

VII. Environmental Consequences

This section describes the potential environmental consequences or impacts of implementing each of the two management alternatives previously described. Each program or management action that could impact resources or resource uses has been analyzed, and the conclusions of those analyses are described in this section. Some of the action items presented in the document would require additional environmental analysis prior to implementation.

A. Methodology

This section contains the methods / criteria used to assess impacts for specific resource topics. The definitions of impacts adhere to both that generally used under the National Environmental Policy Act to describe impacts as well as that used by Section 106 of the National Historic Preservation Act and that used under Section 7 of the Endangered Species Act.

The National Environmental Policy Act (NEPA) requires that environmental documents disclose the environmental impacts of the proposed federal action, reasonable alternatives to that action, and any adverse environmental effects that cannot be avoided should the proposed action be implemented. This section analyzes the environmental impacts of project alternatives on affected park resources. These analyses provide the basis for comparing the effects of the alternatives. NEPA requires consideration of context, intensity and duration of impacts, indirect impacts, cumulative impacts, and measures to mitigate impacts.

IMPAIRMENT

In addition to determining the environmental consequences of the preferred and other alternatives, NPS *Management Policies* (NPS 2006) and Director's Order-12, *Conservation Planning, Environmental Impact Analysis, and Decision-making*, require analysis of potential effects to determine if actions would impair park resources.

The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. NPS managers must always seek ways to avoid or minimize to the greatest degree practicable adverse impacts on park resources and values. However, the laws do give the NPS management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the NPS management discretion to allow certain impacts within parks, that discretion is limited by the statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. Impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including opportunities that would otherwise be present for the enjoyment of those resources or values. An impact to any park resource or value may be impairment however, an impact would more likely constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- Identified as a goal in the Park's General Management Plan or other relevant NPS planning documents.

ENVIRONMENTAL IMPACT ANALYSIS

The environmental consequences for each impact topic were defined based on the following information regarding context, type of impact, duration of impact, area of impact and the cumulative context. Unless otherwise stated, analysis is based on a qualitative assessment of impacts.

CONTEXT: Context is the setting within which an impact is analyzed such as local, park-wide, or regional. The Council on Environmental Quality requires that impact analyses include discussions of context. For this environmental assessment, local impacts would occur within the general vicinity of the McLoughlin House Unit, while park-wide impacts would affect the greater Fort Vancouver NHS, and regional impacts would extend outside the limits of the park.

TYPE OF IMPACT: Impacts can be either adverse or beneficial. Adverse impacts involve a change that moves the resource away from a desired condition or detracts from its appearance or condition. Beneficial effects are those that involve a positive change in the condition or appearance of a resource or a change that moves the resource toward a desired condition. In some cases, the action could result in both adverse and beneficial effects for the same impact topic.

Impacts may also be direct or indirect. Direct effects would be caused by an action and would occur at the same time and place as the action. Indirect effects would be caused by the action and would be reasonably foreseeable but would occur later in time, at another place, or to another resource.

- ❖ A measure of whether the impact will improve or harm the resource and whether that harm occurs immediately or at some later point in time.
 - **Beneficial:** Reduces or improves impact being discussed.
 - **Adverse:** Increases or results in impact being discussed.
 - **Direct:** Caused by and occurring at the same time and place as the action, including such impacts as animal and plant mortality, damage to cultural resources, etc.
 - **Indirect:** Caused by the action, but occurring later in time at another place or to another resource, including changes in species composition, vegetation structure, range of wildlife, offsite erosion or changes in general economic conditions tied to park activities.

INTENSITY OF IMPACT: Defining the intensity or magnitude on an impact is taken directly from *Director's Order 12: Conservation Planning, Environmental Impact Analysis and Decision-making* (National Park Service 2001). Impact intensity is the magnitude or degree to which a resource would be beneficially or adversely affected. The intensity of an impact may be identified as negligible, minor, moderate, or major. Impact intensity thresholds are specifically defined for each resource topic and are included at the beginning discussion of each impact topic. Due to the general nature of actions called for in this plan, most intensities are expressed qualitatively.

DURATION OF IMPACT: The duration of an impact is the measurable time period for which the impacts are evident and are expressed in the short term or long term. Short term impacts are those that are temporary in duration and can be reversed relatively quickly. Short term impacts typically occur during a finite construction period or growing season and generally last less than one year. Long term impacts are those that are reversed more slowly and tend to last longer than one year.

- ❖ Duration is a measure of the time period over which the effects of an impact persist. The duration of impacts evaluated in this Environmental Assessment may be one of the following:
 - **Short-term:** Often quickly reversible and associated with a specific event, one to five years
 - **Long-term:** Reversible over a much longer period, or may occur continuously based on normal activity, or for more than five years.
- ❖ **AREA OF IMPACT**
 - **Localized:** Detectable only in the vicinity of the activity
 - **Widespread:** Detectable on a landscape scale (beyond the affected site)

- ❖ **CUMULATIVE:** Cumulative impacts are the effects on the environment that would result from the incremental impacts of the action when added to other past, present and reasonably foreseeable future actions. Impacts are considered cumulative regardless of what agency or group (federal or non-federal) undertakes the action.

The Council on Environmental Quality (CEQ) describes a cumulative impact as follows (Regulation 1508.7):

A “Cumulative impact” is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The cumulative projects addressed in this analysis include past and present actions, as well as any planning or development activity currently being implemented or planned for implementation in the reasonably foreseeable future. Cumulative actions are evaluated in conjunction with the impacts of an alternative to determine if they have any additive effects on a particular resource. Because most of the cumulative projects are in the early planning stages, the evaluation of cumulative impacts was based on a general description of the project. To determine potential cumulative impacts, projects in the area surrounding the McLoughlin House were identified. Projects included in this analysis were identified by examining other existing plans and by calls to local governments and to state and federal land managers. Projects identified for the purposes of cumulative impact analyses are past actions, plans or actions that are currently being implemented, and reasonable foreseeable future plans or actions. These projects were considered regardless of what agency, organization, or person undertakes them. Projects included in the cumulative impact analysis do not affect all resources equally.

❖ **IMPACT MITIGATION**

- **Avoid** conducting management activities in an area of the affected resource
- **Minimize** the type, duration or intensity of the impact to an affected resource
- **Mitigate the impact by**
 - **Repairing** localized damage to the affected resource immediately after an adverse impact
 - **Rehabilitating** an affected resource with a combination of additional management activities
 - **Compensating** a major long-term adverse direct impact through additional strategies designed to improve an affected resource to the degree practicable.

All Impacts Except Special Status Species and Cultural Resources

Note: Special Status Species and Cultural Resources impact determinations are formally determined under the Endangered Species Act (Section 7) and the National Historic Preservation Act (Section 106), respectively.

- **Negligible:** Measurable or anticipated degree of change would not be detectable or would be only slightly detectable. Localized or at the lowest level of detection.
- **Minor:** Measurable or anticipated degree of change would have a slight effect, causing a slightly noticeable change of approximately less than 20 percent compared to existing conditions, often localized.
- **Moderate:** Measurable or anticipated degree of change is readily apparent and appreciable and would be noticed by most people, with a change likely to be between 21 and 50 percent compared to existing conditions. Can be localized or widespread.
- **Major:** Measurable or anticipated degree of change would be substantial, causing a highly noticeable change of approximately greater than 50 percent compared to existing conditions. Often widespread.

