

## **CHAPTER 4: ENVIRONMENTAL CONSEQUENCES**



## INTRODUCTION

This chapter of the draft EIS analyzes the potential environmental effects of each alternative. Overall, the National Park Service based these impact analyses and conclusions on the review of existing literature and the MNRRA studies, information provided by experts within the National Park Service and in other agencies, professional judgments and park staff insights, the Minnesota SHPO, input from interested tribes, and public input.

An explanation of the range of issues analyzed in this chapter is provided in chapters 1 and 2. Chapter 4 should be reviewed jointly with chapter 3, which describes the baseline or existing conditions.

## DEFINITIONS

The following definitions are used to describe the potential effects that may be caused by implementation of the alternatives. The potential impacts are explained in terms of duration, intensity, and type of impact. Whether an effect is direct or indirect and the effect's context may also be discussed.

### Direct and Indirect Effects

*Direct*—an effect that is caused by an action and occurs at the same time and in the same place

*Indirect*—an effect that is caused by an action that is later in time or farther removed in distance, but is still reasonably foreseeable

### Context

Context is the setting within which an impact is analyzed such as local, parkwide, or regional. The CEQ requires that impact analyses include discussions of context. For this draft EIS, local impacts would occur within the Center while parkwide impacts would affect a greater portion of the MNRRA. Regional impacts would extend to include the Minneapolis/St. Paul area.

### Duration

The duration of an impact is the time period for which the impacts are evident and are expressed in the short term or in the long term. A short-term impact would be temporary and would be associated with the final disposition of the Center, as well as the period of construction and/or demolition that may be implemented for preparing the site for future uses. A long-term impact would continue beyond the period of construction, possibly indefinitely. Depending on the resource, impacts may last as long as construction takes place, or a single year or growing season, or longer. Impact duration for each resource is unique to each specific

resource or impact topic. Impact duration for each impact topic is presented in association with impact intensities in the Impact Intensity Thresholds section.

### **Intensity**

Impact intensity is the degree to which a resource would be affected. The criteria that were used to rate the intensity of the impacts for each impact topic are presented later in this section under Impact Intensity Thresholds.

### **Type of Impact**

Impacts can be beneficial or adverse. Beneficial impacts would improve resource conditions while adverse impacts would deplete or negatively alter resources.

## **IMPACTS TO CULTURAL RESOURCES AND SECTION 106 OF THE NATIONAL HISTORIC PRESERVATION ACT**

Detailed information on the NHPA is provided in chapter 1. In this draft EIS, impacts to cultural resources are described in terms of type, context, duration, and intensity, as described above, which is consistent with the regulations of the CEQ that implement NEPA. These impact analyses are intended, however, to comply with the requirements of both NEPA and section 106 of the NHPA.

Under Advisory Council on Historic Preservation (ACHP) regulations, a determination of either *adverse effect* or *no adverse effect* must also be made for affected NRHP-eligible historic resources. An adverse effect occurs whenever an impact alters, directly or indirectly, any characteristics of a historic resource that qualify it for inclusion in the NRHP, e.g., diminishing the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association. Adverse effects also include reasonably foreseeable effects caused by the proposed action that would occur later in time, be farther removed in distance, or be cumulative (36 C.F.R. Part 800.5, *Assessment of Adverse Effects*). A determination of no adverse effect means there is an effect, but the effect would not diminish in any way the characteristics of the resource that qualify it for inclusion in the NRHP.

A section 106 summary is included in the impact analysis sections for cultural resources (archeological resources, historic structures and districts) under each individual alternative. The section 106 summary is an assessment of the effect of the undertaking (implementation of one of the alternatives) on cultural resources, based on the criterion of effect and criteria of adverse effect found in ACHP regulations.

## CHAPTER FORMAT

The remainder of chapter 4 is divided into two parts: “Impact Intensity Thresholds” and “Alternatives Analysis.” Under “Impact Intensity Thresholds,” each impact topic contains a discussion of the methodology used to assess the impacts under “Alternatives Analysis.” Each alternative analyzed in this draft EIS contains a summary of the laws, regulations, and policies that apply to the respective alternative (detailed information on all laws, regulations, and policies is located under chapter 1, followed by an analysis of effect. Cumulative impacts of the alternatives are discussed at the end of chapter 4.

The alternatives analysis is the heart of the draft environmental impact statement that assesses the potential environmental impacts of each alternative. With the exception of the no-action alternative, the potential impacts are presented in terms of the conceptual land use scenarios of open space / park, interpretive / nature / history center, and training center / office park. A description of the conceptual land use scenarios is located in chapter 2. The following is an outline of how each impact topic is addressed for (1) alternative A (no action), and (2) alternatives B, C, and D:

Alternative A (No Action)	Alternatives B, C, and D
Impact Topic Description Impacts Summary (Section 106 Assessment of Effect)	Impact Topic Description Open Space / Park Scenario Assumptions Impacts Interpretive / Nature / History Center Scenario Assumptions Impacts Training Center / Office Park Scenario Assumptions Impacts  Summary (Section 106 Assessment of Effect)

Section 106 Assessment of Effect is only relevant to two impact topics—“Archeological Resources” and “Historic Resources,” and is included only under these topics.

## IMPACT INTENSITY THRESHOLDS

### Archeological Resources

Certain important research questions about human history can only be answered by the actual physical material of cultural resources. Archeological resources have the potential to answer, in whole or in part, such research questions. An archeological site(s) can be eligible to be listed

in the NRHP if the site(s) has yielded, or may be likely to yield, information important in prehistory or history. Archeological sites can be nominated to the NRHP on one of three levels of importance: local, state, or national (see *National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation*). For purposes of analyzing impacts to archeological resources, thresholds of change for the intensity of an impact are based on the potential of a site to yield information important in prehistory or history, as well as the probable historic context of an affected site.

Impact Intensity	Intensity Definition
Negligible	<p>Impact is at the lowest levels of detection with neither adverse nor beneficial consequences. Impacts are barely perceptible and not measurable.</p> <p>The determination of effect for section 106 would be <i>no adverse effect</i>.</p>
Minor	<p><b>Adverse:</b> disturbance of a site(s) results in little, if any, loss of integrity.</p> <p>The determination of effect for section 106 would be <i>no adverse effect</i>.</p>
	<p><b>Beneficial:</b> maintenance and preservation of a site(s).</p> <p>The determination of effect for section 106 would be <i>no adverse effect</i>.</p>
Moderate	<p><b>Adverse:</b> Impacts are measurable and perceptible, change one or more character-defining features, but do not diminish the integrity of the site to the extent that its NRHP eligibility is jeopardized.</p> <p>The determination of effect for section 106 would be <i>adverse effect</i>. A loss of integrity could be mitigated through an agreement document.</p>
	<p><b>Beneficial:</b> stabilization and protection of a site(s).</p> <p>The determination of effect for section 106 would be <i>no adverse effect</i>.</p>
Major	<p><b>Adverse:</b> Impacts are substantial, noticeable, and permanent, including disturbance of a site(s) resulting in loss of integrity.</p> <p>The determination of effect for section 106 would be <i>adverse effect</i>. Measures to minimize or mitigate adverse impacts cannot be agreed on and the National Park Service and applicable state or historic preservation officer and/or ACHP are unable to negotiate and execute a MOA in accordance with 36 C.F.R. 800.6(b).</p>
	<p><b>Beneficial:</b> active intervention to preserve a site(s).</p> <p>The determination of effect for section 106 would be <i>no adverse effect</i>.</p>

### Historic Structures and Districts

In order for a structure or building or district to be listed in the NRHP, it must be associated with an important historic context, i.e., possess significance—the meaning or value ascribed to the structure or building, and have integrity of those features necessary to convey its significance, i.e., location, design, setting, workmanship, materials, feeling, and association (see *National Register Bulletin 15, How to Apply the National Register Criteria for Evaluation*). For purposes of analyzing potential impacts to historic structures/buildings and districts, the thresholds of change for the intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Impact is at the lowest levels of detection with neither adverse nor beneficial consequences. The determination of effect for section 106 would be <i>no adverse effect</i> .
Minor	<b>Adverse:</b> Alteration of a feature would not diminish the overall integrity or character-defining features of a NRHP-eligible or listed building, structure, or district.
	<b>Beneficial:</b> stabilization/preservation of features in accordance with the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties</i> . The determination of effect for section 106 would be <i>no adverse effect</i> .
Moderate	<b>Adverse:</b> Impacts to a NRHP-eligible or listed building, structure, or district would change the character-defining features of the resource, but does not diminish the integrity of the resource to the point of being ineligible. The determination of effect for section 106 would be <i>adverse effect</i> . A MOA would be executed among the National Park Service and Minnesota SHPO and, if necessary, the ACHP in accordance with 36 C.F.R. 800.6(b). Measures identified in the MOA would minimize or mitigate adverse impacts and/or preserve important information.
	<b>Beneficial:</b> Rehabilitation of a structure in accordance with the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties</i> . The determination of effect for section 106 would be <i>no adverse effect</i> .
Major	<b>Adverse:</b> Impacts to a NRHP-eligible or listed building, structure, or district would change character-defining features of a resource, diminishing the integrity of the resource to the extent that it is no longer eligible for listing on the NRHP. The determination of effect for section 106 would be <i>adverse effect</i> . Measures to minimize or mitigate adverse impacts cannot be agreed on and the National Park Service and applicable state or historic preservation officer and/or ACHP are unable to negotiate and execute a MOA in accordance with 36 C.F.R. 800.6(b).
	<b>Beneficial:</b> Restoration of a structure in accordance with the <i>Secretary of the Interior's Standards for the Treatment of Historic Properties</i> . The determination of effect for section 106 would be <i>no adverse effect</i> .

## Ethnographic Resources

Certain important questions about human culture and history can only be answered by gathering information about the cultural content and context of associated cultural resources. Questions about contemporary peoples or groups, their identity, and heritage have the potential to be addressed through ethnographic resources. As defined in NPS Director's Order – 28: *Cultural Resource Management Guideline* (NPS 1998), ethnographic resources can be both natural and cultural resources that have been identified as having cultural significance by culturally associated users. Some specific places of traditional cultural use may be eligible for inclusion in the NRHP if the criteria for TCPs are met. For purposes of analyzing potential impacts to ethnographic resources for NEPA compliance, the thresholds of change for the intensity of an impact are defined below:

Impact Intensity	Intensity Definition
Negligible	<p>The impact(s) would be barely perceptible and would not alter resource conditions such as access or site preservation.</p> <p>Or</p> <p>The impact(s) would not alter the relationship between the resource and the affiliated group's body of practices and beliefs. There would be no change to a group's body of beliefs and practices.</p>
Minor	<p><b>Adverse Impact:</b> The Impact would be slight but noticeable and would not appreciably alter resource conditions such as access or site preservation.</p> <p>Or</p> <p>The impact(s) would be slight but noticeable and would not alter the relationship between the resource and the affiliated group's body of beliefs and practices.</p>
	<p><b>Beneficial impact:</b> The action would allow access to and/or accommodate a group's traditional practices or beliefs.</p>
Moderate	<p><b>Adverse Impact:</b> The impact would be apparent and would alter resource conditions, access, or site preservation.</p> <p>Or</p> <p>The impact(s) would be apparent and would negatively alter the relationship between the resource and the affiliated group's beliefs and practices.</p>
	<p><b>Beneficial impact:</b> The action would facilitate a group's traditional access to the resource, and/or noticeably improve the condition of the resource or site preservation.</p>
Major	<p><b>Adverse Impact:</b> The impact would greatly alter resource conditions or block or greatly affect access or site preservation.</p> <p>Or</p> <p>The impact would greatly alter the relationship between the resource and the affiliated group's body of beliefs and practices.</p>
	<p><b>Beneficial impact:</b> The action would encourage the culturally associated group's traditional access to the resource and/or greatly improve the condition of the resource or site preservation.</p>

## Soils

All available information on soils potentially impacted through implementation of the alternatives discussed in this draft EIS was compiled from U. S. Department of Agriculture, Natural Resources Conservation Service soil survey maps and soil series descriptions. Predictions about short- and long-term site impacts were based on previous projects with similar soils and recent studies. The thresholds of change for the intensity of an impact to soils are defined as follows:



<b>Impact Intensity</b>	<b>Intensity Definition</b>
Negligible	Soils would not be affected or the effects to soils would be below or at the lower levels of detection. Any effects to soil productivity or fertility would be slight and no long-term effects to soils would occur.
Minor	The effects to soils would be detectable. Effects to soil productivity or fertility would be small as would the area affected. If mitigation were needed to offset adverse effects, it would be relatively simple to implement and would likely be successful.
Moderate	The effect on soil productivity or fertility would be readily apparent, likely long term, and result in a change to the soil character over a relatively wide area. Mitigation measures would probably be necessary to offset adverse effects and would likely be successful.
Major	The effect on soil productivity or fertility would be readily apparent, long term, and substantially change the character of the soils over a large area in and out of the Center. Mitigation measures to offset adverse effects would be needed, extensive, and their success could not be guaranteed.

Soil impacts would be considered short term if the soils recover in less than three years and long term if the recovery takes longer than three years.

## Vegetation

All available information on vegetation and vegetative communities potentially impacted through implementation of the alternatives discussed in this draft EIS was compiled from data available from the Minnesota Department of Natural Resources, and from the wetlands delineation report prepared for the Center (e<sup>2</sup>M 2005). Where possible, map locations of sensitive vegetation species, populations, and communities were identified. Predictions about short- and long-term site impacts were based on previous projects with similar vegetation and recent studies. The thresholds of change for the intensity of an impact are defined as follows:

<b>Impact Intensity</b>	<b>Intensity Definition</b>
Negligible	No native vegetation would be affected or some individual native plants could be affected as a result of the alternative, but there would be no effect on native species populations. The effects would be short term, on a small scale, and no species of special concern would be affected.
Minor	The alternative would affect some individual native plants and would also affect a relatively minor portion of that species' population. Mitigation to offset adverse effects, including special measures to avoid affecting species of special concern, could be required and would be effective.
Moderate	The alternative would affect some individual native plants and would also affect a sizeable segment of the species' population in the long term and over a relatively large area. Mitigation to offset adverse effects could be extensive, but would likely be successful. Some species of special concern could also be affected. Beneficial impacts could include reduction of nonnative or invasive species and/or reintroduction of native species.

Impact Intensity	Intensity Definition
Major	The alternative would have a considerable long-term effect on native plant populations, including species of special concern, and affect a relatively large area in and out of the Center. Mitigation measures to offset adverse effects would be required, extensive, and success would not be guaranteed. Beneficial impacts might include eradicating nonnative or invasive species and/or reestablishing native plant communities.

Duration of vegetation impacts is considered short term if the vegetation recovers in less than three years and long term if the vegetation takes longer than three years to recover.

### Wildlife

Natural processes should be relied upon to control populations of native species to the greatest extent possible; otherwise, they are protected from harm by human activities. Examples of management goals for wildlife include maintaining components and processes of naturally evolving park ecosystems, including natural abundance, diversity, and the ecological integrity of plants and animals. The thresholds of change for the intensity of an impact to wildlife are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Wildlife would not be affected or the effects would be at or below the level of detection, would be short term, and the changes would be so slight that they would not be of any measurable or perceptible consequence to the wildlife species' population.
Minor	Effects to wildlife would be detectable, although the effects would be localized, and would be small and of little consequence to the species' population. Mitigation measures, if needed to offset adverse effects, would be simple and successful.
Moderate	Effects to wildlife would be readily detectable, long term, and localized, with consequences at the population level. Mitigation measures, if needed to offset adverse effects, would be extensive and likely successful.
Major	Effects to wildlife would be obvious, long term, and would have substantial consequences to wildlife populations in the region. Extensive mitigation measures would be needed to offset any adverse effects, and their success would not be guaranteed.

The duration of wildlife impacts is considered short term if the recovery is less than one year and long term if the recovery is longer than one year.

### Hydrology

Hydrology refers to hydrologic processes such as flood erosion and deposition, and channel movement. Particular attention was given to alterations to, or restoration of, water flow from Camp Coldwater Spring, and the overall hydrologic processes present on the Center, which is

within the Minnehaha Creek watershed lower basin. The thresholds of change for the intensity of an impact to hydrology are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Hydrology would not be affected, or changes would be either non-detectable or if detected, would have effects that would be considered slight, local, and short term.
Minor	Changes in hydrology would be measurable, although the changes would be localized. No mitigation measures associated with hydrology would be necessary.
Moderate	Changes in hydrology would be measurable and long term, but would be relatively local. Mitigation measures associated with hydrology would be necessary and would likely succeed.
Major	Changes in hydrology would be readily measurable, would have substantial consequences, and would be noticed on a regional scale. Mitigation measures would be necessary, and their success would not be guaranteed.

The effects to hydrology are considered short term if, following final disposition and any related construction, the changes would last less than one year. Impacts would be long term if, following final disposition and any related construction, the changes to hydrology last more than one year or are permanent.

## Water Quality

A water quality standard defines the water quality goals of a water body by designating uses to be made of the water, by setting minimum criteria to protect the uses, and by preventing degradation of water quality through antidegradation provisions. The antidegradation policy is only one portion of a water quality standard. Part of this policy (40 C.F.R. 131.12(a)(2)) strives to maintain water quality at existing levels if it is already better than the minimum criteria. Antidegradation should not be interpreted to mean that “no degradation” can or will occur because even in the most pristine waters, degradation may be allowed for certain pollutants as long as it is temporary and short term.

An additional consideration in assessing the magnitude of water quality impacts includes the effect on those resources dependent on a certain quality or condition of water. Sensitive aquatic organisms, submerged aquatic vegetation, riparian areas, and wetlands are affected by changes in water quality from direct and indirect sources.

In order to assess the magnitude of water quality impacts to Center waters under the various alternatives, state water quality standards governing the waters of the Center were examined and compared to baseline water quality data.

Given the above water quality issues, methodology, and assumptions, the following impact thresholds were established in order to describe the relative changes in water quality and quantity (overall, localized, short and long term, cumulative, adverse, and beneficial).

Impact Intensity	Intensity Definition
Negligible	Chemical or physical changes to water quality would not be detectable, would continue to conform to state water quality standards or criteria, and would be within historical water quality conditions.
Minor	Chemical or physical changes to water quality would be detectable, but would be well within state water quality standards or criteria and within historical water quality conditions.
Moderate	Chemical or physical changes to water quality would be detectable, but would be at or below state water quality standards or criteria. Water quality would be altered on a short-term basis and/or localized compared to historical baseline water quality conditions.
Major	Chemical or physical changes to water quality would be detectable and would be frequently altered from the historical baseline water quality conditions; and/or chemical, physical, or biological water quality standards or criteria would be regional and exceeded on a long-term basis.

The effects to water quality are considered short term if, following final disposition and any related construction, the recovery would take less than one year. Impacts would be long term if, following final disposition and any related construction, water quality takes more than one year to recover.

### Wetlands

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes, (2) the substrate is predominantly undrained hydric soil, and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season (USFWS 1979). The planning team based the impact analysis and the conclusions for possible impacts to wetlands on the onsite inspection of known and potentially jurisdictional wetlands at the Center (e<sup>2</sup>M 2005), review of existing literature and studies, information provided by experts in the National Park Service and other agencies, and the MNRRA staff insights and professional judgment. Where possible, map locations of wetlands were compared with locations of proposed developments and modifications of existing facilities. Predictions about short and long term site impacts were based on previous studies of impacts to wetlands from similar projects and recent scientific data. The thresholds of change for the intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Wetlands would not be affected or the effects to the resource would be below or at the lower levels of detection. No long-term effects to wetlands would occur and any detectable effects would be slight. A Clean Water Act section 404 permit would not be necessary.

Impact Intensity	Intensity Definition
Minor	The effects to wetlands or floodplains would be detectable and relatively minor in terms of area and the nature of the change. A Clean Water Act section 404 permit would not be required. No long-term effects to wetlands or floodplains would occur.
Moderate	The alternative would result in effects to wetlands or floodplains that would be readily apparent, including a long-term effect on wetlands vegetation. A Clean Water Act section 404 permit could be required. Wetlands or floodplain functions would not be affected in the long term.
Major	Effects to wetlands or floodplains would be observable over a relatively large area, would be long term, and would require a Clean Water Act section 404 permit. The character of the wetlands or floodplain would be changed so that the functions typically provided by the wetlands or floodplain would be substantially changed.

The effects to wetlands are considered short term if the wetlands recover in less than three years. Impacts would be long term if the wetlands take more than three years to recover.

