



George Washington Carver National Monument Cultural Landscape Report Environmental Assessment

**95% DRAFT CLR/EA
FEBRUARY 2015**



George Washington Carver National Monument

Diamond, Missouri

Cultural Landscape Report Environmental Assessment

95% DRAFT

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About the front cover: View of Landscape of George Washington Carver National Monument

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George Washington Carver National Monument

Diamond, Missouri

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Foreword

To be completed by Midwest Regional Office

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Chapter 1: Introduction

1.0 Overview

The George Washington Carver National Monument, located near Diamond, Missouri, was authorized by Congress on July 14, 1943. It was formally dedicated on July 14, 1953, to memorialize and preserve the 240-acre birthplace home of George Washington Carver. Dr. Carver was one of the leading agricultural scientists, educators, and humanitarians in America during the late nineteenth and early twentieth centuries.

Planning for the national monument began in 1951 when the National Park Service (NPS) asked regional historian Merrill Mattes to take the lead in preparing a basic planning document or master plan development outline for the new unit. His initial description of the essential NPS goal of making the unit into a memorial site states:

Preservation of the George Washington Carver birthplace ensures the lasting memorialization of a humble man whose practical and momentous achievements in the field of scientific agriculture and chemistry led to his world-wide fame. Here was a signal triumph of the human spirit, for Carver rose to this eminence from a dubious beginning as sickly, penniless, orphan slave boy, endowed only with a thirst for learning and an abiding sense of kinship with the Creator. The flowering of his many-faceted genius, as botanist, soil scientist, chemist, educator, and artist reflects luster upon a race which has made remarkable

strides toward dignity and self-sufficiency since Abraham Lincoln signed the Emancipation Proclamation. The Monument is a tribute, not only to a man, but to an eloquent expression of the American faith.¹

Though Mattes was a historian, he went on to identify the basic planning problem for the new park unit, which was how to convey the significance of the site, given that the principal historic features associated with Carver's early life—the birthplace cabin and the original Carver farm house—were both gone. Restoration would be difficult because no plans or photographs of these buildings were known to exist. What the national monument did have was the land itself, with its mix of native woods, open meadows, and planted walnut grove; the birthplace cabin site; the Carver family cemetery; and the later Moses Carver house.² This same issue challenges the park today and is one of the primary goals for this study.

Thus NPS began the process of assessing and establishing core management direction for the George Washington Carver National Monument. Management issues included: purpose of the unit; visitor use and experience; research and planning priorities; and the interplay of cultural and natural resource protection. Master plans were developed in the 1950s and 1960s; statements for management in 1971, 1984, and 1994; and the general management plan in 1997. The General

1. Diane Krahe and Theodore Catton, *George Washington Carver National Monument Administrative History* (2014), 96, quoting Merrill Mattes, "Master Plan Development Outlines, George Washington Carver National Monument," April 1952, File D18, RDF, GWCA.

2. *Ibid.*, 96.

1 Management Plan (GMP) for the park established
2 a new core management direction by identifying
3 the commemoration of Dr. Carver as the key
4 objective of park management and provided a
5 sound planning base for future management
6 decisions for the site. This GMP also laid out the
7 need to improve the interpretive program, which
8 eventually led to the Long-Range Interpretive Plan
9 (LRIP) that was completed in 2007. This plan
10 defined the park story in a set of themes, and sub-
11 themes to assess how completely and effectively
12 the park's cultural and natural resources were
13 being used to convey the park story.³

14 Management of both natural and cultural
15 resources at the national monument has been a
16 part of the planning process since the 1980s,
17 including the initiation of the prairie restoration
18 program and management recommendations for
19 the restoration and maintenance of prairie areas
20 within the park boundaries. From 1994 to 2011,
21 four scientific assessments of the progress of the
22 prairie restoration found difficulties with the
23 program but offered no suggestions for
24 modifications.⁴ Prairie management continues to
25 be an issue for the park and part of the directive
26 for the development of this CLR/EA.

27 In the years after the GMP was completed, the
28 park endeavored to find some sort of blend of
29 natural and cultural resource management that
30 would support the memorial emphasis and
31 address the issues of prairie management and
32 maintenance and preservation of cultural
33 landscape features. In 1999, *Springs of Genius: An*
34 *Integrated Management Plan for George*
35 *Washington Carver National Monument* was
36 completed as a pilot project for the integration of
37 natural and cultural resource management. In
38 2010, the Cultural Landscape Inventory (CLI) was
39 completed for George Washington Carver
40 National Monument, which provided a
41 comprehensive look at the historical development
42 and significance of the landscape, placing it in
43 context of the site's overall significance. In the
44 CLI, the conceptual framework for George

45 Washington Carver National Monument was as a
46 historic designed landscape:

47 . . . a composite of cultural and natural features
48 dating back to Carver's boyhood, combined
49 with post-1951 built features. Even the present-
50 day vegetation and the Williams Pond were
51 part of this cultural landscape inasmuch as the
52 Park Service had manipulated the vegetation
53 and modified the pond to serve the memorial's
54 purpose.⁵

55 After this report was completed, the National Park
56 Service submitted it to the State Historic
57 Preservation Officer (SHPO) with the
58 recommendation that the cultural landscape was
59 eligible for listing on the National Register of
60 Historic Places. The SHPO concurred.⁶

61 In 2013, the National Park Service engaged Bahr
62 Vermeer Haecker Architects (BVH) of Lincoln,
63 Nebraska, in association with John Milner
64 Associates (JMA) of Charlottesville, Virginia; Wiss,
65 Janney, Elstner Associates, Inc., (WJE) of
66 Northbrook, Illinois; and Historic Resources
67 Group, Inc. (HRG) of Lincoln, Nebraska, to
68 prepare a Cultural Landscape Report (CLR) and
69 Environmental Assessment (EA) to document and
70 record the history and current conditions of
71 George Washington Carver National Monument,
72 and guide its future treatment and use. The goals
73 and objectives of the report include:

- 74 ▪ Follow GMP directives to determine the best
75 approach to managing the park's cultural and
76 natural resources in accordance with the
77 park's legislative mandate
- 78 ▪ Provide guidance for rehabilitating the
79 landscape and its associated structures to
80 enhance the memorial nature of the site
- 81 ▪ Discuss overall management objectives for the
82 park as documented in planning studies and
83 other research documents

3. Ibid., 117, 120, 197.

4. Ibid., 239.

5. Ibid., 276.

6. Ibid., 276–277.

- 1 ■ Present a phased strategy for long-term
2 management based on the landscape’s
3 significance, existing condition, and use
- 4 ■ Develop treatment recommendations that will
5 address the entire 240-acre cultural landscape,
6 balancing historic landscape protection with
7 natural resource efforts, and supporting and
8 enhancing interpretive programs
- 9 ■ Focus rehabilitation treatment on providing
10 opportunities for the public to experience the
11 peaceful environment and reflect on
12 Dr. Carver’s life

13 The CLR/EA was developed within a framework
14 of previously-prepared resource inventories and
15 planning studies, in particular, those completed by
16 Heartland Natural Resource Monitoring Program
17 and Missouri Resource Assessment Partnership
18 (MoRAP). Three documents in particular have
19 served as a foundation for the CLR/EA: the GMP
20 (1997); the LRIP (2007); and the 2007 CLI
21 developed and written by NPS. The CLR/EA drew
22 upon these studies in the documentation of the
23 park’s landscape, assessment of its integrity, and
24 development of landscape treatment
25 recommendations.

26 **1.1 Purpose and Need for the** 27 **Project**

28 The purpose of this project is to assist the NPS in
29 identifying the best approach to managing the
30 cultural and natural resources comprising the
31 historic landscape at George Washington Carver
32 National Monument in accordance with the park’s
33 legislative mandates. The proposed action
34 alternatives and associated treatment
35 recommendations address the entire 240-acre
36 landscape and will assist the NPS with managing
37 the historic property, balancing cultural and
38 natural resource stewardship, and supporting and
39 enhancing interpretive programs as well as the
40 overall visitor experience.

41 The proposed action alternatives and treatment
42 recommendations were developed within the
43 context of a CLR, which provides the park with a

44 guiding philosophy for management of both
45 cultural and natural historic resources that can be
46 directly tied to significant periods and themes in
47 American history, namely the life of notable
48 scientist, educator, and humanitarian Dr. George
49 Washington Carver.

50 The CLR/EA presents an approach to long-term
51 management of the George Washington Carver
52 National Monument cultural landscape that
53 addresses the treatment needs of specific areas
54 identified by NPS. They include:

- 55 ■ the approximately 20-acre Development
56 Subzone, an area of the park requiring
57 intensive management, and including the
58 visitor center/maintenance building complex,
59 the area immediately adjacent to the memorial
60 entrance, the picnic area, and the 1-mile
61 Carver Trail;
- 62 ■ the 30-acre parcel of property acquired by the
63 park in 2006;
- 64 ■ the prairie units and the various vegetation
65 species that cover the site based on
66 recommendations from the Missouri
67 Resource Assessment, the Heartland
68 Inventory and Monitoring Program, and the
69 Heartland Network Invasive Plant
70 Management Plan/EA Assessment (IPMP/EA);
- 71 ■ the prairie units restoration and management
72 practices, including type of prairie and the
73 number of acres that should be maintained in
74 prairie;
- 75 ■ the prairie units management and relationship
76 to viewsheds;
- 77 ■ the woodlands and open space/savanna
78 management to address differences between
79 the contemporary landscape and the former
80 spatial patterns of the park;
- 81 ■ the vegetation management for the picnic area
82 grove; and

- 1 ▪ the overall justified approach to land cover
2 management and its connection to
3 interpretation and the visitor experience.
- 4 In addition to treatment recommendations, other
5 improvements to the site are needed. Examples
6 include:
 - 7 ▪ universal access throughout the George
8 Washington Carver National Monument
9 including specifically identified trail sections
10 that may need to be adjusted due to steep
11 slopes or surfacing material;
 - 12 ▪ other accessibility issues, including those
13 identified in the 2014 site assessment by the
14 National Center on Accessibility;
 - 15 ▪ recommendations for treatment of Williams
16 Pond and the contemplative trail that
17 surrounds it;
 - 18 ▪ potential restoration of the stream banks
19 currently covered with rip-rap in order to
20 prevent future erosion and maintain water
21 quality in the streams;
 - 22 ▪ accommodation of overflow parking on the
23 site, including location, extent, access and
24 surface treatment;
 - 25 ▪ cemetery wall repair, maintenance, and
26 management; and
 - 27 ▪ potential expansion of the Carver Trail.

28 NPS has recognized the need to better integrate
29 commemoration, interpretation/education, and
30 the treatment and management of the landscape.
31 NPS recommendations in a 1964 park master plan
32 suggested restoration of the landscape that existed
33 when George Washington Carver was a boy on the
34 Moses Carver farm. This recommendation has
35 never been implemented due to a lack of historical
36 documentation of landscape features during the
37 period circa 1865–1876. The master plan did,
38 however, state that the principal asset of the
39 national monument was the land itself, as it was an
40 expression of those qualities which characterize
41 Carver’s greatness—simplicity, naturalness, and

42 quiet beauty. With the development of the GMP in
43 1997, the park recognized how the site and its
44 context had changed since 1964, requiring the
45 formation of a new set of management objectives
46 for the park, including managing resources to help
47 interpret how the boyhood farm and surrounding
48 area influenced Carver as an adult. This led to the
49 further evaluation of the human, natural, and
50 cultural resources and clarifying the utilization of
51 these resources for interpretation, education, and
52 commemoration.