Note: Cultural resources impacts are also initially characterized as noted above, however the conclusion follows the format below, and makes a formal determination of effect under Section 106 of the National Historic Preservation

Act. In accordance with National Park Service Management Policies, the analysis in this Environmental Assessment fulfills the responsibilities of the National Park Service under Section 106 of the National Historic Preservation Act.

Cultural Resources Impacts

- **No Effect:** The action will not affect historic properties nor will it affect the characteristics that may qualify historic properties for inclusion on the National Register of Historic Places. The action would also not, based on conditions of approval, likely result in impacts to presently unidentified cultural resources.
- **No Adverse Effect:** An undertaking has an effect on a historic property when the undertaking may alter characteristics of the property that may qualify the property for inclusion in the National Register. For example, the action may result in diminishing the character-defining features or aspects of a historic structure that make it eligible for the National Register, but the actions are consistent with the Secretary's Standards for the Treatment of Historic Properties.
- **Adverse Effect:** An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association. In other words, the effects on character-defining features or aspects of a historic structure would result in diminishing or removing the characteristics that make it eligible for the National Register of Historic Places and as a result would not be consistent with the Secretary's Standards for the Treatment of Historic Properties.

(See also note above)

B. Impacts of the Alternatives

PHYSICAL RESOURCES

Alternative A: Impacts to Land Use

Not undertaking management zoning of the McLoughlin House Unit would result in ongoing implementation of area project plans and actions associated with managing the site on a case-by-case basis, a long-term negligible to minor adverse effect. No comprehensive restoration of the McLoughlin and Barclay houses would take place, including no systematic improvements in interpretive programming or site conditions. Although proposed actions would continue to be evaluated based on their impact on the cultural landscape and historic buildings and structures within it, not undertaking holistic planning could result in some confusion over site planning, with some inconsistent proposals being developed by the park prior to being discarded based on analysis of their impacts.

Other negligible adverse changes to Land Use would occur from the construction of a compatible restroom facility at the back of the Barclay House and minor changes would result from the designation and reconfiguration of existing and nearby onsite parking and from the location of additional offsite overflow and special event parking in cooperation with Oregon City.

Alternative B: Impacts to Land Use

Management zoning of the McLoughlin House Unit would result in comprehensive planning of projects and their implementation appropriate for the Historic Zone. When incompatible changes were suggested, they would be more quickly discarded and actions taken would preserve the character-defining features of the site. The focus on maintaining and protecting historic resources, restoring the cultural landscape, recreating elements of the historic scene, maintaining visitor facilities and mitigating impacts from human use while providing for quality visitor experiences would result in the McLoughlin and Barclay houses being retained in their historic condition and being rehabilitated for public and administrative uses, resulting in both short- and long-term negligible to minor adverse impacts (associated with continuing administrative use of the Barclay House) as well as a long-term moderate beneficial effect (associated with restoring the exterior appearance of both houses and the interior of the McLoughlin House and some interior spaces in the Barclay House).

Maintaining the historic setting of the park would also result in a long-term minor beneficial effect with visitors obtaining a clearer understanding of the conditions which allowed for preservation of the houses and their removal to their current location, as well as the other examples of civic enhancements on the site. Enhancing the visitor experience through a range of approaches would allow visitors to more fully understand the contributions of Drs. McLoughlin and Barclay to the development of Oregon City. Those contributions and the setting of the charter park would be respected in any future visitor use enhancement or development of the site. Allowing visitors to engage in learning about the park's natural and cultural resources by touring the houses and other low impact activities such as bird watching, photography and walking along the bluff trail would contribute to long-term preservation of the site.

Other impacts to land use, including those associated with locating an accessible restroom and parking would be the same as in Alternative A.

Cumulative Impacts: Over time, expected changes in land use associated with the development of an historic city have occurred, including the redevelopment of the original McLoughlin and Barclay historic home sites, as well as subdivision of the original land holdings of Dr. McLoughlin. Nonetheless, these original houses and some of the land associated with Dr. McLoughlin in Oregon City have been preserved and set aside in a park that has taken on additional meaning over the more than century that has passed since its original owner purchased it. That this remnant of Dr. McLoughlin's connection to Oregon City be preserved is a long-term moderate beneficial effect on land use. The ongoing preservation of the land in essentially its current form under both alternatives would be an additional negligible cumulative beneficial effect.

Conclusion: Alternative A would result in negligible to minor adverse effects, while Alternative B would result in negligible adverse and negligible to minor beneficial effects. There would be no impairment of land use associated with either alternative.

Alternative A and B: Impacts to Geology

Minor to moderate impacts to geology could result from future actions proposed as a result of the landslide analysis for the cut bank along Singer Hill Road and the northeastern portion of the site. As a result, future actions to remediate unstable areas would undergo separate environmental analysis to determine the best solution for this cultural landscape. Such actions would conform to the scenic easement granted by Oregon City to the National Park Service and would also be subject to approval from and coordination with Oregon City because it retains ownership of McLoughlin Park. These actions would also, as appropriate, given a distance of 50 feet or less from the riparian community, include retention of the landscape buffer for the Willamette River.

Cumulative Impacts: It is unknown whether there were significant impacts to topography at McLoughlin Park that altered the configuration of the site's geological resources. It is, however, certain that the construction of Singer Hill Road cut into the middle terrace above the Willamette River and altered the stability of the bluff on which McLoughlin Park sits. This impact would not be altered or added to by the actions called for in this Environmental Assessment. There would, however, be a long-term negligible beneficial and short-term negligible to minor adverse cumulative impact from the remediation of slope instability in this area.

Conclusion: There would be both negligible beneficial and adverse long-term and cumulative impacts, and minor to moderate impacts from actions proposed in this Environmental Assessment under both Alternative A and B. There would be no impairment of geological resources from the actions proposed herein.

Alternative A and B: Impacts to Soils

A variety of impacts to soils would result from future actions associated with remediating unstable areas along Singer Hill Road. These minor to moderate impacts would likely include removal of existing soils and importation of fill materials. As noted above these impacts would undergo separate environmental analysis upon proposed solutions being determined.

There would be more immediate impacts to soils from the construction of a historically compatible accessible restroom facility behind the Barclay House. Soils would be removed, mixed and imported. In addition, associated accessible walkways would be constructed to link this restroom to nearby parking, resulting in a layer of impervious material (paving or another hardened surface) over existing soils.

Treatment to mediate the standing water that occurs near the McLoughlin gravesites would also occur under both Alternative A and B. This would result in the likelihood of changing the surface material near the graves to a more permeable mixture and/or other actions to minimize poor drainage conditions. As appropriate, these would undergo additional environmental analysis upon an action being proposed. It is likely that impacts would be both beneficial and adverse, with negligible to minor adverse impacts from the importation of fill and treatment of the small area near the graves and perhaps beyond to restore appropriate drainage patterns, and beneficial impacts from improvement of soil conditions for plants, not adapted to saturated conditions, to reestablish near the site.

