

Chapter 6. Impacts from Treatment Alternatives & Environmental Consequences

INTRODUCTION

This chapter provides a description of the likely environmental consequences to the resources described in chapter 4. It is organized by impact topics that were derived from internal park and external public scoping. The impacts are evaluated based on context, duration, intensity, and whether they are direct, indirect, or cumulative. NPS policy also requires an evaluation of potential impairment of park resources and the potential for generating unacceptable levels of impact. More detailed information on resources in the park may be found in the GMP and the LRIP (NPS 2009, 2000).

GENERAL METHODS

This section contains the environmental impacts, including direct and indirect effects, and their significance for each alternative. The analysis is based on the assumption that the mitigation measures identified in the “Mitigation” section of this CLR/HSR/EA would be implemented for the action alternatives. Overall, the NPS based these impact analyses and conclusions on the review of existing literature and park studies; information provided by experts within the park and other agencies; professional judgment and park staff insights; and public input.

The following terms are used in the discussion of environmental consequences to assess the impact intensity threshold and the nature of impacts associated with each alternative.

Context: Context is the setting within which an impact would occur, such as local (site alternative); parkwide (in Harry S Truman National Historic Site); or regional (in Jackson County, Missouri).

Impact Intensity: Impact intensity is defined individually for each impact topic. There may be no impact, or impacts may be negligible, minor, moderate, or major.

Duration: Duration of impact is analyzed independently for each resource because impact duration is dependent on the resource being analyzed. Depending on the resource, impacts may last for the construction period, a single year or growing season, or longer. For purposes of this analysis, impact duration is described as short-term or long-term. Impact duration is defined in a table for each resource topic.

Type: Effects can be beneficial or adverse. Beneficial effects are positive changes in the condition or appearance of the resource or a change that moves the resource toward a desired condition. Adverse effects are negative changes in the condition or appearance of the resource or a change that moves the resource away from a desired condition.

Direct and Indirect Impacts: Effects can be direct, indirect, or cumulative. Direct effects are caused by an action and occur at the same time and place as the action. Indirect effects are caused by the action and occur later or farther away, but are still reasonably foreseeable. Direct and indirect impacts are considered in this analysis, but are not specified in the narratives. Cumulative effects are discussed in the next section.

Threshold for Impact Analysis: The duration and intensity of effects vary by resource. Therefore, the definitions

1 for each impact topic are described
2 separately. These definitions were
3 formulated through the review of existing
4 laws, policies, and guidelines; and with
5 assistance from park staff and regional
6 NPS staff. Impact intensity thresholds for
7 negligible, minor, moderate, and major
8 adverse effects are defined in a table for
9 each resource topic.

10 **CUMULATIVE EFFECTS**

12 Cumulative impacts are defined as “the
13 impact on the environment that results
14 from the incremental impact of the action
15 when added to other past, present, and
16 reasonably foreseeable future actions,
17 regardless of what agency (federal or non
18 federal) or person undertakes such other
19 actions” (40 CFR 1508.7). Cumulative
20 effects can result from individually minor,
21 but collectively significant, actions taking
22 place over a period of time. The CEQ
23 regulations that implement NEPA require
24 assessment of cumulative impacts in
25 the decision-making process for federal
26 projects.

28 **Methods for Assessing Cumulative** 29 **Effects**

31 Cumulative impacts were determined
32 by combining the impacts of each action
33 alternative and the no action alternative
34 with other past, present, and reasonably
35 foreseeable future actions. Past actions
36 include activities that influenced and
37 affected the current conditions of the
38 environment near the project area.
39 Ongoing or reasonably foreseeable future
40 projects near the park or the surrounding
41 region might contribute to cumulative
42 impacts. The geographic scope of the
43 analysis includes actions in the project
44 area as well as other actions in the park
45 or surrounding lands, where overlapping
46 resource impacts are possible. The
47 temporal scope includes actions within a
48 range of approximately 10 years.
49 Once identified, past, present, and

1 reasonably foreseeable actions were
2 then assessed in conjunction with the
3 impacts of the alternatives to determine
4 if they would have any added adverse or
5 beneficial effects on a particular resource,
6 park operation, or visitor use. The
7 impacts of past, present, and reasonably
8 foreseeable actions vary for each resource.
9 Cumulative effects are considered for
10 each alternative and are presented in the
11 environmental consequences discussion
12 for each impact topic.

14 The following past, present, and
15 reasonably foreseeable actions are
16 relevant to the analysis of the effects on
17 resources and values that would result
18 from the alternatives, and are based on
19 actions described in the park’s General
20 Management Plan (NPS 1999). Past,
21 present, and reasonably foreseeable
22 management of the site and buildings by
23 NPS includes various stabilization and
24 protection measures applied to structures
25 and removal of non-historic landscape
26 features. Implementation of these
27 activities is associated with available
28 funding. Increased interpretation is also
29 planned for the site as described in the
30 LRIP (NPS 2000). Additional interpretive
31 staff needs have been identified for the
32 site. No other reasonably foreseeable
33 actions were identified in the vicinity of
34 the project area that would potentially
35 contribute to cumulative effects.

1 **IMPACTS TO CULTURAL**
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3 **RESOURCES AND SECTION 106**
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5 **OF THE NATIONAL HISTORIC**
6 **PRESERVATION ACT**
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9 For purposes of the NEPA process,
10 cultural resources are considered under
11 section 106 of the NHPA, and specifically
12 its implementing regulations under
13 36 CFR Part 800. Section 106 requires
14 federal agencies to consider the effects
15 of an undertaking on historic properties,
16 and provides a process under which to
17 implement section 106.

18 In this CLR/HSR/EA, impacts to cultural
19 resources are described in terms of
20 context, duration, intensity, and type,
21 as described above, which is consistent
22 with the regulations of the CEQ, which
23 implements NEPA. CEQ regulations
24 and the NPS Conservation Planning,
25 Environmental Impact Analysis and
26 Decision-making (DO – 12) also call
27 for a discussion of the appropriateness
28 of mitigation, as well as an analysis of
29 how effective the mitigation would be
30 in reducing the intensity of a potential
31 impact (e.g., reducing the intensity of an
32 impact from major to moderate or minor).
33 Any resultant reduction in intensity of
34 impact due to mitigation, however, is an
35 estimate of the effectiveness of mitigation
36 under NEPA only. It does not suggest that
37 the level of effect, as defined by section
38 106, is similarly reduced. Although
39 adverse effects under section 106 may be
40 mitigated, the effect remains adverse. The
41 park would coordinate with the SHPO
42 to address mitigation measures for the
43 preferred alternative.
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HISTORIC STRUCTURES / CULTURAL LANDSCAPES

Impact Intensity Threshold

Section 106 of the NHPA of 1966, as amended (16 USC 470, et seq.) and its implementing regulations under 36 CFR 800 require all federal agencies to consider the effects of federal actions on cultural properties eligible for or listed in the national register. In order for a structure or building to be listed in the national register, it must be associated with an important historic event, person(s), or that embodies distinctive characteristics or qualities of workmanship. Cultural landscapes are the result of the long interaction between people and the land, and the influence of human beliefs and actions over time on the natural landscape. The thresholds of change for the intensity of an impact on historic structures and the cultural landscape are defined in Table 5.