53 Since 1997, a number of planning studies have
54 been conducted to support appropriate treatment
55 of the site’s cultural landscape and its natural
56 features. None, however, has resulted in specific
57 tangible documentation of the property’s
58 character and composition during the targeted
59 restoration period. There remains a need to
60 further evaluate the feasibility of reconstruction of
61 landscape features based on existing historical
62 documentation and extant features, as well as the
63 relationship between existing prairie and
64 woodland features and historic agricultural cover
65 types. There is also a need to address what these
66 areas should look like and how they should be
67 used to tell the story of George Washington
68 Carver’s life. Questions also remain concerning
69 the loss of agricultural and ethno-botanical
70 features associated with nineteenth century use of
71 the property, such as the persimmon grove and
72 apple orchard, and the feasibility of restoring these
73 cultural landscape features.

74 **1.2 Scope of the Report**

75 The CLR/EA is the primary document used to
76 guide management and stewardship of the cultural
77 landscape and its individual resources, and to
78 inform treatment, management, and maintenance
79 of the grounds and buildings at George
80 Washington Carver National Monument. The
81 intent of the combined CLR/EA is to provide a
82 holistic and integrated plan that addresses
83 operational needs, while also recognizing that the
84 mission of the NPS is to provide a rich and
85 authentic visitor experience. It is also the intent of
86 the combined document to ensure that long-term

1 preservation and stewardship objectives are met to
2 the maximum extent practicable.

3 The CLR portion of the document includes
4 detailed documentation of the historical
5 development of the national monument,
6 evaluation of its existing conditions, analysis and
7 evaluation of landscape characteristics, and
8 preparation of treatment recommendations. The
9 CLR builds upon the numerous studies and
10 documents that exist for George Washington
11 Carver National Monument.

12 The EA portion of the document evaluates
13 potential impacts on environmental,
14 socioeconomic, and cultural resources through the
15 proposed treatment/action alternative (preferred
16 alternative), additional action alternatives, and a
17 no action alternative. The EA provides the
18 decision-making framework that analyzes a
19 reasonable range of alternatives to meet objectives
20 of the proposed action and evaluates potential
21 issues and impacts to the park's resources and
22 values. The EA also identifies mitigation measures
23 to lessen the degree or extent of any identified
24 impacts.

25 The combined CLR/EA includes the following
26 chapters:

- 27 ▪ Introduction
- 28 ▪ Site History and Evaluation of Significance
- 29 ▪ Existing Conditions, Comparative Landscape
30 Analysis, and FMSS Maintained Landscapes
31 data
- 32 ▪ Affected Environment
- 33 ▪ Alternatives and Treatment
- 34 ▪ Impact Analysis and Environmental
35 Consequences
- 36 ▪ Consultation and Coordination
- 37 ▪ Implementation, Phasing, and Work Orders
- 38 ▪ Bibliography

39 1.3 Methodology

40 The CLR/EA was conducted in phases. The first
41 phase involved a pre-proposal meeting at the park
42 to discuss the needs of the project. The second
43 phase involved a second meeting at the park to
44 discuss project organization, conduct background
45 research and field investigation, and develop initial
46 public scoping for the EA. The site visit also
47 resulted in the identification of draft materials for
48 entry into the Planning, Environment & Public
49 Comment (PEPC) database and for NEPA
50 compliance tracking, preparation of press releases,
51 and to develop a list of stakeholders and a strategy
52 for consultation.

53 The phase two site visit was followed by initial
54 report production and preliminary consultation
55 with agencies required as part of the EA
56 compliance process to meet Section 7 of the
57 Endangered Species Act (U.S. Fish and Wildlife
58 Service, state natural resource management
59 agencies, and state natural heritage inventories),
60 Sections 106 and 110 of the National Historic
61 Preservation Act (State Historic Preservation
62 Office and Advisory Council for Historic
63 Preservation), and other relevant regulations and
64 reviews.

65 Following initial report preparation and park
66 review of the document including draft
67 alternatives/treatment recommendations, the team
68 facilitated stakeholder meetings held at the park
69 on May 14, 2014. Stakeholders included the State
70 Historic Preservation Officer (SHPO), Tribal
71 Historical Preservation Officers (THPO), other
72 federal and state agencies, and friends of the park.
73 The preferred alternative was developed based on
74 the additional input from stakeholders and NPS
75 review and comments.

76 The CLR/EA was then developed to 95 percent
77 completion and reviewed by the park, Midwest
78 Region staff, and the Missouri SHPO, and tribal
79 THPOs. After review of the 95 percent draft,
80 review comments were addressed and the 95
81 percent draft CLR/EA was made available for
82 public and agency review by NPS on the PEPC
83 site. After public review and response to

1 comments, the 100 percent document will be
2 prepared for final review and circulated through
3 the park and MWRO in order to get approval of
4 the FONSI.

5 The specific methodologies utilized to prepare the
6 CLR and EA components of the report are
7 outlined below.

8 **1.3.1 Cultural Landscape Report**

9 The CLR for George Washington Carver National
10 Monument was prepared in accordance and
11 compliance with the guidance offered in the most
12 recent versions of relevant federal mandates,
13 executive orders, policies and guidelines, as well as
14 applicable state, local, and national building and
15 life safety codes, including:

- 16 ▪ A Guide to Cultural Landscape Reports:
17 Contents, Process, and Techniques
- 18 ▪ Cultural Landscapes and NPS Facility
19 Management, Landscape Lines No. 17
- 20 ▪ The Secretary of the Interior’s Standards for
21 the Treatment of Historic Properties with
22 Guidelines for the Treatment of Cultural
23 Landscapes
- 24 ▪ NPS Director’s Order 10A: Design and
25 Construction Drawings
- 26 ▪ NPS Director’s Order 28: Cultural Resources
27 Management Guidelines
- 28 ▪ NPS Director’s Order 77: Natural Resource
29 Protection; Reference Manual 77: Natural
30 Resource Management
- 31 ▪ Architectural Barriers Act of 1969;
32 Rehabilitation Act of 1973; Americans with
33 Disabilities Act of 1990
- 34 ▪ NPS Management Policies 2006
- 35 ▪ NPS Guiding Principles of Sustainable Design
- 36 ▪ National Register Bulletin: How to Apply the
37 National Register Criteria for Evaluation

38 ▪ National Register Bulletin: Guidelines for
39 Documenting and Evaluating Rural Historic
40 Landscapes

41 ▪ National Register Bulletin: Telling the Stories:
42 Planning Effective Interpretive Programs for
43 Properties Listed in the National Register of
44 Historic Places

45 ▪ National Historic Preservation Act of 1966, as
46 amended; Sec. 106 and 110

47 In addition, the methodology used by project team
48 members in preparing each component of the CLR
49 portion of this document is described in detail
50 below.

51 **Background Research and Data Collection.**
52 Prior to visiting the site, CLR team members began
53 to collect documents and other materials
54 pertaining to the project and site. In addition to
55 assembling available research materials from the
56 Midwest Regional Office of the NPS, the team
57 acquired the Cultural Landscape Inventory for the
58 park and the NPS List of Classified Structures for
59 park resources. The team also obtained secondary
60 sources addressing the history of the site and
61 region, and studies, maps, and plans available from
62 the NPS Denver Service Center Technical
63 Information Center. Also, all previously completed
64 natural resource studies by Heartland Natural
65 Resource Monitoring Program and MoRAP were
66 provided to the team by park staff. In preparation
67 for field investigations, project personnel
68 requested Geographic Information Systems (GIS)
69 files from the park and the Midwest Regional
70 Office to use in developing base maps for field
71 inventory.

72 **Base Mapping.** In anticipation of conducting
73 fieldwork, the team prepared an AutoCAD base
74 map of the park by compiling information
75 available from GIS mapping, aerial photography,
76 and historic site plans. The draft base map was
77 later refined and updated using the information
78 collected during field investigations and from
79 consulted sources. GIS data and the AutoCAD
80 map were also used to generate diagrams and
81 other report graphics.

1 **Start-up Meeting.** On November 5 and 6, 2013,
 2 project team members from Bahr Vermeer
 3 Haecker Architects, John Milner Associates, Inc.,
 4 Wiss, Janney, Elstner Associates, Inc., and Historic
 5 Resources Group, Inc., met with park and regional
 6 NPS personnel at the George Washington Carver
 7 National Monument visitor center to initiate work
 8 on the CLR as part of the phase two site visit. The
 9 meeting began with introductions of park, regional
 10 office, and contractor project staff. During the
 11 meeting, Marla McEnaney introduced the
 12 purpose, goals, and methodology of the CLR, and
 13 the park identified the issues of concern to be
 14 addressed in the report. Project administration
 15 procedures were established, materials needed by
 16 the CLR team were identified, and a process for
 17 transmission determined. The park also identified
 18 the resources available to the team and any special
 19 conditions unique to the project and site. NPS
 20 personnel subsequently provided the CLR team
 21 with a tour of the park. In addition to the start-up
 22 meeting, the project team met with park
 23 maintenance and interpretive personnel to solicit
 24 their input on park management issues, goals, and
 25 concerns.

26 **Field Investigations.** As part of the site visit
 27 conducted on November 5 and 6, 2013, CLR team
 28 members conducted preliminary field
 29 investigations to document landscape resources
 30 associated with the park. Team members
 31 photographed primary and representative
 32 landscape features, both cultural and natural, and
 33 annotated draft base maps with observations
 34 about materials, resource condition, and
 35 corrections to the mapping files. Where available
 36 mapping was lacking in detail, team members
 37 prepared sketch maps that were later used to
 38 enhance the electronic files.

39 **Historical Landscape Documentation and**
 40 **Site Physical History.** CLR team members also
 41 conducted research at the park archives following
 42 the start-up meeting. The focus was on historic
 43 records addressing physical park development
 44 such as maps, plans, and photographs. The site
 45 physical history was drafted based upon review of
 46 the materials collected during these various
 47 research efforts. The information was first

48 organized into a site history chronology of the
 49 physical events at George Washington Carver
 50 National Monument. The chronology was then
 51 used to identify a series of definable historic
 52 periods for the park's evolution. Each period was
 53 described through historical narrative,
 54 supplemented with historic maps, photographs,
 55 and plans.

56 **Historic Period Plan Preparation.** Historic
 57 period plans of the George Washington Carver
 58 cultural landscape were prepared to represent the
 59 farm during Dr. Carver's childhood (circa 1865–
 60 1876); the years of initial park planning through
 61 the official opening of the park (1943–1953); and
 62 the early park development period (1953–1960).

63 The CLR team developed the historic period plans
 64 through registration of historic mapping sources
 65 with existing conditions information; preparation
 66 of the existing conditions base map thus preceded
 67 work on the period plans. The project team used
 68 all available historic photographs and written
 69 descriptions of the landscape found in the
 70 research materials collected for the project to
 71 develop details of the period plans. Limited
 72 secondary sources were also used to corroborate
 73 information and to generate queries for primary
 74 sources. Secondary sources were typically
 75 evaluated for their credibility and utilized with
 76 caution.

77 **Existing Conditions Documentation.** The
 78 documentation of existing conditions was
 79 developed through preparation of cross-
 80 referenced narrative, graphic, and photographic
 81 materials, organized in accordance with the
 82 framework established in National Register
 83 Bulletins: *Guidelines for Documenting and*
 84 *Evaluating Rural Historic Landscapes* as well as the
 85 NPS's *A Guide to Cultural Landscape Reports*.
 86 Existing conditions resource information was
 87 organized into a series of landscape characteristics.

88 The CLR documentation includes information
 89 derived from existing conditions base mapping,
 90 field investigations, review of photographs taken
 91 in the field, and examination of park planning
 92 documents, park files, and other relevant cultural
 93 and natural resource documents received from the

1 NPS or acquired through research. The existing
2 conditions documentation includes photographs
3 of representative landscape features, which are
4 referenced in the text.

5 Feature condition assessments were made using
6 the categories suggested by the *Guide to Cultural*
7 *Landscape Reports: Good, Fair, Poor, and*
8 *Unknown.*⁷ Where relevant, specific condition-
9 related observations made in the field are reflected
10 in the report.