Alternative B: Additional Impacts to Soils

Under Alternative B, in addition to those impacts described above for both alternatives, there would be the potential additional construction of historic and historically compatible walkways to link the various sites within McLoughlin Park of interest to visitors, including the drinking fountain, fountain, cannon and access to the Bluff Trail. These would result in additional permeable and impermeable surfacing treatments within the existing landscaped portion of the park, a long-term minor adverse impact. Finally, there would be a series of short-term negligible to minor impacts from the construction activities that would occur near the house frames to restore them to their former historic conditions. These impacts would include soil compaction and disturbance of vegetation and would be mitigated upon the cessation of construction to previous site conditions by scarifying or replanting landscaping as appropriate.

Cumulative Impacts: Over time, a series of minor to moderate localized long-term adverse effects have occurred to soils at the site of McLoughlin Park. These have included compaction, removal, the importation of fill materials and other changes to support the construction of the facilities that now exist at the site, including the road that traverses below the bluff. Similar negligible cumulative localized impacts would occur from the actions proposed in the alternatives in this Environmental Assessment.

Conclusion: Alternative A and B would result in a series of minor to moderate localized adverse impacts on soils. Alternative B would have additional negligible to minor adverse impacts on soils. There would be no impairment of soils or the values associated with them from the implementation of either Alternative described in this Environmental Assessment.

Alternative A and B: Impacts to Water Resources (including Hydrology and Wetlands)

Before the installation of the site as a charter park, as noted earlier, a small creek or drainage ran approximately east to west across the area where the graves now stand. According to anecdotal evidence, a portion of this area was likely piped then covered over with fill. Under current conditions, stormwater naturally flows from the eastern portion of the site towards the McLoughlin's graves. As noted in the *Affected Environment* section, this area is regularly saturated with standing water after heavy rains, and there is insufficient drainage infrastructure. As a result future investigation and remediation of this drainage problem would be undertaken. It is likely that

such remediation would involve some disturbance to standing (either ponded or subsurface) water, resulting in short-term adverse impacts such as sedimentation and diversion. These impacts would be evaluated in a future environmental document and would be mitigated by best management practices to retain natural processes to the degree possible while preserving the gravesites. As appropriate, investigation into the possible former filling of wetlands at the site would occur and would be taken into consideration for any actions proposed to remediate the drainage problems at the site.

Cumulative Impacts: As noted above, it is possible that wetlands (associated with a small creek) were filled in the vicinity of the gravesite or that the subsurface flow of Singer Creek was somehow altered, a long-term minor to moderate adverse cumulative impact of existing development. As a result, ongoing drainage problems exist in the vicinity. Other information notes that Singer Creek, which apparently flowed freely at one time near the site is now piped under the park, another long-term adverse cumulative impact. Future actions proposed by continued management of the site to remediate drainage problems and which would require additional environmental analysis would likely result in short-term adverse impacts coupled with long-term negligible to minor cumulative beneficial impacts.

Conclusion: Although there would be no immediate actions that would result in impacts to water resources (including hydrology or wetlands), future actions could result in both short-term adverse and long-term beneficial impacts. There would be no impairment of park water resources or their values.

CULTURAL RESOURCES

The following discussion of cultural resources includes analyses of potential impacts to the cultural landscape, historic buildings and structures, archeological resources, and museum collections.

Alternative A: Impacts to Historic Buildings and Structures

McLoughlin House / Barclay House: Under Alternative A, ongoing preservation maintenance of the McLoughlin and Barclay Houses would continue and would continue to result in negligible short-term adverse and negligible to minor long-term beneficial impacts. On the outside, there would continue to be replacement of roofing materials, gutters, eaves and other systems or features that deteriorate over time, such as paint. On the interior, the park would continue to make needed repairs to features as needed and would repaint or replace floor coverings and other features as they wore out. To the extent possible, replacement of these features would result in a return to their historic appearance if possible, particularly in the McLoughlin House (based on the findings in a Historic Structures Report). In the Barclay House, the historic appearance would be maintained in public rooms, while a compatible appearance would be maintained in rooms used for administration.

While major rehabilitation of the houses would not occur, there would likely be major changes to the systems associated with the houses to ensure that they meet existing local, state and national building codes, particularly for systems associated with long-term preservation such as fire suppression, heating and security. These changes could result in minor to moderate beneficial and adverse effects. Other minor changes to the interior of the houses that would be rendered necessary as a result of the changes to these systems could also occur, such as returning interior features like walls or ceilings to their historic appearance when these features were affected by the code systems modifications that would occur.

Gravesites: Remediation of the drainage problems at the gravesites would occur and would result in a long-term beneficial effect on the ability to preserve them in place.

Fountain, Drinking Fountain, Commemorative Plaques, Cannon: As needed, there would be routine and cyclic maintenance of these features to ensure their long-term preservation, a minor to moderate long-term beneficial effect, with negligible short-term adverse effects.

Alternative B: Impacts to Historic Buildings and Structures

McLoughlin House / Barclay House: In addition to the ongoing preservation maintenance and the construction of a restroom at the rear of the Barclay House that would occur under Alternative A, the exterior of both the McLoughlin and Barclay houses would be restored to their historic appearances during the period of significance to the degree possible given their significantly changed locations and conforming to their new uses as a house museum and as a house museum/administrative support facility under Alternative B. As noted in the plan, such rehabilitation or restoration would be based on a Historic Structures Report, which would direct the retention or modification of existing features and systems. Although such changes could have short-term negligible to minor adverse effects, long-term beneficial effects would be realized from preserving them in as near as possible the condition they were in when the McLoughlin and Barclay families occupied them.

Interior restoration would also occur in the McLoughlin House and in the parlor of the Barclay House, if possible, based on the results of interior testing and on research to identify architectural elements that would have been formerly part of the house designs. This information would be supplemented by a Historic Furnishings Plan and would contribute to short-term negligible to minor adverse effects (during testing) and long-term minor to moderate beneficial effects (from restoration).

As in Alternative A, interior rehabilitation of the Barclay House would occur to continue to allow use of the house for administrative support offices, a gift shop and interpretive exhibits, a long-term minor to moderate adverse effect. Although physical preservation of the house would occur, such preservation would result in the administrative use of the house and therefore its modification to support that use. In Alternative B, this rehabilitation would be more extensive and would include moving the location of some of these functions, as well as in further modification of the house to support accessible offices for up to four employees and volunteers, an additional negligible adverse effect. On the other hand, minor to moderate beneficial effects would be realized from the restoration of one room of the house to its historic appearance when used by Dr. Barclay and from the location of interpretive exhibits in the house that would allow visitors to have a better understanding and thus more meaningful experience of the significance of the McLoughlin House Unit.