Table 5. Historic Structures and Cultural Landscapes Impact and Intensity

Impact Intensity	Intensity Description
Negligible	Impacts would be at the lowest level of detection with neither adverse nor beneficial consequences. The determination of effect for section 106 would be no adverse effect.
Minor	Alteration of a historic structure or a pattern(s) or feature(s) of the landscape would not diminish the overall integrity of the resource. The determination of effect for section 106 would be no adverse effect.
Moderate	Alteration of a historic structure or a pattern(s) or feature(s) of the landscape would diminish the overall integrity of the resource. The determination of effect for section 106 would be adverse effect. A programmatic agreement is executed among the NPS and applicable state or tribal historic preservation officer and, if necessary, the advisory council, in accordance with 36 CFR 800.6(b). Measures identified in the programmatic agreement to minimize or mitigate adverse impacts reduce the intensity of the impact under NEPA from moderate to minor.
Major	Alteration of a historic structure or a pattern(s) or feature(s) of the landscape would diminish the overall integrity of the resource. The determination of effect for section 106 would be adverse effect. Measures to minimize or mitigate adverse impacts cannot be agreed on, and the NPS and applicable state or tribal historic preservation officer and/or advisory council are unable to negotiate and execute a memorandum of agreement in accordance with 36 CFR 800.6(b).

Short-term impact□following project completion, effects would remain less than one year
 Long-term impact□following project completion, effects would remain more than one year

1 **Environmental Consequences**

3 **No Action Alternative**

4 **Direct and Indirect Impacts of the**
5 **Alternative.** The no action alternative
6 would result in the continuation of
7 existing site building and landscape
8 management approaches. The Truman
9 Farm Home would continue to provide
10 visitor orientation and sales and the non-
11 historic maintenance shed would continue
12 to provide storage space. Stabilization
13 and preservation of the Truman Farm
14 Home, Truman Farm Garage, and Poultry
15 House buildings would continue as part
16 of the no action alternative. Under the no
17 action alternative, the NPS would develop
18 a use strategy for the recently acquired
19 paint building, including improvements
20 to the structure and future use. The no
21 action alternative would have no new
22 effects on the historic structures and
23 cultural landscape of the park.
24

25 **Cumulative Impacts.** Past, present,
26 and ongoing NPS management of the
27 historic structures has stabilized, but
28 not greatly improved, the conditions of
29 the historic structures. The continued
30 use of the Truman Farm Home for
31 visitor orientation and sales has
32 resulted in incremental changes to this
33 historic structure and a major change
34 in its intended function. Additional
35 stabilization and preservation measures
36 would result in a long-term beneficial
37 effect. Overall, past, present, and
38 reasonably foreseeable actions would
39 result in local minor beneficial effects
40 on historic structures. Because the no
41 action alternative would not add any
42 new effects to the effects of past, present,
43 or reasonably foreseeable projects, the
44 alternative would not have a cumulative
45 effect on historic structures or cultural
46 landscapes.
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1 **Conclusions.** Because current management
2 practices and maintenance capabilities
3 would continue under the no action
4 alternative, the alternative would have
5 no new impact on historic structures or
6 cultural resources and the alternative
7 would not contribute to cumulative
8 effects.
9

10 **Treatment Alternative 1: The Family Farm** 11 **Direct and Indirect Impacts of the**

12 **Alternative.** Alternative 1 would repair,
13 maintain, and interpret the three
14 historic buildings within the NHS. A
15 main entrance to the Farm Home would
16 be created at the southeast porch and
17 would be ABAAS compatible. The
18 visitor orientation and sales would
19 be relocated from the Truman Farm
20 Home to the new joint center at the
21 former paint store. Parking would also
22 be moved to the former paint store. A
23 new maintenance building would be
24 constructed behind the visitor center.
25 New trees and shrubs would be planted
26 to provide buffers between the farm and
27 adjacent property. Rehabilitation of the
28 farm would focus on re-establishing the
29 farm's historic character. These activities
30 would improve the historic structures and
31 cultural landscape of the farm. Overall,
32 Alternative 1 would have a local moderate
33 long-term beneficial effect on historic
34 structures and cultural landscape.
35

36 **Cumulative Impacts.** As described under
37 the no action alternative, overall, past,
38 present, and reasonably foreseeable
39 actions would result in local minor
40 beneficial effects on historic structures
41 and cultural landscapes. With the
42 contributions from alternative 1,
43 cumulative impacts on historic structures
44 and cultural landscapes would be local,
45 moderate, and beneficial.
46

47 **Conclusions.** Alternative 1 would have
48 a local moderate long-term beneficial
49

1 effect on historic structures and cultural
2 landscapes by allowing the NHS buildings
3 to be rehabilitated and re-establishing
4 the farm's historic character. Alternative
5 1 would have local moderate beneficial
6 cumulative effects on historic structures
7 and cultural landscapes.

9 **Treatment Alternative 2: Farm, City,
10 Nation (Preferred Alternative)**

11 *Direct and Indirect Impacts of the*
12 *Alternative.* Treatment alternative 2
13 would be similar to treatment alternative
14 1 in repairing, maintaining, and
15 interpreting the three historic buildings
16 within the NHS. The central south
17 porch at the Farm Home would be altered
18 to be ABAAS compatible. The visitor
19 orientation and sales would be relocated
20 from the Truman Farm Home to the
21 new Truman center at the former paint
22 store. Parking would also be moved to
23 the former paint store. The Truman
24 Home Garage would be rehabilitated and
25 opened to visitors. Rehabilitation of the
26 farm would focus on re-establishing the
27 historical arrangement of the farm as
28 originally designed by the family. These
29 activities would improve the historic
30 structures and cultural landscape of the
31 farm. Overall, Alternative 1 would have
32 a local moderate long-term beneficial
33 effect on historic structures and cultural
34 landscape.

36 *Cumulative Impacts.* As described under
37 the no action alternative, overall, past,
38 present, and reasonably foreseeable
39 actions would result in local minor
40 beneficial effects on historic structures
41 and cultural landscapes. With the
42 contribution from treatment alternative 2,
43 cumulative effects on historic structures
44 and would be local, moderate, and
45 beneficial.

47 *Conclusions.* Treatment alternative 2
48 would have a local moderate long-term
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1 beneficial effect on historic structures
2 and cultural landscapes by allowing the
3 NHS buildings to be rehabilitated and re-
4 establishing the historical arrangement of
5 the farm. Treatment alternative 2 would
6 have local moderate beneficial cumulative
7 effects on historic structures and cultural
8 landscapes.

10 **Treatment Alternative 3a: Restoration to
11 1917**

12 *Direct and Indirect Impacts of the*
13 *Alternative.* Treatment alternative 3a
14 would focus on relocating the visitor
15 orientation and parking to the former
16 paint store and restoring the historic
17 buildings to represent the farm circa
18 1917. This alternative would require
19 removing and relocating the Poultry
20 House to its 1917 location, restoring the
21 Farm Home to its 1917 appearance, and
22 reconstructing portions of the east end of
23 the Farm Home. The 1950s road would
24 be removed and the maple grove would
25 be restored to its historic pattern. This
26 alternative would require the most change
27 to the existing historic structures and
28 cultural landscape; however all changes
29 would have a local moderate long-term
30 beneficial effect on the historic structures
31 and cultural landscapes.