11 A table of resources was developed and is included
12 at the end of Chapter 3. The table indicates the
13 relationship between features identified on behalf
14 of the CLR and those tracked by NPS as part of the
15 Facility Management Software System (FMSS), a
16 numbering and naming convention used within
17 the park for everyday maintenance issues.

18 **Evaluation of Significance.** George
19 Washington Carver National Monument was
20 listed in the National Register of Historic Places in
21 1976. The nomination, currently being updated,
22 indicates that the park is a historic district
23 significant for its associations with George
24 Washington Carver. The property is the first
25 national park unit to honor an African American
26 and a person other than an American president.
27 The park is thus a significant commemorative site
28 that marks, protects, and honors the inspirational
29 work and career of George Washington Carver,
30 who was born on the property into slavery. The
31 significance evaluation provided in the National
32 Register nomination was considered in
33 conjunction with the guidance provided in the
34 National Register Bulletin: *How to Apply the*
35 *National Register Criteria for Evaluation.* The CLR
36 considered the potential to update the nomination
37 based on additional findings provided by the
38 recent research and documentation.

39 As noted in the draft National Register nomination
40 Additional Documentation, George Washington
41 Carver National Monument is nationally
42 significant under National Register Criterion A for
43 its association with events that have made a
44 significant contribution to the broad patterns of
45 our history, and under Criterion B for its
46 association with the life of Dr. George Washington
47 Carver, a person significant in our past. It is also
48 significant under Criteria Consideration C, a
49 birthplace or grave, as the birthplace of Dr. George
50 Washington Carver, and under Criteria
51 Consideration F, as a commemorative property.⁸

52 As noted in the draft National Register nomination
53 Additional Documentation, the national
54 monument is significant in the areas of science,
55 education, community planning and development
56 (park), and conservation.⁹

57 **Comparative Analysis of Historic and**
58 **Existing Conditions.** To better understand the
59 relationship between the existing park landscape
60 and the character of the landscape present during
61 the period of significance identified, the CLR team
62 prepared a comparative analysis of historic and
63 existing conditions. The analysis focused on extant
64 features, their dates of origin, and their evolution
65 over time. The three primary goals of the
66 comparative analysis were to:

- 67 ■ Understand which features survive from the
68 period of significance
- 69 ■ Establish the basis for an integrity assessment
- 70 ■ Provide an understanding of the similarities
71 and differences between historic and existing
72 conditions to serve as the basis for the
73 development of a well-grounded treatment
74 plan for the cultural landscape.

7. Robert R. Page, Cathy A. Gilbert, and Susan A. Dolan, *A Guide to Cultural Landscape Reports: Contents, Processes, and Techniques* (Washington, D.C.: Department of the Interior, 1998), 67.

8. Jason H. Gart, National Register Additional Documentation, draft, January 31, 2014.
9. Ibid.

1 **Identification of Contributing and Non-**
 2 **contributing Resources.** Based on the findings
 3 of the comparative analysis of historic and existing
 4 landscape conditions, the CLR identifies those
 5 resources that contribute to its National Register
 6 significance, those that are non-contributing, and
 7 those that are missing from the historic period of
 8 significance. Chapter 3 of the document details the
 9 existing resources, including those that are
 10 missing. Missing resources were ascertained from
 11 existing documents including archeological
 12 studies and located on the period plans. Missing
 13 resources are also discussed as part of restoration
 14 and interpretation in the range of alternatives.

15 **Assessment of Integrity.** The CLR
 16 summarizes the site’s overall integrity and then
 17 assesses its integrity in accordance with the seven
 18 aspects—location, design, setting, materials,
 19 workmanship, feeling, and association—identified
 20 in National Register Bulletin: *How to Apply the*
 21 *National Register Criteria for Evaluation.*

22 **Treatment Plan.** Work on the treatment plan
 23 proceeded from the overarching guidance of the
 24 General Management Plan (1997) and will
 25 correlate with the Long Range Interpretive Plan to
 26 provide guidance on how the landscape can
 27 support and enhance interpretive themes.
 28 Guidance for treatment was also afforded during
 29 the project start-up meeting held in November
 30 2013, and subsequent consideration of a full range
 31 of alternatives. Work on the treatment plan was
 32 developed in coordination with the development
 33 of action alternatives required for the EA process.
 34 Treatment alternatives were prepared early on in
 35 the project in order to engage the park and
 36 stakeholders in an evaluation process that
 37 considered all positive and negative outcomes
 38 associated with a range of options, allowing for a
 39 vetting process intended to encourage consensus
 40 and informed decision making. The treatment plan
 41 addresses the goals, needs, and objectives for the
 42 project identified in meetings and consultation
 43 with stakeholders. The treatment plan is also
 44 based on the findings of the comparative analysis
 45 prepared as part of the CLR and the National
 46 Register-level significance evaluation.

47 1.3.2 Environmental Assessment

48 The EA methodology for this portion of the
 49 document follows the directives set forth in
 50 Director’s Order 12 from the NPS. The
 51 methodology of the EA is summarized below.

52 **Purpose and Need.** The “purpose” of the
 53 project is a statement of goals and/or objectives
 54 that George Washington Carver National
 55 Monument intends to fulfill by taking action. The
 56 “need” describes the conditions prompting the
 57 NPS to consider action and explains why the
 58 monument is proposing the action at this time.
 59 Appropriate maps showing the project area and
 60 vicinity are included.

61 **Background.** This section includes a written
 62 narrative of the park purpose/significance, graphic
 63 descriptions of the study area, and documentation
 64 of the management and planning context for
 65 George Washington Carver National Monument.
 66 The process of developing the issues and impact
 67 topics for the EA portion of the document is
 68 articulated. Relevant impact topics were selected
 69 to help focus the affected environment and
 70 environmental consequences sections. Potential
 71 impact topics were evaluated and classified as
 72 either “Impact Topics Selected for Detailed
 73 Analysis” or “Impact Topics Dismissed from
 74 Detailed Analysis.”

75 **Affected Environment.** Chapter 4: Affected
 76 Environment describes the existing environment
 77 potentially affected by the project alternatives.
 78 Consistent with Council of Environmental Quality
 79 (CEQ) regulations (40 CFR 1502.15), this chapter
 80 presents a concise and focused description of the
 81 environment for George Washington Carver
 82 National Monument. Information focuses on
 83 sensitive or controversial resources and/or those
 84 resources anticipated to incur project-related
 85 impacts.

1 **Alternatives.** In this CLR/EA document the
2 development of alternatives is combined within
3 the treatment plan section in Chapter 5: Treatment
4 Alternatives. A written description of the
5 treatment alternatives, including a no action
6 alternative and several action alternatives, is
7 provided. The alternatives are also presented in
8 graphic plans. The alternatives were developed
9 with consideration of a reasonable range of
10 actions. An NPS preferred alternative was
11 identified before the document was made available
12 for public comment. The alternatives discussion
13 also includes identification of the
14 “environmentally preferred alternative” per NPS
15 *Director’s Order 12 Handbook*, Section 2-7 (D) and
16 (E), for comment during the CLR/EA public
17 review. A description of alternatives considered
18 but dismissed is also provided. In the narrative
19 discussion, these alternatives are identified and
20 described, including justification for eliminating
21 them from further analysis.

22 **Environmental Consequences.** Chapter 6:
23 Impact Analysis and Environmental Consequences
24 provides an analytic evaluation of the potential
25 effects or impacts of each of the alternatives on the
26 resources described in the affected environment
27 section. The objective analysis and disclosure of
28 potential environmental impacts of the proposed
29 action and alternatives facilitates informed
30 decision-making. This analysis and disclosure of
31 impacts is provided in this section, presenting the
32 effects of each alternative on the various
33 components of the affected environment.

34 **Impact Comparison Matrix.** The impact
35 matrix is in a table format that allows for easy
36 comparison of the various project alternatives
37 (including no action). The matrix presents a
38 concise summary of each alternative’s potential
39 effects by impact topic.

40 **Consultation and Coordination.** This section
41 of the EA presents an overview of public
42 involvement activities implemented as part of the
43 environmental assessment process.
44 Documentation of stakeholder participation is
45 included as well as persons, organizations, and
46 agencies contacted for information and assisting in

47 identifying important issues, developing the
48 alternatives, or analyzing impacts.

49 **Record of Decision/Finding of No**
50 **Significant Impact.** Based on internal and
51 public review, the approved decisions document
52 will be signed by the park superintendent and sent
53 to the regional environmental coordinator, project
54 manager/COTR and park contact for a seven-day
55 review period. The decision document complies
56 with the guidance found in *Director’s Order 12*
57 *Handbook*.

58 **Compliance with Federal or State**
59 **Regulations.** The EA portion of this document
60 including the alternatives is technically and legally
61 defensible and in full compliance with federal
62 mandates, Director’s Orders, policies and
63 guidelines including:

- 64 ▪ National Environmental Policy Act (NEPA) of
65 1969, as amended
- 66 ▪ National Park Service Organic Act of 1916, 1
67 U.S.C. 1-4, et seq.
- 68 ▪ Council of Environmental Quality (CEQ)
69 (40 CFR 1508.9)
- 70 ▪ NPS Director’s Order 12: Conservation
71 Planning, Environmental Impact Analysis, and
72 Decision-Making
- 73 ▪ Protection and Enhancement of
74 Environmental Quality, Executive Order
75 11514, as amended by E.O. 11991
- 76 ▪ Clean water Act of 1977, as amended, Sec. 401,
77 402 and 404(b)(1)
- 78 ▪ Endangered Species Act of 1973, as amended
79 16 U.S. C. 1531-1543
- 80 ▪ Fish and Wildlife Coordination Act of 1934, as
81 amended (16 U.S. C. 661–667)
- 82 ▪ Invasive Species, Executive Order 13112
- 83 ▪ The Architectural Barriers Act (as amended)

1 In addition, the EA was prepared in compliance
2 with the requirements of Section 106 of Historic
3 Preservation Act (NHPA), in accordance with the
4 Advisory Council on Historic Preservation's
5 (ACHP) regulations implementing Section 106
6 (36 CFR Part 800.8, Coordination with the
7 National Environmental Policy Act).

8 **1.4 Historical Summary**

9 George Washington Carver National Monument
10 is significant as the birthplace and childhood home
11 of George Washington Carver. The farm
12 belonging to Moses and Susan Carver was young
13 George's home until he was about eleven years
14 old. It was on the farm that he had the opportunity
15 to pursue his curiosity about the world around
16 him.¹⁰ In addition to his farm-related tasks,
17 George Washington Carver's interest in nature
18 was developed during his time on the farm as he
19 explored the property, collecting various flowers,
20 rocks, and insects. He also taught himself to read
21 during his early years on the farm.

22 In 1876, young George was permitted to attend the
23 Neosho Colored School in nearby Neosho,
24 Missouri. His enrollment at the school marked the
25 end of his time on the Moses Carver farm.¹¹

26 After the death of Moses Carver in 1910, the
27 property was sold to Samuel Warden. Warden
28 owned the farm for two years and it was then
29 purchased by C. M. Shartel in 1913. During the
30 Shartel tenure on the property, various tenants
31 and employees lived there. Mr. Shartel was
32 actively engaged in the business of raising
33 thoroughbred cattle, resulting in a series of
34 changes to the landscape. There were many
35 buildings and structures on the Shartel property
36 associated with the agricultural and grazing land

37 uses prevalent over the site, as well as residential
38 structures for the family and farm employees.