Cumulative Impacts: Over time, extensive modifications have occurred to both the McLoughlin and Barclay houses. Among the most significant was their being moved to McLoughlin Park, which although part of McLoughlin's original Oregon City land ownership, is not the original location or near the original location of either structure. It did however result in the preservation of the physical structure of the houses, although not their setting. In addition, over time, additional features were added to McLoughlin Park to increase its value to Oregon City, including the cannon, fountain and the McLoughlin's gravesites. Other significant alterations of the houses included the installation of non-historic heating and fire suppression systems, as well as non-historic landscaping, interior alterations and other changes. Collectively, these changes have resulted in long-term negligible to major changes to both the McLoughlin and Barclay houses and to McLoughlin Park. Nonetheless, without these changes, the houses would likely not have been preserved and a piece of Oregon City, Oregon's and the nation's history would have been lost.

Alternatives A and B would result in incremental negligible adverse cumulative impacts by retaining most of the changes that have occurred over time and long-term minor to moderate beneficial cumulative impacts by ongoing preservation of the houses and their rehabilitation or restoration to conditions present during the historic period and by retaining the new cultural landscape in which they are now sited. Beneficial impacts would be greater in Alternative B.

Conclusion: Because all work would be designed and performed to meet the Secretary of the Interior's Standards for the Treatment of Historic Properties (preservation, rehabilitation and restoration) anticipated work would have *no adverse effect* on historic properties, including the McLoughlin and Barclay houses. As appropriate (for those actions not conforming to the NPS Programmatic Agreement (NPS 1995), consultation

with the State Historic Preservation Officer under Section 106 of the National Historic Preservation Act on individual actions needed to undertake rehabilitation and restoration would occur.

Alternative A and B: Impacts to Cultural Landscapes

The development of a Cultural Landscape Report and subsequent rehabilitation plans would result in recommended treatments for the preservation of the *living commemorative landscape* that is the current location for the Barclay and McLoughlin houses and would guide the implementation of the proposed actions described below.

Land Use / Topography / Spatial Organization: Adding a restroom to the rear of the Barclay House would result in negligible to minor impacts to land use, topography and spatial organization, depending on whether the restroom was integral to the house or impacted the area outside it. If it was separate, in conformance with the Secretary of the Interior's Standards, the building would be designed to be historically compatible, but distinguishable from the historic Barclay and McLoughlin houses. If it was integral, it would be designed to be as unobtrusive as possible. In both instances, it would conform to the *Secretary's Standards for the Treatment of Historic Properties*. Providing for accessible, onsite restrooms are considered a key visitor use need. Other existing structures and buildings would remain. There could be some additional future impacts (likely minor) to topography associated with the remediation of the unstable areas above Singer Hill Road.

Circulation: There would be negligible to minor adverse effects on circulation with the implementation of the proposed alternatives. These would primarily be associated with the designation or addition of parking, including bus and handicapped spaces, and with the possible addition of a new restroom building. Other circulation throughout the site would remain the same but pathways could be hardened or realigned to improve accessibility.

Vegetation: Routine and cyclic landscaping work and removal of non-native invasive species would result in negligible to minor beneficial and negligible adverse effects on vegetation. Changes in species or their arrangement would be undertaken only after study of the cultural landscape and a determination that such vegetation was previously arrayed at the site and contributed to furthering visitor understanding of McLoughlin Park.

Small Scale Features: There would be no effect on small scale features at the site from the implementation of Alternative A or B. All existing small scale features would be retained and preserved.

Alternative B: Differing Impacts to Cultural Landscapes

Land Use / Spatial Organization / Circulation: Under this Alternative, it is possible that the restoration of the historic entrance to the house (from the river side) would occur. Although this would result in changes to existing circulation patterns, the changes would be a negligible to minor beneficial effect, depending on whether the new entrance could be used by all visitors to the site. Depending on the future determined need for a shelter from inclement weather, the possible addition of this shelter could result in a negligible to minor adverse effect on circulation patterns at the site. Finally, there would be a series of negligible adverse and negligible to minor beneficial impacts from the creation of new or realignment of old pathways (historic circulation system) to their former historic locations and to allow visitors to access the features within the cultural landscape.

Historic Buildings and Structures: (See *Alternatives A and B: Impacts to Historic Buildings and Structures* above).

Cumulative Impacts: In addition to the cumulative impacts described above under Impacts to Historic Buildings and Structures, there would be additional negligible beneficial cumulative impacts to the cultural landscape from the possible reconstruction of the historic circulation system under Alternative B and negligible adverse cumulative impacts from the construction of additional features at the site, including the restroom (both Alternatives) and possible shelter (Alternative B).

Conclusion: Because all work would be designed and performed to meet the Secretary of the Interior's Standards for the Treatment of Historic Properties (preservation, rehabilitation and restoration) anticipated work would have *no adverse effect* on historic properties, including the McLoughlin and Barclay houses. As appropriate (for those actions not conforming to the NPS Programmatic Agreement, consultation with the State Historic Preservation Officer on individual actions needed to undertake rehabilitation and restoration would occur.

Alternative A and B: Impacts to Museum Collections

The enhancement of existing documentation, security, preservation and storage measures under this Alternative to conform to NPS Museum Management Guidelines would result in a long-term minor to moderate beneficial effect. Maintaining the collections in their existing locations would ensure that access to the collections was adequately controlled and that the collections remained protected. Completing collections and museum planning documents, including a Scope of Collections Statement, a Museum Management Plan and a Conservation Survey would result in better understanding of the nature of the collections, their application to historic periods and guidelines for expanding the collections, resulting in a series of moderate long-term beneficial effects.

Alternative B: Additional Impacts to Museum Collections

In addition to the impacts noted above, this Alternative would result in some additional long-term moderate beneficial and negligible to minor adverse impacts. Long-term moderate beneficial impacts would be realized from actively managing the collection in support of an expanded interpretive program. Collections would be more extensively researched, and material not related to the period of significance or integral to the collections would be considered for de-accessioning, thus potentially reducing the volume of collections to be managed as well as increasing the collections' pertinence to the McLoughlin House Unit. Coupled with the preparation of an Historic Furnishings Study, the museum collections, including any expansion based on the study, would further enhance interpretive operations and exhibits in the McLoughlin and Barclay houses and better understanding of the McLoughlin House Unit, a long-term minor beneficial effect. Negligible to minor adverse impacts would result from the de-accessioning of items long part of the collection but determined inappropriate to maintain in the collections in accordance with NPS policy and guidelines.

Cumulative Impacts: There would be a negligible long-term beneficial cumulative impact to park museum collections from the permanent protection of the museum collections under NPS management in both Alternative A and Alternative B coupled with negligible to minor adverse impacts in Alternative B.

Conclusion: There would be *no adverse effect* on and no impairment of McLoughlin House Unit museum collections under either Alternative A or Alternative B.

Alternative A and B Impacts to Archaeological Resources

The long-term preservation of subsurface archeological resources by allowing them to remain in place or by excavating them in accordance with existing laws and guidelines when they would be affected by subsurface disturbance associated with new utility lines, construction or other cultural resources preservation activities would result in a long-term negligible to moderate beneficial effect and short- and long-term, localized minor adverse effects.

Cumulative Impacts: There would be a long-term beneficial cumulative impact to park museum collections from the permanent protection of the archaeological resources under NPS management in both Alternative A and Alternative B.