33 *Cumulative Impacts.* As described under
34 the no action alternative, overall, past,
35 present, and reasonably foreseeable
36 actions would result in local minor
37 beneficial effects on historic structures
38 and cultural landscapes. Treatment
39 alternative 3a would contribute local
40 moderate long-term beneficial cumulative
41 effects on historic structures and cultural
42 landscapes.

44 *Conclusions.* Treatment alternative 3a
45 would have a local moderate long-term
46 beneficial effect on historic structures
47 and cultural landscapes by allowing the
48 NHS buildings to be rehabilitated and re-
49

1 establishing the historical arrangement
2 of the farm. Treatment alternative 3a
3 would have beneficial cumulative effects
4 on historic structures and cultural
5 landscapes.
6

7 **Treatment Alternative 3b: Restoration to**
8 **1957**

9 *Direct and Indirect Impacts of the*
10 *Alternative.* Treatment alternative 3b
11 would focus on restoring the historic
12 buildings to circa 1957 conditions.
13 Similar to the other action alternatives,
14 the visitor center would be relocated
15 to the former paint store. The Farm
16 Home would be restored to its 1957
17 appearance including rebuilding one
18 chimney and the full two storey east
19 wing and alter the porches. The Garage
20 and Poultry House would be restored at
21 their existing locations. This alternative
22 would require significant changes to
23 the existing historical structures and
24 cultural landscape; however the changes
25 would result in local moderate long-
26 term beneficial effects on the historical
27 structures and cultural landscapes.
28

29 *Cumulative Impacts.* As described under
30 the no action alternative, overall, past,
31 present, and reasonably foreseeable
32 actions would result in local minor
33 beneficial effects on historic structures
34 and cultural landscapes. Treatment
35 alternative 3b would have local moderate
36 beneficial cumulative effects on historic
37 structures and cultural landscapes.
38

39 *Conclusions.* Treatment alternative 3b
40 would have local moderate long-term
41 beneficial effects on historic structures
42 and cultural landscapes by allowing the
43 NHS buildings to be rehabilitated and re-
44 establishing the historical arrangement of
45 the farm. Treatment alternative 3a would
46 have local moderate beneficial cumulative
47 effects on historic structures and cultural
48 landscapes.
49

1 **ARCHEOLOGICAL RESOURCES**

4 **Impact Intensity Threshold**

5 Section 106 of the NHPA, and its implementing regulations under 36 CFR 800, require
 6 all federal agencies to consider the effects of federal actions on cultural properties eligible
 7 for or listed in the national register. In order for an archeological site to be listed in the
 8 national register, it must be associated with an important historic event, person(s), or
 9 embodies distinctive characteristics or qualities of workmanship. The thresholds of change
 10 for the intensity of an impact on archeological resources are defined in Table 6.
 11

12 **Table 6. Archeological Resources Impact and Intensity**

Impact Intensity	Intensity Description
Negligible	Impacts would be at the lowest level of detection with neither adverse nor beneficial consequences. The determination of impact for section 106 would be no adverse impact.
Minor	Alteration of an archeological site would not diminish the overall integrity of the resource. The determination of impact for section 106 would be no adverse impact. Monitoring may be required if a proposed activity occurs near an archeological site.
Moderate	Alteration of an archeological site would diminish the overall integrity of the resource. The determination of impact for section 106 would be adverse impact. A programmatic agreement is executed among the NPS and applicable state or tribal historic preservation officer and, if necessary, the advisory council, in accordance with 36 CFR 800.6(b). Measures identified in the memorandum of agreement to minimize or mitigate adverse impacts reduce the intensity of the impact under NEPA from moderate to minor.
Major	Alteration of an archeological site would diminish the overall integrity of the resource. The determination of impact for section 106 would be adverse impact. Measures to minimize or mitigate adverse impacts cannot be agreed on, and the NPS and applicable state or tribal historic preservation officer and/or advisory council are unable to negotiate and execute a memorandum of agreement in accordance with 36 CFR 800.6(b).

39 Short-term impact following project completion, effects would remain less than one year
 40 Long-term impact following project completion, effects would remain more than one year
 41

1 **Environmental Consequences**

3 **No Action Alternative**

4 ***Direct and Indirect Impacts of the***
5 ***Alternative.*** Under the no action
6 alternative, there would be no new
7 ground-disturbing activities that would
8 potentially affect archeological resources.
9 Current levels of maintenance and repairs
10 to historic structures and landscapes
11 would continue. These activities do not
12 typically include excavation. Because
13 current management practices would
14 continue, there would be no new impacts
15 to archeological sites and artifacts.
16

17 ***Cumulative Impacts.*** Management of
18 the site has had, and will continue to
19 have, local negligible to minor adverse
20 impacts on archeological resources as
21 a result of ground- and vegetation-
22 disturbing activities. Past, present, and
23 reasonably foreseeable future actions
24 would have local minor adverse impacts
25 on archeological resources. Because the
26 no action alternative would not add any
27 impacts to the impacts of past, present,
28 or reasonably foreseeable projects, the
29 alternative would not have a cumulative
30 effect on archeological resources.
31

32 ***Conclusions.*** There would be no new
33 impacts on archeological resources
34 under the no action alternative and
35 the alternative would not contribute to
36 cumulative impacts.
37

39 **Treatment Alternative 1: The Family Farm**

40 ***Direct and Indirect Impacts of the***
41 ***Alternative.*** . In addition to ongoing
42 activities described under the no action
43 alternative, treatment alternative 1
44 would include excavation to remove
45 the parking lot and minor grading to
46 stabilize the slope between Tract 1 and
47 2. The excavation may expose previously
48 unknown archeological resources (most
49 likely artifacts associated with the NHS).

1 No known archeological sites would be
2 disturbed by the alternative. To minimize
3 potential adverse impacts, surveys for
4 visible archeological resources would be
5 conducted prior to ground-disturbing
6 activities. Monitoring for subsurface
7 artifacts would be conducted during
8 ground-disturbing activities in the
9 properties. In the event archeological
10 resources are encountered, work would
11 be stopped immediately and the park
12 cultural resource specialist would be
13 contacted. If necessary, the SHPO would
14 be consulted on potential adverse impacts
15 and additional mitigation measures.
16

17 Alternative 1 includes ground-disturbing
18 activities with the potential to encounter
19 and adversely affect previously unknown
20 archeological resources. Potential
21 adverse impacts would be minimized by
22 preconstruction surveys and monitoring
23 in areas with high potential for artifacts.
24 With the mitigation measures, treatment
25 alternative 1 would have local long-term
26 minor adverse impacts on archeological
27 resources.
28

29 ***Cumulative Impacts.*** As described under
30 the no action alternative, past, present,
31 and reasonably foreseeable actions would
32 have local minor adverse impacts on
33 archeological resources. Those impacts,
34 in combination with the local long-term
35 minor adverse impacts of alternative
36 1, would result in local minor adverse
37 cumulative impacts.
38

39 ***Conclusions.*** Because activities under
40 treatment alternative 1 have the potential
41 to encounter archeological resources,
42 with mitigation, the impacts would be
43 local, long-term, minor, and adverse.
44 Cumulative impacts would also be local,
45 minor, and adverse.
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1 **Treatment Alternative 2: Farm, City,**
2 **Nation (Preferred Alternative)**
3 *Direct and Indirect Impacts of the*
4 *Alternative.* The activities and their
5 impacts on archeological resources
6 under treatment alternative 2 would
7 be similar to those under alternative 1.
8 Activities under treatment alternative
9 2 would be more likely to encounter
10 archeological resources than under
11 treatment alternative 1 because the area
12 of total disturbance would be greater. The
13 proposed pavilion around the granary
14 could have a minor long-term beneficial
15 effect on the structure by protecting it
16 from disturbance. The other known
17 archeological sites in the NHS would not
18 be affected by the alternative. Mitigation
19 measures described for treatment
20 alternative 1 are also included under
21 treatment alternative 2.