39 The early 1940s saw the beginning of interest in
40 establishing a national monument at the birthplace
41 of George Washington Carver. In 1941, the St.
42 Louis branch of the National Association for the
43 Advancement of Colored People (NAACP)
44 submitted a proposal to establish a memorial to
45 Carver at his birthplace. At the time they were
46 informed that construction of a monument to a
47 living man was a conflict with NPS policy.
48 Dr. Richard Pilant, a social science professor at
49 Washington University in St. Louis, also began to
50 lobby actively for establishment of such a
51 monument. The first federal legislation relating to
52 the establishment of the George Washington
53 Carver National Monument at the Moses Carver
54 farm was introduced in 1942. No immediate action
55 was taken until after George Washington Carver
56 died on January 5, 1943. Following his death, new
57 bills were introduced to Congress and on July 14,
58 1943, the monument was authorized. The
59 legislation specifically authorized the Secretary of
60 the Interior to build a museum, construct roads
61 and monuments, and erect tablets within the
62 boundaries of the park. Acquisition of the
63 property was delayed by World War II and a
64 dispute over the value of the farm. Ultimately, the
65 federal government proceeded with
66 condemnation of the property. During this
67 interim, from 1949 to 1954, Sidney J. Philips and
68 the George Washington Carver National
69 Monument Foundation leased the farm and
70 opened it to visitors. In 1950, Congress amended
71 the 1943 act and authorized additional funds for
72 land acquisition. This enabled the Secretary of the
73 Interior to acquire 210 acres of the original
74 240-acre farm. On September 25, 1952, the first
75 superintendent and historian arrived on the site.

10. *George Washington Carver National Monument: General Management Plan* (National Park Service, June 24, 1997).

11. Jason H. Gart, *He Shall Direct Thy Paths: The Early Life of George W. Carver, Historic Resource Study* (Washington, D.C.: National Park Service, Department of the Interior, 2014),

citing Paul L. Beaubien and Merrill J. Mattes, "George Washington Carver National Monument: The Archeological Search for George Washington Carver's Birthplace," *Negro History Bulletin* 18, no. 2 (November 1954), 81–86.

1 Dedication of the George Washington Carver
2 National Monument took place on July 14, 1953.
3 NPS efforts at the site through the 1950s, including
4 removal of deteriorated agricultural outbuildings,
5 archeological research, presentation to the park of
6 the cast concrete bust of George Washington
7 Carver, the reconstruction of the wall around the
8 Carver family cemetery, and the development of
9 the Carver Trail.

10 In the summer of 1958, the park’s Mission 66
11 prospectus was approved. Included in the
12 document were plans to construct a visitor center
13 and museum building. In addition, plans were
14 made to modify the route of the Carver Trail that
15 took visitors to the site of the birthplace cabin, the
16 open fields once farmed by the Carver family, the
17 1881 farmhouse, and the Carver family cemetery.

18 In the spring of 1960, buildings comprising the
19 former Shartel farm were removed; the main
20 house was moved to another property nearby,
21 where it remains today, while many other
22 buildings were demolished. The new visitor center
23 was dedicated in July 1960 and a cast bronze statue
24 of George Washington Carver as a boy was also
25 unveiled.

26 The final 30 acres of land that were part of the
27 Moses Carver farm were donated by a private land
28 owner to the Carver Birthplace Association in
29 2003. The Carver Birthplace Association
30 subsequently transferred the deed for this land to
31 the NPS on June 22, 2005. Mitigation of tailings
32 and other potentially hazardous deposits
33 associated with lead and zinc mining of the parcel
34 was completed in 2006. In August 2007, the
35 expanded and renovated visitor center was
36 dedicated. The renovation included a 6,700 square
37 foot addition to the 1960 building, with new
38 interactive and extended museum space,
39 classrooms, an expanded theater, terrarium,
40 archives, and library, as well as a tornado shelter.

41 Today, the site contains a visitor center, museum,
42 maintenance facilities, administrative offices,
43 storage structures (former staff residences and
44 seasonal housing), a system of restored prairies,
45 three streams, two springs, the Carver family
46 cemetery, the Carver Trail, the 1881 Moses Carver

47 house, and extensive interpretation of site features
48 and the life of Dr. George Washington Carver.

49 **1.5 Park Purpose/Significance**

50 On July 14, 1943, the bill authorizing the
51 establishment of the national monument passed
52 and became Public Law 148 of the 78th Congress.
53 Congress directed the NPS to maintain and
54 preserve George Washington Carver’s birthplace
55 as a suitable and enduring public memorial in his
56 honor. This was the first time in United States
57 history that a birthplace site was designated as a
58 national monument to someone other than a
59 United States President and the first time a unit of
60 the National Park System was established to honor
61 the contributions of an African American.

62 The George Washington Carver National
63 Monument derives its significance primarily from
64 its association with Dr. George Washington Carver
65 as his birthplace and boyhood home, where he
66 spent his formative years that set him on the road
67 to becoming one of this nation’s most
68 distinguished scientists, educators, and
69 humanitarians. It preserves a place known to have
70 been influential in shaping the personality of a
71 man who played an important role in the social
72 and agricultural history of twentieth century
73 America.

74 The national monument was established to
75 preserve the birthplace and commemorate the rise
76 from slavery of Dr. George Washington Carver.
77 His life demonstrates the opportunities afforded in
78 the United States to men of ability and energy,
79 regardless of their origins. His accomplishments
80 are today a living part of America’s heritage. The
81 national monument memorializes the life,
82 accomplishments and contributions of Dr. Carver,
83 and preserves the landscape setting of the Moses
84 Carver farm where George was born into
85 enslavement and spent his early years. The
86 landscape captures the ambiance in which
87 Dr. Carver began his earliest scientific
88 observations of the natural world around him. The
89 focus of park management has traditionally been
90 on interpreting the landscape setting that
91 influenced the young and impressionable child

1 who became a highly recognized research scientist,
 2 and how that setting contributed to his life's
 3 achievements (Figure 1 and Figure 2).¹²

4 In the LRIP (2007) the park significance is
 5 summarized below.

- 6 ■ The national monument preserves Dr.
 7 Carver's birthplace and childhood home,
 8 where the experiences of his formative years
 9 influenced his journey to becoming one of this
 10 nation's most distinguished scientists and
 11 humanitarians.
- 12 ■ The national monument is the nation's first
 13 memorial and unit of the National Park
 14 System to commemorate the achievements of
 15 an African American.
- 16 ■ The national monument is the first birthplace
 17 national monument of an individual other
 18 than a United States President.



19 **FIGURE 1.** Interpretation at George Washington
 20 Carver National Monument of the young Carver's
 21 early relationship to the natural world around him.



22 **FIGURE 2.** Landscape setting of the Moses Carver
 23 farm and current interpretation.

24 **1.6 Description of the Study** 25 **Area**

26 George Washington Carver National Monument
 27 is located in Section 7 of Township 26 North,
 28 Range 31 West of the Fifth Principal Meridian,
 29 near the community of Diamond in Newton
 30 County, Missouri (Figure 3 and Figure 4). Joplin,
 31 Missouri, is the closest city, located approximately
 32 16 miles to the northwest. The region is situated
 33 along the western edge of the Ozarks, part of the
 34 Springfield Plain, a vibrant and ecologically diverse
 35 subsection of the Ozark Highlands ecoregion.¹³
 36 The park is accessed via Carver Road from County
 37 Highway V (Figure 5). Visitors generally travel to
 38 the site from Exit 11A off Interstate 44 (primary
 39 east-west route through southwest Missouri), or
 40 Exit 35 off Interstate 49 (primary north-south
 41 route through southwest Missouri). Interstate 44
 42 and Interstate 49 each pass within 5 to 8 miles of
 43 the park.

12. George Washington Carver National Monument Cultural Landscape Inventory (NPS, 2010), 19.

13. Gart, *He Shall Direct Thy Paths*.

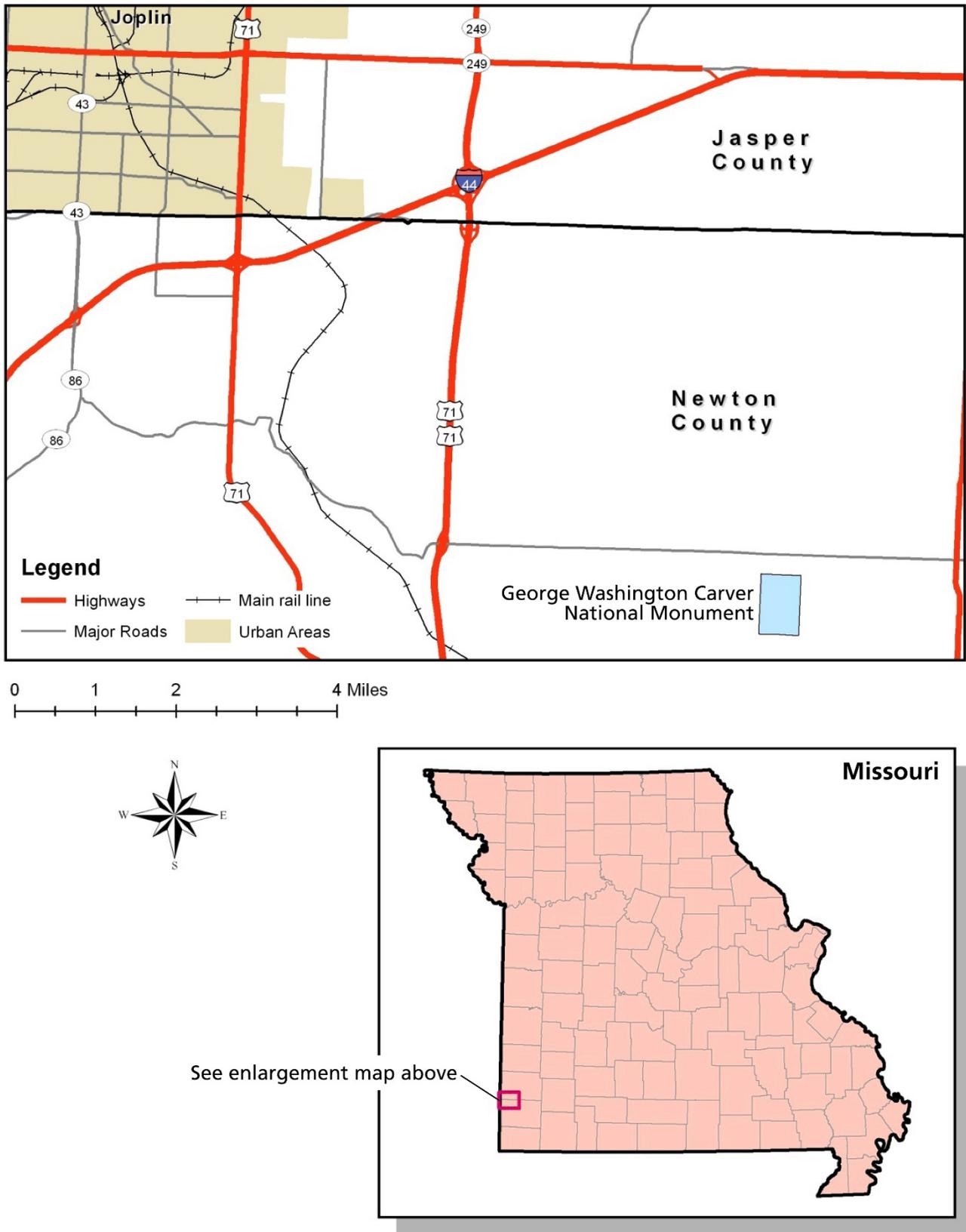


FIGURE 3. Location of George Washington Carver National Monument.