Conclusion: There would be *no adverse effect*, except possibly short- and long-term, localized minor adverse effects associated with data recovery of cultural materials, on McLoughlin House archaeological resources

Alternative A and B Impacts to Sacred Sites (Ethnography)

Because of the extensive array of archaeological resources noted during subsurface testing that occurred in 2001 and 2004, it is presumed likely that the McLoughlin Park area may have had some significance to Native Americans. So far, this presumption has not been confirmed. With additional investigation into the nature and significance of archaeological resources found at the site and consultation with Native American Tribes about the location, more information may be revealed. Because this plan does not propose significant new construction or modifications to the site and because these resources have not been revealed in consultation to date, it is unlikely that the possible presence of ethnographic resources would be affected by continuing existing activities on the site. As a result, there would be no or negligible effects on ethnographic resources.

Cumulative Impacts: There would be no additional cumulative impacts on possible ethnographic resources as a result of the implementation of either Alternative A or Alternative B.

Conclusion: There would be no adverse effect on and no impairment of known McLoughlin House Unit ethnographic resources under either Alternative A or Alternative B.

BIOLOGICAL RESOURCES

Alternative A and B: Impacts to Vegetation

The following actions under this Alternative would result in impacts to vegetation: remediation of slope instability problems above Singer Hill Road; remediation of drainage problems at the gravesites; construction of the accessible restroom facility behind the Barclay House; modifications to site utilities; archeological testing or excavation associated with site investigation or grounds modification; removal of non-historic and non-native and/or invasive vegetation; routine landscaping; etc. These actions would result in short- and long-term negligible to moderate beneficial and short-term negligible to minor adverse impacts on vegetation. Moderate beneficial impacts would result from the removal of non-native invasive species on the bluff above Singer Hill Road and the replacement of these with species native to the site or appropriate to the cultural landscape. Negligible to minor beneficial impacts would continue to result from routine and cyclic maintenance of the landscaping, including periodic pruning and other actions to preserve the vegetation. Short-term negligible to minor adverse effects would result from the temporary removal of vegetation followed by its replacement during construction activities.

Alternative B: Additional Impacts to Vegetation

In addition to those actions identified above, paving or surfacing of walkways throughout McLoughlin Park to link commemorative areas and exterior rehabilitation on the McLoughlin and Barclay houses would also have an effect on vegetation. These actions would result in a series of localized, short- and long-term negligible to minor adverse impacts. Long-term minor adverse impacts would result from the conversion of some vegetation to paved or hardened surfaces for walkways or parking, while short-term negligible to minor impacts would occur as a result of additional construction activities to restore the historic homes under this Alternative.

Cumulative Impacts: As a result of its being included in the land plat originally part of McLoughlin's holdings in establishing Oregon City and as a result of its designation following McLoughlin's death as a charter park, and finally as a result of its being the relocation site for both the McLoughlin and Barclay houses as well as a number of other commemorative activities and objects, McLoughlin Park has undergone a nearly wholesale conversion from native naturally occurring vegetation to non-native and native formal landscaping vegetation. As a result, adverse cumulative impacts to vegetation have been long-term and moderate to major. Where native vegetation or habitat still remains (Singer Hill bluff area and in pockets throughout McLoughlin Park, or where native vegetation has been used to enhance the cultural landscape, long-term beneficial impacts are realized. To the degree that re-establishment of some areas of native vegetation fits in with the goals of maintaining the cultural landscape, the project could have long-term negligible to minor beneficial impacts.

Conclusion: Proposed actions under Alternatives A and B would result in short- and long-term negligible to moderate beneficial and short-term negligible to minor adverse impacts on vegetation. To support restoration of the cultural landscape, adverse impacts would be somewhat greater under Alternative B, but would remain negligible to minor. Long-term negligible cumulative beneficial impacts could be realized from the re-establishment of some native vegetation if its presence is supported by maintenance of the cultural landscape and from the removal of non-native invasive plants. There would be no impairment of McLoughlin House Unit vegetation under either Alternative A or Alternative B.

Visitor Experience

Alternative A: Impacts to Visitor Use Opportunities

Visitors would continue to have the same or similar opportunities as they currently enjoy at the McLoughlin House Unit, a long-term minor beneficial impact. McLoughlin Park would continue to be open to casual visitors enjoying a few minutes or a greater portion of the day at the park to indulge in solitary and group activities such as touring the historic homes, other opportunities to learn about the natural and cultural resources, walking the bluff trail, birdwatching or enjoying other features at the site in an unstructured manner. In addition, the homes would continue to be open during the same or similar hours and times of year and visitors would continue to be able to shop in the gift shop, which would continue to be managed by the McLoughlin Memorial Association until future contract negotiations resulted in their continued operation of it or the transfer of its management to another appropriate non-profit organization. Visitors would also continue to be able to enjoy annual special events at the site, which would be consistent with NPS policies and direction, resulting in no impact to their continued enjoyment of those opportunities. The opportunity to continue to use McLoughlin Park for other special uses, such as wedding and group events would now be determined by adherence to NPS Management Policies associated with special park uses, wherein consistency in the policies would eliminate some confusion as to whether an event would be approved, a long-term negligible beneficial effect and short-term adverse effect as visitors became used to the new set of policies and their associated procedures.

Alternative B: Impacts to Visitor Use Opportunities

Alternative B would have the same impacts to visitor use opportunities as described above, however, there would eventually be additional long-term moderate beneficial impacts on visitor opportunities from the opening of an historic furnished room in the Barclay House to interpret Dr. Barclay and from the use of the current staging room in the Barclay House for additional interpretive exhibits about the McLoughlin House Unit. In addition visitors would enjoy better understanding of the exterior of the historic homes when they were rehabilitated to look as they did when Drs. Barclay and McLoughlin occupied them. The possible addition of a shelter would, if constructed, result in a negligible to minor long-term beneficial effect on visitors who use the site during inclement weather. Using the staging room in the Barclay House for exhibits on the McLoughlin House Unit and as a multi-purpose space for meetings and special events would further increase the array of visitor opportunities at the site.

Alternative A: Impacts to Visitor Interpretation and Education

There would be few impacts to the visitor experience associated with interpretive and educational programming related to the implementation of this Alternative. Negligible to minor beneficial impacts would result from greater NPS involvement in facilitating and giving the tours and from greater NPS involvement in orchestrating the distribution of information about the site. Most tours and programs would continue to be given by McLoughlin Memorial Association docents, who would become part of the NPS Volunteer-In-Parks (VIP) program. The NPS and Association volunteers would continue to work cooperatively in implementing programming, with the NPS eventually serving as the interpretive lead. Interpretive publications, including websites and brochures would continue to provide information to visitors, while new contact information regarding management of the site would be inserted.