23 Treatment alternative 2 includes ground-
24 disturbing activities with the potential to
25 encounter and adversely affect previously
26 unknown archeological resources.
27 Potential adverse impacts would be
28 minimized by preconstruction surveys and
29 monitoring in areas with high potential
30 for artifacts. With mitigation measures,
31 treatment alternative 2 would have
32 local long-term minor adverse impacts
33 on archeological resources with a local
34 minor long-term beneficial effect from
35 construction of the pavilion.

37 *Cumulative Impacts.* As described under
38 the no action alternative, past, present,
39 and reasonably foreseeable actions would
40 have local minor adverse impacts on
41 archeological resources. Those impacts,
42 in combination with the local long-term
43 minor adverse impacts of treatment
44 alternative 2, would result in local minor
45 adverse cumulative impacts.

47 *Conclusions.* Because activities under
48 treatment alternative 2 have the potential
49

to encounter archeological resources,
with mitigation, the impacts would be
local, long-term, minor, and adverse,
with a local minor long-term beneficial
effect. Cumulative impacts would be local,
minor, and adverse.

Treatment Alternative 3a: Restoration to 1917

*Direct and Indirect Impacts of the
Alternative.* Treatment alternative 3a
could affect archeological resources
during the removal of the parking lot and
construction of the dirt path and would
have a similar footprint of disturbance
as treatment alternative 2. No known
archeological sites would be affected by
the alternative. Mitigation measures
described for treatment alternative 1 are
also included under treatment alternative
3a.

Treatment alternative 3a includes ground-
disturbing activities with the potential to
encounter and adversely affect previously
unknown archeological resources.
Potential adverse impacts would be
minimized by preconstruction surveys and
monitoring in areas with high potential
for artifacts. With mitigation measures,
treatment alternative 3a would have
local minor long-term adverse impacts on
archeological resources.

Cumulative Impacts. As described under
the no action alternative, past, present,
and reasonably foreseeable actions would
have local minor adverse impacts on
archeological resources. Those impacts,
in combination with the local long-term
minor adverse impacts of treatment
alternative 3a, would result in local minor
adverse cumulative impacts.

Conclusions. Because activities under
treatment alternative 3a have the
potential to encounter archeological
resources, with mitigation, the impacts

1 would be local, long-term, minor, and
2 adverse. Cumulative impacts would be
3 local, minor, and adverse.

4
5 **Treatment Alternative 3b: Restoration to**
6 **1957**

7 *Direct and Indirect Impacts of the*
8 *Alternative.* Treatment alternative 3b
9 could impact archeological resources
10 during the removal of the parking lot and
11 construction of the gravel drive; however
12 the footprint of disturbance would be
13 smaller than treatment alternatives 2 or
14 3a. No known archeological sites would
15 be affected by the alternative. Mitigation
16 measures described for treatment
17 alternative 1 are also included under
18 treatment alternative 3b.

19
20 Treatment alternative 3b includes
21 ground-disturbing activities with the
22 potential to encounter and adversely
23 affect previously unknown archeological
24 resources. Potential adverse impacts
25 would be minimized by preconstruction
26 surveys and monitoring in areas
27 with high potential for artifacts.
28 With mitigation measures, treatment
29 alternative 3b would have local long-term
30 minor adverse impacts on archeological
31 resources.

32
33 *Cumulative Impacts.* As described under
34 the no action alternative, past, present,
35 and reasonably foreseeable actions would
36 have local minor adverse impacts on
37 archeological resources. Those impacts,
38 in combination with the local long-term
39 minor adverse impacts of treatment
40 alternative 3b, would result in local minor
41 adverse cumulative impacts.

42
43 *Conclusions.* Because activities under
44 treatment alternative 3b have the
45 potential to encounter archeological
46 resources, with mitigation, the impacts
47 would be local, long-term, minor, and
48 adverse. Cumulative impacts would be
49 local, minor, and adverse.

1
 2 **VEGETATION**

3
 4 **Impact Intensity Threshold**

5 Predictions about impacts were based on the expected disturbance to vegetation
 6 communities, and professional judgment and experience with previous projects. The
 7 thresholds of change for the intensity of an impact on vegetation are defined in Table 7.
 8

9 **Table 7. Vegetation Impact and Intensity**

Impact Intensity	Intensity Description
Negligible	The impacts on vegetation (individuals or communities) would not be measurable. The abundance or distribution of individuals would not be affected or would be slightly affected. The effects would be on a small scale and no species of special concern would be affected. Ecological processes and biological productivity would not be affected.
Minor	The action would not necessarily decrease or increase the project area's overall biological productivity. The alternative would affect the abundance or distribution of individuals in a localized area, but would not affect the viability of local or regional populations or communities. Mitigation to offset adverse effects, including special measures to avoid affecting species of special concern, would be required and would be effective. Mitigation may be needed to offset adverse effects, would be simple to implement, and would likely be successful.
Moderate	The action would result in effects on some individual native plants and also would affect a sizeable segment of the species' population over a large area. Permanent impacts would occur to native vegetation, but in a relatively small area. Some special status species also would be affected. Mitigation measures would be necessary to offset adverse effects and would likely be successful.
Major	The action would have considerable effects on native plant populations, including special status species, and would affect a large area within and outside the park. Extensive mitigation measures to offset the adverse effects would be required; and the success of the mitigation measures could not be guaranteed.