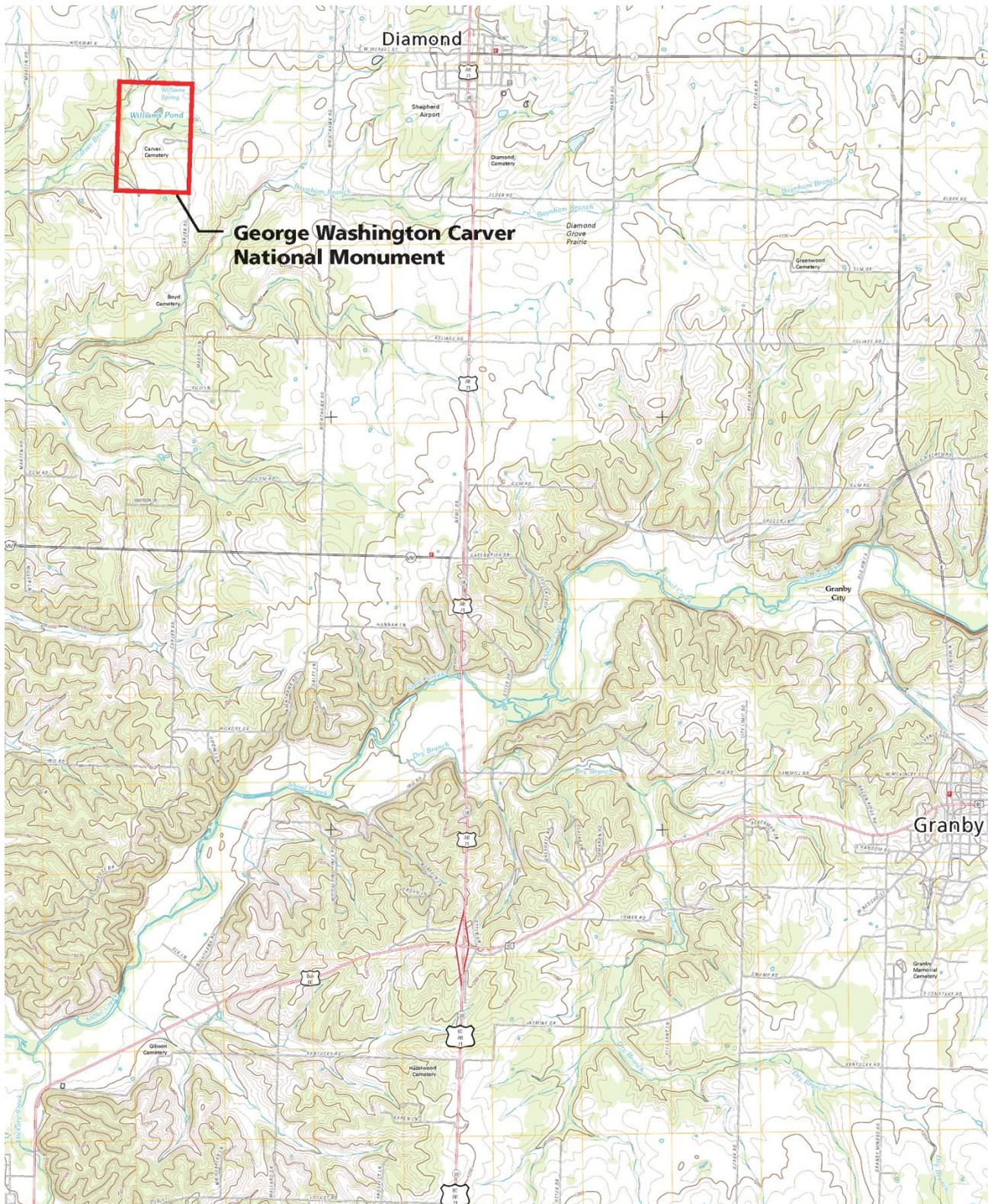


FIGURE 4. USGS map of the national monument, showing its location in relation to Granby and Diamond, Missouri.



1 **FIGURE 5.** Entrance to George Washington Carver
2 National Monument from Carver Road.



30 **FIGURE 6.** Visitor center in the landscape of the
31 national monument.

3 The national monument encompasses 240 acres of
4 land between Carver Road to the east and Elder
5 Road to the south. Privately held farmland edges
6 the park to the north and east. The primary
7 features of the park include a visitor center located
8 at the end of a 1/4-mile entrance drive, and a mile-
9 long interpretive trail that provides access to
10 several features of importance to George
11 Washington Carver's boyhood (Figure 6 and
12 Figure 7). Much of the park is maintained in
13 restored prairie, affording long views across the
14 landscape (Figure 8). Three small streams pass
15 through the park: Carver, Harkins, and Williams
16 branches (Figure 9). Carver Spring feeds Carver
17 Branch, while Williams Spring, not currently
18 visible, is the source for Williams Branch and the
19 man-made Williams Pond. These small spring-fed
20 streams flow across the central portion of the park
21 from east to west, and through the northwestern
22 corner of the park. The stream corridors that pass
23 through the center of the property, as well as the
24 uplands to the north, are generally wooded and
25 divide the park into quadrants. Buildings
26 constructed during the late 1950s and early 1960s
27 for park housing and administration needs are
28 clustered along Carver Road, out of sight of most
29 park activity areas.



32 **FIGURE 7.** This grove of large deciduous trees is the
33 setting for the picnic area and views to the visitor
34 center.



35 **FIGURE 8.** Landscape of restored prairie and
36 woodlands at George Washington Carver National
37 Monument.



1 **FIGURE 9.** Carver Branch runs east/west through the
2 landscape of the national monument.

3 **1.7 Related Planning** 4 **Documents**

5 Many plans and studies contributed to developing
6 the current treatment plan/alternatives for George
7 Washington Carver National Monument. These
8 include NPS research, management, policy, and
9 other documents as discussed below.

10 **Management Policies 2006.** *NPS Management*
11 *Policies 2006* provides guidance for all
12 management decisions, including those related to
13 cultural resources. Cultural resources, including
14 cultural landscapes and historic structures, are
15 addressed in Section 5.0, which states that the NPS
16 cultural resources management program involves
17 “. . . stewardship to ensure that cultural resources
18 are preserved and protected, receive appropriate
19 treatments (including maintenance) to achieve
20 desired conditions, and are made available for
21 public understanding and enjoyment.”¹⁴

22 In addition to NPS management policies, the
23 following park-specific documents provided
24 information on park resources and management
25 strategies and priorities.

26 **Master Plan for the Preservation and Use**
27 **of George Washington Carver National**
28 **Monument (NPS 1961–1964).** This study called
29 for the principal goal of recreating the historic
30 scene of the 1860s and 1870s through continued
31 research. As part of this study, the NPS
32 recommended that the site’s landscape be restored
33 to the setting present when Carver was a boy. This
34 recommendation has never been carried out due
35 to lack of detailed information for an accurate
36 restoration of structures and landscape features
37 and the associated management and maintenance
38 of a farm restoration.

39 **Historic Resource Study and Administrative**
40 **History (NPS 1973).** This study by Anna Coxe
41 Toogood discusses the physical features of the
42 Moses Carver farm, land purchase and patents,
43 farm production, and unimproved land filled with
44 wild fruits, grasses and game. The report
45 recommends that additional consideration might
46 be given to the historic scene, stating, “While the
47 visitor center obviously could not be moved from
48 its dominating position on the farm grounds, it
49 would be advisable to replant some of the crops,
50 orchards, and native growth in the area during the
51 historic period.”¹⁵

52 **Historic Resources Management Plan (NPS**
53 **1978, revised 1980).** This study noted that the
54 park’s vegetation is a historical resource and
55 suggested it be managed as such in order to restore
56 the historic scene to that of the Moses Carver farm
57 of the 1860s and 1870s wherever practical and
58 desirable. This plan advised the park to utilize
59 twentieth-century conservation and agricultural
60 techniques to grow crops, so that the site would
61 closely resemble the Carver farm.

14. *Management Policies 2006* (Washington, D.C.: National Park Service, 2006), 60.

15. Anna Coxe Toogood, *George Washington Carver National Monument, Diamond, Missouri, Historic Resource Study and Administrative History*, July 1973.

1 **Historic and Vegetation Survey of the Five**
 2 **Prairie Management Units at George**
 3 **Washington Carver National Monument**
 4 **(NPS 1982).** This study focused on land use
 5 patterns over the history of the Moses Carver
 6 farm. The Carvers managed a fairly diverse
 7 agricultural operation, raising horses, cattle, swine,
 8 sheep, goats, and poultry, as well as small-scale
 9 cropping and an apple orchard. Moses Carver
 10 raised Indian corn, wheat, oats, Irish potatoes, and
 11 hay crops. The plan indicated that very little data
 12 exists to offer clues as to the real extent and
 13 species composition of the historic scene.

14 **Resources Management Plan (NPS 1984).**
 15 This study included five management objectives.
 16 The plan identified the primary resource
 17 management objective as defined in the master
 18 plan and reaffirmed in the 1978 Statement for
 19 Management: “to restore the historic scene to that
 20 of the Moses Carver farm of the 1860s and 1870s
 21 wherever practical and desirable.”¹⁶ The plan has
 22 received several revisions, with the most current
 23 version approved in 1999.

24 **Prairie Restoration Action Plan (NPS 1995).**
 25 This plan provided detailed descriptions of
 26 current vegetation and planned management
 27 actions. The purpose of this action plan was to
 28 guide the continuing restoration of a
 29 representation of the prairie scene appropriate to
 30 the 1860–1870 period of young George
 31 Washington Carver. This management approach
 32 retains the openness of the prairie areas and
 33 emphasizes the natural setting that was a strong
 34 part of Carver’s early life. The plan updates and
 35 incorporates methods in the 1984 Resources
 36 Management Plan, and includes an analysis of the
 37 current status of the prairie units, a set of
 38 qualitative and quantitative goals for restoration,

39 and methods for monitoring to collect baseline
 40 data and measure restoration success.

41 **General Management Plan (NPS 1997).** The
 42 NPS prepared this GMP for George Washington
 43 Carver National Monument to serve as a guide for
 44 the management and care of the monument for a
 45 period of ten to fifteen years. The plan provides a
 46 vision for the future of the national monument and
 47 a practical framework for decision-making. The
 48 plan helps identify the strategies, programs,
 49 actions, and support facilities necessary to manage
 50 visitation and best protect the monument’s
 51 resources.

52 **Springs of Genius: An Integrated**
 53 **Management Plan for George Washington**
 54 **Carver National Monument (University of**
 55 **Wisconsin-Madison 1999).** This integrated
 56 landscape restoration study was underway during
 57 the GMP process. The GMP anticipated that
 58 *Springs of Genius* would “help guide the planning
 59 team in the management and treatment of the
 60 site’s cultural landscape and its natural features.”¹⁷
 61 The 1999 report provides extensive research on
 62 the history and evolution of the park’s landscape
 63 and features, and provides recommendations for
 64 woodland restorations, wetlands management,
 65 exotic species control, and prairie restoration.
 66 Recommended planting lists were provided, as
 67 well as treatments such as planting, seed drills,
 68 broadcast methods, and recommended planting
 69 procedures. The report suggested the
 70 reorganization of management units into natural
 71 zones based on existing soils and topography, but
 72 these recommendations have not been adopted.
 73 Three master plan options were presented for
 74 future management of the landscape; none was
 75 ever approved by the NPS.

16. *Resources Management Plan* (National Park Service, 1981, revised 1982, revised 1984), 26.

17. John Harrington, Susan Haswell, and Evelyn Howell, with Arnold Alanen, *Springs of Genius: An Integrated Management Plan for George Washington Carver National Monument* (University of Wisconsin-Madison, February 1999).

1 **Vascular Plant Inventory (NPS 2004).** A
 2 vascular plant inventory was conducted at George
 3 Washington Carver National Monument in
 4 autumn 2002 in an effort to update the plant taxa
 5 originally collected in the late 1950s by Ernest J.
 6 Palmer. This study, combined with previous work
 7 conducted in the 1990s, resulted in reclassification
 8 of 79 percent of Palmer’s taxa, and the addition of
 9 178 species not documented by Palmer. The
 10 national monument is represented by 645 distinct
 11 taxa. Of the 645 taxa, 114 are introduced and
 12 represent 35 families. Five taxa of special concern
 13 that were found are tracked by the Missouri
 14 Department of Conservation. The study involved
 15 the verification of the identity of all of Palmer’s
 16 specimens, field collection of plant specimens,
 17 quantitative analysis of habitats at the national
 18 monument, and spatial documentation of all plant
 19 species recorded.