Alternative B: Impacts to Visitor Interpretation and Education

There would be greater emphasis on expanding interpretive opportunities for the visitor, including cultural demonstrations, living history, and other interpretive programs to complement the traditional house tours. Impacts to visitor interpretation and education would be similar to those described above for Alternative A, except that there would be an increased level of interpretive operations, including staffing and training under Alternative B and the minor adverse effects associated with Alternative A would not occur. Expanded interpretive operations would include an additional focus on education and teacher and student preparation for site visits in the form of additional information and liaison provided to teachers prior to their field trips. Future improvements in interpretive and educational programming could include the development of additional exhibits, publications, audiovisual and website programs, and the procurement of additional historic furnishings as well as other ways to interpret the site's significance. Collectively, these interpretive and educational improvements would result in a minor to moderate beneficial effect on visitor understanding of the McLoughlin House Unit. Because the NPS Junior Ranger Program would be expanded to include the McLoughlin House Unit, some of these improvements would be directed at children, another long-term beneficial effect. It is also intended that in the future the Public History Field School and Archaeology Program would become more active on site.

Alternative A: Impacts to Visitor Use Access and Transportation (including Accessibility)

Under this Alternative, a carrying capacity analysis would occur to determine if the present maximum of 45 visitors in the McLoughlin House is appropriate. A determination that increases or decreases in this number could result in minor adverse or minor beneficial effects on visitors desiring a tour of the house as they waited longer or were ushered in more quickly for a tour.

Visitors would continue to access the site in the same way as they do now, going first to the Barclay House to be staged for tours or continuing to wander freely about McLoughlin Park before or after their tour or if they elected to not take a tour. While more parking would be sought under both Alternatives A and B to accommodate the likely increase in visitation associated with the establishment of the site as a unit of Fort Vancouver National Historic Site, in the short-term, there could be negligible to moderate adverse impacts on visitors unable to secure a nearby parking space while touring the site. Over the long-term, adverse impacts would likely be negligible as additional designated parking was secured for the site.

Modifications to improve accessibility at the site would include providing an accessible pathway to site features, including into the McLoughlin and Barclay houses, adding accessible parking, constructing an accessible restroom behind the Barclay House, and making modifications to office spaces within the Barclay House to provide some accessible office space for employees and volunteers and to allow visitors to access the gift shop and staging room. These changes would result in short- and long-term minor to major beneficial impacts to visitors with disabilities.

Parking at the site would remain as it currently is along the street, with some improvements being made to facilitate school and other buses, a minor beneficial impact. The preparation of a circulation plan as part of the Cultural Landscape Report would allow the historic entrance to the McLoughlin House to be reused if possible, further enhancing visitor understanding of the site.

Alternative B: Impacts to Visitor Use Access and Transportation (including Accessibility)

Impacts under Alternative B would be similar to those in Alternative A. Exceptions would include the re-configuration and treatment of the rooms in the Barclay house to best reflect NPS and visitor use at the site, including provision of accessible office space for four employees in the Barclay House and remodeling of the

kitchen into a park office and possibly including a small kitchenette. The additional conversion of the parlor in the Barclay House to a period-furnished room, moving the gift shop and using the staging room for exhibit space would result in improved visitor access at the site. Both would result in additional minor to moderate beneficial impacts.

Under Alternative B, perhaps the greatest changes in access would result from modifications to visitor parking areas. While accessible parking would be added under Alternative A, parking would be expanded under Alternative B, if allowed by the city, to the dead-end portion of 8th Street. In addition, a short-term loading zone in front of the Barclay House would improve site conditions for school and other buses. This would also allow short-term service vehicle parking and would facilitate NPS and other use of the site, all resulting in long-term beneficial impacts for the park. Park neighbors could be temporarily inconvenienced by additional visitors over the short-term, however, as additional parking was established, these impacts would cease. This would be true, especially if the NPS is able to procure from the city an existing lot for off-site parking to accommodate increased visitation and special events.

Cumulative Impacts: Over time, as the McLoughlin Memorial Association has developed and expanded interpretive programs and volunteers and the number and kind of objects in the museum collections at the McLoughlin and later the Barclay houses, the visitor experience at the site has improved. In addition, over the same period, there were great strides in understanding how visitors tour and experience parks and how they benefit from different interpretive strategies. As a result, there has been a long-term beneficial cumulative impact on the visitor experience at the McLoughlin House site. This minor beneficial impact would continue under NPS management and would be expanded to encompass the diversity and quality of interpretive programming that is now available, benefiting from years of trial and error in programming at places like the McLoughlin House Unit.

Conclusion: Alternative A would have both short-term negligible adverse and long-term minor beneficial impacts on visitor opportunities; Alternative B would result in additional minor to moderate long-term beneficial effects. Alternative A would likely have negligible to minor beneficial impacts and minor long-term adverse impacts on interpretation and education. Alternative B would result in a series of minor to moderate long-term beneficial impacts on visitor interpretation and education. Lastly, for visitor access and transportation, Alternative A would have short-term minor to moderate adverse effects, some long-term minor to major beneficial effects on some visitors and other general minor beneficial effects. Alternative B would have additional minor to moderate beneficial impacts to visitor (including employee) access and transportation. There would be no impairment of the visitor experience under either Alternative.

PARK OPERATIONS

Alternative A: Impacts to Park Operations (including Staffing and Facilities)

Aside from a change in ownership from Association to NPS, there would be no major changes in park operations at the McLoughlin House Unit. As noted above, the same array of programs and operations would be offered. An agreement, however, would be written to establish the roles and responsibilities of the NPS and the Association under the new management. The existing configuration of administrative spaces in the Barclay House would remain, with additional office space provided for NPS staff. The NPS operating budget for the McLoughlin House Unit would start at approximately \$150,000, which would be used to support programming, staff salaries and routine maintenance. Special projects funding would be sought for rehabilitation and upgrade projects. Donations and other sources of revenue would continue to supplement NPS funds. Revenue from the gift shop would continue to go to the McLoughlin Memorial Association and the NPS for maintaining operations at the site.

Park facilities, with the exception of adding a new accessible restroom, would remain primarily the same, and would continue to be used in the same manner they are now, a long-term minor beneficial effect on staff and visitors who would not need to get used to new scenarios for operations. The addition of an accessible restroom

would result in a long-term minor to major beneficial effect on visitors with disabilities (see also *Accessibility* above). There would be a negligible to minor long-term benefit from the park's continued use of existing maintenance equipment and staffing from Fort Vancouver on maintenance and rehabilitation.

New signs would allow park visitors to better understand the site configuration and opportunities to visit the various features associated with the McLoughlin House Unit, a long-term negligible to minor beneficial effect.

Finally, the transition to NPS management of the McLoughlin House Unit would result in the development of a number of typical NPS implementation plans (See Alternative A description and impacts to Cultural Resources above). Collectively, the preparation of these plans would have a long-term beneficial effect on park operations at the site, enabling the NPS to more effectively manage the site and its resources based on natural and cultural scientific research and development of holistic outlooks.

Alternative B: Impacts to Park Operations (including Staffing and Facilities)

This Alternative would result in a sizeable increase in NPS operations at the McLoughlin House Unit. The starting budget would increase from approximately \$150,000 to \$285,000 and as in Alternative A would continue to be supplemented by fundraising and donations. Staff would increase from one part time employee to six full-time employees (including two seasonal positions).