38 Short-term impact recovers in less than one year
 39 Long-term impact takes more than one year to recover

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1 **Environmental Consequences**

3 **No Action Alternative**

4 **Direct and Indirect Impacts of the**
5 **Alternative.** Under the no action
6 alternative, there would be no new
7 land-disturbing activities that would
8 impact existing vegetation or increase
9 the likelihood for the introduction or
10 spread of exotic or noxious weeds. The no
11 action alternative would have no effect on
12 vegetation.
13

14 **Cumulative Impacts.** Although other
15 past, present, and reasonably foreseeable
16 future actions may local long-term minor
17 adverse effects on vegetation, the no
18 action Alternative would have no impact
19 on vegetation and, therefore, would not
20 contribute to the cumulative effects of
21 other actions.
22

23 **Conclusions.** The no action alternative
24 would have no impact on vegetation and
25 no cumulative effects.
26

27 **Treatment Alternative 1: The Family Farm**

28 **Direct and Indirect Impacts of the**
29 **Alternative.** Under treatment alternative
30 1, the majority of the vegetation at
31 Truman Farm would be preserved, with
32 only minor disturbances in order to re-
33 establish historic patterns. This includes
34 removal of some of the trees between
35 Tracts 1 and 2 and planting additional
36 trees and shrubs along the perimeter for
37 screening. The removal of the parking
38 lot in Tract 1 will require disturbance
39 and revegetation. Construction activities
40 would be confined to the smallest area
41 necessary to complete the work, and all
42 areas of temporarily disturbed vegetation
43 would be restored with native or
44 appropriate introduced/historic vegetation
45 following construction. All earthwork
46 has the potential for introducing noxious
47 weeds and nonnative plant species. The
48 infestation and spread of invasive species
49

1 is possible. Weeds frequently invade
2 disturbed ground where they easily
3 establish and compete with native species,
4 if left unchecked. Implementation of BMP
5 weed-control practices would minimize
6 the potential for weed establishment and
7 long-term impacts.
8

9 The loss of nonnative trees and the
10 potential for introduction of noxious
11 weeds and nonnative plants would have
12 a local long-term minor adverse effect on
13 vegetation resources. Plans for planting
14 new trees and revegetating disturbed
15 areas would help minimize effects.
16

17 **Cumulative Impacts.** Past and ongoing
18 land uses, such as adjacent parking areas,
19 have resulted in vegetation clearing
20 in the Truman Farm. The combined
21 effects of past, present, and reasonably
22 foreseeable future projects would result
23 in local long-term minor adverse impacts
24 to vegetation. The overall cumulative
25 impacts to vegetation from Alternative
26 1 in combination with past, present, and
27 reasonably foreseeable future actions
28 would be local, long-term, minor, and
29 adverse.
30

31 **Conclusions.** Treatment alternative 1
32 would have local long-term minor adverse
33 effects on vegetation from construction
34 disturbances and removal of a few
35 groups of trees within the property. Weed
36 establishment in areas of disturbed soil
37 is also possible, but would be minimized
38 with weed-control BMPS. Cumulative
39 effects would be local, long-term, minor,
40 and adverse.
41

42 **Alternative 2: Farm, City, Nation** 43 **(Preferred Alternative)**

44 **Direct and Indirect Impacts of the**
45 **Alternative.** Treatment alternative 2 would
46 preserve the vegetation patterns that
47 contribute to the Truman Farm's historic
48 character. Many of the trees around the
49

1 Farm Home, including the maple grove
2 would be maintained and vegetation
3 patterns would be re-established that
4 reinforce the historic special organization
5 of the farm. Vegetation buffers would
6 be established along the perimeter of
7 the property to screen the adjacent
8 commercial and residential development.
9 Some vegetation removal would be
10 undertaken to strengthen the historical
11 vegetation patterns and eradicate
12 invasive species, including all of the trees
13 between Tracts 1 and 2.

14 As described under treatment alternative
15 1, construction activities would be
16 confined to the smallest area necessary
17 to complete the work, and all areas of
18 temporarily disturbed vegetation would
19 be restored with native or appropriate
20 introduced/historic vegetation following
21 construction.

22
23 The loss of trees and the potential for
24 introduction of noxious weeds and
25 nonnative plants would have a local long-
26 term minor adverse effect on vegetation
27 resources. Plans for planting new trees
28 and revegetating disturbed areas would
29 help minimize effects.

30
31 **Cumulative Impacts.** Past and ongoing
32 land uses, such as adjacent parking areas,
33 have resulted in vegetation clearing in the
34 Truman Farm. The combined effects of
35 past, present, and reasonably foreseeable
36 future projects would result in local long-
37 term minor adverse impacts to vegetation.
38 The overall cumulative impacts to
39 vegetation from treatment alternative 2
40 in combination with past, present, and
41 reasonably foreseeable future actions
42 would be local, long-term, minor, and
43 adverse.

44
45 **Conclusions.** Treatment alternative 2
46 would have local long-term minor adverse
47 effects on vegetation from construction
48 disturbances and removal of several
49 groups of trees within the property. Weed

1 establishment in areas of disturbed soil
2 is also possible, but would be minimized
3 with weed-control BMPS. Cumulative
4 effects would be local, long-term, minor,
5 and adverse.

6 7 **Alternative 3a: Restoration to 1917**

8 **Direct and Indirect Impacts of the**
9 **Alternative.** Treatment alternative 3a
10 would require the removal of several
11 trees and vegetation within the Truman
12 Farm in order to restore it to its 1917
13 appearance. This includes the removal
14 of the existing maple grove and re-
15 planting it to its historical pattern. The
16 trees between Tracts 1 and 2 would be
17 removed as well. Vegetation buffers
18 would be established along the perimeter
19 of the property to screen the adjacent
20 commercial and residential development
21 and tall native grasses would be planted
22 within Tract 2. Because the newly
23 planted maple trees would take several
24 years to reach the maturity of the maple
25 trees removed, the loss of these trees
26 would cause a minor to moderate effect on
27 vegetation.

28
29 As described above, construction activities
30 would be confined to the smallest area
31 necessary to complete the work, and all
32 areas of temporarily disturbed vegetation
33 would be restored with native or
34 appropriate introduced/historic vegetation
35 following construction.

36
37 The loss of nonnative lawn, trees, and
38 the potential for introduction of noxious
39 weeds and nonnative plants would have a
40 local long-term minor to moderate adverse
41 effect on vegetation resources. Plans
42 for planting new trees and revegetating
43 disturbed areas would help minimize
44 effects.

45
46 **Cumulative Impacts.** Past and ongoing
47 land uses, such as adjacent parking areas,
48 have resulted in vegetation clearing in the
49 Truman Farm. The combined effects of

1 past, present, and reasonably foreseeable
2 future projects would result in local long-
3 term minor adverse impacts to vegetation.
4 The overall cumulative impacts to
5 vegetation from treatment alternative 3a
6 in combination with past, present, and
7 reasonably foreseeable future actions
8 would be local, long-term, minor, and
9 adverse.

10

11 **Conclusions.** Treatment alternative 3a
12 would have local long-term minor to
13 moderate adverse effects on vegetation
14 from construction disturbances and
15 removal of several groups of trees within
16 the property. Weed establishment in
17 areas of disturbed soil is also possible, but
18 would be minimized with weed-control
19 BMPs. Cumulative effects would be local,
20 long-term, moderate, and adverse.

21

22 **Alternative 3b: Restoration to 1957**

23 ***Direct and Indirect Impacts of the***

24 ***Alternative.*** Treatment alternative 3b
25 would be very similar to treatment
26 alternative 3a in its impacts to
27 vegetation. Treatment alternative 3b
28 would remove and replace the same
29 vegetation as treatment alternative 3b in
30 order to restore it to its 1957 appearance.

31

32 As described above, construction activities
33 would be confined to the smallest area
34 necessary to complete the work, and all
35 areas of temporarily disturbed vegetation
36 would be restored with native or
37 appropriate introduced/historic vegetation
38 following construction.

39

40 The loss of nonnative lawn, trees, and
41 the potential for introduction of noxious
42 weeds and nonnative plants would have
43 a local long-term minor to moderate
44 adverse effect on vegetation resources.
45 Plans for planting new trees and
46 revegetating disturbed areas would help
47 minimize effects.