## Socioeconomics

Socioeconomic impact analysis within the context of NEPA typically assesses the impacts of a proposed action or alternatives on both the social and economic aspects of the area or region affected by a proposed action. Frequently, these two impact topics are assessed together under the heading “Socioeconomics,” giving emphasis to the economic impacts of a proposed action.

Issues were identified through the scoping process, and concerns covered by this section include effects on adjacent landowners, economic contributions of the Center to local economies, traditional land uses external to Center boundaries, and possible conflicts between the proposed action and local, state, or Indian tribal land use plans, policies, or controls. The thresholds of change for the intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	No effects would occur or the effects to socioeconomic conditions would be below or at the level of detection. The effect would be slight and no long-term effects to socioeconomic conditions would occur.
Minor	The effects to socioeconomic conditions would be detectable, although short term. Any effects would be minor and if mitigation were needed to offset potential adverse effects, it would be simple and successful. Activity that may occur on the site, but is negligible in relation to the total activity of the surrounding metropolitan community.
Moderate	The effects to socioeconomic conditions would be readily apparent and likely long term. Any effects would result in changes to socioeconomic conditions on a local scale. If mitigation is needed to offset potential adverse effects, it could be extensive, but would likely be successful.
Major	The effects to socioeconomic conditions would be readily apparent, long term, and would cause substantial changes to socioeconomic conditions in the region. Mitigation measures to offset potential adverse effects would be extensive and their success could not be guaranteed.

All of the socioeconomic impacts are considered long term, except temporary construction-related activities, which are not separately addressed in this analysis.

### Health and Safety

The impact assessment for health and safety focused on the number of potential individuals that would be impacted at the Center and the potential severity of the impact. The thresholds of change for the intensity of an impact are defined as follows:

Impact Intensity	Intensity Definition
Negligible	Public health and safety would not be affected, or the effects would be at low levels of detection and would not have an appreciable effect on the public health or safety.
Minor	The effect would be detectable and would likely be short term, but would not have an appreciable effect on public health and safety. If mitigation were needed, it would be relatively simple and would likely be successful.
Moderate	The effects would be readily apparent and long term, and would result in substantial, noticeable effects to public health and safety on a local scale. Mitigation measures would probably be necessary and would likely be successful.
Major	The effects would be readily apparent and long term, and would result in substantial, noticeable effects to public health and safety on a regional scale. Extensive mitigation measures would be needed, and their success would not be guaranteed.

The effects to health and safety are considered short term if they last one year beyond the duration of final disposition and any related construction. Impacts would be long term if they last longer than one year past the final disposition and any related construction.

### Land Use

The impact assessment for land use focuses on the conformance of the alternatives to the existing area land uses, any existing city or county zoning, the Minneapolis-St. Paul International Airport Zoning Ordinance, and existing easements, licenses, rights-of-way, and leases. The analysis was conducted by examining the historic use of the Center, the types of land uses in the immediate area, and the existing easements, rights-of-way, and leases. The following definitions were used to assess the intensity of an impact:

Impact Intensity	Intensity Definition
Negligible	Land use in the form of construction of facilities and/or location or introduction of recreational or other activities in all cases conforms to the existing area land uses, any existing city or county zoning, the Minneapolis-St. Paul International Airport Zoning Ordinance, and existing easements, licenses, rights-of-way, and leases.
Minor	Land use in the form of construction of facilities and/or location or introduction of recreational or other activities generally conforms to the existing area land uses, any existing city or county zoning, the Minneapolis-St. Paul International Airport Zoning Ordinance (if required), and generally honors existing easements, licenses, rights-of-way, and leases. Nonconforming uses or activities can be easily mitigated to bring them into conformance.
Moderate	Land use in the form of construction of facilities and/or location or introduction of recreational or other activities generally conforms to the existing area land uses, any existing city or county zoning, the Minneapolis-St. Paul International Airport Zoning Ordinance (if required), and generally honors existing easements, licenses, rights-of-way, and leases. Nonconforming uses or activities can be mitigated to bring them into conformance; however, such mitigation is difficult and expensive and may result in substantial changes to the proposal.
Major	Land use in the form of construction of facilities and/or location or introduction of recreational or other activities does not conform to the existing area land uses, any existing city or county zoning, the Minneapolis-St. Paul International Airport Zoning Ordinance (if required), and/or honors all existing easements, licenses, rights-of-way, and leases, and constitutes a conflicting use. Mitigation measures cannot be implemented to change the level of conformance.

The effects to land use are considered short term if they last for the duration of final disposition and any related construction. Impacts would be long term if they last longer than the final disposition and any related construction.

## Visual Resources

In assessing potential effects to visual resources, both the visual character and visual quality are considered. Visual character of a landscape includes landform, water features, vegetation types, and cultural modifications. The visual quality can be described as the excellence of visual experience determined by vividness, intactness, and unity. The viewshed comprises the limits of the visual environment associated with the proposed action, including views within and from the Center, and views of the Center. Views from and of the Center are limited due to dense wooded bluffs and woods or buildings along the west side. Views within the Center are limited in distance due to woods and buildings, and include natural and introduced vegetation, driveways and parking lots, the Center buildings, and Camp Coldwater Spring and Reservoir. The methodology for assessing impacts to visual resources has been established based on these key elements, and is defined as follows:

<b>Impact Intensity</b>	<b>Intensity Definition</b>
Negligible	The impact to visual resources is at the lowest levels of detection, barely perceptible, and not measurable.
Minor	The impact to visual resources would be noticeable, but would not alter the feeling, character, or setting associated with the viewshed of or from the Center.
Moderate	The impact to visual resources would be more noticeable, and may alter the feeling, character, or setting associated with the viewshed of or from the Center. Impacts can be negative or beneficial.
Major	The impact to visual resources would be readily apparent, and would alter the feeling, character, or setting associated with the viewshed of or from the Center. Impacts can be negative or beneficial.

The effects to visual resources are considered short term if they last for the duration of final disposition and any directly related construction. Impacts would be long term if they last longer than the final disposition and any directly related construction.

### **Public Use and Experience**

Public scoping input and observation of visitation patterns, combined with an assessment of what uses are available to visitors under current management, were used to estimate the effects of the actions in the various alternatives of this document. The potential for change in public use proposed by the alternatives was evaluated by identifying projected increases or decreases in public uses, and determining how these projected changes would affect the desired experience, and to what degree and for how long. The thresholds of change for the intensity of an impact to public use and experience are defined as follows:

<b>Impact Intensity</b>	<b>Intensity Definition</b>
Negligible	The public would not be affected or changes in public use and experience would be below or at the level of detection. The public would not likely be aware of the effects associated with the alternative.
Minor	Changes in public use and experience would be detectable, although the changes would be slight and likely short term. Some members of the public would be aware of the effects associated with the alternative, but the effects would be slight.
Moderate	Changes in public use and experience would be readily apparent and likely long term. The public would be aware of the effects associated with the alternative and would likely express an opinion about the changes.
Major	Changes in public use and experience would be readily apparent and have important long-term consequences. The public would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.

The effects to public use and experience are considered short term if they last for the duration of final disposition and any related construction. Impacts would be long term if they last longer than the final disposition and any related construction.



## IMPACT ANALYSIS OF ALTERNATIVES

### ALTERNATIVE A

The Secretary of the Interior is authorized, but not directed, to convey the Center under the closure legislation, Pub. L. 104-134 (1996). Accordingly, the Center could be retained by the federal government. The no-action alternative would continue the existing conditions for the Center. Disposition of the Center to a university or nonfederal government entity would not occur.

### Laws, Regulations, and Planning Documents Applicable Under this Alternative

Under the no-action alternative, the Center would remain under federal ownership, therefore:

- The MNRRA would review any federally funded or permitted activities at the Center, including coordinating with the federal department or agency assigned responsibility to protect the resources of the Center, in accordance with the standards established in the CMP, which follow the standards of the Critical Area legislation.
- The federal agency assigned responsibility for the Center under alternative A may not be required to comply with the airport zoning ordinance for repairs to Buildings 1 and 2, pending a determination of the federal basis for such regulations.
- The NHPA would require that the federal administering agency establish a historic preservation program for the Center, in accordance with section 110.
- Detailed information on the laws, regulations and planning documents, and their applicability to this alternative may be found in chapters 1 and 2, respectively.

### Archeological Resources

**Description.** Based on the 2001 study, the Center was organized into five distinct zones based on their potential to yield archeological information. Zones III, IV, and V were found to contain no important cultural materials and warrant no further archeological study. Zone I was recommended for further testing to determine if the area contains cultural materials that would contribute to the Fort Snelling National Historic Landmark and National Historic District. Zone II was found to contain in situ cultural deposits that correspond to the period of significance of the national historic landmark and national historic district. The 2001 study also recommended a revision to the boundaries of the Fort Snelling National Landmark to include Zones I and II (Clouse 2001). That revision is currently in process; for purposes of this draft EIS, it is assumed the boundaries include Zones I and II.

**Impacts.** Management of archeological resources would continue according to current policies. Visitor use would remain at low intensity, and would have the potential for impacting sites through trampling, vandalism, and theft. However, the incidence of unintentional or incidental damage would likely remain relatively low. Impacts would be long term, site specific, adverse, and would be minor.

The no-action alternative does not include provisions for monitoring the condition of the two eligible archeological sites at the Center, nor does it include provisions for site stabilization should erosion or other natural disturbances threaten either recorded sites or previously unrecorded archeological deposits. The potential for impacts from the absence of regular monitoring are site specific, adverse, and would be minor, depending on the site and type of impact.

**Summary.** Impacts related to visitor use and lack of regular monitoring of site conditions would continue to be long term, site specific, adverse, and minor.

**Section 106 Assessment of Effect.** The recent practice of removing trees from the project site, as discussed under “Vegetation,” involves ground disturbance. Because this practice is anticipated to continue under the no-action alternative, the potential of this practice to affect archeological sites should continue to be evaluated under section 106. Apart from this continued practice, there would be no adverse effects on NRHP-eligible or listed archeological resources at the Center as a result of implementation of the no-action alternative.

## **Historic Structures and Districts**

**Description.** There are no individually NRHP-eligible structures within the Center. Eleven of the buildings and structures at the Center are contributing elements to the USBM Twin Cities Research Center Historic District. Camp Coldwater Reservoir and the spring house are considered structures, but are not contributing elements of the USBM Twin Cities Research Center Historic District. Approximately half of the land within the Center falls within the boundaries of the Fort Snelling National Historic Landmark. Resources within the Center of significance to the national historic landmark include Camp Coldwater Spring and Reservoir (Henning 2002). Archeological resources exist at the Center that are considered contributing elements to the Fort Snelling National Historic District and Fort Snelling National Historic Landmark.

**Impacts.** Under the no-action alternative, current maintenance practices at the Center would continue. Current maintenance practices encompass routine maintenance of buildings, but do not include rehabilitation, renovation, or stabilization. The structures would continue to deteriorate. The potential impacts would affect the USBM Twin Cities Research Center Historic District, and Camp Coldwater Spring and Reservoir of the Fort Snelling National Historic Landmark. The potential for impacts from implementation of the no-action alternative are adverse, and would range from minor to moderate.

**Summary.** The potential impacts of the no-action alternative would include impacts on the USBM Twin Cities Research Center Historic District and Camp Coldwater Spring and

Reservoir. Impacts would be adverse, and would range from minor to moderate, depending on the rate of deterioration and the amount of time that deterioration continued unchecked.

**Section 106 Assessment of Effect.** Under the no-action alternative, the USDI, or its designated caretaker, would continue to “mothball” the structures within the Center. Mothballing includes regular maintenance of structures to ensure that the structures do not deteriorate through neglect. Deterioration through neglect is considered to be an adverse effect under section 106 of the NHPA and would affect the buildings and structures that comprise the USBM Twin Cities Research Center Historic District and Camp Coldwater Spring and Reservoir.

## **Ethnographic Resources**

**Description.** Although no historical documentation of American Indian use of Camp Coldwater Spring has been found, the oral traditions and histories collected during investigation suggest that natural springs like Camp Coldwater Spring are associated with sacred healing ceremonies. Camp Coldwater Spring is currently used by some members of the federally recognized Dakota and Ojibwe communities, and other American Indians, as a source of water for ceremonies. The confluence of the Minnesota and Mississippi rivers is not located within the area of the proposed action, but Camp Coldwater Spring should be considered within this larger context. Many American Indian communities have a traditional association with the area surrounding the spring.

**Impacts.** Because no changes would be made under the no-action alternative, access to and the integrity of Camp Coldwater Spring would remain the same. Therefore, no impacts to ethnographic resources at the Center would be expected from implementation of the no-action alternative.

**Summary.** Because no changes would be made under the no-action alternative, no impacts to ethnographic resources at the Center would be expected from implementation of the no-action alternative.

## **Soils**

**Description.** The Center site contains the following soil series and types: Dorset, Forada, Sandberg, Urban Land-Hubbard, and Urban Land-Udipsamments (NRCS 2005). Platteville limestone underlies surficial soils 10 to 50 feet below the ground surface. It is important to note that recent archeological testing suggests that soils over much of the Center site have been disturbed (buried, cut and filled, etc.) during construction of facilities and roads.

**Impacts.** Because no changes would be made under the no-action alternative, impacts to soils at the Center would remain short and long term, negligible, and adverse, largely as a result of erosion associated with social trails.

**Summary.** Because no changes would be made under the no-action alternative, impacts to soils at the Center would remain short and long term, negligible, and adverse.

## Vegetation

**Description.** Natural vegetation exists on the site's bluff slope, toeslope, and on the Mississippi River floodplain terrace. The bluff slope located on the eastern boundary of the project site supports a maple – basswood forest community. The toeslope, maintained in a saturated condition by natural groundwater seepage, supports a black ash swamp community. Occupying the Mississippi River floodplain adjacent to the toeslope and to the river's edge is a relatively unaltered forest community characterized by silver maple, American elm, green ash, black willow, and eastern cottonwood. Currently, the Center is occupied by business infrastructure and open areas that were constructed or planted following land-leveling activities. In addition, wetlands and successional deciduous woodlands remain from the natural, presettlement condition or have become established on sites disturbed by development.

Removal of trees from the project site, particularly buckthorn (an aggressive nonnative shrub) and species of elm (to control the spread of Dutch elm disease), has occurred in recent years. This practice is anticipated to continue under the no-action alternative.

**Impacts.** Because no changes to current practices would be made under the no-action alternative, impacts to vegetation at the Center would be short and long term, minor, and adverse as a result of the existing disturbance and loss of native vegetation. The potential to restore the area to a natural community, such as an oak savanna, would be possible under the other alternatives.

**Summary.** Because no changes to past practices would be made under the no-action alternative, impacts to vegetation at the Center would remain short and long term, minor, and adverse.

## Wildlife

**Description.** The Mississippi River valley and its tributaries in east-central Minnesota attract an array of wildlife that use diverse habitats. Over 260 bird species are common to this area, and of these, 120 are known to nest in this part of Minnesota. At least 50 mammals occur within the Mississippi River corridor and some are likely visitors to the Center.

**Impacts.** Because no changes would be made under the no-action alternative, impacts to wildlife at the Center would remain short and long term, minor, and adverse, largely because developed areas have altered or destroyed habitat. Under the other alternatives, areas could potentially be converted to more suitable habitat for wildlife.

**Summary.** Because no changes would be made under the no-action alternative, impacts to wildlife at the Center would remain short and long term, minor, and adverse.

## Hydrology

**Description.** The 27.32-acre Center is located on the eastern boundary of the Minnehaha Creek watershed, just south of the intersection of the east-flowing Minnehaha Creek with the Mississippi River, on the west bank of the river. The main drainage from the site is from Camp Coldwater Spring and its associated reservoir. Groundwater can be found within about 20 feet of the land surface in most places within the Minnehaha Creek watershed, including the Center.

**Impacts.** Because no changes would be made under the no-action alternative, impacts to hydrology at the Center would remain short and long term, negligible, and adverse. The current development at the Center does affect infiltration and the hydrologic cycle and would continue to do so.

**Summary.** Because no changes would be made under the no-action alternative, impacts to hydrology at the Center would remain short and long term, negligible, and adverse.

## Water Quality

**Description.** The outflow from Camp Coldwater Reservoir is measured for water quality along with the flow rate. The water quality measurements include temperature and specific conductivity.

**Impacts.** Because no changes would be made under the no-action alternative, impacts to water quality at the Center would remain short and long term, negligible, and adverse. The current development at the Center does affect water quality and would continue to do so.

**Summary.** Because no changes would be made under the no-action alternative, impacts to water quality would remain short and long term, negligible, and adverse.

## Wetlands

**Description.** The *National Wetlands Inventory* map that includes the Center site shows a single wetland within the Center boundaries: Camp Coldwater Reservoir. An on-site delineation also revealed the presence of additional wetlands that are not shown on the *National Wetlands Inventory* map.

**Impacts.** Because no changes would be made under the no-action alternative, impacts to wetlands at the Center would be short and long term, major, and adverse. Structures have been built in existing wetlands, destroying some habitat.

**Summary.** Because no changes would be made under the no-action alternative, impacts to wetlands at the Center would remain short and long term, major, and adverse.

## Socioeconomics

**Description.** The Center is an integral part of the socioeconomic make-up of the surrounding community. When operational, it employed as many as 200 workers. Today, it functions as an informal adjunct to adjoining properties and, when open to the public, a destination for visitors to the Camp Coldwater Spring area. One aspect of the socioeconomy that would be affected by the various alternatives, other than employment, is operation and maintenance of the Center.

**Impacts.** Because no changes would be made under the no-action alternative, there would be no impacts on the socioeconomic setting as a result of implementing the no-action alternative.

**Summary.** Because no changes would be made under the no-action alternative, there would be no impacts on the socioeconomic setting as a result of implementing the no-action alternative.

## Health and Safety

**Description.** In anticipation of divestiture of the Center, the TCRC Closure Team conducted an extensive environmental cleanup in the late 1990s. Although many potentially hazardous materials, such as chemicals and wastes associated with laboratories, were removed, others (e.g., asbestos, mold) remain in some buildings.

A recent safety evaluation (USFWS 2005) determined that “break-ins” into the Center grounds and buildings continue to occur, and potential intruders could be exposed to electrical hazards, fall hazards, and physical hazards (such as broken windows). Aging and weathering of the buildings over time would result in increased incidence of hazardous conditions, which if encountered by potential intruders, would result in a localized, long-term, negligible, adverse impact to health and safety.

**Impacts.** Because no changes would be made under the no-action alternative, the buildings of the Center would continue to deteriorate over time. Aging and weathering of the buildings would result in localized releases of asbestos, PCBs, radon, and lead-based paint into the atmosphere where workers and potential intruders accessing the buildings could be exposed to these hazardous materials. Mitigation measures, including continued testing of the building environments for any sign of increased contamination and the wearing of personal protective equipment by workers accessing the buildings should contamination be detected, would reduce the localized, long-term, adverse impacts to a negligible level.

**Summary.** Impacts to health and safety under the no-action alternative would be localized, long term, negligible, and adverse.

## Land Use

**Description.** Land use of the Center from its inception in 1949 through closure in 1995 was for governmental light industrial purposes. The lands surrounding the Center are primarily government-owned and used for recreation or for government offices or a medical center. The

other prominent land use in the area is the Minneapolis-St. Paul International Airport, which lies southwest of the Center. Although the airport is not contiguous with the Center, airport zoning regulations and Federal Aviation Administration airspace obstruction rules play an important role in governing land uses at the Center.

**Impacts.** Because no changes would be made under the no-action alternative, there would be no impacts to land use at the Center. All existing easements, licenses, rights-of-way, and leases would continue to be honored.

**Summary.** Because no changes would be made under the no-action alternative, there would be no impacts to land use at the Center. All existing easements, licenses, rights-of-way, and leases would continue to be honored.

## **Public Use and Experience**

**Description.** The Center, which is open to the public during specified hours, has a park-like setting, with grassy lawn areas and occasional shade trees surrounding vacant buildings and the Camp Coldwater Spring area. During the time that the Center was operating in its official capacity (until 1995), it was not open for general public use and visitation. The Center is now used by the public on a frequent basis as an extension of the open space present in the surrounding parks and open areas. The area around Camp Coldwater Spring is viewed by some members of the public as being spiritually important and is used for meditation and a source of inspiration. Many groups of people have a special fondness for the Center property. Visitors to the Center include American Indians, spiritualists, environmentalists, and residents of the nearby neighborhoods. The alternatives presented in this draft EIS along with the scenarios present differing levels of access to the Center by the public for continuing the personal rituals and meditations as they currently exist.

