); see also Marc Ribaud et al., *Ecosystem Services from Agriculture: Steps for Expanding Markets*, 69 ECOLOGICAL ECON. 2085 (2010) (same).

364. Erik Gomez-Baggethun et al., *The History of Ecosystem Services in Economic Theory and Practice: From Early Notions to Markets and Payment Schemes*, 69 ECOLOGICAL ECON. 1209, 1211-12 (2010); see also CINDY CHIANG ET AL., LAND TR. ALL., CARBON OFFSETS IN CONSERVATION EASEMENTS: THE ESSENTIALS FOR LAND TRUSTS (2020), <https://wecprotects.org/wp-content/uploads/2020/11/Carbon-Offsets-in-Conservation-Easements.pdf> [https://perma.cc/74M6-C2N3].

365. See Alice Kenny, *Ecosystem Services in the New York City Watershed*, ECOSYSTEM MARKETPLACE, (Feb. 10, 2006) <https://www.ecosystemmarketplace.com/articles/ecosystem-services-in-the-new-york-city-watershed-1969-12-31-2/> [https://perma.cc/S46U-687F] (discussing the goals/success of this green infrastructure initiative).

366. James Salzman, *Creating Markets for Ecosystem Services: Notes from the Field*, 80 N.Y.U. L. REV. 870, 878-79 (2005) (discussing how conservationists are seeking to create market opportunities to advance their objectives).

367. See, e.g., Michael Pappas & Victor B. Flatt, *The Costs of Creating an Environmental Market: A Commodification Primer*, 9 U.C. IRVINE L. REV. 731, 764-65 (2019) (discussing some of the costs of environmental markets generally).

368. See, e.g., Jeff Pidot & Nancy A. McLaughlin, *Conservation Easement Enabling Statutes: Perspectives on Reform*, 2013 UTAH L. REV. 811, 846 (noting that the funds being targeted for conservation easements are potentially displacing funds that could be used for public land acquisition/higher value conservation lands).

369. See, e.g., Douglas J. McCauley, *Commentary, Selling Out on Nature*, 443 NATURE 27 (2006) (critiquing environmental market-based efforts as providing illusory benefits).

achieve on the landscape) and permanence (lasting benefits over time).³⁷⁰ Additionality and permanence are addressed in the various protocols establishing the requirements for creating offsets, but there has been criticism of offsets in recent years as not providing sufficient carbon sequestration benefits, which the market and carbon community will have to address in coming years.³⁷¹

Overall, there is a mix of tools available to achieve landscape-level conservation objectives in Iowa and other states, but these efforts may look substantially different and have other motivations than those which drove the conservationists of the New Deal—and the impacts of this distinction will have lasting implications on the state and its future residents.

VIII. CONCLUSION

At the end of the day, the national forests did not just happen by accident. They were either specifically set aside for protection or were acquired to be restored and dedicated to this use.³⁷² National forests, like all forests, are a result of natural and human processes that slate them for conservation or restoration to fulfill their newly intended environmental and societal function.³⁷³ In the United States, acquisition of submarginal land was a significant effort during the early twentieth century as the country transitioned from a primarily agricultural economy to one requiring fewer individuals working the land and began to recognize the impact of farming some lands ill-suited for this purpose.³⁷⁴ As our nation and society has evolved, so too have the national forests, which now fulfill an increasingly diverse

370. T. Ruseva et al., *Additionality and Permanence Standards in California's Forest Offset Protocol: A Review of Project and Program Level Implications*, 198 J. ENV'T MGMT 277, 277-88 (2017).

371. See, e.g., Lisa Song, *An Even More Inconvenient Truth: Why Carbon Credits for Forest Preservation May Be Worse Than Nothing*, PROPUBLICA (May 22, 2019), <https://features.propublica.org/brazil-carbon-offsets/inconvenient-truth-carbon-credits-dont-work-deforestation-redd-acre-cambodia/> [<https://perma.cc/N9CT-855E>] (criticizing the impact of forest carbon offsets); but see Umair Irfan, *Can You Really Negate Your Carbon Emissions? Carbon Offsets, Explained*, VOX (Feb. 27, 2020, 8:10 AM) <https://www.vox.com/2020/2/27/20994118/carbon-offset-climate-change-net-zero-neutral-emissions> [<https://perma.cc/7ZRP-JR2S>] (explaining the elements that are involved in a 'good' offset and the various issues that need to be addressed to create such offsets).

372. See, e.g., Martin Nie & Char Miller, *National Forest Management and Private Land Development: Historical, Political, and Planning Considerations*, 23 SOC'Y & NAT. RES. 669, 669-78 (2010) (profiling some of these considerations).

373. Jay O'Laughlin, *Policy Analysis Framework for Sustainable Forestry: National Forest Case Study*, 102 J. OF FORESTRY 34, 34-41 (2004) (profiling the impacts of land management decisions within the National Forest System).

374. See GRANT MCCONNELL, *THE DECLINE OF AGRARIAN DEMOCRACY* 25-30 (1953).

set of objectives, including providing wood supply, ecosystem services, and significant recreational opportunities.³⁷⁵ National forests have always had a complex set of goals and objectives across both the physical and social landscape, and will continue to do so as needs and goals continue to shape our relationship with these critical lands.³⁷⁶ There are hopefully lessons here for states, such as Iowa, which lack such resources in examining how to provide similar benefits through its available options. By missing its window, Iowa perhaps lost its best opportunity to have a national forest, but this does not mean that Iowa's landscape is not suited for this function or that significant conservation efforts should not be made. In fact, it supports the opposite conclusion and hopefully provides encouragement to conservation advocates that Iowa's lands are fully worth the effort to conserve these resources at a landscape-level scale.

375. See, e.g., Robert Manning et al., *Values, Ethics and Attitudes Toward National Forest Management: An Empirical Study*, 12 SOC'Y & NAT. RES. 421, 421-35 (1999) (profiling evolving views/uses of the national forests); see also Robert E. Wolf, *National Forest Timber Sales and the Legacy of Gifford Pinchot: Managing a Forest and Making It Pay*, in AMERICAN FORESTS: NATURE, CULTURE, AND POLITICS 87-90 (Char Miller ed. 1997) (same).

376. Ben Elgin, *The Trees Are Not What They Seem*, BLOOMBERG GREEN (Dec. 9, 2020, 5:00 AM) <https://www.bloomberg.com/features/2020-nature-conservancy-carbon-offsets-trees/> [<https://perma.cc/AV3L-DTKQ>] (critiquing several carbon transactions involving TNC that related to TNC-owned preserve lands).