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49

Cumulative Impacts. Past and ongoing
land uses, such as adjacent parking areas,
have resulted in vegetation clearing in the
Truman Farm. The combined effects of
past, present, and reasonably foreseeable
future projects would result in local long-
term minor adverse impacts to vegetation.
The overall cumulative impacts to
vegetation from treatment alternative 3b
in combination with past, present, and
reasonably foreseeable future actions
would be local, long-term, minor, and
adverse.

Conclusions. Treatment alternative 3b
would have local long-term minor to
moderate adverse effects on vegetation
from construction disturbances and
removal of several groups of trees within
the property. Weed establishment in
areas of disturbed soil is also possible, but
would be minimized with weed-control
BMPs. Cumulative effects would be local,
long-term, moderate, and adverse.

1
 2 **VISITOR EXPERIENCE**

3
 4 **Impact Intensity Threshold**

5 NPS *Management Policies 2006* state that the enjoyment of park resources and values by the
 6 people of the United States is part of the fundamental purpose of all parks, and that the
 7 NPS is committed to providing appropriate high-quality opportunities for visitors to enjoy
 8 the park. Part of the purpose of the park is to offer opportunities for recreation, education,
 9 inspiration, and enjoyment. Consequently, one of the park’s management goals is to ensure
 10 that visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and
 11 quality of park facilities, services, and appropriate recreational opportunities.

12
 13 Scoping input and observation of visitation patterns, combined with assessment of
 14 amenities available to visitors under current park management, were used to estimate the
 15 effects of the alternatives. Impacts on the ability of visitors to experience a full range of
 16 park resources was analyzed by examining resources and objectives presented in the park
 17 significance statements, as derived from its enabling legislation. The potential for change
 18 in visitor experience proposed by the alternatives was evaluated by identifying projected
 19 increases or decreases in access and other visitor uses, and determining whether or how
 20 these projected changes would affect the desired visitor experience, to what degree, and for
 21 how long. The thresholds of change for the intensity of an impact to visitor experience and
 22 recreation resources are described in Table 8.

23
 24 **Table 8. Visitor Experience Impact and Intensity**

Impact Intensity	Intensity Description
Negligible	Changes in visitor experience would be below or at an imperceptible level of detection. The visitor would not likely be aware of the effects associated with the action.
Minor	Changes in visitor experience would be detectable, although the changes would be slight. Most visitors would be aware of the effects associated with the action, but would not likely express an opinion about the changes.
Moderate	Changes in visitor experience would be readily apparent. The visitor would be aware of the effects associated with the action and would likely express an opinion about the changes.
Major	Changes in visitor experience would be readily apparent and severely adverse or exceptionally beneficial. The visitor would be aware of the effects associated with the action and would likely express a strong opinion about the changes.

44 Short-term impact occurs only during project construction
 45 Long-term impact continues after project construction

1 **Environmental Consequences**

2 **No Action Alternative**

3 *Direct and Indirect Impacts of the*
4 *Alternative.* Under the no action
5 alternative, there would be no change in
6 how visitors experience the Grandview
7 Unit. Visitor contact would remain
8 primarily in the Farm Home and guided
9 interpretive tours would continue to focus
10 on the interior of the Farm Home. Poorly
11 defined spaces would continue to make
12 it difficult for visitors to understand the
13 influence Truman Farm had on President
14 Truman. Because there would be no
15 changes, the no action alternative would
16 have no effect on visitor experience.
17

18
19 *Cumulative Impacts.* The reasonably
20 foreseeable action of removing some non-
21 historic landscape features would provide
22 a benefit by more accurately representing
23 the conditions of the farm during its
24 period of significance, but the changes
25 would likely be implemented over time
26 and would not be noticeable to the typical
27 visitor. As a result, past, present, and
28 reasonably foreseeable actions would
29 have a local negligible beneficial effect
30 on visitor experience. The no action
31 alternative would not contribute to
32 cumulative effects.
33

34 *Conclusions.* The no action alternative
35 would have no effect on visitor experience
36 and would have no contribution to the
37 local negligible beneficial cumulative
38 effects.
39

40 **Treatment Alternative 1**

41 *Direct and Indirect Impacts of the*
42 *Alternative.* Under treatment alternative
43 1, rehabilitation of some historic
44 structures and cultural landscape
45 features, a new visitor facility, new
46 interpretive opportunities throughout
47 the site, and new lighting would provide
48 an improved visitor experience. There
49 would also be one partnering space.

1 Three periods of Harry S Truman's life
2 would be conveyed to visitors. There
3 would be minimal disturbance to existing
4 use of the site during implementation of
5 the improvements because most existing
6 use is in the interior of the Farm Home.
7 Because of the improvements, treatment
8 alternative 1 would have a local moderate
9 long-term beneficial effect on visitor
10 experience.
11

12 *Cumulative Impacts.* Along with the local
13 negligible effect of removing additional
14 non-historic landscape features in the
15 future, treatment alternative 1 would
16 have local moderate beneficial effects on
17 visitor experience.
18

19 *Conclusions.* Treatment alternative 1
20 would have local moderate long-term
21 beneficial effects on visitor experience.
22 Cumulative effects would also be local,
23 moderate, and beneficial.
24

25 **Treatment Alternative 2**

26 *Direct and Indirect Impacts of the*
27 *Alternative.* As with treatment alternative
28 1, under treatment alternative 2, some
29 historic structures and cultural landscape
30 features would be rehabilitated and
31 there would be a new visitor facility, new
32 interpretive opportunities throughout the
33 site, and new lighting. Under treatment
34 alternative 2, more of the cultural
35 landscape would be rehabilitated and
36 there would be more partnering areas
37 (5) than under treatment alternative 1.
38 Three periods of Harry S Truman's life
39 would be conveyed to visitors. There
40 would be minimal disturbance to existing
41 use of the site during implementation of
42 the improvements because most existing
43 use is in the interior of the Farm Home.
44 Because of the many improvements,
45 treatment alternative 2 would have a
46 local major long-term beneficial effect on
47 visitor experience.
48
49

1 **Cumulative Impacts.** Along with the local
2 negligible effect of removing additional
3 non-historic landscape features in the
4 future, treatment alternative 2 would
5 have local major beneficial effects on
6 visitor experience.

7
8 **Conclusions.** Treatment alternative
9 2 would have local major long-term
10 beneficial effects on visitor experience.
11 Cumulative effects would also be local,
12 major, and beneficial.

14 **Treatment Alternative 3a**

15 ***Direct and Indirect Impacts of the***

16 ***Alternative.*** Under treatment alternative
17 3a, historic structures and cultural
18 landscape features would be restored to
19 the 1917 timeframe and there would be
20 a new visitor facility, new interpretive
21 opportunities throughout the site,
22 and new lighting. Under treatment
23 alternative 3a, the site would convey one
24 period of Harry S Truman's life. There
25 would be minimal disturbance to existing
26 use of the site during implementation of
27 the improvements because most existing
28 use is in the interior of the Farm Home.
29 Because of the improvements, treatment
30 alternative 3a would have a local
31 moderate long-term beneficial effect on
32 visitor experience.