20 **Fire Management Plan and Environmental**
 21 **Assessment (NPS 2004).** This study
 22 acknowledged that approximately 90 percent of
 23 the park’s acreage is burnable and would benefit
 24 from periodic prescribed, controlled fire. Land
 25 that can sustain fire is comprised of restored
 26 prairie, agricultural fields, lawns, wetlands, and
 27 mixed oak forests. The plan recommends that use
 28 of prescribed fire as a tool for controlling or
 29 eradicating invasive exotic species. The plan notes,
 30 “The park is in the process of re-evaluating the
 31 existing cultural landscape, and through an
 32 upcoming GMP revision, may begin planning to
 33 change the management of some areas of the park
 34 to a more Carver period agrarian setting. In the
 35 event that a new cultural agrarian setting plan is
 36 adopted, the Fire Management Plan will be
 37 revisited to address changes in vegetation types
 38 and fuel loads.”¹⁸

39 **Environmental Assessment for Visitor**
 40 **Center Renovation and Addition (NPS**
 41 **2004).** This EA was conducted in order to assess
 42 impacts from the proposed renovation of the
 43 existing visitor center, as well as the construction

44 of a new addition to the visitor center that would
 45 expand and improve visitor and administrative
 46 facilities. The proposed visitor center renovation
 47 and addition was driven by a need to provide
 48 adequate museum collections storage, and to
 49 expand and better organize the educational
 50 functions, visitor facilities, and staff office space at
 51 the park.

52 **Environmental Assessment Phase I and Pre-**
 53 **Acquisition Environmental Assessment**
 54 **(NPS 2004–2005).** In 2005, the park acquired the
 55 final 30-acre parcel of land to complete ownership
 56 of Moses Carver’s 240-acre farm. A Phase I EA was
 57 completed in 2004, followed by mine tailings
 58 clean-up remediation, and a subsequent
 59 Pre-Acquisition EA completed in 2005.

60 **Special History Study, George Washington**
 61 **Carver: For His Time and Ours (NPS 2005).**
 62 The study explores Carver’s work with plant
 63 disease and mycology, wild plants as food and
 64 medicine, herbal medicines, chemurgy, and land
 65 use practices.

66 **Long-Range Interpretive Plan (NPS 2007).**
 67 This plan is based on the national monument’s
 68 enabling legislation and mission. Using the
 69 national monument’s mission, purpose and
 70 significance statements, primary interpretive
 71 themes, and visitor experience goals, this plan
 72 articulates the vision for the park’s interpretive
 73 and educational future and recommends the
 74 interpretive media and programs best suited for
 75 meeting visitor needs, achieving management
 76 goals, and telling the story of George Washington
 77 Carver.

78 **Cultural Landscape Inventory (NPS 2010).**
 79 The CLI describes the character-defining features
 80 of the national monument landscape and identifies
 81 the resources that contribute to its historic
 82 significance. The CLI also discusses the
 83 significance of the park as a commemorative

18. *Wildland Fire Management Plan George Washington Carver National Monument* (National Park Service, May 2004).

1 landscape that is listed in the National Register of
2 Historic Places.

3 **Natural Resource Condition Assessment**
4 **(NPS 2011)**. The intention of this study,
5 conducted by MoRAP, was to provide a
6 synthesized assessment of current conditions in
7 the park. The Natural Resources Condition
8 Assessment builds on methods developed for a
9 similar effort for Effigy Mounds National
10 Monument in Harpers Ferry, Iowa. Elements of
11 the methodology include 1) reliance on a
12 framework of essential ecological attributes
13 provided by the Environmental Protection
14 Agency; 2) development of a list of resource types,
15 indicators, and attributes for assessment; and
16 3) application of assessments by reporting unit,
17 including park wide, major terrestrial landscapes
18 types, and major streams and tributaries.

19 **Prairie Restoration Management Review**
20 **and Integrated Cultural/Natural Resource**
21 **Management Recommendations**
22 **(Department of Fisheries and Wildlife**
23 **Sciences, University of Missouri, 2009–**
24 **2011)**. This study provides an assessment of past
25 prairie management practices and guidance for
26 future management. The study evaluated several
27 alternatives, including 1) restoration of historical
28 vegetation (approximately the boyhood scene
29 1860s–1890s); 2) utilizing the *Springs of Genius*
30 data; 3) management emphasis on the current
31 vegetation described in the Natural Resources
32 Conditions Assessment; and 4) an integrated
33 cultural/natural vegetation management of the
34 landscape. Recommendations included a
35 realignment of management zones throughout the
36 landscape. The report addressed key landscape
37 issues, including native prairie restoration, riparian
38 woodlands and savanna, row crops, old fields,
39 prairie pasture, prairie, orchards, persimmon
40 grove, walnut grove, wetlands, and intensive
41 management of the visitor viewshed along the
42 Carver Trail to restore communities with which
43 George Washington Carver would have been
44 familiar. The report identifies goals and
45 recommended landscape treatments for each
46 management zone. This document was

47 instrumental in bringing much needed
48 information together for the CLR/EA document.

49 **Vegetation Management Alternatives for**
50 **George Washington Carver National**
51 **Monument (Heartland Natural Resource**
52 **Monitoring Program 2010)**. This study
53 describes vegetation management alternatives for
54 the woodlands and restored prairies, including no
55 action, grass management, native plant
56 management, wildlife habitat management, hay
57 management, grazing management, and crop or
58 orchard management.

59 **Scope of Collection Statement (NPS 2011)**.
60 This statement includes the legislation that relates
61 to NPS Museum Collections; park history,
62 significance, purpose, theme, and goals; laws,
63 regulations, and conventions related to museum
64 collections; and structures, landmarks, and other
65 park resources listed on national or international
66 registries.

67 **Vegetation Classification and Mapping of**
68 **George Washington Carver National**
69 **Monument (MoRAP 2013)**. This vegetation
70 classification and mapping project was initiated in
71 2010 and completed in 2013. Protocols and
72 products were produced following NPS
73 Vegetation Mapping Program guidelines.
74 Classification was based on sixteen quantitative
75 field plots, which were placed across the park in a
76 stratified random manner based on qualitative
77 field observation points and viewing of air photos.
78 Mapping was based on photo-interpretation of
79 both leaf-on and leaf-off air photos. Accuracy
80 assessment points obtained during 2012 verified
81 that the map is nearly 100 percent accurate.

82 **George Washington Carver National**
83 **Monument: Accessibility Assessment**
84 **Debriefing Report and Final Report (NPS**
85 **2013)**. This study was conducted by the National
86 Center on Accessibility in coordination with the
87 NPS. The Center's assessment process was
88 designed to identify barriers to participation for
89 people with disabilities, make recommendations
90 for barrier removal and improved access, and
91 develop associated work orders and cost estimates

1 to assist park personnel in long-term planning. At
 2 George Washington Carver National Monument,
 3 the assessment team from the National Center on
 4 Accessibility conducted an accessibility assessment
 5 of the physical and programmatic elements
 6 managed within the park and throughout the
 7 grounds. The team also interviewed park
 8 personnel, collecting information to provide a
 9 broad range of recommendations for improving
 10 access for visitors with disabilities.

11 **Historic Resource Study (NPS 2014).** This
 12 study emphasizes Carver’s childhood years on the
 13 Moses Carver farm and his quest for schooling. It
 14 fills an important gap in the scholarship by placing
 15 George Washington Carver’s life experiences
 16 within a broader regional and national context.
 17 One key research finding concerns Carver’s
 18 spirituality, which can be traced to a personal
 19 conversion on the Moses Carver farm.

20 **George Washington Carver National**
 21 **Monument Administrative History (NPS,**
 22 **2014).** This study presents a chronological history
 23 of the park, emphasizing the influences and
 24 political processes that brought about the
 25 formation of the park unit and the history of the
 26 core management directives and their changes
 27 over time. It presents a comprehensive history of
 28 the site and the park administration.

29 **Heritage Tourism at George Washington**
 30 **Carver National Monument (NPS, 2014).**
 31 This study presents the results of a qualitative
 32 study of heritage tourism behaviors and
 33 preferences of five cultural, racial, and ethnic
 34 groups in southwest Missouri. The objective was
 35 to learn about the preferred attributes of historical
 36 and cultural sites across demographic groups, the
 37 types of barriers faced in regard to visiting
 38 historical and cultural sites such as George
 39 Washington Carver National Monument, and how
 40 to increase the diversity of visitors to the park.
 41 Results of the study showed that through
 42 expanded outreach, more direct engagement with
 43 community representatives, advertisement
 44 designed for and targeted to reach specific
 45 populations, enhanced institutional image, and
 46 additional services, facilities, events and activities,

47 the goals of increasing diversity in the park can be
 48 accomplished.

49 **1.8 Environmental Assessment** 50 **Impact Topics**

51 **1.8.0 Scoping**

52 Environmental assessment scoping is an early and
 53 open process to determine the breadth of issues
 54 and alternatives to be addressed. The park staff
 55 and resource professionals of the NPS Midwest
 56 Regional Office conducted internal scoping for the
 57 CLR project at George Washington Carver
 58 National Monument. This interdisciplinary
 59 process defined the purpose and need, identified
 60 potential actions to address the need, determined
 61 the likely issues and impact topics, and identified
 62 the relationship of the preferred alternative to
 63 other planning efforts at the park. Typically, both
 64 internal and public scoping are held to address
 65 these elements. From previous planning efforts
 66 and development of resource documents, the park
 67 has a well-established list of stakeholders,
 68 interested in the alternatives being proposed for
 69 the park. For this CLR/EA, the superintendent
 70 initiated public scoping on March 1, 2014.

71 The NHPA (16 United States Code [U.S.C.] 470 et
 72 seq.); NEPA; NPS Organic Act; NPS *Management*
 73 *Policies 2006*; *Director’s Order 12: Conservation*
 74 *Planning, Environmental Impact Analysis, and*
 75 *Decision-making* (2001); and *Director’s Order 28:*
 76 *Cultural Resources Management Guideline* require
 77 the consideration of impacts on cultural resources,
 78 either listed in or eligible to be listed in, the
 79 National Register of Historic Places. The park
 80 notified the Missouri State Historic Preservation
 81 Office (SHPO) of the project by e-mail
 82 correspondence on February 20, 2014, and a
 83 SHPO site visit was conducted April 2, 2014. The
 84 park provided the SHPO with a 75 percent draft
 85 copy of this CLR/EA. The SHPO was also sent a
 86 follow up invitational letter on April 8, 2014, for
 87 the stakeholder meeting to be held at the park on
 88 May 14, 2014. The NPS will provide the SHPO a
 89 copy of the 95 percent draft of the CLR/EA for
 90 review and comment.

1 The park sent the U.S. Fish and Wildlife Service
2 (USFWS) a scoping notice on April 8, 2014, to
3 solicit input on threatened and endangered species
4 concerns for the 240 acres of the park included in
5 the CLR/EA treatment alternatives and to invite
6 agency participation in the scoping meeting on
7 May 14, 2014. The NPS will provide the USFWS a
8 copy of the 95 percent draft CLR/EA for review
9 and comment.

10 George Washington Carver National Monument
11 conducted initial consultation with THPOs for the
12 United Osage Nation, the United Keetoowah Band
13 of Cherokee Indians in Oklahoma, the Caddo
14 Nation, and the Eastern Shawnee Tribe of
15 Oklahoma for the purpose of developing a
16 Programmatic Agreement between the tribes and
17 the park. Letters were issued by the NPS to the
18 THPOs along with a draft of the agreement,
19 inviting them to review the document and attend a
20 follow-up consultation meeting on April 3, 2014.
21 In the same letter, THPOs were invited to the
22 larger stakeholder meetings at the park on May 14,
23 2014. A follow-up letter with notice of the
24 stakeholder meeting date and time was sent to the
25 THPOs on April 8, 2014, to solicit input and
26 participation in the CLR/EA meeting. The NPS
27 will provide the THPOs a copy of the 95 percent
28 draft CLR/EA for review and comment.