Under the no-action alternative, the public may currently access the Center Monday through Friday, 9:00 a.m. to 3:00 p.m., excluding federal holidays. Recent installation of additional fencing to limit public access when the Center is open directs the public to Camp Coldwater Spring and Reservoir and prohibits entrance to site buildings. American Indian, spiritual, environmental, and neighborhood groups who now visit the site could continue to do so during the specified hours of operation.

**Impacts.** Public scoping has revealed a desire for the Center to be open on nights and weekends. However, no changes to public use or experience would be made under the no-action alternative. Because public access to and use of the Center is limited to Monday through Friday, 9:00 a.m. to 3:00 p.m., existing impacts to public use and experience at the Center would be considered short and long term, moderate to major, and adverse.

**Summary.** Because no changes would be made under the no-action alternative, impacts to public use and experience at the Center would be considered short and long term, moderate to major, and adverse.

## Visual Resources

**Description.** The visual characteristics of the Center include a relatively limited viewshed (less than 1,000 feet and not expansive), dense woods and bluffs, nonnative vegetation and landscaping, driveways and parking lots, the Center buildings, and Camp Coldwater Spring and Reservoir. Characteristics along the Center edges include views of an urban setting with commercial and residential buildings and SH 55 and SH 68. The overall visual quality is average to below average because of lack of vividness and distinctiveness. This is due to lack of coordinated or harmonious design and deteriorating condition of the buildings and grounds.

**Impacts.** The no-action alternative would not change the characteristics of the Center, nor would minimal maintenance of the Center improve visual quality. Impacts to visual resources under the no-action alternative would, therefore, be localized and continue to be long term, minor to moderate, and adverse.

**Summary.** Impacts to visual resources under the no-action alternative would, therefore, be localized, long term, minor to moderate, and adverse.

## ALTERNATIVE B

Under alternative B, the Center would be conveyed to a university or nonfederal government entity with no conditions imposed on the future use of the Center, or the land, except for those restrictions on use that currently exist and arise from applicable laws and regulations. The university or nonfederal government entity that receives the Center would have no restrictions on its subsequent use, transfer or sale. Therefore, any future owner under this alternative would be free to subsequently use, sell, and transfer the Center to a private entity for various uses or development.

## Laws, Regulations, and Planning Documents Governing Use Under Alternative B

### MNRRRA Enabling Legislation and the MNRRRA Comprehensive Management Plan

Under the MNRRRA enabling legislation and the MNRRRA CMP, the National Park Service would review federally funded or permitted activities. The CMP was developed to provide a similar level of protection as the Critical Area legislation. Any nonfederal government entities would be subject to these state requirements, as discussed below.

### Mississippi River Corridor Critical Area

If the Center were conveyed under this alternative, the entity would be required to comply with the Critical Areas Act of 1973, State Executive Order 79-19. This would limit structure height, prevent disturbance of steep slopes, and limit removal of vegetation.



## Minneapolis-St. Paul International Airport Zoning Ordinance

In any of the circumstances in alternative B, the transferee of the Center would be required to comply with the requirements of the airport zoning ordinance. If the Center were to transfer to a university or nonfederal government entity, the entity that administers the Center would have to determine its own compliance obligations pertaining to the airport zoning ordinance. All existing buildings on the Center are currently within the topographic height limitations of the airspace obstruction zone. However, evaluation of the airport zoning ordinance requirements and restrictions may be necessary for rehabilitation of existing structures.

Under the airport zoning ordinance, the maximum construction height for most of the Center is 30 feet (see figure 6). The northernmost part of the Center falls into an area of maximum construction height of 60 feet. Any new construction on the Center property would be required to comply with these maximum construction heights. Also, permits may be required for repairs or rehabilitation for any existing building that is taller than the maximum construction height (Buildings 1 and 2).

Under land use scenarios calling for use as a training center / office park or as an interpretive / nature / history center, new construction and rehabilitation of existing structures should proceed, while giving consideration to the safety zone requirements in the airport zoning ordinance (see figure 5). No new structures or trees would be allowed in Safety Zone A. Buildings 4 and 11 lie in Safety Zone A. However, because these buildings are existing, they could be rehabilitated or repaired, provided they were not rehabilitated to a height greater than the maximum construction height of Safety Zone A.

Buildings 1, 2, 3, and 9 are located in Safety Zone B. Under the airport zoning ordinance, certain uses that would result in large group gatherings or storage and use of fuels are prohibited. Although none of the land use circumstances described above are prohibited uses in Safety Zone B, certain structures that could be associated with those uses, such as an outdoor amphitheater, may be prohibited. Planting vegetation that could reach certain heights may also be prohibited.

## Camp Coldwater Spring Protection Legislation – Minnesota Senate File 2049 and Minnesota Historic Sites Act

The State of Minnesota enacted legislation in 2001 to protect the flow of groundwater to and from Camp Coldwater Spring. The legislation, sometimes referred to as S.F. 2049, dated May 15, 2001 (2001 Minn. Sess. L. Serv. ch. 101), states that

Neither the state, nor a unit of metropolitan government, nor a political subdivision of the state may take any action that may diminish the flow of water to or from Camp Coldwater Springs [sic]. All projects must be reviewed under the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act with regard to the flow of water to or from Camp Coldwater Springs [sic].

Camp Coldwater is designated as a state historic site under the Minnesota Historic Sites Act, Minn. Stat. §§ 138.661 – 138.669 (see § 138.662, subdivision 6). As a

Minnesota historic site, any state departments, agencies, and political subdivisions, including the Board of Regents of the University of Minnesota, have a responsibility to protect the physical features and historic character of Camp Coldwater, if any of these entities were to undertake projects affecting this resource. Specifically, the Minnesota Historic Sites Act states that

Before carrying out any undertaking that will affect designated or listed properties, or funding or licensing an undertaking by other parties, the state department or agency shall consult with the Minnesota Historical Society pursuant to the society's established procedures to determine appropriate treatments and to seek ways to avoid and mitigate any adverse effects on designated or listed properties.

Any state recipient of the Center property must comply with the requirements of Minnesota S.F. 2049 and the Minnesota Historic Sites Act in any development and use of the property. Any projects that may impact the flow of groundwater to or from Camp Coldwater Spring, or that impact the physical features of Camp Coldwater, such as the spring, contemplated by a future owner that is a state entity must be reviewed in accordance with the Camp Coldwater Spring protection legislation and the Minnesota Historic Sites Act under this alternative.

#### National Historic Preservation Act

The federal government will comply with section 106 of the NHPA to determine appropriate mitigation for historic properties prior to conveyance. Once the NHPA section 106 process is completed, no covenants or restrictions protecting cultural resources would be placed on the conveyance. The NHPA section 106 process would be completed with the knowledge that any required mitigation could not include protective measures that would require conditions to be placed on the transfer. Therefore, any identified mitigation would be completed prior to conveyance of the Center. Once the Center is conveyed to a university or nonfederal government entity, no federal protections would be available for historic properties unless an action causing an effect to the site was a federal action as defined by the NHPA.

Minnesota Statutes, Chapter 138, Historical Societies, Sites, Archives, Archeology, Folklore, would offer some protection to archeological sites, if the Center is transferred to a state entity or government. Section 138.33, "Unlicensed field archeology prohibited," states

No person, including state or other public employees other than the state archaeologist and individuals duly licensed by the director of the Minnesota Historical Society shall engage in any field archaeology on any state site.

#### **Archeological Resources**

**Description.** Based on the 2001 study, the Center was organized into five distinct zones based on their potential to yield archeological information. Zones III, IV, and V were found to contain no important cultural materials and warrant no further archeological study. Zone I

was recommended for further testing to determine if the area contains cultural materials that would contribute to the Fort Snelling National Historic Landmark and National Historic District. Zone II was found to contain in situ cultural deposits that correspond to the period of significance of the national historic landmark and national historic district. The 2001 study also recommended a revision to the boundaries of the Fort Snelling National Landmark to include Zones I and II (Clouse 2001). That revision is currently in process; for purposes of this draft EIS, it is assumed the boundaries include Zones I and II.

#### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurface would be subject to disturbance.

**Impacts.** Under this scenario, impacts would include the loss of the archeological resource because the new owner could undertake actions that could impact archaeological sites. Prior to conveyance, the USDI would consult with the SHPO, the ACHP, federally recognized tribes, and interested parties to negotiate and execute a programmatic agreement to consider the eventual loss of the resource upon conveyance. It is assumed the USDI would complete all necessary inventories and data recovery plans, accessioning of artifacts, and all other provisions of the programmatic agreement. The impacts would be long term, moderate, and adverse because the resource would be permanently removed from context, but the information available in the data recovery would be available for future research.

#### Interpretative / Nature / History Center Scenario

**Assumptions.** Under this scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. New structures could be built at the Center, and all or a portion of the existing buildings would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in the current form; improvements may be required if reuse is desired.

**Impacts.** Under this scenario, impacts would include the loss of the archeological resource because the new owner could undertake actions that could impact archeological sites. Prior to conveyance, the USDI would consult with the SHPO, the ACHP, federally recognized tribes, and interested parties to negotiate and execute a programmatic agreement to consider the eventual loss of the resource upon conveyance. It is assumed the USDI would complete all necessary inventories and data recovery plans, accessioning of artifacts, and all other provisions of the programmatic agreement. The impacts would be long term, moderate, and

adverse because the resource would be permanently removed from context, but the information available in the data recovery would be available for future research.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Under this scenario, use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most of the existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in the current form; improvements may be required.

**Impacts.** Under this scenario, impacts would include the loss of the archeological resource because the new owner could undertake actions that could impact archeological sites. Prior to conveyance, the USDI would consult with the SHPO, the ACHP, federally recognized tribes, and interested parties to negotiate and execute a programmatic agreement to consider the eventual loss of the resource upon conveyance. It is assumed the USDI would complete all necessary inventories and data recovery plans, accessioning of artifacts, and all other provisions of the programmatic agreement. The impacts would be long term, moderate, and adverse because the resource would be permanently removed from context, but the information available in the data recovery would be available for future research.

**Summary.** Prior to transfer of ownership to a university or nonfederal government entity, the USDI would complete the section 106 process to properly consider the effects of the transfer on archeological resources. Regardless of any of the land use scenarios described above, the overall impact on the resource would be long term, moderate, and adverse because the resource would be permanently removed from context, but the information available in the data recovery would be available for future research.

**Section 106 Assessment of Effect.** The transfer of the Center out of federal control is considered to be an adverse effect under 36 C.F.R. 800.5. As noted above, the USDI would complete the section 106 process to properly consider and mitigate for adverse effects on archeological resources.

### Historic Structures and Districts

**Description.** There are no individually NRHP-eligible structures within the Center. Eleven of the buildings and structures at the Center are contributing elements to the USBM Twin Cities Research Center Historic District. Camp Coldwater Reservoir and the spring house are considered structures, but are not contributing elements of the USBM Twin Cities Research Center Historic District. Approximately half of the land within the Center falls within the boundaries of the Fort Snelling National Historic Landmark. Resources within the Center of significance to the national historic landmark include Camp Coldwater Spring and Reservoir (Henning 2002). Archeological resources exist at the Center that are considered contributing elements to the Fort Snelling National Historic District and Fort Snelling National Historic Landmark.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas, where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under this scenario, impacts would result from loss of some or all structures. Prior to conveyance, the USDI would consult with the SHPO, ACHP, federally recognized tribes, and interested parties to negotiate and execute an agreement document to consider the eventual loss of the resource upon conveyance. It is assumed the USDI would complete all necessary inventories and data recovery plans, documentation of the structures and district, and all other provisions of the agreement document. The impacts to both USBM Twin Cities Research Center Historic District and Camp Coldwater Spring and Reservoir would be long term, moderate, and adverse because the resources would be permanently removed from context, but the information available in the data recovery would be available for future research.

### Interpretative / Nature / History Center Scenario

**Assumptions.** Under this scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. New structures could be built at the Center, and all or a portion of the existing buildings would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in the current form; improvements may be required if reuse is desired.

**Impacts.** Under this scenario, impacts could include loss of some or all structures. Prior to conveyance, the USDI would consult with the SHPO, ACHP, federally recognized tribes, and interested parties to negotiate and execute an agreement document to consider the eventual loss of the resource upon conveyance. It is assumed the USDI would complete all necessary inventories and data recovery plans, documentation of the structures and district, and all other provisions of the agreement document. The impacts to both USBM Twin Cities Research Center Historic District and Camp Coldwater Spring and Reservoir would be long term, moderate, and adverse because the resources would be permanently removed from context, but the information available in the data recovery would be available for future research.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Under this scenario, use would include total reuse of existing

structures, reuse of as few as one building, and all new construction. Most of the existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in the current form; improvements may be required.

**Impacts.** Under this scenario, impacts could include loss of some or all structures. Prior to conveyance, the USDI would consult with the SHPO, ACHP, federally recognized tribes, and interested parties to negotiate and execute an agreement document to consider the eventual loss of the resource upon conveyance. It is assumed the USDI would complete all necessary inventories and data recovery plans, documentation of the structures and district, and all other provisions of the agreement document. The impacts to both USBM Twin Cities Research Center Historic District and Camp Coldwater Spring and Reservoir would be long term, moderate, and adverse because the resources would be permanently removed from context, but the information available in the data recovery would be available for future research.

**Summary.** Prior to transfer of ownership of the Center to other than a federal owner, the USDI would complete the section 106 process to properly consider the effects of the transfer on the historic structures and districts. Regardless of any of the land use scenarios described above, the overall impact on the resource would be long term, moderate, and adverse because the resource would be permanently removed from context, but the information available in the data recovery would be available for future research.

**Section 106 Assessment of Effect.** The transfer of the Center out of federal control is considered to be an adverse effect under 36 C.F.R. 800.5. As noted above, the USDI would complete the section 106 process to properly consider and mitigate for adverse effects on historic structures and districts.

## Ethnographic Resources

**Description.** Although no historical documentation of American Indian use of Camp Coldwater Spring has been found, the oral traditions and histories collected during investigation suggest that natural springs, like Camp Coldwater Spring, are associated with sacred healing ceremonies. Camp Coldwater Spring is currently used by some members of the federally recognized Dakota and Ojibwe communities, and other American Indians, as a source of water for ceremonies. The confluence of the Minnesota and Mississippi rivers is not located within the area of the proposed action, but Camp Coldwater Spring should be considered within this larger context. Many American Indian communities have a traditional association with the area surrounding the spring.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the

historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurface would be subject to disturbance.

**Impacts.** Under this scenario, the open space / park would be assumed to be open longer than the current public access schedule, thus enabling extended accessibility to Camp Coldwater Spring by American Indian groups, resulting in a negligible to minor, beneficial impact. However, because no conditions would be placed on the transfer under alternative B, the recipient could restrict access to the spring, resulting in moderate to major adverse impacts.

As a result of Camp Coldwater Spring groundwater flow protection afforded by S.F. 2049, and the designation of Camp Coldwater under the Minnesota Historic Sites Act, any state government entity that were to acquire the Center would be required to consult with the Minnesota SHPO prior to any undertaking that would affect physical features or the historic character of Camp Coldwater and the associated spring, although this resource could still be diminished or destroyed after consultation. If the Center is transferred to a nonstate entity, such as a private university, there would be no requirement for compliance with S.F. 2049 or the Minnesota Historic Sites Act, which govern treatment of the physical features and historic character of the Camp Coldwater Spring area, which would result in a long-term, moderate to major, adverse impact.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Under this scenario, the interpretive / nature / history center would be assumed to be open longer than the current public access schedule, thus enabling extended accessibility to Camp Coldwater Spring by American Indian groups, resulting in a negligible to minor beneficial impact. However, because no conditions would be placed on the transfer under alternative B, the recipient could restrict access to the spring, resulting in moderate to major adverse impacts.

It is possible, however, that under this scenario an emphasis on open space would be maintained and access to Camp Coldwater Spring would remain intact, resulting in a long-term, negligible to minor, beneficial impact.

As a result of Camp Coldwater Spring groundwater flow protection afforded by S.F. 2049, and the designation of Camp Coldwater under the Minnesota Historic Sites Act, any state government entity that were to receive the Center would be required to consult with the Minnesota SHPO prior to any undertakings that would affect the physical features or historic character of Camp Coldwater and the associated spring, although this resource could still be

diminished or destroyed after consultation. However, if the Center is transferred to a nonstate entity, such as a private university, there would be no requirement for compliance with S.F. 2049 or the Minnesota Historic Sites Act, which govern treatment of the physical features and historic character of the Camp Coldwater Spring area, which would result in a long-term, major, adverse impact.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** There would be no guarantee of preservation of or access by American Indian communities to Camp Coldwater Spring or associated resources because alternative B places no conditions on the transfer of the Center to a university or nonfederal government entity. New construction and building reuse under the training center / office park scenario would result in restriction of access to Camp Coldwater Spring, or destruction of the spring completely, resulting in long-term, moderate to major, adverse impacts.

As a result of Camp Coldwater Spring groundwater flow protection afforded by S.F. 2049, and the designation of Camp Coldwater under the Minnesota Historic Sites Act, any state government entity that were to acquire the Center would be required to consult with the Minnesota SHPO prior to any undertakings that would affect the physical features or historic character of Camp Coldwater and the associated spring, although this resource could still be diminished or destroyed after consultation. However, if the Center is transferred to a nonstate entity, such as a private university, there would be no requirement for compliance with S.F. 2049 or the Minnesota Historic Sites Act, which govern treatment of the physical features and historic character of the Camp Coldwater Spring area, which would result in a long-term, major, adverse impact.

**Summary.** There would be no guarantee of preservation of or access by American Indian communities to Camp Coldwater Spring or associated resources because alternative B places no conditions on the transfer of the Center to a university or nonfederal government entity. Therefore, impacts range widely. Overall impacts to ethnographic resources under the open space / park scenario would be long term, range from negligible to minor, and beneficial, and long term, major, and adverse. Overall, impacts to ethnographic resources under the interpretive / nature / history center scenario would be long term, range from negligible to minor and beneficial, and moderate to major and adverse. Overall, impacts to ethnographic resources under the training center / office park scenario would be long term, moderate to major, and adverse.



## Soils

**Description.** The Center site contains the following soil series and types: Dorset, Forada, Sandberg, Urban Land-Hubbard, and Urban Land-Udipsamments (NRCS 2005). Platteville limestone underlies surficial soils 10 to 50 feet below the ground surface. It is important to note that recent archeological testing suggests that soils over much of the Center site have been disturbed (buried, cut and filled, etc.) during construction of facilities and roads.

Factors that could affect soils at the Center under the following scenarios include disturbance, erosion potential, and increases or decreases in impermeable surfaces associated with rehabilitation or new structure construction.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Conversion of the Center to open space or a park by a university or nonfederal government entity could involve removal of some or all of the existing Center structures, which would impact soils through the use of vehicles and demolition equipment, and would involve the need to fill in and/or regrade areas of existing foundations and/or parking lots. Under alternative B, no conditions (retention of property or a conservation easement) would be placed on the transfer of the Center, therefore, there would be no requirement for the recipient to take steps to avoid adverse impacts to soils.

Should the recipient choose to remove the existing unused structures without regard for impacts to soils, building sites could be left to revegetate on their own, may suffer from erosion in the meantime, or imported topsoil may not be local. Under these conditions, short-term impacts would be negligible to minor and adverse during demolition, and long-term impacts would be minor to moderate and adverse.

If the recipient elects to implement mitigation measures such as importation of local topsoil and appropriate erosion-control measures to prevent erosion, the impacts to area soils would be reduced. Impacts to soils would be short term, negligible, and adverse. Long-term impacts to soils under this scenario would be minor to moderate and beneficial as removal of structures and replacement of impermeable surfaces with topsoil would return areas to a more natural condition.

### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Reuse of one or more of the existing structures at the Center for an interpretive / nature / history center would require substantial rehabilitation. Rehabilitation would have little impact on soils of the Center unless work on underground piping (such as water or sewerlines) would be required.

The impacts of new construction on soils depends on whether the selected site currently contains structures, and whether existing structures would be removed in addition to the new construction. New construction without removal of any existing structures would increase the area of impermeable surfaces on the Center, and would alter the soils of the site in the long term. Elimination of existing structures would either offset any adverse impacts of new construction, or have a beneficial impact on soils in the long term by reducing the amount of impermeable surface.

Impacts to soils would be short and long term, minor, and adverse if (1) the new construction takes place where no structures currently exist, (2) no existing structures are removed, and (3) no erosion-control measures are implemented. Impacts in the long term would be minor and beneficial if new construction takes place in an area where structures currently exist, other structures are removed from the Center, and erosion-control measures are implemented.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to soils from new construction and building reuse under the training center / office park scenario would be similar to the interpretive / nature / history center scenario. The main difference between the two scenarios would be that under the interpretive / nature / history center scenario there could be some emphasis on maintaining open space. Under the training center / office park scenario a combination of building reuse and new construction would result in an increase in the density of buildings, which would result in removal of topsoil and an increase in impermeable surfaces.