33
34 **Cumulative Impacts.** Along with the local
35 negligible effect of removing additional
36 non-historic landscape features in the
37 future, treatment alternative 3a would
38 have local moderate beneficial effects on
39 visitor experience.

40
41
42 **Conclusions.** Treatment alternative 3a
43 would have local moderate long-term
44 beneficial effects on visitor experience.
45 Cumulative effects would also be local,
46 moderate, and beneficial.

Treatment Alternative 3b

Direct and Indirect Impacts of the

Alternative. Under treatment alternative
3b, historic structures and cultural
landscape features would be restored to
the 1957 timeframe and there would be
a new visitor facility, new interpretive
opportunities throughout the site,
and new lighting. Under treatment
alternative 3b, the rehabilitated site
would convey three periods of Harry
S Truman's life. There would be
minimal disturbance to existing use of
the site during implementation of the
improvements because most use is in the
interior of the Farm Home. Because of
the improvements, treatment alternative
3b would have a local moderate long-term
beneficial effect on visitor experience.

Cumulative Impacts. Along with the local
negligible effect of removing additional
non-historic landscape features in the
future, treatment alternative 3a would
have local moderate beneficial effects on
visitor experience.

Conclusions. Treatment alternative 3a
would have local moderate long-term
beneficial effects on visitor experience.
Cumulative effects would also be local,
moderate, and beneficial.

1
2 **PARK OPERATIONS**

3
4 **Impact Intensity Threshold**

5 Park operations, for the purposes of this CLR/HSR/EA, refers to the quality and
6 effectiveness of the infrastructure, and the ability of park staff to maintain the
7 infrastructure used in the operation of the park to protect and preserve vital resources, and
8 provide for a high-quality visitor experience. Facilities in the analysis include the visitor
9 center, administration facilities, and historic structures. The thresholds of change for the
10 intensity of an impact to park operations are described in Table 9.
11

12 **Table 9. Park Operations Impact and Intensity**

Impact Intensity	Intensity Description
Negligible	The effects would be at low levels of detection and would not have appreciable effects on park operations.
Minor	The effects would be detectable, and would be of a magnitude that would not have appreciable effects on park operations. If mitigation is needed to offset adverse effects, it would be simple and likely successful.
Moderate	The effects would be readily apparent and would result in a change in park operations that would be noticeable to park staff and the public. Mitigation measures would be necessary to offset adverse effects and would likely be successful.
Major	The effects would be readily apparent, would result in a substantial change in park operations in a manner noticeable to staff and the public, and would be markedly different from existing operations. Mitigation measures to offset adverse effects would be necessary and extensive, and success could not be guaranteed.

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34 Short-term impact occurs only during project construction

35 Long-term impact continues after project construction
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1 Environmental Consequences

3 No Action Alternative

4 *Direct and Indirect Impacts of the*
5 *Alternative.* Under the no action
6 alternative, there would be no change in
7 current site operations or infrastructure.
8 The Truman Farm Home would continue
9 to be the primary point of visitor contact.
10 Maintenance requirements would
11 continue at current levels. The NPS would
12 still need to develop a use strategy for the
13 recently acquired paint building. Under
14 the no action alternative, there would be
15 no new effect on park operations.
16

17 *Cumulative Impacts.* The reasonably
18 foreseeable action of removing non-
19 historic landscape features would have
20 no effect on park operations. The actions
21 would be undertaken as funding and
22 current staff levels allow. Because the no
23 action alternative would have no effect
24 on park operations and there would be no
25 effect from past, present, or reasonably
26 foreseeable actions, there would be no
27 cumulative effects.
28

29 *Conclusions.* The no action alternative
30 would have no new effect on park
31 operations and there would be no
32 cumulative effects.
33

35 Treatment Alternative 1

36 *Direct and Indirect Impacts of the*
37 *Alternative.* Under treatment alternative
38 1, park operations would expand
39 to include a new visitor center and
40 maintenance facilities. Additionally, there
41 would be new maintenance requirements
42 for native grass establishment and
43 maintenance (5 acres), mowing (4.5
44 acres), and snow removal from paths (2
45 paths). Although the new visitor center
46 and maintenance facilities would benefit
47 the site by improving how the site is
48 operated and by providing improved
49 infrastructure, there would be an increase

1 in the level of effort required to maintain
2 the structures and landscape features.
3 Treatment alternative 1 would have local
4 moderate long-term beneficial and local
5 long-term moderate adverse effects on
6 park operations.
7

8 *Cumulative Impacts.* Present, past, and
9 reasonably foreseeable actions would have
10 no effect on park operations.
11

12 *Conclusions.* Treatment alternative 1
13 would have both local moderate long-
14 term beneficial effects and local long-
15 term moderate adverse effects on park
16 operations. There would be no cumulative
17 effects.
18

19 Treatment Alternative 2

20 *Direct and Indirect Impacts of the*
21 *Alternative.* As with treatment alternative
22 1, under treatment alternative 2, park
23 operations would expand to include a
24 new visitor center and maintenance
25 facilities. Additionally, there would
26 be new maintenance requirements
27 for mowing (3.5 acres), gardening (0.5
28 acre), snow removal from paths (2 paths
29 and barnyard), and crop planting and
30 harvesting. Although the new visitor
31 center and maintenance facilities would
32 benefit the site by improving how the site
33 is operated and by providing improved
34 infrastructure, there would be an increase
35 in the level of effort required to maintain
36 the structures and landscape features.
37 Treatment alternative 2 would have local
38 moderate long-term beneficial and local
39 long-term moderate adverse effects on
40 park operations.
41

42 *Cumulative Impacts.* Present, past, and
43 reasonably foreseeable actions would have
44 no effect on park operations.
45

46 *Conclusions.* Treatment alternative 2
47 would have both local moderate long-
48 term beneficial effects and long-term
49

1 local moderate adverse effects on
2 park operations. There would be no
3 cumulative effects.

4
5 **Treatment Alternative 3a**

6 *Direct and Indirect Impacts of the*
7 *Alternative.* As with treatment
8 alternatives 1 and 2, under treatment
9 alternative 3a, park operations would
10 expand to include a new visitor center and
11 maintenance facilities. Additionally, there
12 would be new maintenance requirements
13 for mowing (1.0 acre), gardening (0.5
14 acre), snow removal from paths (1 path),
15 and establishing and maintaining native
16 grasses (8 acres). Although the new
17 visitor center and maintenance facilities
18 would benefit the site by improving how
19 the site is operated and by providing
20 improved infrastructure, there would be
21 an increase in the level of effort required
22 to maintain the structures and landscape
23 features. Treatment alternative 3a would
24 have local moderate long-term beneficial
25 and long-term local moderate adverse
26 effects on park operations.

27
28 *Cumulative Impacts.* Present, past, and
29 reasonably foreseeable actions would have
30 no effect on park operations.

31
32 *Conclusions.* Treatment alternative 3a
33 would have both local moderate long-
34 term beneficial effects and long-term
35 local moderate long-term adverse effects
36 on park operations. There would be no
37 cumulative effects.