29 The detailed list of stakeholders and responses
30 from the internal and external scoping process are
31 identified and discussed in
32 Chapter 7: Consultation and Coordination.

33 **1.8.1 Planning/Management Issues** 34 **and Concerns Management** 35 **Overview**

36 The management of George Washington Carver
37 National Monument is generally guided by the
38 1997 GMP, with interpretation guidance provided
39 by the 2007 Long-Range Interpretive Plan (LRIP)
40 and the 2010 CLI. The GMP was developed to
41 supersede the then 30-year-old master plan and
42 establish new management goals based on more
43 recent resource planning documents. The

44 philosophy of the plan centers around the
45 management of the natural and cultural resources
46 and the visitor services program to support the
47 commemoration of Dr. George Washington
48 Carver in a dignified manner and adhere to the
49 legislation that created the park. Natural and
50 cultural resources will serve as symbols of
51 significant events and influences on the character
52 and life of Dr. George Washington Carver.¹⁹ The
53 following “desired futures” management
54 objectives identified in the GMP (1997) include:

- 55 ■ Preserve the agrarian setting;
- 56 ■ Manage cultural and natural resources to
57 memorialize George Washington Carver’s life
58 in a dignified and inspirational setting;
- 59 ■ Encourage the public to develop a deep
60 understanding of George Washington Carver’s
61 achievements and services to humanity;
- 62 ■ Explain the historical context in which George
63 Washington Carver grew up and his efforts to
64 get an education; and
- 65 ■ Evaluate the human/natural/cultural resources
66 and utilize them to a greater extent.

67 The LRIP was designed to complement and
68 expound on the interpretive and educational
69 functions outlined in the GMP. The interpretive
70 and educational programs at George Washington
71 Carver National Monument are designed to
72 provide opportunities for people to forge
73 intellectual and emotional connections to the ideas
74 and meanings inherent in the life and
75 accomplishments of George Washington Carver.
76 The plan establishes an effort to connect all
77 visitors with the legacy of Carver so that they can
78 understand the significance of his contributions to

19. *General Management Plan (1997)*, 15.

1 mankind and realize their vital role in ensuring the
2 future of the national monument.²⁰

3 The CLI, developed three years after the LRIP,
4 describes current NPS goals and challenges in the
5 efforts for interpretation and management of the
6 national monument:

7 With few historic structures and little
8 documentation to work with, the NPS decided
9 early on to focus on the vegetative
10 surroundings that would have been present
11 during Carver's boyhood period given how
12 influential the environment, both natural and
13 agricultural, was to him. This setting also had to
14 be co-sympathetic with any constructed
15 amenities that would be added to the landscape
16 for interpretive or commemorative purposes.
17 This presented a challenge of how to
18 appropriately represent and interpret a
19 complex man of great achievement who
20 preferred a quiet and simple lifestyle and little
21 fanfare. Re-establishing plant communities is a
22 lengthy process of careful study, inventorying,
23 and monitoring over a period of time, allowing
24 re-introduced communities to become self-
25 sustaining. The park service also had the added
26 complexity of ensuring that the setting did not
27 overwhelm the accomplishments and influence
28 of Carver and that the interpretation of and
29 memorials to Carver did not overpower the
30 natural setting.²¹

31 The CLI defined and confirmed the historic
32 landscape boundary, identified significant
33 viewsheds, and documented contributing features
34 associated with Dr. George Washington Carver.

35 Over time, the park approach has evolved to
36 include management of more than 120 acres of
37 prairie; woodlands that are not necessarily
38 managed but edge much of the trail; and the
39 developed area that has become increasingly

40 ornamental in its character. Park staff has
41 incorporated prairie restoration and the
42 maintenance of a small garden plot into
43 management of the park. Other aspects of the
44 natural environment are interpreted as having
45 influenced the young George Washington Carver,
46 including the presence of wildflowers, fruit and
47 nut trees, and the Carver Spring. Natural resource
48 management therefore emphasizes maintenance
49 and restoration of native flora and fauna.²²

50 **Management Issues.** The following list
51 summarizes management issues identified as part
52 of the research, inventory, and evaluation of
53 George Washington Carver National Monument's
54 cultural landscape and resources. These issues
55 address those elements and challenges associated
56 with the existing site, buildings, and structures,
57 and operations or maintenance that make it
58 difficult for the park to realize the vision and goals
59 for the property. Detailed descriptions and
60 associated treatments that address the
61 management issues are presented in Chapter 5.

- 62 ▪ Sustained adequate management for the
63 prairie restoration.
- 64 ▪ Identification of an area of the park to be
65 maintained as an agrarian environment similar
66 to that of the Moses Carver farm in the 1860s
67 and 1870s. This is central to the interpretive
68 goals for the site and an integral part of the
69 proposed alternatives in Chapter 5 of the
70 CLR/EA.
- 71 ▪ Management of existing natural systems
72 including Carver Spring and the three streams,
73 Carver, Harkins, and Williams branches,
74 which are part of the cultural landscape of the
75 national monument. The Arkansas Darter
76 (*Etheostoma cragini*), a candidate for federal

20. *George Washington Carver National Monument Long-Range Interpretive Plan* (National Park Service, November 2007), 7–9.

21. *Cultural Landscape Inventory*, 22–23.

22. Gust M. Annis, Michael D. DeBacker, David D. Diamond, Lee F. Elliott, Aaron J. Garringer, Phillip A. Hanberry, Kevin M. James, Ronnie D. Lee, Sherry A. Leis, Michael E. Morey, Dyanna

L. Pursell, and Craig C. Young, *George Washington Carver National Monument Natural Resource Condition Assessment*, Natural Resource Report NPS/HTLN/NRR—2011/425. (Fort Collins, Colorado: National Park Service, Natural Resource Stewardship and Science, July 2011), 18–20.

- 1 listing as a Threatened and Endangered
2 species, has been found present in park
3 streams.
- 4 ■ Sustained adequate management of Williams
5 Pond. Though the pond is not considered a
6 contributing feature to the historic landscape,
7 it is a valuable resource to be managed and
8 maintained. It is a common feature in all the
9 treatment alternatives developed in the
10 CLR/EA.
- 11 ■ Addition of more trails within the 240-acre
12 landscape of George Washington Carver
13 National Monument. This would allow visitor
14 access to more of the site and expanded
15 interpretive opportunities. Expanded trails are
16 part of the conceptual alternative plans in the
17 treatment section of the CLR/EA.
- 18 ■ Identification of the presence, cover, and
19 dispersion of invasive and problematic species
20 at the park and higher-than-desirable cover of
21 invasive non-native vegetation. Treatment
22 recommendations include specific invasive
23 species to be removed and recommendations
24 for inhibiting the spread of invasive vegetation
25 in the park.
- 26 ■ Integration of interpretation with the cultural
27 landscape. The park wants to tie additional
28 interpretive programming to the cultural
29 landscape and is looking to the CLR/EA for
30 direction.
- 31 ■ Establishment of universal accessibility
32 according to the Architectural Barriers Act
33 Accessibility Standards of 1968 (ABAAS) and
34 the 2004 ADA-ABA Accessibility Guidelines
35 (ADA-ABA). This is a major issue that will be
36 addressed as the preferred alternative is
37 selected and developed.
- 38 ■ Address the condition, treatment,
39 management, and maintenance of the wall
40 surrounding the cemetery and the cemetery
41 burial markers. Specific treatment
42 recommendations are included in the
43 treatment section of the CLR/EA.

- 44 ■ Establishment of a designated parking area for
45 use during special events at the national
46 monument. A location, access and design for
47 overflow parking is included in the
48 alternatives proposed in the treatment section
49 of the CLR/EA.

50 **1.8.2 Impact Topics Evaluated**

51 An important part of the decision-making process
52 associated with development of treatment
53 recommendations is seeking to understand the
54 consequences of making one decision over
55 another. This CLR/EA identifies the anticipated
56 impacts of possible actions on specific resources,
57 park visitors, and neighbors, and park operations.
58 The impacts are organized by topic, including
59 natural resources, cultural resources, aesthetic
60 resources and visitor use and experience, NPS
61 operations and infrastructure, and long-term
62 management and sustainability of resources.
63 Impact topics serve to focus and give boundaries
64 to the environmental analysis and ensure the
65 relevance of impact evaluation.

66 Specific impact topics were developed to allow
67 comparison of the environmental consequences of
68 each alternative presented in this CLR/EA. These
69 impact topics were identified based on the issues
70 raised during scoping; site conditions; federal laws,
71 regulations, and Executive Orders; NPS
72 *Management Policies 2006* (NPS 2006) and topics
73 specified in NPS *Director's Order 12 Handbook*
74 (NPS 2001); park-specific resource information;
75 and agency and public input during scoping. Each
76 of the impact topics listed in the table at the end of
77 this chapter would be affected by one or more of
78 the alternatives evaluated in this CLR/EA. A brief
79 rationale for the selection of each impact topic is
80 provided and each impact topic is further
81 discussed in detail in Chapter 4: Affected
82 Environment.

83 A table of impact topics, reasons for retaining
84 impact topic, and relevant laws, regulations, and
85 policies is provided at the end of this chapter.

1.8.3 Impact Topics Dismissed from Further Analysis

The following impact topics or issues were eliminated from consideration because the effects, if any, would be minor to negligible.

Geology. The NPS Organic Act and NPS *Management Policies 2006* direct the NPS to preserve and protect geologic resources and maintain natural geologic and coastal processes. The NPS must also comply with state and local requirements for work in coastal zones.

The entire area of George Washington Carver National Monument is on the western side of the Ozark physiographic province, an uplifted dome of sedimentary rock beds that have been dissected by hundreds of thousands of years of erosion. Included within the Ozark Dome lithographic series are sandstones, limestones, shales, and dolomites.²³ The action alternatives would have little to no impact on site geology because no subsurface excavation is proposed. No important or unusual geologic formations would be affected by the alternatives. As a result, each action alternative would have negligible local or long-term adverse impacts on geological resources. The no action alternative would have no effect on geologic resources. The goals and vision for the George Washington Carver National Monument preclude large-scale development from intruding on the site. They also limit physical changes at the national monument to those that can be carried out without altering geologic processes. The action alternatives proposed in this document are consistent with past NPS actions on the site and would not alter current geologic processes. Therefore, the impact topic of geology was dismissed.

Prime and Unique Farmland. *The Farmland Protection Policy Act (FPPA) (7 Code of Federal Regulations [C.F.R.] sec. 658)* states that “the purpose of the Act is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of

farmland to nonagricultural uses.” In addition, the FPPJA states that federal programs shall be administered in a manner that, as practicable, would be compatible with state and local government and private programs and policies to protect farmland. The FPPJA requires identification of proposed action that would affect any land classified as prime or unique farmland before federal agency approval of any activity that would convert farmland. The Natural Resources Conservation Service (NRCS), part of the U.S. Department of Agriculture (USDA), administers the FPPA as it relates to protection of farmland. Responsible federal agencies are required to consider alternative actions and ensure that their programs are compatible with state and local government programs. There is prime/unique farmland in Newton County and at the national monument, but nothing in the list of actions would permanently remove potentially productive land from being productive. Therefore, the impact topic of prime and unique farmland was dismissed for consideration in the impact analysis.

Climate Change. Any emissions associated with the proposed action alternatives would be negligible. These emissions would have an indiscernible effect on climate change. Changes in visitor use following implementation of the action alternatives would not result in a substantial increase in traffic to the park. Because the proposed project would result in indiscernible contributions to climate change, this impact topic was dismissed from further analysis.

Paleontological Resources. NPS *Management Policies 2006* directs the NPS to protect, preserve, and manage paleontological resources. Because George Washington Carver National Monument is not known to contain scientifically important paleontological resources, it is unlikely there would be any effects on paleontological resources. Therefore, paleontological resources were dismissed as an impact topic.