The possible addition of a shelter for staging during inclement weather and the need to maintain it if constructed, along with additional staffing requirements, would result in additional long-term negligible to moderate adverse effects on park operations.

Alternatives A and B: Impacts to Visitor and Employee Health and Safety

Because the NPS has as its highest goal offering visitors and employees a safe experience / safe workplace, there would be a series of minor to moderate systematic improvements to visitor safety under both Alternatives. These would include adherence to NPS policies regarding the analysis of unsafe conditions as well as their immediate improvement if warranted. Overall, visitors and employees at the McLoughlin House Unit would find more formal processes to analyze situations for potential safety hazards and associated improvements. Employees (including volunteers) at the site would begin to undergo involvement in a formal workplace safety program that would result in improved conditions for both employees and visitors as employees documented potentially hazardous situations or risky behaviors as part of the Fort Vancouver National Historic Site safety program. There would be formal programs to evaluate hazard trees, under the auspices of the Fort Vancouver National Historic Site hazard tree evaluation program (NPS 1999), and to document other safety hazards, such as potentially hazardous walking surfaces and the impacts of poor lighting or over-mature vegetation on securing the site.

In addition, the NPS would institute systematic rehabilitation improvements in the historic homes that would ensure the structures met or exceeded existing local, state and national building safety codes for fire suppression systems, security systems, utility systems, and communication systems. As a result of NPS management of the site, at a minimum, communications systems and security systems would be enhanced by utilization of existing standard radio systems and the expansion of onsite personnel with law enforcement training.

There would be a negligible to minor long-term beneficial effect on employee safety from the NPS commitment to using environmentally friendly products, including latex rather than oil-based paints and products with low volatile organic compound (VOC) emissions.

Alternative B: Additional Impacts to Visitor and Employee Health and Safety

Under Alternative B, there would be an additional long-term minor to moderate beneficial effect on visitor and employee health and safety with the installation of new, historically compatible fencing along the Singer Hill Road bluff area.

Cumulative Impacts: There have been no cumulative impacts as a result of park operations because the NPS just assumed management of the McLoughlin House Unit.

Conclusion: There would be a series of short-and long-term minor to moderate beneficial effects on park operations (including visitor and employee health and safety) as a result of NPS management of the McLoughlin House Unit.

Table 6
Summary of Impacts

Impacts	Alternative A - No Action	Alternative B - Preferred
Impacts to Land Use		
	<p>Long-term localized negligible to minor adverse impacts from case-by-case implementation of projects and plans.</p> <p>Negligible to minor impacts from construction of a compatible restroom and from changes for onsite and overflow parking.</p> <p>Short and long-term negligible to minor adverse impacts from continuing administrative use of Barclay House.</p>	<p>Same impacts associated with restroom and parking as Alternative A.</p> <p>Long-term minor to moderate beneficial effects from comprehensive planning and acknowledgement of the site's historic zone.</p> <p>Long-term moderate beneficial effect from restoring exterior appearance of houses, interior of McLoughlin House and some interior spaces in Barclay House.</p> <p>Long-term minor beneficial effect from visitor understanding of how land use contributed to preservation of the site.</p>
Cumualtive Impacts	Long-term moderate beneficial effect on land use from preservation of houses at McLoughlin Park. Negligible additional cumulative beneficial effects from continued preservation of land.	
Conclusion	Negligible to minor adverse effects. No impairment.	Negligible to minor adverse effects coupled with long-term minor to moderate beneficial effects. No impairment.
Impacts to Geology		
	Minor to moderate short-term adverse impacts and long-term negligible beneficial impacts to geology from potential future actions to remediate landslide concerns regarding Singer Hill Road.	
Cumulative Impacts	Long-term negligible beneficial and short-term negligible to minor adverse impacts from contributions to and remediation of slope instability.	
Conclusion	Negligible beneficial and adverse long-term and cumulative impacts, and minor to moderate impacts from future proposed slope remediation. No impairment.	
Impacts to Soils		
	Negligible to moderate impacts from removal of existing soils and importation of fill materials from construction of historically compatible restroom and potential changes to surface materials surrounding graves. Beneficial impacts from the improvement of saturated soil conditions.	<p>Impacts of Alternative A plus:</p> <p>Additional impacts related to construction of walkways and additional impermeable and permeable surface treatments (landscaping and walkways).</p>
Cumulative Impacts	Minor to moderate localized long-term adverse impacts from soil compaction, removal and importation of fill materials as well as other changes to support facilities now existing at the site. Additional negligible cumulative impacts from actions proposed.	
Conclusion	Minor to moderate adverse impacts. No	Additional negligible to minor impacts.

	impairment.	No impairment.
Impacts to Water Resources (including Hydrology and Wetlands)		
	No additional impacts. Potential future improvement of drainage conditions near graves. Potential short-term adverse impacts coupled with long-term negligible to minor cumulative beneficial impacts.	
Cumulative Impacts	Long-term minor to moderate adverse cumulative impacts from existing development in vicinity of a creek, resulting in alteration of natural drainage patterns. Potential long-term beneficial cumulative impacts from future improvements.	
Conclusion	No immediate actions resulting in impacts to water resources. Future actions could result in short-term adverse and long-term beneficial impacts. No impairment.	
Impacts to Historic Buildings and Structures		
	<p>Negligible short-term adverse and negligible minor long-term beneficial impacts from ongoing preservation maintenance.</p> <p>Minor to moderate beneficial and adverse effects from changes to fire suppression, heating and security systems.</p> <p>Minor long-term beneficial effect from remediation of drainage problems near gravesites.</p> <p>Negligible adverse and minor to moderate long-term beneficial effects from continued preservation of landscape, fountain, plaques, etc.</p>	<p>Short-term negligible to minor adverse effects and long-term beneficial effects from restoring the houses to their historic appearance.</p> <p>Short-term negligible to minor adverse effects (from testing) and long-term minor to moderate beneficial effects (from restoration) of the interior of the McLoughlin House and the parlor in the Barclay House.</p> <p>Continued long-term minor to moderate adverse effect from use of the Barclay House for administrative support. Minor to moderate beneficial effects from location of additional interpretive exhibits to help visitors to better understand the Unit's significance.</p>
Cumulative Impacts	Negligible to major adverse effects from relocation and major changes to the interior and exterior and setting of both the McLoughlin and Barclay Houses coupled with long-term moderate beneficial effects from their preservation by that relocation.	
Conclusion	Proposed actions would be designed in accordance with the Secretary of the Interior's Standards for preservation, rehabilitation and restoration and would have no adverse effect on historic properties or their eligibility for the National Register of Historic Places. No impairment.	
Impacts to Cultural Landscapes		
	<p>Negligible to minor impacts to land use, topography and spatial organizations from adding a restroom.</p> <p>Negligible to minor effects on circulation from improving parking.</p> <p>Negligible to minor beneficial and negligible adverse effects from ongoing landscape maintenance.</p> <p>No effect on small scale features.</p> <p>Effects on historic buildings and structures would be the same as noted above.</p>	<p>Negligible to minor beneficial effects from re-establishment of the historic entrance to the McLoughlin House.</p> <p>Negligible to minor adverse effects on circulation patterns from possible addition of shelter.</p> <p>Negligible short-term adverse and negligible to minor beneficial effects from re-creation of historic circulation pathways or realignment of existing paths.</p> <p>Effects on historic buildings and structures would be the same as noted above.</p>
Cumulative Impacts	Same as above under Historic Buildings and Structures plus negligible additional cumulative impacts from addition of restroom under both alternatives and same under	