Impacts to soils from the training center / office park scenario would be short and long term, minor to moderate, and adverse if there was (1) construction in new locations, (2) an increase

in the total number of structures on the Center, and (3) no implementation of erosion-control measures. Impacts would be short and long term, negligible, and adverse with complete reuse or new construction in existing structure locations and no reduction in overall number of structures. Impacts would be short term, negligible, and adverse, and long term, negligible to minor, and beneficial with complete reuse or new construction in existing structure locations with reduction in the total number of structures and rehabilitation of soils in those locations.

**Summary.** The impacts to soils depend largely on whether areas would remain or be converted to open space, whether or not existing structures would be demolished or restored, and if new structures are built, whether they are built at existing sites or new sites. Short-term, negligible to minor, adverse impacts would occur if heavy equipment is brought in for demolition or construction. Long-term, minor to moderate, adverse impacts would occur if open space is converted to buildings or a parking lot as impermeable surfaces would increase and topsoil would be removed or covered up.

## Vegetation

**Description.** Natural vegetation exists on the site's bluff slope, toeslope, and on the Mississippi River floodplain terrace. The bluff slope, located on the eastern boundary of the project site, supports a maple – basswood forest community. The toeslope, maintained in a saturated condition by natural groundwater seepage, supports a black ash swamp community. Occupying the Mississippi River floodplain adjacent to the toeslope and to the river's edge is a relatively unaltered forest community characterized by silver maple, American elm, green ash, black willow, and eastern cottonwood. Currently, the Center is occupied by business infrastructure and open areas that were constructed or planted following land-leveling activities. In addition, wetlands and successional deciduous woodlands remain from the natural, presettlement condition or have become established on sites disturbed by development.

Factors affecting native vegetation at the Center under the following scenarios could include disturbance due to rehabilitation and construction, and potential for revegetation with native species. The airport zoning ordinance could require that a university or nonfederal governmental entity manage trees on the Center such that no new trees would be allowed to grow in the portion of the Center that lies in Safety Zone A, and trees in all other areas of the Center could be required to be maintained at designated height requirements, or perhaps removed.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the

USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under this scenario, the open space / park could be assumed to be open for hours expanded from the current schedule, and the area could see increased use, resulting in impacts to vegetation that would be negligible and adverse in the short and long term.

Conversion of the Center to open space or a park by a university or nonfederal government entity could involve removal of some or all of the existing Center structures, which would impact vegetation through the use of vehicles and demolition equipment. Mitigation measures, such as reseeded with native species and removal of invasive species (such as buckthorn) during the revegetation process would reduce the level of adverse impacts to area vegetation. Short-term impacts to vegetation would be negligible to minor and adverse. Should the recipient elect not to implement mitigation measures (allowing disturbed areas to revegetate on their own, or replace native vegetation with nonnatives), long-term impacts to vegetation would be minor and adverse. Long-term impacts to vegetation under this scenario would be moderate to major and beneficial if former building sites are revegetated using native species to restore historic vegetation schemes (such as oak savannah or prairie).

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Reuse of one or more of the existing structures on the Center for an interpretive / nature / history center would require substantial rehabilitation. Rehabilitation would have little impact on vegetation of the Center unless work on underground piping (such as water or sewerlines) would intrude on areas of native vegetation.

The impact of new construction on vegetation depends on whether the selected site currently contains structures, and whether existing structures would be removed in addition to the new construction. New construction without removal of any existing structures would increase the area covered with structures and would reduce native vegetation. Elimination of existing structures and revegetation with native species would either offset any adverse impacts of new construction, or have a beneficial impact on vegetation in the long term by expanding the area covered by native species.

Construction of a structure in a location where there is currently no structure, and leaving all existing structures in place, would result in short- and long-term, negligible to minor, adverse impacts, depending on the location selected (and the presence of native vegetation). Long-term impacts to vegetation would be moderately beneficial if new construction is in the

location of existing structures, if additional structures are removed, and if the sites are revegetated using native vegetation.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to vegetation from new construction and building reuse under the training center / office park scenario would be similar to the interpretive / nature / history center scenario. The main difference between the two scenarios would be that under the interpretive / nature / history center scenario there would be some emphasis on maintaining open space. Under the training center / office park scenario a combination of building reuse and new construction would result in an increase in the density of buildings, which would result in a reduction of native vegetation, depending on the site of the new construction.

Complete reuse or new construction in existing structure locations and no reduction in overall number of structures would result in short- and long-term, negligible, adverse impacts. Construction in new locations with no elimination of existing structures on the Center would result in short- and long-term, negligible to minor, adverse impacts. Complete reuse or new construction in existing structure locations, combined with a reduction in the total number of structures and revegetation with native species in those locations, would result in short-term, negligible, adverse, and long-term, negligible to minor, beneficial impacts to vegetation.

**Summary.** Long-term impacts to vegetation would be moderate to major and beneficial if former building sites are revegetated using native species to restore historic vegetation schemes (such as oak savannah). Overall impacts to vegetation under the interpretive / nature / history center scenario would range from short- and long-term, negligible to minor, adverse or beneficial impacts, depending on the location selected (and the presence of native vegetation). Long-term, minor to moderate, adverse impacts would result if native vegetation was converted to parking or a new structure.

### Wildlife

**Description.** The Mississippi River valley and its tributaries in east-central Minnesota attract an array of wildlife that use diverse habitats. Over 260 bird species are common to this area, and of these, 120 are known to nest in this part of Minnesota. At least 50 mammals occur within the Mississippi River corridor and some are likely visitors to the Center.

Factors that could affect wildlife under the following scenarios include increased public use, and amount of habitat.

## Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under this scenario, the open space / park would be assumed to be open for hours expanded from the current schedule, and the area could see increased public use, resulting in impacts to wildlife that would be long term, negligible, and adverse. Because no conditions (retention of property or a conservation easement) would be placed on the transfer under alternative B, the recipient could clear all existing areas of natural vegetation and replace it with lawn and/or nonnative vegetation, which would reduce wildlife habitat, possibly resulting in short- and long-term, negligible to minor, adverse impacts.

Removal of some or all of the existing structures on the Center for use as open space or a park would have beneficial impacts on wildlife if the building sites were revegetated with species that could serve as wildlife habitat. In the short term, wildlife would be adversely impacted by demolition activity; however, those impacts would be anticipated to be negligible. Long-term impacts would be minor to moderate and beneficial.

## Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Use of the Center for an interpretive / nature / history center could either be accomplished by reuse of existing structures, or through new construction, with or without demolition of unused structures. Use of the Center as an interpretive / nature / history center could imply management of the Center to maintain or increase open space and to maintain or restore natural systems where possible.

If none of the existing structures would be reused or removed, and a new structure is erected in the area that is currently open space, and if any existing natural areas would be cleared and replaced with lawn or nonnative vegetation, the area that supports wildlife habitat would be reduced.

The impacts to wildlife would be short term, negligible, and adverse due to construction activity, and long term, minor, and adverse due to reduced habitat and potentially increased public use of the Center.

If existing structures are reused and all remaining unused structures are removed, and the sites are rehabilitated to a natural condition, the area that could support wildlife habitat could be expanded. The impacts to wildlife would be short term, negligible, and adverse as rehabilitation and demolition activity would disrupt existing wildlife, and long term, negligible, and adverse due to potentially increased public use of the Center; however, overall long-term impacts would be minor to moderate and beneficial as the area available for wildlife habitat would be expanded.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to wildlife from new construction and building reuse under the training center / office park scenario would be similar to the interpretive / nature / history center scenario discussed previously. The main difference between the two scenarios would be that under the interpretive / nature / history center scenario there could be some emphasis on maintaining open space (which could serve as wildlife habitat). Under the training center / office park scenario, a combination of building reuse and new construction would result in an increase in the density of buildings over the current condition, which would result in a reduction of open space that serves as wildlife habitat, depending on the site of the new construction.

Complete reuse or new construction in existing structure locations and additional construction that would result in a reduction in the area available for wildlife habitat would result in short- and long-term, minor to moderate, adverse impacts. Complete reuse or new construction in existing structure locations, combined with a reduction in the total number of structures and revegetation with species to support wildlife habitat in those locations, would result in short-term, negligible, adverse impacts due to rehabilitation, demolition, and/or construction activity, and long-term, minor, beneficial impacts to wildlife.

**Summary.** Removal of some or all of the existing structures on the Center for use as open space or a park would have beneficial impacts on wildlife if the building sites were revegetated with species that could serve as wildlife habitat. If none of the existing structures would be reused or removed, and a new structure is erected in the area that is currently open space, and if any existing natural areas would be cleared and replaced with turf or nonnative vegetation, the area that supports wildlife habitat would be reduced. The impacts to wildlife would be short term, negligible, and adverse due to construction activity, and long term, minor, and adverse due to reduced habitat and potentially increased public use of the Center. Long-term,

minor, beneficial impacts to wildlife would occur assuming some conversion of space to wildlife habitat.

## Hydrology

**Description.** The 27.32-acre Center is located on the eastern boundary of the Minnehaha Creek watershed, south of the intersection of the east-flowing Minnehaha Creek with the Mississippi River, on the west bank of the river. The main drainage from the site is from Camp Coldwater Spring and the associated reservoir. Groundwater can be found within about 20 feet of the land surface in most places within the Minnehaha Creek watershed, including the Center.

Camp Coldwater Spring is fed by groundwater from upgradient of the Center. The spring is protected under state law if it is under the administration of a state entity, but if the Center were transferred to a private university, for example, this law would not be applicable. Factors that could affect the hydrologic features of the Center under the following scenarios include the amount of impermeable surface area and the maintenance of Camp Coldwater Reservoir.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under this scenario, the difference in use as open space versus as a park would not result in different impacts to hydrology. It could be assumed that there would be no change to Camp Coldwater Reservoir under this scenario as it could be considered an attractive feature of open space or a park. Future operation of the Center, with continued use of the existing open space as open space or a park without removing any existing structures, would result in the continuance of existing impacts to hydrology: localized, short and long term, negligible, and adverse.

Should the recipient of the Center choose to remove existing structures and expand the area available for use as open space or as a park, the amount of impermeable surface would be reduced, which would increase the surface area available for absorption of rainwater and runoff, which would result in localized, long-term, minor to moderate, beneficial impacts to hydrology as local hydrologic processes would be positively affected.



### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Use of the Center as an interpretive / nature / history center could imply management of the Center to maintain or increase open space and to maintain or restore natural systems where possible. It could be assumed that there would be no change to Camp Coldwater Spring and Reservoir under this scenario as it could be considered an attractive feature of an interpretive / nature / history center.

Construction of a new structure at the Center for use as an interpretive / nature / history center in a new location without removal of any existing structures would result in localized long-term, minor, adverse impacts to hydrology due to a reduction in impermeable surfaces. This reduction would increase the surface flow through existing drainages. Construction of a new structure in a location of an existing structure, along with removal of some or all unused structures, would result in localized, long-term, minor to moderate, beneficial impacts to hydrology due to decreases in impermeable surfaces.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Under the training center / office park scenario, a combination of building reuse and new construction would result in increased density of buildings over the current condition, which would result in an increase in impermeable surfaces. In addition, because no conditions (retention of property or a conservation easement) would be placed on the transfer, Camp Coldwater Reservoir could be removed in favor of development of that space.

Impacts to hydrology from new construction and building reuse under the training center / office park scenario would be similar to the interpretive / nature / history center scenario discussed previously. The main difference between the two scenarios would be that under the interpretive / nature / history center scenario there could be some emphasis on maintaining open space (which is permeable). These actions would result in localized, long-term, minor to moderate, adverse impacts to hydrology.

Complete reuse or new construction in existing structure locations with a reduction in the total number of structures, with no change to Camp Coldwater Reservoir, would result in localized, long-term, minor, beneficial impacts to hydrology.

**Summary.** Camp Coldwater Reservoir could be considered an attractive feature of open space or a park or in proximity to an interpretive / nature / history center. Under these conditions, impacts would be short and long term, negligible, and beneficial. Under the training center / office park scenario, a combination of building reuse and new construction would result in an increase in the density of buildings, which would result in an increase in impermeable surfaces. In addition, because no conditions (retention of property or a conservation easement) would be placed on the transfer, Camp Coldwater Reservoir could be removed in favor of development of that space. Taken together, these actions would result in localized, long-term, minor to moderate, adverse impacts to hydrology.

## Water Quality

**Description.** The outflow from Camp Coldwater Reservoir is measured for water quality along with the flow rate. The water quality measurements include temperature and specific conductivity. The main factors that could affect water quality on the Center would be sediment loads in the short term and nonpoint source pollution such as contaminants from vehicles and potentially use of fertilizer, insecticides, or herbicides in the long term.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Short-term impacts to water quality would include an increase in sedimentation from ground disturbance resulting from building demolition. Under alternative B, no conditions (retention of property or a conservation easement) would be placed on the transfer that could require mitigation measures to protect water quality, such as revegetation and sediment traps. Short-term impacts would be minor and adverse should structures be removed with no provisions to protect water quality. Long-term impacts would be negligible to minor and beneficial with an increase in permeable surface and vegetation.

Under this scenario, the potential long-term impacts to water quality would vary depending on whether the use was open space or a park. Should the Center be converted to a park, with existing parking lots retained with the possibility of increased public use, minor adverse impacts to water quality would result. Parks typically contain manicured lawn that could be treated with fertilizers, pesticides, and herbicides that could leach into the water, adversely

impacting water quality. Increased public use would result in increased use of existing parking areas where vehicles could leak fluids that would adversely impact water quality through stormwater drainage from parking areas. This scenario would result in localized, long-term, minor, adverse impacts to water quality.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Creation of an interpretive / nature / history center would result in an increase in public use, which could translate to an increase in the number of vehicles contributing to long-term nonpoint source pollution at the Center. Impacts under this scenario would be short and long term, minor, and adverse, as described in the open space / park scenario because structures may or may not be constructed or demolished. Alternative B contains no conditions (retention of property or a conservation easement) that could be put in place requiring mitigation measures to protect water quality. The Center could be managed with natural vegetation or in a less natural condition, and possibly treated with chemicals that could contribute to nonpoint source pollution. However, if many buildings were removed and converted to natural open space, long-term, negligible to minor, beneficial impacts would occur.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to water quality from new construction and building reuse under the training center / office park scenario would be similar to the other two scenarios in that structures may be constructed or demolished without mitigation measures in place to protect water quality. Increased vehicle traffic could possibly be expected. The grounds of a training center / office park may be more likely to be managed in a less natural state, possibly resulting in an increase in nonpoint source pollution. However, the potential impacts of this scenario would still be anticipated to be short and long term, minor, and adverse, similar to those described in the other scenarios.

**Summary.** Short-term impacts would be minor and adverse should structures be removed or constructed with no provisions to protect water quality. Increased public use would result in

increased use of existing or new parking areas where vehicles could leak fluids that would adversely impact water quality through stormwater drainage. This scenario would result in localized, long-term, minor, adverse impacts to water quality.

## Wetlands

**Description.** The *National Wetlands Inventory* map that includes the Center site shows a single wetland within the Center boundaries: Camp Coldwater Reservoir. An onsite delineation also revealed the presence of additional wetlands that are not shown on the *National Wetlands Inventory* map.

The main factor that could potentially impact wetlands at the Center would be construction work that would damage, alter, or destroy wetlands resources. Work affecting the course, current, or cross-section of a wetlands may require a permit from the appropriate federal, state, or local agencies.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under this scenario, the difference in use as open space versus a park would not result in different impacts to wetlands. It could be assumed that the wetlands could be considered an attractive feature of open space or a park, and therefore efforts could be made to conserve the resource. Future operation of the Center with continued use of the existing open space as open space or a park without removing any structures would result in existing major adverse impacts to wetlands. Should the recipient of the Center choose to remove structures and expand the area available for use as open space or as a park, operation of vehicles or demolition work could potentially damage the wetlands resources on the Center as alternative B would not contain conditions (retention of property or a conservation easement) requiring the protection of wetlands. Mitigation measures such as minimizing disturbed areas and revegetation may or may not be implemented by the recipient. Under this scenario, impacts to wetlands would be short and long term, negligible to moderate, and adverse, depending on the extent of disturbance to wetlands and any mitigation measures implemented. Removal of existing structures, eliminating existing adverse impacts, and restoration of wetlands would result in long-term, moderate to major, beneficial impacts to wetlands.

### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Use of the Center as an interpretive / nature / history center could imply management of the Center to maintain or increase open space and to maintain or restore natural systems where possible. It could be assumed that wetlands could be considered an attractive feature of an interpretive / nature / history center and efforts could be made to conserve the resource. However, alternative B would not include any conditions (retention of property or a conservation easement) on the transfer that would protect wetlands resources.

Construction of a new structure at the Center for use as an interpretive / nature / history center in a new location where wetlands could be damaged would result in long-term, major, adverse impacts to wetlands. Construction of a new structure in a location of an existing structure, or reuse of an existing structure with mitigation measures to minimize the impact to wetlands, and revegetation efforts to restore any damage would result in short-term, minor to moderate, and long-term, negligible, adverse impacts to wetlands. Removal of existing structures eliminating existing adverse impacts, and restoration of wetlands would result in long-term, moderate to major beneficial impacts to wetlands.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to wetlands from new construction and building reuse under the training center / office park scenario would be similar to the interpretive / nature / history center scenario previously discussed. The main difference between the two scenarios would be that under the interpretive / nature / history center scenario there could be some emphasis on maintaining open space (which is a permeable surface).

Under the training center / office park scenario, a combination of building reuse and/or new construction would result in maintaining or increasing the density of buildings and damage to, or loss of, wetlands as alternative B would contain no conditions (retention of property or a conservation easement) protecting wetlands. This would result in continued long-term, major, adverse impacts to wetlands. Removal of existing structures, eliminating existing adverse impacts, and restoration of wetlands would result in long-term, moderate to major, beneficial impacts to wetlands.

**Summary.** The main factor that could potentially impact wetlands on the Center would be construction work that would damage, alter, or destroy wetlands resources. Under the training center / office park scenario, a combination of building reuse and new construction would result in increased density of buildings and damage to, or loss of, wetlands as alternative B would contain no conditions (retention of property or a conservation easement) protecting wetlands. This would result in long-term, moderate to major, adverse impacts to wetlands. Measures to minimize impacts to wetlands would result in short-term, minor to moderate, and long-term, negligible, adverse impacts to wetlands. Removal of existing structures eliminating existing adverse impacts, and restoration of wetlands would result in long-term, moderate to major, beneficial impacts to wetlands.

## **Socioeconomics**

**Description.** The Center is an integral part of the socioeconomic composition of the surrounding community. When operational, it employed as many as 200 workers. Today, it functions as an informal adjunct to adjoining properties and, when open to the public, a destination for visitors to the Camp Coldwater Spring area. One aspect of the socioeconomy that could be affected by the various alternatives (other than employment) is operation and maintenance at the Center.

No alternative or scenario anticipates new housing on the site, so there would be no effect on the residential character of the area, nor substantial opportunity for additional retail development. There could be differences in the onsite employment, which would result in differences among the scenarios in job creation and commuting patterns.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Creation of open space or a park would have little effect on the socioeconomic setting as there would be little new employment. Operations and maintenance costs would likely decrease if the area was converted to a park or open space. Parks and open space would be beneficial to residents of the nearby neighborhoods. Impacts under this alternative and scenario would be local, minor, and beneficial.

### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Depending on its size and staffing, this scenario could provide a modest economic boost to the nearby community, as such uses would attract visitors from a wide area. There would likely be greater employment on the site than with the open space / park scenario. Operations and maintenance costs would likely remain similar to those currently at the Center. Impacts under this scenario would be regional, minor, and beneficial.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** This scenario would likely bring the greatest number of jobs to the site and the community, although airport zoning regulation would limit the size of a training center or office park. At a typical density for one- and two-story buildings, a 27-acre office park would have about 300,000 square feet of building space and 1,000 employees. Depending on the eventual size and density of the office park, there could be localized traffic congestion at peak hours due to the limited capacity of the signalized intersection at East 54th Street, which might cause commuters to short-cut through Minnehaha Park. Without conditions, the eventual developer could fully develop the site and preclude general public access. This scenario would likely produce the greatest benefit to the local tax base. Operations and maintenance costs would likely increase as the buildings and grounds would need to be cared for. Overall, the impacts of this scenario would be regional, moderate, and beneficial, although some local, minor, adverse impacts on local transportation and traffic flow patterns could occur.