38
39 **Treatment Alternative 3b**

40 *Direct and Indirect Impacts of the*
41 *Alternative.* As with other treatment
42 alternatives, under treatment alternative
43 3b, park operations would expand
44 to include a new visitor center and
45 maintenance facilities. Additionally, there
46 would be new maintenance requirements
47 for mowing (5 acres), snow removal from
48 paths (3 paths, barnyard, and main area),
49

1 and establishing and maintaining native
2 grasses (5 acres). Although the new
3 visitor center and maintenance facilities
4 would benefit the site by improving
5 how the site is operated and providing
6 improved infrastructure, there would be
7 an increase in the level of effort required
8 to maintain the structures and landscape
9 features. Treatment alternative 3b would
10 have local moderate long-term beneficial
11 and long-term local moderate adverse
12 effects on park operations.

13
14 *Cumulative Impacts.* Present, past, and
15 reasonably foreseeable actions would have
16 no effect on park operations.

17
18 *Conclusions.* Treatment alternative 3b
19 would have both local moderate long-
20 term beneficial effects and long-term
21 local moderate long-term adverse effects
22 on park operations. There would be no
23 cumulative effects.

1
2 **VISUAL RESOURCES**

3
4 **Impact Intensity Threshold**

5 Visual resources are the features that define the visual character of an area such as natural
6 features, vistas, viewsheds, and architecture. The thresholds of change for the intensity of
7 impacts to visual resources are described in Table 10.
8

9 **Table 10. Visual Resources Impact and Intensity**

10

Impact Intensity	Intensity Description
Negligible	Effects would result in barely perceptible changes to existing views.
Minor	Effects would result in slightly detectable changes to views in a small area or would introduce a compatible human-made feature to an existing developed area.
Moderate	Effects would be readily apparent and would change the character of visual resources in the area. The visitor would be aware of the effects associated with the alternative and would likely express a neutral to negative opinion about the changes.
Major	Effects would be highly noticeable and visible from a considerable distance or over a large area. The character of visual resources would change substantially. The visitor would be aware of the effects associated with the alternative and would likely express a strong negative opinion about the changes.

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29 Short-term following project completion, recovery would take less than 3 years
30 Long-term following project completion, recovery would take more than 3 years

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1 **Environmental Consequences**

2
3 **No Action Alternative**

4 **Direct and Indirect Impacts of the**
5 **Alternative.** Under continued routine
6 maintenance, there would be no changes
7 in the visual character of the site under
8 the no action alternative. Existing
9 trees and shrubs would remain. There
10 would continue to be views of adjacent
11 development from the Truman Farm
12 Home and from other areas of the site.
13 Because there would be no changes to
14 historic structures or landscape features,
15 the no action alternative would have no
16 new effect on visual resources.
17

18 **Cumulative Impacts.** There would be local,
19 minor beneficial changes in the visual
20 character of the site under the no action
21 alternative as non-historic landscape
22 features are removed in the future as a
23 reasonably foreseeable action. The no
24 action alternative would not contribute to
25 cumulative effects.
26

27 **Conclusions.** The no action alternative
28 would have no effect on visual resources
29 and there would be local, minor beneficial
30 cumulative effects.
31

32
33 **Treatment Alternative 1**

34 **Direct and Indirect Impacts of the**
35 **Alternative.** Treatment alternative 1
36 includes adding vegetation to screen
37 views of adjacent development from the
38 Truman Farm Home and other areas of
39 the site. Screening vegetation would be
40 added along the south, southeast, and
41 northeast boundaries of the site. Trees
42 would be removed at the northwest corner
43 of the NHL to open the view into the
44 Farm Home. Screening views of adjacent
45 development and opening the view into
46 the Farm Home would have a local
47 moderate long-term beneficial effect on
48 visual resources of the site.
49

1 **Cumulative Impacts.** There would be a
2 local minor beneficial effect on the visual
3 character of the site as non-historic
4 landscape features are removed in the
5 future as part of past, present, and
6 reasonably foreseeable actions. Those
7 effects, along with the local moderate
8 long-term beneficial contribution of
9 treatment alternative 1 would result
10 in local moderate beneficial cumulative
11 effects.
12

13 **Conclusions.** Treatment alternative 1
14 would have local moderate long-term
15 beneficial direct and cumulative effects on
16 visual resources.
17

18 **Treatment Alternative 2**

19 **Direct and Indirect Impacts of the**
20 **Alternative.** As under treatment
21 alternative 1, treatment alternative 2
22 includes adding vegetation to screen views
23 of adjacent development from the Truman
24 Farm Home and other areas of the site
25 and removing trees to open the view into
26 the Farm Home. Additionally, trees on
27 the slope between Tract 1 and Tract 2
28 would be removed to open up internal
29 views of the site between the Farm Home
30 and the open field to the south. Screening
31 views of adjacent development and
32 removing trees to open up internal views
33 would have a local moderate long-term
34 beneficial effect on visual resources of the
35 site.
36

37 **Cumulative Impacts.** There would be a
38 local minor beneficial effect on the visual
39 character of the site as non-historic
40 landscape features are removed in the
41 future as part of past, present, and
42 reasonably foreseeable actions. Those
43 effects, along with the local moderate
44 long-term beneficial contribution of
45 treatment alternative 2 would result
46 in local moderate beneficial cumulative
47 effects.
48
49

1 **Conclusions.** Treatment alternative 2
2 would have local moderate long-term
3 beneficial direct and cumulative effects on
4 visual resources.

5
6 **Treatment Alternative 3a**

7 **Direct and Indirect Impacts of the**
8 **Alternative.** As under treatment
9 alternative 2, treatment alternative 3a
10 includes adding vegetation to screen
11 views of adjacent development from the
12 Truman Farm Home and other areas of
13 the site and removing trees on the slope
14 between Tract 1 and Tract 2 and from the
15 northwest corner of the NHL. In keeping
16 with restoring the site to a 1917 POS,
17 additional screening would be added
18 to the northeast boundary of the site
19 to screen views of the Truman Corners
20 development. Screening views of adjacent
21 development and removing trees to open
22 up internal views would have a local
23 moderate long-term beneficial effect on
24 visual resources of the site.

25
26 **Cumulative Impacts.** There would be a
27 local minor beneficial effect on the visual
28 character of the site as non-historic
29 landscape features are removed in the
30 future as part of past, present, and
31 reasonably foreseeable actions. Those
32 effects, along with the local moderate
33 long-term beneficial contribution of
34 treatment alternative 3a would result
35 in local moderate beneficial cumulative
36 effects.

37
38 **Conclusions.** Treatment alternative 3a
39 would have local moderate long-term
40 beneficial direct and cumulative effects on
41 visual resources.

42
43 **Treatment Alternative 3b**

44 **Direct and Indirect Impacts of the**
45 **Alternative.** The direct and indirect
46 impacts of treatment alternative 3b on
47 visual resources are the same as those for
48 treatment alternative 3a and would be
49

1 local, moderate, and long-term beneficial.

2
3 **Cumulative Impacts.** The cumulative
4 impacts of past, present, and future
5 actions and the contribution of treatment
6 alternative 3b are the same as those for
7 treatment alternative 3a. Treatment
8 alternative 3b would have local moderate
9 beneficial cumulative effects.

10
11 **Conclusions.** Treatment alternative 3b
12 would have local moderate long-term
13 beneficial effects on visual resources.
14 Cumulative effects would also be local,
15 moderate, and beneficial.