	Alternative B from possible construction of shelter.	
Conclusion.	Proposed actions would be designed in accordance with the Secretary of the Interior’s Standards for preservation, rehabilitation and restoration and would have no adverse effect on historic properties or their eligibility for the National Register of Historic Places. No impairment.	
Impacts to Museum Collections		
	Long-term minor to moderate beneficial effects from apply NPS museum standards to existing collections. Negligible to moderate long-term beneficial effects from completing collections and museum planning documents.	Same as Alternative A plus: Long-term moderate beneficial impact from managing the collection in support of an expanded interpretive program. Long-term minor beneficial effect from expansion of the collection to support historic furnishings study/use in the houses. Negligible to minor adverse impacts from the deaccessioning of items long part of the collection but determined inappropriate to maintain in the collection in accordance with NPS policy and guidelines.
Cumulative	Negligible long-term beneficial cumulative impacts to collections from permanent protection of the collections under NPS management.	
Conclusion	Proposed actions would be designed in accordance with the Secretary of the Interior’s Standards and would have no adverse effect on historic properties or their eligibility for the National Register of Historic Places. No impairment.	
Impacts to Archaeological Resources		
	Long-term negligible to moderate beneficial effects and short and long-term localized minor adverse effects from <i>in situ</i> preservation of archaeological resources or excavation preservation with the context preserved.	
Cumulative Impacts	Negligible long-term beneficial cumulative impacts from permanent protection of resources in museum collection.	
Conclusion	Proposed actions would be designed in accordance with the Secretary of the Interior’s Standards and would have no adverse effect on historic properties or their eligibility for the National Register of Historic Places. No impairment.	
Impacts to Sacred Sites (Ethnography)		
	No or negligible effects as a result of the unlikely presence of ethnographic resources being affected by ongoing activities at the site.	
Cumulative Impacts	No additional cumulative impacts.	
Conclusion	Proposed actions would be designed in accordance with the Secretary of the Interior’s Standards and would have no adverse effect on historic properties or their eligibility for the National Register of Historic Places. No impairment.	
Impacts to Vegetation		
	Long-term negligible to moderate beneficial effects and short-term negligible to moderate adverse effects from onsite ground disturbance during construction or modification to existing areas. Moderate beneficial impacts from removal of non-native species.	Impacts of Alternative A plus: Series of localized short- and long-term negligible to minor adverse impacts from improvements to pathways and additional actions to restore the historic appearance of the houses.

	<p>Negligible to minor beneficial effects from maintenance of landscaping.</p> <p>Short-term negligible to minor adverse effects from temporary removal of vegetation, followed by its replacement during construction activities.</p>	
Cumulative Impacts	Long-term major impacts from the conversion of native naturally occurring vegetation to non-native and native formal landscaping vegetation. Long-term beneficial effects from the use of native plants in landscaping. Potential long-term negligible to minor beneficial effects from the re-establishment of native vegetation in some areas.	
Conclusion	Short- and long-term negligible to moderate beneficial and short-term negligible to minor adverse impacts on vegetation. Potential long-term beneficial impacts from re-establishment of native vegetation in place of non-native vegetation where it supports maintenance of the cultural landscape. No impairment.	
VISITOR EXPERIENCE: Impacts to Visitor Use Opportunities		
	<p>Long-term minor beneficial effect from continued ability to enjoy existing opportunities.</p> <p>Long-term negligible beneficial effect and short-term adverse effect from application of new special use policies.</p>	<p>Long-term moderate beneficial impacts from opening of historic parlor in Barclay House.</p> <p>Negligible to minor long-term beneficial effect from shelter.</p>
VISITOR EXPERIENCE: Impacts to Visitor Interpretation and Education		
	<p>Negligible to minor beneficial impacts from greater NPS involvement in facilitating and giving house tours and from improvements to publications and exhibits.</p> <p>Possible minor, long-term adverse impact from potential for increasing visitation coupled with decline in staffing.</p>	<p>Same beneficial impacts from NPS involvement as Alternative A.</p> <p>Minor to moderate beneficial effect on increasing visitor understanding of the McLoughlin House unit through new exhibits and interpretive programming.</p> <p>Long-term beneficial impacts from improvements in interpretation directed at children.</p>
VISITOR EXPERIENCE: Impacts to Visitor Use Access and Transportation (including Accessibility)		
	<p>Minor adverse or minor beneficial effects on visitors from determination of carrying capacity.</p> <p>Short-term negligible to moderate adverse effects from existing limited parking with impacts decreasing to negligible as additional parking is secured for the site.</p> <p>Short- and long-term minor to major beneficial impacts from construction of accessible restroom.</p>	<p>Impacts similar to Alternative A except:</p> <p>Additional minor to moderate beneficial impacts from reconfiguration of Barclay House spaces.</p> <p>Long-term minor to moderate beneficial effects from expansion of parking.</p>
Cumulative Impacts	Long-term beneficial minor cumulative impact from visitor programming at McLoughlin House Unit.	
Conclusion	Short-term negligible and long-term beneficial effects on visitor opportunities. Negligible to minor beneficial and minor	Additional minor to moderate long-term beneficial effects on visitor opportunities. Series of minor to moderate long-term

	long-term adverse impacts on visitor interpretation and education. Short-term minor to moderate adverse effects, some long-term minor to major beneficial impacts. No impairment.	beneficial impacts on visitor interpretation and education. Additional minor to moderate impacts on access and transportation. No impairment.
PARK OPERATIONS: Impacts to Staffing and Facilities		
	<p>Long-term minor beneficial effect on staff and visitors from continuing most existing operations.</p> <p>Long-term minor to major beneficial effects on visitors needing accessible restrooms.</p> <p>Negligible to minor long-term beneficial effect from continued use of maintenance equipment and staffing from Fort Vancouver.</p> <p>Long-term negligible to minor beneficial effect from new signage.</p> <p>Long-term beneficial effect from preparation of NPS plans for continued management of the site.</p>	Additional long-term negligible adverse impact from need to maintain shelter.
PARK OPERATIONS: Impacts to Visitor and Employee Health and Safety		
	<p>Series of minor to moderate long-term beneficial effects from adherence to NPS policies and implementation programs.</p> <p>Minor long-term beneficial effect on employee safety from NPS commitment to using green products.</p>	<p>Same as Alternative A plus:</p> <p>Additional long-term minor to moderate beneficial effect from installation of new, historically compatible fencing.</p>
Cumulative Impacts	No cumulative impacts on park operations.	
Conclusion	Series of short- and long-term minor to moderate beneficial impacts as a result of NPS management of the McLoughlin House Unit.	