**Summary.** Overall, impacts to the socioeconomic setting under alternative B would be, for the most part, beneficial. In the case of the open space / park and interpretive / nature / history center scenarios, the benefits would accrue to neighboring residents and regional visitors. In the case of an office park, the benefits would accrue through added employment in the region and an enhanced local tax base. This, however, would be accompanied by localized adverse traffic impacts. Operations and maintenance costs would increase under this scenario as well.

## Health and Safety

**Description.** In anticipation of divestiture of the Center, the TCRC Closure Team conducted an extensive environmental cleanup in the late 1990s. Although many potentially hazardous materials, such as chemicals and wastes associated with laboratories, were removed, others (e.g., asbestos, mold) remain in some buildings.

Under alternative B, the Center would be transferred with no conditions, and there would be no requirement that the existing structures and fences be maintained to protect health and safety.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under alternative B, the public may continue to access the Center Monday through Friday, 9:00 a.m. to 3:00 p.m., excluding federal holidays. Recent installation of additional fencing to limit public access when the Center is open directs the public to Camp Coldwater Spring and Reservoir and prohibits entrance to site buildings. The public accessing this area of the Center could be exposed to normal hazards expected with open space or parks, such as uneven surfaces that could lead to slips, trips, or falls.

If some or all of the existing structures on the Center are removed, impacts to potential intruder and worker health and safety could be anticipated. Adverse impacts to worker and health safety in the short term would be reduced to a negligible level with proper testing, handling, removal, and disposal of all hazardous materials such as asbestos and PCBs, and with the proper personal protective equipment (PPE) for workers. Potential short-term adverse impacts to the visiting public or potential intruders would be reduced to a negligible level through adequate fencing and monitoring of the demolition site(s). Long-term impacts to workers and potential intruders would be minor and beneficial as potential exposure to hazardous materials would be eliminated.

A recent safety evaluation (USFWS 2005) determined that “break-ins” into the Center grounds and buildings continue to occur, and potential intruders could be exposed to electrical hazards, physical hazards (such as broken windows), and slips and falls. Aging and weathering of the buildings over time would result in increasingly hazardous conditions that could be encountered by potential intruders if the unused structures are not removed, and would result in a short- and long-term, negligible, adverse impact to health and safety.



If the buildings of the Center remain, they would continue to deteriorate over time. Aging and weathering of the buildings would result in localized releases of asbestos, PCBs, radon, and lead-based paint into the atmosphere, and workers and potential intruders accessing the buildings could be exposed. Should the recipient choose to implement mitigation measures including continued testing of the building environments for any sign of increased contamination, and with the proper PPE for workers accessing the buildings should contamination be detected, the localized long-term adverse impacts would be reduced to a negligible level.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** This scenario may involve building reuse and/or new construction, which would result in a different set of impacts. Building rehabilitation for reuse would adversely impact the health and safety of workers and the public. Mitigation measures such as retesting building environments for signs of increased contamination, and with the proper PPE for workers rehabilitating the buildings (should contamination be detected), would maintain the localized, long-term, adverse impacts to a negligible level. Mitigation measures, such as fencing and monitoring construction/demolition/rehabilitation sites and with the proper PPE for workers during construction, would reduce adverse construction impacts to a negligible level in the short term. Reducing the number of unused structures at the Center that contain hazardous materials or situations that could be hazardous for workers or potential intruders would result in long-term, minor, beneficial impacts to health and safety.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Potential impacts to health and safety from the training center / office park scenario would range from localized, long term, negligible, and adverse, to short term, negligible, and adverse, and long term, minor, and beneficial.

**Summary.** If some or all of the existing structures on the Center are removed, adverse impacts to potential intruder and worker health and safety would be reduced to a negligible level with proper testing, handling, removal, and disposal of all hazardous materials. Potential short-term

adverse impacts to the visiting public or intruders would be reduced to a negligible level through adequate fencing and the monitoring of demolition site(s). Long-term impacts to workers and potential intruders would be minor and beneficial as potential exposure to hazardous materials and situations would be eliminated.

## Land Use

**Description.** The land use of the Center from initial construction in 1949 through closure in 1995 was for governmental light industrial purposes. The lands surrounding the Center are primarily government-owned and used for recreation or for government offices or a medical center. The other prominent land use in the area is the Minneapolis-St. Paul International Airport, which lies southwest of the Center. Although the airport is not contiguous with the Center, airport zoning regulations and Federal Aviation Administration airspace obstruction rules play an important role in governing land uses at the Center.

In general, some of the structures presently located on the Center do not appear to conform to the airport zoning ordinance, and removal of the potentially nonconforming structures would result in a long-term beneficial impact on land use under any of the following scenarios.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Use of the Center as open space or a park by a university or nonfederal government entity without conditions (retention of property or a conservation easement) appears to be consistent with the present use of the Center. Use under this scenario would appear to conform to the existing area land uses as Minnehaha Park and Fort Snelling State Park are located on either side of the Center. Use under this scenario would also appear to conform to the airport zoning ordinance. All existing easements, licenses, rights-of-way, and leases could be honored while the land is being used as open space or a park. There could be short- and long-term, minor, beneficial impacts on land use under this scenario if existing structures were removed that are not currently in conformance.

### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished.

Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Use of the Center as an interpretive / nature / history center by a university or nonfederal government entity appears to generally conform to uses in the surrounding area as Fort Snelling State Park has a visitor education component to its operations and is located just east of the Center. In general, management of the Center as an interpretive / nature / history center could be very similar to use under the open space / park scenario as the natural environment could be one area of focus. Use under this scenario would also appear to conform to the airport zoning ordinance. All existing easements, licenses, rights-of-way, and leases would be honored while the land is being used as an interpretive / nature / history center.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Use of the Center as a training center / office park by a university or nonfederal government entity would appear to generally conform to existing uses in the area. The Veterans Administration Medical Center located nearby, a complex offering professional and medical services, represents a use similar to a training center or office park. Use under this scenario would also appear to conform to the airport zoning ordinance. All existing easements, licenses, rights-of-way, and leases would be honored while the land is being used as a training center / office park.

If use of the Center as a training center / office park includes reuse of some existing structures and expansion of the development with construction of new structures, this type of use would be consistent with other area uses. There would be minor beneficial impacts on land use if nonconforming structures are removed under this scenario.

**Summary.** Uses under all three scenarios would be consistent with other area uses. There would be short- and long-term, minor, beneficial impacts if nonconforming structures were removed.

#### **Public Use and Experience**

**Description.** The Center, which is open to the public during specified hours, has a park-like setting, with grassy lawn areas and occasional shade trees surrounding vacant buildings and the Camp Coldwater Spring area. During the time that the Center was operating in its official capacity (until 1995), it was not open for general public use and visitation. The Center is now used by the public on a frequent basis as an extension of the open space present in the

surrounding parks and open areas. The area around Camp Coldwater Spring is viewed by some members of the public as being spiritually important and is used for meditation and a source of inspiration. Many groups of people have a special fondness for the Center property. Visitors to the Center include American Indians, spiritualists, environmentalists, and residents of the nearby neighborhoods. The alternatives presented in this draft EIS along with the scenarios present differing levels of access to the Center by the public for continuing the personal rituals and meditations as they currently exist.

#### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** There would be short- and long-term, moderate to major, adverse impacts to public use and experience under alternative B if the fenced section of the Center were to continue to be open to the public Monday through Friday, 9:00 a.m. to 3:00 p.m., and if no modifications are made to the Center, such as removal of unused structures. This is largely because the public has expressed an interest in longer hours and access on weekends.

Use of the Center by a university or nonfederal government entity as open space or a park would beneficially impact public use and experience if all structures were removed and the building sites restored to a natural condition, thereby expanding the open space area available for public use. Short-term impacts would be negligible to minor and adverse during the demolition process due to equipment operation and activity, thereby restricting public access. Long-term impacts would be moderate and beneficial as the visibility of the changes to the Center would be prominent and the area available for public use may be expanded.

Creation of open space and park facilities could preserve access to Camp Coldwater Spring, but that would not be assured. If access were denied or restricted, there would be an adverse impact to public use and experience. Impacts related to Camp Coldwater Spring access would possibly be regional, long term, moderate, and adverse. However, because the spring is an important part of the natural setting and would be complementary to a park, it is more likely under this scenario that access would be preserved or even enhanced.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center and that all or a portion of the existing structures would be demolished.

Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** New construction of a structure for use as an interpretive / nature / history center by a university or nonfederal government entity, in conjunction with retention of all unused existing structures, would reduce the overall amount of space that could be devoted to public use of the natural environment. Short-term, negligible to minor, adverse impacts may occur due to construction equipment activity. Long-term beneficial impacts would be negligible.

Reuse of one or some existing structures at the Center, in conjunction with demolition of all remaining unused structures and rehabilitation of the building sites, would result in short-term, negligible to minor, adverse impacts due to rehabilitation work onsite limiting public access. Long-term, moderate, beneficial impacts would occur if public use of the Center was expanded.

Depending on the nature and type of facility and who is responsible for its operation, access to the spring could be denied, restricted, maintained, or enhanced. The spring could be integrated into the experience and be a subject for interpretation, but this would not be assured. If access were denied or restricted, there would be an adverse impact to public use and experience. If the spring were to be incorporated into the interpretive program, it would bring exposure to a wider audience and result in a beneficial impact. Impacts related to Camp Coldwater Spring access would possibly be regional, long term, moderate, and would be either adverse or beneficial depending on whether future public access to Camp Coldwater Spring is further restricted or enhanced.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** New construction of a training center or office park by a university or nonfederal government entity without removal of unused existing structures would result in short-term, minor to moderate, adverse impacts during construction. This approach would significantly reduce or eliminate public use of the Center, depending on the policies of the recipient, which would have a long-term, major, adverse impact on public use and experience.

Reuse of some or all of the existing structures on the Center for a training center / office park, with no new construction, and continuing to allow public access to areas of current public use would result in short-term, negligible to minor, adverse impacts due to equipment and activity associated with rehabilitation work. Long-term, negligible to minor, beneficial impacts would occur if structures that are currently deteriorating and unused were restored.

This scenario could be the most likely to result in conditions on or elimination of public access to the Camp Coldwater Spring area. Without conditions (retention of property or a conservation easement), the eventual recipient could fully develop the site and preclude general public access and could have an economic incentive to do so. If access were denied or restricted, there would be a major adverse impact to public use and experience. Impacts related to Camp Coldwater Spring access would be regional, long term, major, and adverse.

**Summary.** Creation of open space and park facilities could preserve access to Camp Coldwater Spring, but that would not be assured. If access were denied or restricted, there would be an adverse impact to public use and experience. Impacts related to Camp Coldwater Spring access would possibly be regional, short and long term, moderate to major, and adverse. The training center / office park scenario would be the most likely to result in conditions on, or elimination of, public access to the spring area. Without conditions (retention of property or a conservation easement), the eventual recipient could fully develop the site and preclude general public access, and could have an economic incentive to do so.

## Visual Resources

**Description.** The visual characteristics of the Center include a relatively limited viewshed (less than 1,000 feet and not expansive), dense woods and bluffs, nonnative vegetation and landscaping, driveways and parking lots, the Center buildings, and Camp Coldwater Spring and Reservoir. Characteristics along the Center boundaries include views of an urban setting with commercial and residential buildings and SH 55 and SH 68. The overall visual quality is average to below average because of the lack of vividness and distinctiveness. This is due to the lack of coordinated or harmonious design and deteriorating condition of the buildings and grounds.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance. This scenario is expected to have the lowest density of buildings and the greatest open/nature space. No development is expected along the wooded bluff portion east of and adjacent to the Center; therefore, the wooded screen of the Center from the east is expected to remain.

**Impacts.** Removal of some or all of the existing structures from the Center under this scenario would result in short-term, negligible to minor, adverse impacts as equipment and activity associated with demolition would detract from visual resources. In the long term, removal of the unused structures and rehabilitation of building sites would result in moderate to major beneficial impacts to visual resources by expanding the visual perception of open space, and

removing the detracting element of deteriorating unused buildings. Removal of Camp Coldwater Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center. Because viewers outside the Center are in motion or at a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore result in no to negligible long-term impacts.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired. This scenario is expected to have a balance between building density and open/nature space. No development is expected along the wooded bluff portion east of and adjacent to the Center; therefore, the wooded screen of the Center from the east is expected to remain.

**Impacts.** Rehabilitation of some existing structures for use as an interpretive / nature / history center, in conjunction with removal of all remaining unused structures and rehabilitation of building sites, would result in improved visual character and quality. Short-term impacts would be negligible to minor and adverse due to equipment and activity associated with rehabilitation work. Long-term impacts would be minor to moderate and beneficial due to the removal of some structures and improved appearance of remaining structure(s) and increased natural areas. Removal of Camp Coldwater Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center. Because viewers outside the Center are in motion or at a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore result in no to negligible long-term impacts.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required. This scenario is expected to have the highest density of buildings and the least amount of open/nature space. No development is expected along the wooded bluff portion east of and adjacent to the Center; therefore, the wooded screen of the Center from the east is expected to remain.

**Impacts.** Reuse of many or all existing structures on the Center for a training center / office park in conjunction with removal of any unused structures and rehabilitation of building sites

would result in short-term, minor, adverse impacts to visual resources due to construction equipment and activities. Long-term impacts would be minor and beneficial as the outward appearance of the rehabilitated structures would detract less from the visual resources than the unused structures. It is assumed that new construction and design for a training center or office park scenario would be more aesthetically pleasing than existing structures and buildings, also resulting in long-term, localized, minor, beneficial impacts. Removal of Camp Coldwater Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center. Because viewers outside the Center are in motion or at a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore result in no to negligible long-term impacts.

**Summary.** Overall impacts to visual resources under the open space / park scenario would be beneficial in the long term. The existing buildings and structures create a low to medium visual experience. With each scenario, as more buildings are removed from the Center, the greater the beneficial effect would be. Long-term impact would be localized, beneficial, and range for negligible to major. Removal of Camp Coldwater Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center. Short-term impacts due to construction activities would be localized, short term, adverse, and minor.

## **ALTERNATIVE C**

Under alternative C, the Center would be conveyed to a university or nonfederal government entity with conditions (retention of property or a conservation easement) imposed on the future use of the Center that would limit the recipient's use or create affirmative obligations to be carried out by the recipient. The university or nonfederal government entity that acquires the Center would have conditions on subsequent transfer or sale of the Center. Affirmative obligations that may be placed on the transfer include those that create a duty in the recipient to manage or maintain the Center or its resources in a specific way. For example, the federal government could convey with conditions (retention of property or a conservation easement) that would be designed to protect natural, historical, and cultural resources. Methods by which conditions on use of the Center may be imposed by the transfer agreement include the use of a conservation easement or by retaining a portion of the Center.

### **Laws, Regulations, and Planning Documents Governing Use Under Alternative C**

#### **MNRRRA Enabling Legislation and the MNRRRA Comprehensive Plan**

The relationship of the MNRRRA enabling legislation and the MNRRRA CMP to uses under alternative C would be much the same as that described for alternative B. Under the CMP, the MNRRRA would retain review authority for federally funded or permitted activities that were to occur on the Center property, regardless of ownership. Additionally, upon conveyance, the Center property would continue to be subject to the requirements of the Critical Area



legislation, as discussed below. Under alternative C, conditions could be imposed on the conveyance to ensure that site development occurs within the tenets of the MNRRA enabling legislation and the MNRRA CMP.

#### Mississippi River Corridor Critical Area Legislation

The relationship of the Critical Area legislation to uses under alternative C would be much the same as that described for alternative B. If the Center is acquired by a nonfederal government entity, regardless of the proposed land use, the entity would be required to adopt plans and zoning ordinances that implement the requirements of the Critical Areas Act of 1973, State Executive Order 79-19. In addition, under alternative C, conditions could be imposed on the conveyance to provide added protections to this critical area or to enhance those protections already in existence through the Critical Area legislation.

#### Minneapolis-St. Paul International Airport Zoning Ordinance

In any of the situations in alternative C, the transfer or sale of the Center property into nonfederal ownership would require evaluation of the airport zoning ordinance. Should the Center transfer to a nonfederal government entity, the agency that administers the Center would have to determine its compliance obligations pertaining to the ordinance. Much the same as discussed under alternative B, building height restrictions under the airspace obstruction zones and maximum construction height would need to be determined for new construction and rehabilitation of existing buildings. Uses would be evaluated under the safety zone requirements and no new construction would be allowed in Safety Zone A. Under alternative C, additional conditions could also be imposed through the conveyance that would limit building heights, vegetation to be planted, or uses.

#### Camp Coldwater Spring Protection Legislation – Minnesota Senate File 2049

Under alternative C, a university or nonfederal government entity would need to determine its compliance obligations with respect to the Camp Coldwater Spring protection legislation, sometimes referred to as Minnesota S.F. 2049, in any development and use of the property. Under alternative C, the federal government could also impose additional conditions to protect the flow of groundwater to and from the spring, as well as protections for the physical structure of the existing discharge and reservoir. Although this state law does not guarantee access to the Camp Coldwater Spring area, alternative C could permit conditions on the transfer of the Center that would assure public access.

#### National Historic Preservation Act

The federal government will evaluate application of the NHPA section 106 consultation process to determine appropriate mitigation potential adverse effects on historic properties prior to conveyance. Under alternative C, the additional conveyance conditions to be imposed could include mitigation measures to protect identified historic properties at the Center. Once transferred to a nonfederal entity, protection of historic properties would not be guaranteed

without conditions placed on the conveyance because the NHPA section 106 responsibilities apply only to the federal government.

## Archeological Resources

**Description.** Based on the 2001 study, the Center was organized into five distinct zones based on their potential to yield archeological information. Zones III, IV, and V were found to contain no important cultural materials and warrant no further archeological study. Zone I was recommended for further testing to determine if the area contains cultural materials that would contribute to the Fort Snelling National Historic Landmark and National Historic District. Zone II was found to contain in situ cultural deposits that correspond to the period of significance of the national historic landmark and national historic district. The 2001 study also recommended a revision to the boundaries of the Fort Snelling National Landmark to include Zones I and II (Clouse 2001). That revision is currently in process; for purposes of this draft EIS, it is assumed the boundaries include Zones I and II.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the new owner could be subject to a process similar to section 106 for actions that result in ground disturbance or modifications to the land, and/or the new owner would be restricted from ground disturbance in specific areas.

**Impacts.** Under this scenario, USDI, in consultation with the SHPO, the ACHP, federally recognized tribes, and interested parties, would negotiate and execute a programmatic agreement defining future treatment of NRHP-listed and eligible sites at the Center. This treatment would include methods to avoid, minimize, and mitigate for adverse effects to the resource. Under this scenario, the emphasis is on the natural environment. Avoiding adverse effects to archeological resources could be accomplished under this scenario by placing conditions on the transfer of the Center. Such conditions may include conservation easements, the federal government retaining the relevant portions of the Center, or other means. The impacts would be long term, minor, and beneficial because the resource would be protected in place.

### Interpretative / Nature / History Center Scenario

**Assumptions.** Under this scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. New structures could be built at the Center, and all or a portion of the existing buildings would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to

reuse. Most of the infrastructure is not reusable in the current form; improvements may be required if reuse is desired.

**Impacts.** Under this scenario, USDI, in consultation with the SHPO, the ACHP, federally recognized tribes, and interested parties, would negotiate and execute a programmatic agreement defining future treatment of NRHP-listed and eligible sites at the Center. This treatment would include methods to avoid, minimize, and mitigate for adverse effects to the resource. Under this scenario some emphasis is on the natural environment. Avoiding adverse effects to archeological resources could be accomplished under this scenario by placing conditions on the transfer of the Center. Such conditions may include conservation easements, the federal government retaining the relevant portions of the Center, or other means. The impacts would be long term, minor, and beneficial because the resource would be protected in place.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most of the existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in the current form; improvements may be required.

**Impacts.** Under this scenario, USDI, in consultation with the SHPO, the ACHP, federally recognized tribes, and interested parties, would negotiate and execute a programmatic agreement defining future treatment of NRHP-listed and eligible sites at the Center. This treatment would include methods to avoid, minimize, and mitigate for adverse effects to the resource. This scenario emphasizes the built environment and the greatest amount of ground disturbance. However, avoiding adverse effects to archeological resources could be accomplished under this scenario by placing conditions on the transfer of the Center. Such conditions may include conservation easements, the federal government retaining the relevant portions of the Center, or other means. The new owner would complete all necessary inventories and data recovery plans, accessioning of artifacts, and all other provisions of the programmatic agreement. The impacts would be long term, moderate, and adverse because the resource could be permanently removed from context, but the information available in the data recovery would be available for future research.