23. *Resource Management Plan, 1980, 2.*

1 **Wilderness.** The Wilderness Act and NPS
2 *Management Policies 2006* require that all lands
3 administered by the NPS be evaluated for their
4 suitability for inclusion within the National
5 Wilderness Preservation System. Areas suitable for
6 wilderness designation are those that generally
7 have the qualities of being untrammelled, natural,
8 undeveloped, and offering solitude or a primitive
9 and unconfined type of recreation. The project
10 area is neither within nor even close to existing or
11 proposed wilderness boundaries and therefore, is
12 not subject to Wilderness Act requirements.
13 Because there would be no direct effects on
14 wilderness resources and values, this topic was
15 dismissed from further evaluation.

16 **Natural Soundscape.** An important part of the
17 NPS mission is preservation of natural
18 soundscapes associated with national park units as
19 indicated in NPS *Management Policies 2006* and
20 *Director's Order 47: Sound Preservation and Noise*
21 *Management*. Natural soundscapes exist in the
22 absence of human-caused sound. The natural
23 ambient soundscape is the aggregate of all natural
24 sounds within the park, together with the physical
25 capacity for transmitting natural sound through
26 air, water, or solid material. Acceptable
27 frequencies, magnitudes, and durations of human-
28 caused sound varies among national park units, as
29 well as potentially throughout each park unit, but
30 are generally greater in developed areas and less in
31 undeveloped areas. George Washington Carver
32 National Monument is in a low use area with
33 negligible vehicular traffic and background noise.
34 None of the action alternatives would introduce
35 additional noise and traffic from visitors and park
36 staff. Because the alternatives would not increase
37 noise levels, natural soundscapes was dismissed as
38 an impact topic.

39 **Air Quality.** The 1963 Clean Air Act, as amended
40 (42 USC 7401 et seq.) Section 118; and NPS
41 *Management Policies 2006* require that air quality
42 related values must be taken into consideration as
43 an impact topic due to potential pollution sources
44 related to action alternatives proposed for park
45 sites. The scale of the action alternatives for
46 George Washington Carver National Monument
47 would not have any measureable impact on air
48 quality. Therefore, air quality was dismissed as an
49 impact topic. The closest air monitoring station is
50 located in Carthage, Missouri, 9 miles north of the
51 national monument.

52 **Lightscape.** In accordance with NPS
53 *Management Policies 2006*, the NPS strives to
54 preserve natural ambient lightscapes, which are
55 natural resources and values that exist in the
56 absence of human-caused light. The action
57 alternatives would not increase any use of
58 nighttime lighting, specifically at the visitor center
59 and the entrance to the site. Any necessary
60 additions of nightlight for safety purposes would
61 also have a negligible impact on the night sky.
62 Therefore, lightscape was dismissed as an impact
63 topic.

64 **Museum Objects.** *NPS-28: Cultural Resource*
65 *Management Guideline* defines a museum object as
66 “a material thing possessing functional, aesthetic,
67 cultural, symbolic, and/or scientific value, usually
68 movable by nature or design. Museum objects
69 include prehistoric and historic objects, artifacts,
70 works of art, archival materials, and natural history
71 specimens that are part of a museum collection.”²⁴
72 The proposed action does not include any design
73 for storage and/or display of museum collections
74 or collections accrued through site archeology,
75 and does not otherwise affect museum objects.
76 Therefore, this impact topic was dismissed from
77 further analysis.

24. *NPS-28: Cultural Resource Management Guideline* (National Park Service, June 11, 1998), Appendix A: Glossary.

1 **Environmental Justice.** Executive Order
 2 12898, *Federal Actions to Address Environmental*
 3 *Justice in Minority Populations and Low-income*
 4 *Populations*, requires all federal agencies to
 5 incorporate environmental justice into their
 6 missions by identifying and addressing
 7 disproportionately high and adverse human health
 8 or environmental impacts of their programs and
 9 policies on minorities and low-income
 10 populations and communities. There are no
 11 environmental justice populations in the project
 12 area and none of the action alternatives would
 13 have an adverse effect on any population in
 14 general. Therefore, environmental justice was
 15 dismissed as an impact topic.

16 **Indian Trust Resources.** Secretarial Order 31.75
 17 requires that any anticipated impacts to Indian
 18 trust resources from a proposed project or action
 19 by Department of Interior agencies be explicitly
 20 addressed in environmental documents. The
 21 federal Indian trust responsibility is a legally
 22 enforceable fiduciary obligation on the part of the
 23 United States to protect tribal lands, assets,
 24 resources, and treaty rights and it represents a duty
 25 to carry out the mandates of federal law with
 26 respect to American Indian and Alaskan Native
 27 tribes. There are no Indian trust resources in
 28 George Washington Carver National Monument
 29 according to this definition. In addition, any
 30 Indian titles to such lands now within the park
 31 have been extinguished through cession or sale.
 32 The lands comprising George Washington Carver
 33 National Monument are not held in trust by the
 34 Secretary of the Interior for the benefit of Indians
 35 due to their status as Indians. Therefore, Indian
 36 Trust resources are dismissed as an impact topic in
 37 this CLR/EA.

38 **Natural or Depletable Energy Resource**
 39 **Requirements and Conservation Potential.**
 40 In accordance with NPS Management Policies
 41 2006 and Executive Orders 12873 and 12902,
 42 there are requirements in everything the NPS does
 43 that will have some small affect in improving our
 44 environmental footprint (green buying and
 45 sustainable building materials, etc.). However,
 46 individual changes at George Washington Carver
 47 National Monument are unlikely to have

48 significant impacts to the wider universe of energy
 49 use and depletable resources. Therefore this
 50 impact topic was dismissed from further analysis.

Summary of Impact Topics

Impact Topic	Reasons for Retaining Impact Topic	Relevant Laws, Regulations, and Policies
Soils	NPS actively seeks to understand and preserve the soil resources of parks, and to prevent, to the extent possible, the erosion, physical removal, or contamination of the soil or its contamination of other resources. There is potential for soil disturbances from the implementation of the alternatives. Therefore, this topic was retained for further analysis.	NPS Organic Act; NPS Management Policies, 2006
Vegetation (including non-native and invasive plant species)	The park manages both grassland and forest. Grasslands cover approximately two-thirds of the park. Forested areas occur primarily along streams, but extend into the uplands. The picnic area and the visitor center/headquarters complexes are highly managed and manicured with a large proportion of non-native trees and shrubs. Also there is a higher than desirable cover of invasive non-native vegetation and problematic species at the park. Vegetation disturbance could occur and the introduction of more invasive non-native species is possible from activities implemented in the alternatives. Therefore, this topic was retained for further analysis.	National Environmental Policy Act (42 USC 4321 <i>et seq.</i>); NPS Organic Act; NPS Management Policies, 2006; Resource Management Guidelines (NPS-77); Federal Noxious Weed Control Act; Executive Order (EO) 13112, Invasive Species, 1999
Water Quality	There are three streams that flow through the monument and two spring branches that are completely contained within the park. Carver Branch, Harkins Branch, and Williams Branch are all tributaries of Shoal Creek. Aquatic habitats are an important part of the natural and cultural interpretive programs at the park. Disturbances from the implementation of these alternatives could affect water quality. Therefore, this topic was retained for further analysis.	NPS Organic Act; NPS Management Policies, 2006; Clean Water Act, Section 404
Wildlife and Wildlife Habitat	The landscape of George Washington Carver National Monument supports a variety of wildlife. Disturbances from the implementation of the alternatives could affect the wildlife and their habitat. Therefore, this topic was retained for further analysis.	NPS Organic Act; NPS Management Policies, 2006
Rare, Threatened and Endangered Species	Species of concern (flora and fauna) are present at George Washington Carver National Monument. Disturbances due to the implementation of the alternatives could affect species on the site and within the site's regional context. Therefore, this topic was retained for further analysis.	1973 Endangered Species Act, administered by U.S. Fish and Wildlife Service; U.S. Fish and Wildlife Service's Endangered Species Program; NPS Management Policies, 2006

Impact Topic	Reasons for Retaining Impact Topic	Relevant Laws, Regulations, and Policies
Wetlands	Several areas of the park experience wet conditions throughout much of the year. The south-central, west-central, and east-central portions often have standing water in them during the winter and spring. Some of the water results from runoff, while much of it results from ground water seepage. Implementation of the alternatives could affect wetlands. Therefore, this topic was retained for further analysis.	NPS Organic Act; NPS Management Policies, 2006; Clean Water Act, Section 404; Executive Order 11988, Floodplain Management; Executive Order 11990, Protection of Wetlands; NPS Director's Order No. 77-1, 2002
Floodplains	Three small streams occur in the park, Carver, Harkins, and Williams branches. Carver and Williams branches originate as springs and have historic and natural significance. Carver Branch is a small spring-fed stream that flows across the park primarily from east to west. Implementation of alternatives may affect floodplains. Therefore, this topic was retained for further analysis.	NPS Organic Act; NPS Management Policies, 2006; Clean Water Act, Section 404; Executive Order 11988, Floodplain Management; Executive Order 11990, Protection of Wetlands; NPS Director's Order No. 77-1, 2002
Cultural Landscapes	The future of the cultural landscape of George Washington Carver National Monument is a key issue and concern of the CLR/EA. Changes to the cultural landscape that could result from implementing one or more of the alternatives would be of concern to visitors, the public, the SHPO, interested tribes and THPOs, and NPS managers; therefore, this topic was retained for further analysis.	Sections 106 and 110 of the NHPA; ACHP implementing regulations regarding the "Protection of Historic Properties" (36 CFR 800); DO-28: Cultural Resources Management Guideline; NPS Management Policies, 2006; Secretary of the Interior's Standards for the Treatment of Historic Properties; NEPA; Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes, 1996
Historic Structures	The future of historic structures on the landscape at George Washington Carver National Monument is a key issue and concern of the CLR/EA. Changes to historic structures that could result from implementing one or more of the alternatives would be of concern to visitors, the public, the SHPO, and NPS managers; therefore, this topic was retained for further analysis.	Sections 106 and 110 of the NHPA; ACHP implementing regulations regarding the "Protection of Historic Properties" (36 CFR 800); DO-28: Cultural Resources Management Guideline; NPS Management Policies 2006; Secretary of the Interior's Standards for the Treatment of Historic Properties; NEPA; Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes, 1996

Impact Topic	Reasons for Retaining Impact Topic	Relevant Laws, Regulations, and Policies
<p>Archeological Resources</p>	<p>Ground-disturbing construction activities and vegetation removal associated with the CLR/EA alternatives have the potential to impact archeological resources and therefore, this topic was retained for further analysis.</p>	<p>Sections 106 and 110 of the NHPA; ACHP implementing regulations regarding the "Protection of Historic Properties" (36 CFR 800); DO-28: Cultural Resources Management Guideline; NPS Management Policies, 2006; Secretary of the Interior's Standards for the Treatment of Historic Properties; NEPA; Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes, 1996</p>
<p>Visual Resources</p>	<p>The alternatives could affect the views to and from George Washington Carver National Monument and views from one part of the site to another. Therefore, this topic was retained for further analysis.</p>	<p>NPS Management Policies, 2006</p>
<p>Visitor Use and Experience</p>	<p>The alternatives could affect overall visitor understanding of the entire landscape and the story of George Washington Carver, including interpretive and educational opportunities. Therefore, this topic was retained for further analysis.</p>	<p>NPS Organic Act; NPS Management Policies, 2006; General Management Plan, 1997; and the Long-Range Interpretive Plan, 2007</p>
<p>Park Operations</p>	<p>Park operations could be affected by the alternatives, including additional management /maintenance needs; facility and interpretation needs. Therefore, this topic was retained for further analysis.</p>	<p>NPS Management Policies, 2006</p>