**Summary.** Prior to transfer of ownership to a university or nonfederal government entity, the USDI would complete a section 106 process to properly consider the effects of the transfer on archeological resources and possibly apply conservation easements on land containing eligible or listed resources. Under the first two scenarios, this would result in long-term, minor beneficial impacts because the resource would be protected. Under the last scenario, it is assumed that the resource would be impacted due to development plans and result in a long-term, moderate, and adverse impact because the resource would be permanently removed from context, but the information available in the recovered data would be available for future research.

**Section 106 Assessment of Effect.** The transfer of the Center out of federal control is considered to be an adverse effect under 36 C.F.R. 800.5. As noted above, the USDI would complete the section 106 process to properly consider and mitigate for adverse effects on archeological resources. Future actions taken by the new owner may require additional section 106 process to consider and mitigate for adverse effects on archeological resources.

## Historic Structures and Districts

**Description.** There are no individually NRHP-eligible structures within the Center. Eleven of the buildings and structures at the Center are contributing elements to the USBM Twin Cities Research Center Historic District. Camp Coldwater Reservoir and the spring house are considered structures, but are not contributing elements of the USBM Twin Cities Research Center Historic District. Approximately half of the land within the Center falls within the boundaries of the Fort Snelling National Historic Landmark. Resources within the Center of significance to the national historic landmark include Camp Coldwater Spring and Reservoir (Henning 2002). Archeological resources exist at the Center that are considered contributing elements to the Fort Snelling National Historic District and Fort Snelling National Historic Landmark.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurface would be subject to disturbance.

**Impacts.** Under this scenario, USDI, in consultation with the SHPO, the ACHP, federally recognized tribes, and interested parties, would negotiate and execute a programmatic agreement defining future treatment of historic structures and districts at the Center. This treatment would include methods to avoid, minimize, and mitigate for adverse effects to the resource. Under this scenario, the emphasis is on the natural environment and it is assumed that most or all of the buildings and structures of the USBM Twin Cities Research Center Historic District would be removed. It is assumed the USDI would complete all necessary inventories and data recovery plans, documentation of the structures and district, and all other provisions of the agreement document. The impact would be long term, moderate, and adverse because the resources would be permanently removed from context, but the information available in the recovered data would be available for future research.

Under this scenario, however, conditions could be placed on the transfer through the use of conservation easements, the federal government retaining relevant portions of the property, or other means designed to protect values or resources associated with historic districts and structures at the Center. Such measures would help avoid or minimize adverse effects to Camp

Coldwater Spring and Reservoir; therefore, impacts to this resource would be long term, minor, and beneficial because the resource would be protected in place..

#### Interpretative / Nature / History Center Scenario

**Assumptions.** Under this scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. New structures could be built at the Center and all or a portion of the existing buildings would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in the current form; improvements may be required if reuse is desired.

**Impacts.** Under this scenario, USDI, in consultation with the SHPO, the ACHP, federally recognized tribes, and interested parties, would negotiate and execute a programmatic agreement defining future treatment of historic structures and districts at the Center. This treatment would include methods to avoid, minimize, and mitigate for adverse effects to the resource. Under this scenario the emphasis is on some natural environment and it is assumed that some or most of the buildings and structures of the USBM Twin Cities Research Center Historic District would be removed. It is assumed the USDI would complete all necessary inventories and data recovery plans, documentation of the structures and district, and all other provisions of the agreement document. The impact would be long term, moderate, and adverse because permanently removing even some of the buildings and structures would impact the district as a whole, but the information available in the recovered data would be available for future research.

Under this scenario, however, conditions could be placed on the transfer through the use of conservation easements, the federal government retaining relevant portions of the property, or other means designed to protect values or resources associated with historic districts and structures at the Center. Such measures would help avoid or minimize adverse effects to Camp Coldwater Spring and Reservoir; therefore, impacts to this resource would be long term, minor, and beneficial because the resource would be protected in place.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most of the existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in the current form; improvements may be required.

**Impacts.** Under this scenario, USDI, in consultation with the SHPO, the ACHP, federally recognized tribes, and interested parties, would negotiate and execute a programmatic agreement defining future treatment of historic structures and districts at the Center. This treatment would include methods to avoid, minimize, and mitigate for adverse effects to the resource. Under this scenario, the emphasis is on the built environment and it is assumed that

some of the buildings and structures of the USBM Twin Cities Research Center Historic District would be removed. It is assumed the USDI would complete all necessary inventories and data recovery plans, documentation of the structures and district, and all other provisions of the agreement document. The impact would be long term, moderate, and adverse because permanently removing even some of the buildings and structures would impact the district as a whole, but the information available in the recovered data would be available for future research.

It is assumed, however, that conservation easements or other conditions could be placed to avoid adverse effects to Camp Coldwater Spring and Reservoir; therefore, impacts to this resource would be long term, minor, and beneficial because the resource would be protected in place.

**Summary.** Prior to transfer of ownership of the Center to other than a federal owner, the USDI would complete the section 106 process to properly consider the effects of the transfer on the historic structures and districts. Regardless of any of the land use scenarios described above, the overall impact on the resource would be long term, moderate, and adverse to the USBM Twin Cities Research Center Historic District because some or all of the contributing buildings and structures would be permanently removed from context, but the information available in the recovered data would be available for future research.

With the use of conservation easements or other conditions, adverse effects to Camp Coldwater Spring and Reservoir could be avoided; therefore, impacts to this resource would be long term, minor, and beneficial.

**Section 106 Assessment of Effect.** The transfer of the Center out of federal control is considered to be an adverse effect under 36 C.F.R. 800.5. As noted above, the USDI would complete the section 106 process to properly consider and mitigate for adverse effects on historic structures and districts.

## **Ethnographic Resources**

**Description.** Although no historical documentation of American Indian use of Camp Coldwater Spring has been found, the oral traditions and histories collected during investigation suggest that natural springs, like Camp Coldwater Spring, are associated with sacred healing ceremonies. Camp Coldwater Spring is currently used by some members of the federally recognized Dakota and Ojibwe communities and other American Indians, as a source of water for ceremonies. The confluence of the Minnesota and Mississippi rivers is not located within the area of the proposed action, but Camp Coldwater Spring should be considered within this larger context. Many American Indian communities have a traditional association with the area surrounding the spring.

Use of the Center under any of the scenarios by a university or nonfederal government entity under alternative C would be the same as described under alternative B, except the ability to apply conditions under alternative C could reduce or eliminate certain potential impacts to ethnographic resources.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting.

**Impacts.** Creation of an open space / park at the Center by a university or nonfederal government entity could involve continued use of the existing open space as such, or as a park. Under this scenario, conditions on use of the Center, through a conservation easement or retaining a portion of the Center, could be made regarding preservation of Camp Coldwater Spring and access to it by American Indian communities, as well as the protection of the spring from future development. This would result in impacts similar to the no-action alternative.

### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Under this conceptual land-use scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. Under this scenario, conditions on use of the Center through the use of mechanisms such as conservation easements or retaining a portion of the Center, could be made regarding preservation of Camp Coldwater Spring and access to it by American Indian communities, as well as the protection of the spring from future development.

This, in combination with a natural setting created by the open space, would result in a long-term, minor to moderate, beneficial effect on ethnographic resources

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Under this scenario, conditions could be placed on the transfer to ensure preservation and access to Camp Coldwater Spring by American Indian communities, as well as to ensure the protection of the spring from future development. This would result in minor to moderate beneficial impacts on ethnographic resources.

**Summary.** Under alternative C, conditions on the transfer of the Center to a university or nonfederal government entity could be used to require preservation of and provide access by American Indian communities to the Camp Coldwater Spring or associated resources. Overall impacts to ethnographic resources under this alternative would be long-term, minor to moderate, beneficial effects.

## Soils

**Description.** The Center site contains the following soil series and types: Dorset, Forada, Sandberg, Urban Land-Hubbard, and Urban Land-Udipsamments (NRCS 2005). Platteville limestone underlies surficial soils 10 to 50 feet below the ground surface. It is important to note that recent archeological testing suggests that soils over much of the Center site have been disturbed (buried, cut and filled, etc.) during construction of facilities and roads.

Factors that could affect soils at the Center under the following scenarios include disturbance and increases or decreases in impermeable surfaces associated with rehabilitation or new construction of structures.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Should the recipient opt to manage the Center as open space or a park without removal of any existing structures, there would be a continuance of short- and long-term, negligible, adverse impacts to soils.

Removal of structures would impact soils through the use of vehicles and demolition equipment, and could involve the need to fill in and/or regrade areas of existing foundations and/or parking lots. Under alternative C, required implementation of mitigation measures, such as importation of local topsoil and appropriate erosion-control measures, and sustained revegetation efforts to prevent erosion, would reduce the level of adverse impacts to area soils. Impacts to soils would be short term, minor to moderate, and adverse. Long-term impacts to soils under this scenario would be minor to moderate and beneficial as removal of structures



and replacement of impermeable surfaces with topsoil could return the area to a more natural condition.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Reuse of one or more of the existing structures on the Center for an interpretive / nature / history center would require substantial rehabilitation of the existing structures. Rehabilitation would have little impact on soils of the Center unless work on underground piping (such as water or sewerlines) would be required. New construction in the location of existing structures would result in more ground disturbance than rehabilitation, but overall, less disturbance than new construction in a new location.

The impacts on soils could also depend on whether existing structures would be removed in addition to the reuse and/or new construction. Elimination of existing structures with associated site rehabilitation could either offset any adverse impacts of new construction or have a beneficial impact on soils in the long term by reducing the amount of impermeable surface.

Impacts to soils would be short term, negligible to minor, and adverse and long term, minor, and beneficial if new construction takes place in an area where human-made structures currently exist and other structures are removed from the Center.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to soils from new construction and building reuse under the training center / office park scenario would be similar to the interpretive / nature / history center scenario. The main difference between the two scenarios would be that under the interpretive / nature / history center scenario there could be some emphasis on maintaining open space.

Impacts to soils from the training center / office park scenario would be short and long term, minor, and adverse with construction in new locations and an increase in the total number of structures on the Center. Impacts would be short and long term, negligible, and adverse with

complete reuse or new construction in existing structure locations, no reduction in overall number of structures, and with appropriate mitigation. Impacts would be short term, negligible, and adverse, and long term, negligible to minor, and beneficial with complete reuse or new construction in existing structure locations, with reduction in the total number of structures, and rehabilitation of soils in those locations.

**Summary.** The impacts to soils depend largely on whether areas would remain or be converted to open space, whether or not existing structures would be demolished or restored, and if new structures are built, whether they are built at existing sites or new sites. Short-term, negligible, adverse impacts would occur if heavy equipment is brought in for demolition or construction. These impacts would be minimized by conditions placed on the new proprietor. Long-term, minor to moderate, adverse impacts would occur if open space is converted to buildings or a parking lot as impermeable surfaces would increase and topsoil would be covered up. Long-term, minor, beneficial impacts would occur if buildings are removed and soils restored.

## Vegetation

**Description.** Natural vegetation exists on the site's bluff slope, toeslope, and on the Mississippi River floodplain terrace. The bluff slope located on the eastern boundary of the project site supports a maple – basswood forest community. The toeslope, maintained in a saturated condition by natural groundwater seepage, supports a black ash swamp community. Occupying the Mississippi River floodplain adjacent to the toeslope and to the river's edge is a relatively unaltered forest community characterized by silver maple, American elm, green ash, black willow, and eastern cottonwood. Currently, the Center is occupied by business infrastructure and open areas that were constructed or planted following land-leveling activities. In addition, wetlands and successional deciduous woodlands remain from the natural, pre-settlement condition or have become established on sites disturbed by development.

**Assumptions.** Factors affecting native vegetation at the Center under all three scenarios may include disturbance due to rehabilitation and construction, and potential for revegetation with native species. The airport zoning ordinance may require that a university or nonfederal governmental entity manage trees on the Center such that no new trees would be allowed to grow in the portion of the Center that lies in Safety Zone A, and trees in all other areas of the Center may be required to be maintained at designated height requirements.

**Impacts.** Use of the Center under any of the scenarios by a university or nonfederal government entity under alternative C would be the same as described under alternative B, except the ability to apply conditions under alternative C would result in beneficial impacts to vegetation. Using one of the mechanisms discussed in chapter 2 (retention of property or an easement), the new university or nonfederal governmental owner of the Center could be required to restore the sites of existing structures to native vegetation, remove existing nonnative vegetation, and/or control the spread of invasive species (such as buckthorn) in the future (see discussion of "Tree Management," chapter 3).

**Summary.** Long-term impacts to vegetation would be moderate to major and beneficial if former building sites are revegetated using native species to restore historic vegetation schemes (such as oak savannah). Overall impacts to vegetation under the interpretive / nature / history center scenario would range from short- and long-term, negligible to minor, adverse or beneficial impacts, depending on the location selected (and the presence of native vegetation). Unlike alternative B, a covenant or easement could be created to mitigate or avoid long-term adverse impacts to vegetation, such as would result if native vegetation was converted to a parking lot or a new structure.

## **Wildlife**

**Description.** The Mississippi River valley and its tributaries in east-central Minnesota attract an array of wildlife that use diverse habitats. Over 260 bird species are common to this area, and of these, 120 are known to nest in this part of Minnesota. At least 50 mammals occur within the Mississippi River corridor and some are likely visitors on the Center.

Factors that could affect wildlife under the following scenarios include increased public use and amount of habitat.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Conditions (retention of property or a conservation easement) could be placed on the transfer under alternative C requiring the recipient to retain all existing areas of natural vegetation and revegetate any newly disturbed areas with native species that could support wildlife habitat, possibly resulting in long-term, negligible to minor, beneficial impacts.

Under this scenario, the open space / park could be assumed to be open for hours expanded from the current schedule, and the area could see increased public use, resulting in impacts to wildlife that would be long term, negligible, and adverse.

Removal of some or all of the existing structures on the Center for use as open space or a park would have beneficial impacts on wildlife, if conditions were placed on the transfer requiring the building sites to be revegetated with species that could serve as wildlife habitat, particularly those native to the area's oak savanna. In the short term, wildlife would be adversely impacted by the demolition activity; however, those impacts may be anticipated to be negligible. Impacts would be long term, negligible to minor, and beneficial.

### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Use of the Center as an interpretive / nature / history center could imply management of the Center to maintain or increase open space and to maintain or restore natural systems where possible.

If conditions were placed on the transfer requiring the recipient to retain all existing areas of natural vegetation and revegetate any newly disturbed areas with native species that could support wildlife habitat, new construction could be limited to existing building sites. If no unused buildings would be removed, and existing structures would be rehabilitated for use or demolished with new construction in their place, there would be short-term negligible adverse impacts to wildlife due to disturbance from construction activity. In the long term, the amount of wildlife habitat could remain the same; however, the potential increase in public use would result in negligible adverse impacts.

If existing structures are reused and all remaining unused structures are removed and the sites rehabilitated to a natural condition, the area that could support wildlife habitat could be expanded. The impacts to wildlife would be short term, negligible, and adverse as rehabilitation and demolition activity would disrupt existing wildlife. Impacts in the long term would be negligible and adverse due to potentially increased public use of the Center. Long-term, negligible to minor, beneficial impacts would occur if the area available for wildlife habitat could be expanded.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to wildlife from new construction and building reuse under the training center / office park scenario would be similar to the interpretive / nature / history center scenario. The main difference between the two scenarios would be that under the interpretive / nature / history center scenario there could be some emphasis on maintaining open space (which would contain vegetation). Under alternative C, conditions could be placed on the transfer requiring the recipient to retain all existing areas of natural vegetation and revegetate any newly disturbed areas with native species that could support wildlife habitat.

Construction in new locations with no elimination of existing structures on the Center would result in short- and long-term, minor to moderate, adverse impacts to wildlife.

Conditions placed on the transfer that could require complete reuse or new construction in existing structure locations with no reduction in overall number of structures would result in short- and long-term, negligible, adverse impacts due to increased levels of activity. Complete reuse or new construction in existing structure locations with a reduction in the total number of structures and revegetation with species to support wildlife habitat in those locations would result in short-term, negligible, adverse impacts due to rehabilitation, demolition, and/or construction activity. Long-term, minor, beneficial impacts to wildlife would occur assuming some rehabilitation of space to support wildlife habitat.

**Summary.** Removal of some or all of the existing structures on the Center for use as open space or a park would have beneficial impacts on wildlife if the building sites were revegetated with species that would serve as wildlife habitat. If none of the existing structures would be reused or removed, and a new structure is erected in the area that is currently open space, and if any existing natural areas would be cleared and replaced with turf or nonnative vegetation, the area that supports wildlife habitat would be reduced. The impacts to wildlife would be short term, negligible, and adverse due to construction activity, and long term, minor, and adverse due to reduced habitat and potentially increased public use of the Center. Long-term, minor, beneficial impacts to wildlife would occur assuming some conversion of space to wildlife habitat.

## Hydrology

**Description.** The 27.32-acre Center is located on the eastern boundary of the Minnehaha Creek watershed, south of the intersection of east-flowing Minnehaha Creek with the Mississippi River, on the west bank of the river. The main drainage from the site is from Camp Coldwater Spring and the associated reservoir. Groundwater can be found within about 20 feet of the land surface in most places within the Minnehaha Creek watershed, including the Center.

The Camp Coldwater Spring is fed by groundwater from upgradient of the Center and it is not expected that any of the alternatives proposed in this document would affect the source of the spring. Factors that could affect the hydrologic features of the Center under the following scenarios include the amount of impermeable surface area and the maintenance of Camp Coldwater Reservoir.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the

USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Creation of open space / a park at the Center by a university or nonfederal government entity could involve continued use of the existing open space as such or as a park. Under this scenario, the difference in use as open space versus as a park would not result in different impacts to hydrology. Under alternative C, conditions could be put in place to ensure that there would be no change to Camp Coldwater Reservoir.

Future operation of the Center with continued use of the existing open space as open space or a park without removing any existing structures would result in continuation of the existing localized, short- and long-term, negligible, adverse impacts to hydrology as described under alternative A.

Beneficial impacts to hydrology under this scenario could be localized, long term, and minor to moderate, as described under alternative B.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Use of the Center as an interpretive / nature / history center could imply management of the Center to maintain or increase open space and to maintain or restore natural systems where possible. Under alternative C, conditions could be put in place to ensure that there would be no change to Camp Coldwater Reservoir.

Construction of a new structure at the Center for use as an interpretive / nature / history center in a location of an existing structure without removal of any other existing structures would result in a continuance of localized, short- and long-term, negligible, adverse impacts to hydrology because there would be no change in the amount of impermeable surfaces. Construction of a new structure in a location of an existing structure, along with removal of some or all unused structures, would result in localized, long-term, minor to moderate, beneficial impacts to hydrology due to a decrease in impermeable surfaces.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for

reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to hydrology from new construction and building reuse under the training center / office park scenario would be similar to the interpretive / nature / history center scenario. The main difference between the two scenarios would be that under the interpretive / nature / history center scenario there could be some emphasis on maintaining open space (a permeable surface).

Development of a training center / office park using a combination of building reuse and new construction in existing building locations with no reduction in the total number of structures would result in long-term, negligible to minor, adverse impacts to hydrology. Additional development in new locations and with an increase in impermeable surfaces (e.g., a parking lot) would result in a localized, long-term, minor to moderate, adverse impact to hydrology.

Complete reuse or new construction in existing structure locations with a reduction in the total number of structures, with no change of Camp Coldwater Reservoir, would result in localized, long-term, minor, beneficial impacts to hydrology.

**Summary.** Camp Coldwater Reservoir could be considered an attractive feature of open space or a park or in proximity to an interpretive / nature / history center. Under these conditions, impacts could be short and long term, negligible, and beneficial. Under the training center / office park scenario, a combination of building reuse and new construction would result in increased density of buildings over the current condition, which would result in an increase in impermeable surfaces and a localized, long-term, minor to moderate, adverse impact on hydrology.

## **Water Quality**

**Description.** The outflow from Camp Coldwater Reservoir is measured for water quality along with the flow rate. The water quality measurements include temperature and specific conductivity.

The main factors that could affect water quality on the Center would be sediment loads in the short term, and nonpoint source pollution such as contaminants from vehicles and potentially from use of fertilizer, insecticides or herbicides in the long term.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the

USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Creation of open space / park at the Center by a university or nonfederal government entity could involve continued use of the existing open space as such or as a park. Short-term impacts to water quality could include increased sedimentation from ground disturbance resulting from building demolition. Under alternative C, conditions could be placed on the transfer that could require mitigation measures to protect water quality, such as revegetation and sediment traps.

Short-term impacts could be negligible and adverse if none of the existing structures are removed. Short-term adverse impacts resulting from removal of existing structures with implementation of mitigation measures would be minor.

Under this scenario, the potential long-term impacts to water quality could vary depending on whether the use was open space or a park. Continued use of existing open space with no elimination of existing structures or change in this type of use could result in long-term, negligible, adverse impacts to water quality. Should the Center be converted to a park, with existing parking lots retained with the possibility of increased public use, a conservation easement could be put in place under alternative C requiring mitigation measures to minimize adverse impacts to water quality. If the easement limited use of chemical fertilizers, herbicides, and other pesticides, nonpoint source pollution could be limited, and long-term adverse impacts to water quality would be negligible to minor.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Creation of an interpretive / nature / history center would result in increased public use, which could translate to an increase in the number of vehicles contributing to long-term nonpoint source pollution on the Center. Impacts under this scenario would be short term, localized, negligible, and adverse, and localized, long term, minor, and adverse, the same as those described for the open space / park scenario because structures may or may not be constructed or demolished.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for



reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to water quality from new construction and building reuse under the training center / office park scenario would be similar to the other scenarios in that structures may be constructed or demolished with mitigation measures in place to protect water quality. Increased vehicle traffic could be expected. The grounds of a training center / office park may be more likely to be managed in a cultivated fashion, adding a chemical load to the nonpoint source pollution of the Center. However, the potential impacts of this scenario would still be anticipated to be similar to those described in the foregoing scenarios.

**Summary.** Short-term impacts would be reduced to negligible and adverse should structures be removed or constructed if provisions to protect water quality are established. Increased public use would result in increased use of existing or new parking areas where vehicles could leak fluids that could adversely impact water quality through stormwater drainage. This scenario would result in localized, long-term, minor, adverse impacts to water quality. Under alternative C, a conservation easement that includes mitigation measures to minimize adverse impacts to water quality could be implemented. If the easement were to limit use of chemical fertilizers, herbicides, and other pesticides, then nonpoint source pollution adverse impacts to water quality would be reduced to negligible levels.

## Wetlands

**Description.** The *National Wetlands Inventory* map that includes the Center site shows a single wetland within the Center boundaries—Camp Coldwater Reservoir. An onsite delineation also revealed the presence of additional wetlands that are not shown on the *National Wetlands Inventory* map.

The main factor that could potentially impact wetlands on the Center would be construction work that would damage, alter, or destroy wetlands resources. Work affecting the course, current, or cross-section of a wetlands may require a permit from one or all applicable federal, state, or local agencies.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under this scenario, the difference in use as open space versus as a park would not result in different impacts to wetlands. It could be assumed that the wetlands could be

considered an attractive feature of open space or a park under this scenario; therefore, efforts could be made to conserve the resource. Future operation of the Center with continue use of the existing open space as open space or a park without removing any existing structures, would result in continued short- and long-term, major, adverse impacts to wetlands. Alternative B could contain conditions (retention of property or a conservation easement) requiring the protection of wetlands. Should the recipient of the Center choose to remove existing structures and expand the area available for use as open space or as a park, operation of vehicles or demolition work that could damage the wetlands resources on the Center could be minimized, and rehabilitation required. Under this scenario impacts to wetlands would be short term, minor to moderate, and long term, negligible, and adverse. Removal of existing structures, eliminating existing adverse impacts, and restoration of wetlands would result in long-term, moderate to major, beneficial impacts to wetlands.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required for reuse.

**Impacts.** Use of the Center as an interpretive / nature / history center could imply management of the Center to maintain or increase open space and to maintain or restore natural systems where possible. It could be assumed that wetlands could be considered an attractive feature of an interpretive / nature / history center and efforts could be made to conserve the resource.

Under alternative C, conditions could be placed on the transfer to protect wetlands resources on the Center.

Rehabilitation of an existing structure at the Center for use as an interpretive / nature / history center without removal of any existing structures would have short-term, negligible, and long-term, moderate to major, adverse impacts on wetlands. Construction of a new structure could be limited to existing structure locations and could require rehabilitation of any damage to wetlands resources, possibly resulting in short-term, minor to moderate, adverse impacts. Removal of existing structures eliminating existing adverse impacts, and restoration of wetlands would result in long-term, moderate to major, beneficial impacts to wetlands.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to wetlands from new construction and building reuse under the training center / office park scenario would be similar to the interpretive / nature / history center scenario. The main difference between the two scenarios would be that under the interpretive / nature / history center scenario there could be some emphasis on maintaining open space (a permeable surface). Alternative C could contain conditions protecting wetlands. Complete reuse or new construction in existing structure locations, in combination with mitigation measures to minimize impacts to wetlands and revegetation efforts to restore any damage, would result in short-term, minor to moderate, adverse impacts, and long-term, major, adverse impacts to wetlands. Removal of existing structures, eliminating existing adverse impacts, and restoration of wetlands would result in long-term, moderate to major, beneficial impacts to wetlands.

**Summary.** The main factor that could potentially impact wetlands at the Center would be construction work that would damage, alter, or destroy wetlands resources. Alternative C would allow for conditions (retention of property or a conservation easement) that would prevent unacceptable damage to, or loss of, wetlands. Measures to minimize impacts to wetlands would result in short-term, minor to moderate, and long-term, moderate to major, adverse impacts to wetlands. Removal of existing structures, eliminating existing adverse impacts, and restoration of wetlands would result in long-term, moderate to major, beneficial impacts to wetlands. Future operation of the Center, without removing any existing structures, would result in continued short- and long-term, major, adverse impacts to wetlands.

## Socioeconomics

**Description.** The Center is an integral part of the socioeconomic composition of the surrounding community. When operational, it employed as many as 200 workers. Today, it functions as an informal adjunct to adjoining properties and, when open to the public, a destination for visitors to the Camp Coldwater Spring area. One aspect of the socioeconomy that could be affected by the various alternatives (other than employment) is operation and maintenance of the Center.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** The impact of this scenario would be similar to that of alternative B. However, depending on the conditions placed on the transfer, the Center could serve either more or fewer visitors than currently. Operations and maintenance costs would likely decrease if the

area was converted to a park or open space. Impacts of this scenario would be local, moderate, and beneficial.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** The impact of this scenario would be similar to alternative B, except conditions such as a conservation easement could require more park and open space land. Operations and maintenance costs would likely decrease or remain similar if the area was converted to this type of facility. The impacts of this scenario would be regional, moderate, and beneficial.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** The impact of this scenario would be similar to alternative B, except that conditions could be placed on the scale and density of the development to avoid adverse traffic impacts, preserve public use and access to portions of the site, and maintain some natural areas. Operations and maintenance costs would likely increase if the area was converted to this type of facility. The impact of this scenario would be regional, minor, and beneficial.

**Summary.** Overall impacts to the socioeconomic setting under alternative C would be for the most part beneficial. In the case of the park and interpretive center, the benefits would accrue to the neighboring residents and regional visitors. In the case of an office park, the benefits would accrue through added employment in the region and an enhanced local tax base. However, these benefits would be less than in alternative B assuming conditions would be placed on the size of the development and the number of employees to avoid localized adverse traffic impacts.

### Health and Safety

**Description.** In anticipation of divestiture of the Center, the TCRC Closure Team conducted an extensive environmental cleanup in the late 1990s. Although many potentially hazardous materials, such as chemicals and wastes associated with laboratories, were removed, others (e.g., asbestos, mold) remain in some buildings.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Impacts to health and safety under this scenario, without removal of any structures would remain localized, long term, negligible, and adverse.

If unused buildings were removed, the impacts would be short term, negligible, and adverse with mitigation measures such as testing building environments for contamination and with the proper PPE for workers. Long-term impacts would be minor and beneficial due to elimination of potential hazardous situations for workers and potential intruders.

### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Impacts to health and safety under this scenario without removal of any structures would remain localized, long term, negligible, and adverse.

If unused buildings were removed, the impacts would be short term, negligible, and adverse with mitigation measures such as testing building environments for contamination and with the proper PPE for workers. Long-term impacts would be minor and beneficial due to elimination of potential hazardous situations for workers and potential intruders.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to health and safety under this scenario without removal of any structures would remain localized, long term, negligible, and adverse.

If unused buildings were removed, the impacts would be short term, negligible, and adverse with mitigation measures such as testing building environments for contamination and with the proper PPE for workers. Long-term impacts would be minor and beneficial due to elimination of potential hazardous situations for workers and potential intruders.

**Summary.** Impacts to health and safety under these scenarios would remain localized, long term, negligible, and adverse.

If unused buildings were removed, the impacts would be short term, negligible, and adverse with mitigation measures such as testing building environments for contamination and with the proper PPE for workers. Long-term impacts would be minor and beneficial due to elimination of potential hazardous situations for workers and potential intruders.

## Land Use

**Description.** The land use of the Center from the initial construction in 1949 through closure in 1995 was for governmental light industrial purposes. The lands surrounding the Center are primarily government-owned and used for recreation or for government offices or a medical center. The other prominent land use in the area is the Minneapolis-St. Paul International Airport, which lies southwest of the Center. Although the airport is not contiguous with the Center, airport zoning regulations and Federal Aviation Administration airspace obstruction rules play an important role in governing land uses at the Center.

**Impacts.** Analysis of land use by scenario is not presented in this section because impacts to land use for all scenarios under alternative C would be the same as those described for all scenarios under alternative B. All scenarios appear to be consistent with existing area land uses, and adding conditions (retention of property or a conservation easement) to the transfer of the Center under alternative C may not result in additional beneficial impacts.

**Summary.** Use of the Center under all three scenarios would be consistent with other area uses, regardless of any imposed conditions (retention of property or a conservation easement). Long-term, minor, beneficial impacts on land use would result under any scenario if existing structures were removed that are not currently in conformance.

## Public Use and Experience

**Description.** The Center, which is open to the public during specified hours, has a park-like setting, with grassy lawn areas and occasional shade trees surrounding vacant buildings and the Camp Coldwater Spring area. During the time that the Center was operating in its official capacity (until 1995), it was not open for general public use and visitation. The Center is now used by the public on a frequent basis as an extension of the open space present in the surrounding parks and open areas. The area around Camp Coldwater Spring is viewed by some members of the public as being spiritually important and is used for meditation and a

source of inspiration. Many groups of people have a special fondness for the Center property. Visitors to the Center include American Indians, spiritualists, environmentalists, and residents of the nearby neighborhoods. The alternatives presented in this draft EIS along with the scenarios present differing levels of access to the Center by the public for continuing the personal rituals and meditations as they currently exist.

#### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under alternative C, conditions could be placed on the transfer of the Center, such as requiring any unused structures to be removed and the building sites revegetated, and requiring that the hours the Center is open to the public be expanded. This requirement could expand the area available for public use and beneficial impacts to public use and experience would result. However, any easement could be subject to competing and conflicting uses.

Short-term impacts would be negligible to minor and adverse during the demolition process due to equipment operation and activity. Long-term impacts would be moderate to major and beneficial as the visibility of the changes to the Center may be prominent and the area and hours available for public use could be expanded.

The impact of this scenario on access to the Camp Coldwater Spring area would be similar to that of alternative B, but continued vehicular could be assured with a permanent easement. This could eliminate the possibility of restricted access inherent in alternative B, and perhaps even enhance public use and experience. Impacts with regard to access to the Camp Coldwater Spring area would be regional, long term, minor, and beneficial.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Reuse or new construction at an existing building site of one or more existing structures at the Center, in conjunction with demolition of all remaining unused structures and

rehabilitation of the building sites (in compliance with a restriction placed on the transfer under alternative C), would result in short-term, negligible to minor, adverse impacts due to construction work onsite. Conditions placed on the transfer could require expanded hours at the Center. Long-term, moderate, beneficial impacts to public use and experience would be expected through the expanded area and hours available for public use of the Center.

As with the open space / park scenario, conditions placed on the disposition of the Center could avoid the possible adverse effects of alternative B with regard to access to the Camp Coldwater Spring area. It is also more likely that, with conditions (retention of property or a conservation easement), the spring area could become an integral part of the educational and interpretive experience. This could enhance public use and experience, and may attract a wider audience. Impacts with regard to access to the Camp Coldwater Spring area would be regional, long term, moderate, and beneficial.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Conditions placed on the transfer requiring reuse or new construction at an existing building site of some or all of the existing structures on the Center for a training center / office park, along with a restriction on the transfer requiring expanded public access to areas of current public use, would result in short-term, negligible to minor, adverse impacts due to equipment activity associated with construction work and long-term, minor to moderate, beneficial, impacts due to expanded hours of availability of the Center for public use, and revitalization of the structures that are currently deteriorating and vacant.

Under this scenario, much of the site would be developed for uses that are presumably unavailable to the general public, but conditions could be placed to preserve the spring and public access to that area. However, because the primary use of the site would be for offices, access would likely be more limited in area and perhaps time than the more public-use-oriented scenarios. Furthermore, the nature of the conditions (retention of property or a conservation easement) could make implementation of this scenario less likely, as they could reduce the economic potential of the site and burden the eventual owner with additional administrative and security costs. Impacts with regard to access to the Camp Coldwater Spring area would be regional, long term, minor, and beneficial.

**Summary.** Overall impacts to the ability to visit the Camp Coldwater Springs area would be preserved under alternative C. Access and the nature of public visitation would be provided through a conservation easement or the federal government could retain ownership and management of that portion of the Center.



## Visual Resources

**Description.** The visual characteristics of the Center include a relatively limited viewshed (less than 1,000 feet and not expansive), dense woods and bluffs, nonnative vegetation and landscaping, driveways and parking lots, the Center buildings, and Camp Coldwater Spring and Reservoir. Characteristics along the Center boundaries include views of an urban setting with commercial and residential buildings and SH 55 and SH 68. The overall visual quality is average to below average because of lack of vividness and distinctiveness. This is due to the lack of coordinated or harmonious design and deteriorating condition of the buildings and grounds.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance. This scenario is expected to have the lowest density of buildings and the greatest open/nature space. No development is expected along the wooded bluff area east of and adjacent to the Center; therefore, the wooded screen of the Center from the east is expected to remain.

**Impacts.** Under alternative C, if conditions are placed on the transfer that require exterior maintenance or removal of unused structures with rehabilitation of building sites, in the long term there would be negligible to minor and beneficial impacts to visual resources because the modifications may be noticeable and exterior improvements may improve the feeling associated with the viewshed. If all existing structures are removed, the impacts to visual resources would be moderate to major and beneficial because the impact would be noticeable, if not readily apparent. Rehabilitation or removal of some existing structures for use of the Center as open space or a park would result in short-term, negligible to minor, adverse impacts due to equipment and activity associated with rehabilitation work.

Removing some or all of the buildings would improve visual character and quality by expanding open, natural space, and removing the detracting and disjointed elements. Because viewers outside the Center are in motion or at a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore, result in no to negligible long-term impacts.

### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would

be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired. This scenario is expected to have a balance between building density and open/nature space. No development is expected along the wooded bluff area east of and adjacent to the Center; therefore, the wooded screen of the Center from the east is expected to remain.

**Impacts.** Rehabilitation or replacement of some existing structures for use as an interpretive / nature / history center, in conjunction with removal of all remaining unused structures and rehabilitation of the building sites, would result in short-term, negligible to minor, adverse impacts due to equipment and activity associated with rehabilitation work. Long-term, minor to moderate, beneficial impacts to visual resources would occur if some structures were removed and the appearance of the remaining structure(s) improved. Because viewers outside the Center are in motion or at a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore, result in negligible long-term impacts, if any.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required. This scenario is expected to have the highest density of buildings and the least amount of open / nature space. No development is expected along the wooded bluff area east of and adjacent to the Center; therefore, the wooded screen of the Center from the east is expected to remain.

**Impacts.** Reuse or reconstruction of many or all existing structures on the Center for a training center / office park in conjunction with removal of any unused structures and rehabilitation of building sites would result in short-term, minor, adverse impacts to visual resources due to construction equipment and activity. Long-term impacts would be negligible to minor and beneficial as the outward appearance of the rehabilitated or new structures would detract less from the visual resources than the unused structures. Because viewers outside the Center are in motion or from a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore, result in no to negligible long-term impacts.

**Summary.** Overall impacts to visual resources under the open space/park scenario would be beneficial in the long term. The existing buildings and structures create a low to medium visual experience. With each scenario, as more buildings are removed from the Center, the greater the beneficial effect would be. Long-term impacts would be localized and beneficial and range from negligible to major. Removal of Camp Coldwater Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center, but could be mitigated through the use of conditions on the

transfer under this alternative. Short-term impacts due to construction activities would be localized, short term, adverse, and minor.

## **ALTERNATIVE D**

Under alternative D, the federal government would manage and bear the cost of modification for all or part of the land, structures, or other improvements prior to conveyance or retention of the Center. Following completion of the modifications, the Center would be disposed through transfer to a university or nonfederal government entity without conditions (retention of property or a conservation easement) (alternative B), transfer to a university or nonfederal government entity with conditions (alternative C), or retention by the federal government for use such as those described under the three conceptual land use situations.

### **Laws, Regulations, and Planning Documents Governing Modification and Use Under Alternative D**

The application of laws, regulations, and planning documents governing use of the Center under alternative D would be the same as under alternative B if the Center were conveyed without conditions, or the same as under alternative C if the Center were conveyed with conditions. The difference between this alternative and alternatives B and C is that under alternative D, the federal government would modify the Center prior to conveyance or retaining the Center by demolishing structures, removing paved areas, or other related activities. Any modifications made by the federal government prior to conveyance or retention would be made in compliance with all laws, regulations, and planning documents that govern use of and resources located at the Center.

### **Archeological Resources**

**Description.** Based on the 2001 study, the Center was organized into five distinct zones based on the potential to yield archeological information. Zones III, IV, and V were found to contain no important cultural materials and warrant no further archeological study. Zone I was recommended for further testing to determine if the area contains cultural materials that would contribute to the Fort Snelling National Historic Landmark and National Historic District. Zone II was found to contain in situ cultural deposits that correspond to the period of significance of the national historic landmark and national historic district. The 2001 study also recommended a revision to the boundaries of the Fort Snelling National Landmark to include Zones I and II (Clouse 2001). That revision is currently in process; for purposes of this draft EIS, it is assumed the boundaries include Zones I and II.

#### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some

or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI may have no control over any landscaping plans or other measures to modify the land, or the USDI could apply conservation easements or other conditions to the Center as described under alternative C.

**Impacts.** Under this scenario, it is assumed during the modification performed by the federal government, that archeological resources would not be adversely impacted and all requirements governing archeological resources would be complied with throughout the modification process. Prior to conveyance, the USDI would consult with the SHPO, the ACHP, federally recognized tribes, and interested parties to negotiate and execute a programmatic agreement to consider the eventual loss of the resource if conveyance is without conditions; or to define future treatment of NRHP-listed and eligible sites if conveyed with conditions.

If the Center is conveyed without restriction and easements, the impacts would be long term, moderate, and adverse because the resource would be permanently removed from context, but the information available in the data recovery would be available for future research (as described under alternative B). If the Center is conveyed with conditions, the impacts would be long term, minor, and beneficial because the resource would be protected in place (as described under alternative C).

#### Interpretative / Nature / History Center Scenario

**Assumptions.** Under this scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. New structures could be built at the Center, and all or a portion of the existing buildings would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in the current form; improvements may be required if reuse is desired. After conveyance, the USDI may have no control over any landscaping plans or other measures to modify the land, or the USDI could apply conservation easements or other conditions on the Center as described under alternative C.

**Impacts.** Under this scenario, it is assumed that during modifications performed by the federal government, all requirements governing archeological resources would be complied with throughout the modification process, and that archeological resources would not be adversely impacted. Prior to conveyance, the USDI would consult with the SHPO, the ACHP, federally recognized tribes, and interested parties to negotiate and execute a programmatic agreement to consider the eventual loss of the resource if conveyance is without conditions; or to define future treatment of NRHP-listed and eligible sites if transferred with conditions.

If the Center is conveyed without conditions, the impacts would be long term, moderate, and adverse because the resource would be permanently removed from context, but the information available in the recovered data would be available for future research (as described under alternative B). If the Center is conveyed with conditions, the impacts would be long term,

minor, and beneficial because the resource would be protected in place (as described under alternative C).

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Under this scenario, use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most of the existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in the current form; improvements may be required. After conveyance, the USDI may have no control over any landscaping plans or other measures to modify the land, or the USDI could apply conservation easements or other conditions on the Center as described under alternative C.

**Impacts.** Under this scenario, USDI, in consultation with the SHPO, the ACHP, federally recognized tribes, and interested parties, would negotiate and execute a programmatic agreement defining future treatment of NRHP-listed and eligible sites at the Center. This treatment would include methods to avoid, minimize, and mitigate adverse effects to the resource. This scenario emphasizes the built environment and the greatest amount of ground disturbance; therefore, the new owner would complete all necessary inventories and data recovery plans, accessioning of artifacts, and all other provisions of the programmatic agreement. The impacts would be long term, moderate, and adverse because the resource could be permanently removed from context, but the information available in the recovered data would be available for future research.

**Summary.** Upon completion of federal government modifications to the Center, it is assumed that the archeological resources would not be adversely impacted. Prior to transfer of ownership to a university or nonfederal government entity, the USDI would complete the section 106 process to properly consider the effects of the transfer on archeological resources. If the Center is transferred without conditions, the impacts would be long term, moderate, and adverse because the resource would be permanently removed from context, but the information available in the recovered data would be available for future research.

If the Center is transferred with conditions, under the first two scenarios, this would result in long-term, minor, beneficial impacts because the resource could be protected. Under the last scenario, it is assumed that the resource would be impacted due to development plans and result in long-term, moderate, and adverse impacts because the resource would be permanently removed from context, but the information in the recovered data would be available for future research.

**Section 106 Assessment of Effect.** The transfer of the Center out of federal control is considered to be an adverse effect under 36 C.F.R. 800.5. As noted above, the USDI would complete the section 106 process to properly consider and mitigate for adverse effects on archeological resources.

## Historic Structures and Districts

**Description.** There are no individually NRHP-eligible structures within the Center. Eleven of the buildings and structures at the Center are contributing elements to the USBM Twin Cities Research Center Historic District. Camp Coldwater Reservoir and the spring house are considered structures, but are not contributing elements of the USBM Twin Cities Research Center Historic District. Approximately half of the land within the Center falls within the boundaries of the Fort Snelling National Historic Landmark. Resources within the Center of significance to the national historic landmark include Camp Coldwater Spring and Reservoir (Henning 2002). Archeological resources exist at the Center that are considered contributing elements to the Fort Snelling National Historic District and Fort Snelling National Historic Landmark.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under this scenario, USDI, in consultation with the SHPO, the ACHP, federally recognized tribes, and interested parties, would negotiate and execute a programmatic agreement defining future treatment of historic structures and districts at the Center. This treatment would include methods to avoid, minimize, and mitigate for adverse effects to the resource. Under this scenario the emphasis is on the natural environment and it is assumed that most or all of the buildings and structures of the USBM Twin Cities Research Center Historic District would be removed. It is assumed the USDI would complete all necessary inventories and data recovery plans, documentation of the structures and district, and all other provisions of the agreement document. The impact would be long term, moderate, and adverse because the resources would be permanently removed from context, but the information available in the recovered data would be available for future research.

Impacts to Camp Coldwater Spring and Reservoir would be the same as to the USBM Twin Cities Research Center Historic District if no conservation easements or other conditions are in place. If conservation easements or other conditions are used to avoid adverse effects to Camp Coldwater Spring and Reservoir, impacts to this resource would be long term, minor, and beneficial because the resource would be protected in place.

### Interpretative / Nature / History Center Scenario

**Assumptions.** Under this scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural

environment for learning and interpretation. New structures could be built at the Center, and all or a portion of the existing buildings would be demolished. Most existing buildings have the potential for reuse; however, some are in better conditions and more readily lend themselves to reuse. Most of the infrastructure is not reusable in the current form; improvements may be required if reuse is desired.

**Impacts.** Under this scenario, USDI, in consultation with the SHPO, the ACHP, federally recognized tribes, and interested parties, would negotiate and execute a programmatic agreement defining future treatment of historic structures and districts at the Center. This treatment would include methods to avoid, minimize, and mitigate for adverse effects to the resource. Under this scenario, the emphasis is on some natural environment and it is assumed that some or most of the buildings and structures of the USBM Twin Cities Research Center Historic District would be removed. It is assumed the USDI would complete all necessary inventories and data recovery plans, documentation of the structures and district, and all other provisions of the agreement document. The impact would be long term, moderate, and adverse because permanently removing even some of the buildings and structures would impact the district as a whole, but the information available in the recovered data would be available for future research.

Impacts to Camp Coldwater Spring and Reservoir would be the same as to USBM Twin Cities Research Center Historic District if no conservation easements or other conditions are in place. If conservation easements or other conditions are used to avoid adverse effects to Camp Coldwater Spring and Reservoir, impacts to this resource would be long term, minor, and beneficial because the resource would be protected in place.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Under this scenario, use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most of the existing buildings have the potential for reuse; however, some are in better conditions and more readily lend themselves to reuse. Most of the infrastructure is not reusable in the current form; improvements may be required.

**Impacts.** Under this scenario, USDI, in consultation with the SHPO, the ACHP, federally recognized tribes, and interested parties, would negotiate and execute a programmatic agreement defining future treatment of historic structures and districts at the Center. This treatment would include methods to avoid, minimize, and mitigate for adverse effects to the resource. Under this scenario the emphasis is on the built environment and it is assumed that some of the buildings and structures of the USBM Twin Cities Research Center Historic District would be removed. It is assumed the USDI would complete all necessary inventories and data recovery plans, documentation of the structures and district, and all other provisions of the agreement document. The impact would be long term, moderate, and adverse because permanently removing even some of the buildings and structures would impact the district as a whole, but the information available in the recovered data would be available for future research.

Impacts to Camp Coldwater Spring and Reservoir would be the same as to USBM Twin Cities Research Center Historic District if no conservation easements or other conditions are in place. If conservation easements or other conditions are used to avoid adverse effects to Camp Coldwater Spring and Reservoir, impacts to this resource would be long term, minor, and beneficial because the resource would be protected in place.

**Summary.** Prior to transfer of ownership of the Center to other than a federal owner, the USDI would complete the section 106 process to consider the effects of the transfer on the historic structures and districts. Regardless of the land use scenarios described above, the overall impact on the resource would be long term, moderate, and adverse to the USBM Twin Cities Research Center Historic District because some or all of the contributing buildings and structures would be permanently removed from context, but the information available in the recovered data would be available for future research.

Impacts to Camp Coldwater Spring and Reservoir would be the same as to USBM Twin Cities Research Center Historic District if no conservation easements or other conditions are in place. If conservation easements or other conditions are in place to avoid adverse effects to Camp Coldwater Spring and Reservoir, impacts to this resource would be long term, minor, and beneficial.

**Section 106 Assessment of Effect.** The transfer of the Center out of federal control is considered to be an adverse effect under 36 C.F.R. 800.5. As noted above, the USDI would complete the section 106 process to consider and mitigate adverse effects on historic structures and districts.

## **Ethnographic Resources**

**Description.** Although no historical documentation of American Indian use of Camp Coldwater Spring has been found, the oral traditions and histories collected during investigation suggest that natural springs, like Camp Coldwater Spring, are associated with sacred healing ceremonies. Camp Coldwater Spring is currently used by some members of the federally recognized Dakota and Ojibwe communities, and other American Indians as a source of water for ceremonies. The confluence of the Minnesota and Mississippi rivers is not located within the area of the proposed action, but Camp Coldwater Spring should be considered within this larger context. Many American Indian communities have a traditional association with the area surrounding the spring.

Use of the Center under any of the scenarios by a university or nonfederal government entity under alternative D would be the same as described under alternative B, except the option of applying conditions to the transfer could limit or guarantee certain future uses, as in alternative C.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center



would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurface would be subject to disturbance.

**Impacts.** Under this scenario, the open space / park would be assumed to be open for hours expanded from the current schedule that the Center is open for public use, thus enabling better accessibility to Camp Coldwater Spring by American Indian and other groups resulting in a negligible to minor, beneficial impact. If no conditions were placed on the transfer under this alternative, the recipient could restrict access to the spring, resulting in long-term, moderate to major, adverse impacts.

As a result of Camp Coldwater Spring groundwater flow protection afforded by S.F. 2049, and the designation of Camp Coldwater under the Minnesota Historic Sites Act, any state government entity that were to acquire the Center would be required to consult with the Minnesota SHPO prior to any undertaking that would affect the physical features or historic nature of Camp Coldwater and the associated spring. After consultation, the resource could still be diminished or destroyed unless there was a conservation easement or the government entity retained the land around the spring. However, if the Center is transferred to a non-state entity, such as a private university, there would be no requirement for compliance with S.F. 2049 or the Minnesota Historic Sites Act, which govern treatment of the physical features and historic character of the Camp Coldwater Spring area, which would result in a long-term, major, adverse impact on this resource.

If the Center is transferred under this alternative with conditions, impacts would be similar to alternative C and result in a long-term, minor to moderate, beneficial impact on ethnographic resources.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual land use scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Under this scenario, the interpretive / nature / history center would be assumed to be open for hours expanded from the current schedule that the Center is open for public use, thus enabling improved accessibility to Camp Coldwater Spring by American Indian and other groups. This would result in a negligible to minor beneficial impact. The recipient could restrict access to the spring, resulting in moderate to major adverse impacts.

It is possible, however, that under this scenario an emphasis on open space would be maintained and access to Camp Coldwater Spring would remain intact, resulting in a long-term, negligible to minor, beneficial impact.

As a result of Camp Coldwater Spring groundwater flow protection afforded by S.F. 2049, and the designation of Camp Coldwater under the Minnesota Historic Sites Act, any state government entity that were to receive the Center would be required to consult with the Minnesota SHPO prior to any undertakings that would affect the physical features or historic character of Camp Coldwater and the associated spring. After consultation, the resource could still be diminished or destroyed unless there was a conservation easement or the government retained the land around the spring. This, in combination with a more natural setting, would result in a long-term, moderate, beneficial effect on ethnographic resources. However, if the Center is transferred to a non-state entity, such as a private university, there would be no requirement for compliance with S.F. 2049 or the Minnesota Historic Sites Act, which govern treatment of the physical features and historic character of the Camp Coldwater Spring area, which would result in a long-term, major, adverse impact.

If the Center is transferred with conditions, impacts would be similar to alternative C and result in a long-term, minor to moderate, beneficial effect on ethnographic resources.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to ethnographic resources from new construction and building reuse under the training center / office park scenario would result in restriction of access to Camp Coldwater Spring, or destruction of the spring, resulting in long-term, moderate to major, adverse impacts.

As a result of Camp Coldwater Spring groundwater flow protection afforded by S.F. 2049, and the designation of Camp Coldwater under the Minnesota Historic Sites Act, any state government entity that were to receive the Center would be required to consult with the Minnesota SHPO prior to any undertakings that would affect the physical features or historic character of Camp Coldwater and the associated spring. After consultation, the resource could still be diminished or destroyed unless there was a conservation easement or the government retained the land around the spring. However, if the Center is transferred to a nonstate entity, such as a private university, there would be no requirement for compliance with S.F. 2049 or the Minnesota Historic Sites Act, which govern treatment of the physical features and historic character of the Camp Coldwater Spring area, which would result in a long-term, major, adverse impact.

There would be no guarantee of preservation of or access by American Indian communities to the Camp Coldwater Spring or associated resources unless conditions were placed on the transfer under this alternative.

If the Center is transferred with protective conditions under alternative D, impacts would be similar to alternative C and result in minor to moderate beneficial impacts to ethnographic resources.

**Summary.** Impacts range widely under alternative D because the Center could be transferred either with or without conditions after modification. If conditions are not placed on the transfer under alternative D, there would be no guarantee of preservation of or access by American Indian communities to the Camp Coldwater Spring area. Overall impacts to ethnographic resources under the open space / park scenario would be long-term, negligible to minor and beneficial impact or long term, moderate to major, adverse. Overall impacts to ethnographic resources under the interpretive / nature / history center scenario would be long term, range from negligible to minor, and beneficial; and negligible to major, adverse. Overall impacts to ethnographic resources under the training center / office park scenario would be long term, range from moderate to major, adverse; and minor, beneficial.

If the Center is transferred with protective conditions, impacts would be similar to alternative C and result in long-term, minor to moderate, beneficial impacts to ethnographic resources.

## **Soils**

**Description.** The Center site contains the following soil series and types: Dorset, Forada, Sandberg, Urban Land-Hubbard, and Urban Land-Udipsamments (NRCS 2005). Platteville limestone underlies surficial soils 10 to 50 feet below the ground surface. It is important to note that recent archeological testing suggests that soils over much of the Center site have been disturbed (buried, cut and filled, etc.) during construction of facilities and roads.

Factors that could affect soils at the Center under the following scenarios include disturbance and increases or decreases in impermeable surfaces associated with rehabilitation or construction of new structures.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under alternative D, the federal government would manage and bear the cost of modification for all or part of the land, structures, or other improvements prior to conveyance or retention of the Center.

Impacts to soils in the short term from federal modifications prior to transfer could include disturbance to and compaction of soils from operation of equipment, and exposure of soils to erosion. These impacts could be mitigated during the modification process through minimizing the area of disturbance. Revegetating disturbed areas could reduce soil erosion once demolition/construction is complete, and prior to transfer. With mitigation, short-term impacts would be negligible to minor and adverse.

The nature of long-term impacts to soils would depend on efforts made to protect the soils of the Center once the modifications are made and after transfer of the Center to the recipient. Rehabilitation of former building sites may require filling with locally acquired topsoil. If the Center is then transferred with no covenant or easement (conservation or other), the recipient would not be required to sustain any revegetation efforts, which if neglected would result in long-term, minor to moderate, adverse impacts to soils as the disturbed areas could either immediately erode or be overtaken by buckthorn and erode over time.

If the transfer of the Center includes conditions requiring revegetated areas to be actively managed until they become established, and that all future imported topsoils be obtained locally, the long-term impacts to soils would be minor to moderate and beneficial.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Under alternative D, the federal government would manage and bear the cost of modification for all or part of the land, structures, or other improvements prior to conveyance of the Center. Conditions may or may not be placed on the transfer of the Center requiring the recipient to take steps to avoid adverse impacts to soils.

Demolition of structures, rehabilitation of structures, and/or any new construction prior to transfer would result in short-term adverse impacts to soils ranging from negligible to minor. Mitigation measures implemented during modification, such as minimizing the amount of disturbed area, utilizing locally obtained topsoils, and revegetating to prevent erosion, would help to reduce short-term impacts. Any new construction could be located in previous building sites, also minimizing both short- and long-term impacts.

Once modifications are complete, if the Center is transferred to a recipient who elects not to sustain revegetation efforts initiated prior to transfer, long-term impacts to soils would be

minor to moderate and adverse, depending on the extent of the modification prior to transfer. If the transfer of the Center includes conditions requiring revegetated areas to be actively managed until they become established, and that all future imported topsoils be obtained locally, the long-term impacts to soils would be minor to moderate and beneficial.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Under alternative D, the federal government would manage and bear the cost for modification of all or part of the land, structures, or other improvements prior to conveyance of the Center. Short-term adverse impacts to soils ranging from negligible to minor in intensity would result from modification of the Center prior to transfer for the same reasons as those described under the interpretive / nature / history center scenario.

Should the Center transfer without the benefit of conditions, long-term impacts to soils from actions taken by the recipient would be minor to moderate and adverse for the same reasons as described under the interpretive / nature / history center, or should the recipient increase the density of structures (thus reducing the impermeable surfaces) after transfer. Because it could be assumed that use of the Center as a training center / office park could necessitate that a greater portion of the grounds would be covered by structures than in the open space / park or interpretive / nature / history center scenarios, long-term beneficial impacts would be negligible to minor with mitigation.

**Summary.** The impacts to soils depend largely on whether areas would remain or be converted to open space, whether or not existing structures would be demolished or restored, and if new structures are built, whether they are built at existing sites or new sites. Short-term adverse impacts could occur if heavy equipment is brought in for demolition or construction prior to transfer, and could be mitigated to a negligible level. Long-term, minor to moderate, adverse impacts could occur subsequent to transfer of the Center if open space is converted to buildings or a parking lot as impermeable surfaces would increase and topsoil would be covered up, and if the recipient does not sustain any revegetation efforts initiated prior to transfer to prevent future soil erosion. These impacts could be minimized by conditions placed on the recipient.

### Vegetation

**Description.** Natural vegetation exists on the site's bluff slope, toeslope, and on the Mississippi River floodplain terrace. The bluff slope located on the eastern boundary of the project site supports a maple – basswood forest community. The toeslope, maintained in a saturated condition by natural groundwater seepage, supports a black ash swamp community. Occupying the Mississippi River floodplain adjacent to the toeslope and to the river's edge is a

relatively unaltered forest community characterized by silver maple, American elm, green ash, black willow, and eastern cottonwood. Currently, the Center is occupied by business infrastructure and open areas that were constructed or planted following land-leveling activities. In addition, wetlands and successional deciduous woodlands remain from the natural, pre-settlement condition or have become established on sites disturbed by development.

Factors affecting native vegetation at the Center under the following scenarios may include disturbance due to rehabilitation and construction, and potential for revegetation with native species. The airport zoning ordinance may require that a university or nonfederal government entity manage trees on the Center so that no new trees would be allowed to grow in Safety Zone A, and trees in all other areas of the Center may be required to be maintained at designated height requirements.

**Impacts.** Modification of the Center prior to transfer, under any of the scenarios under alternative D, would result in the same short-term, negligible to minor, adverse impacts to vegetation as described under alternative B. Should the center be transferred without a conservation easement and the recipient not elect to implement or continue mitigation measures to protect native vegetation, long-term impacts would be the same adverse impacts described under alternative B.

The ability to apply conditions under alternative D could enhance the beneficial impacts to vegetation. Through conditions placed on the transfer of the Center, the new university or nonfederal government entity of the Center could be required to restore the sites of existing structures to native vegetation, remove existing nonnative vegetation, and/or control the spread of invasive species (such as buckthorn) in the future. Under these conditions, long-term impacts to vegetation would be the same beneficial impacts as described under alternative B.

**Summary.** The impacts to vegetation under alternative D would be short term, negligible to minor, and adverse, and long term, moderate to major, and beneficial as described under alternative B.

## Wildlife

**Description.** The Mississippi River valley and its tributaries in east-central Minnesota attract an array of wildlife that use diverse habitats. Over 260 bird species are common to this area, and of these, 120 are known to nest in this part of Minnesota. At least 50 mammals occur within the Mississippi River corridor and some are likely visitors on the Center.

Factors that could affect wildlife under the following scenarios would include increased public use and amount of habitat.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some

or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under alternative D, the federal government would manage and bear the cost for modification of all or part of the land, structures, or other improvements and could revegetate former building sites with species that could serve as wildlife habitat to convert the Center to open space or a park prior to transfer to a university or nonfederal government entity.

In the short term, wildlife would be adversely impacted by the demolition activity performed prior to transfer; however, those impacts are anticipated to be negligible.

Long-term impacts on wildlife from actions taken by the recipient would depend on efforts made to maintain wildlife habitat. If the Center were transferred without conditions, the recipient would not be required to sustain revegetation initiated prior to transfer, and could replace any existing natural wildlife habitat with lawn and/or cultivated and/or nonnative vegetation, which would have a long-term, negligible to minor, adverse impact on wildlife due to the reduction in habitat.

If the Center is transferred with conditions protecting wildlife and their habitat, the long-term impacts would be negligible to minor and beneficial as the amount of wildlife habitat for local populations could be maintained, if not increased.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Impacts to wildlife would be the same as those described for the open space / park scenario as any structures used for an interpretive / nature / history center would not have a substantive impact on the remaining wildlife habitat. In the short term, wildlife would be adversely impacted by the demolition activity performed prior to transfer; however, those impacts are anticipated to be negligible. Long-term impacts on wildlife from actions taken by the recipient would depend on efforts made to maintain wildlife habitat. If the Center were transferred without conditions, long-term, negligible to minor, adverse impacts to wildlife would result from reduction in habitat. If the Center is transferred with conditions protecting wildlife and their habitat, the long-term impacts would be negligible to minor and beneficial as the amount of wildlife habitat for local populations could be maintained, if not increased.

## Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to wildlife would be the same as those described for the interpretive / nature / history center, except under the training center / office park scenario, the density of structures would remain the same prior to transfer. In the short term, wildlife would be adversely impacted by the demolition / rehabilitation / construction activity performed prior to transfer; however, those impacts are anticipated to be negligible. Long-term impacts on wildlife from actions taken by the recipient would depend on efforts made to maintain wildlife habitat. If the Center were transferred without conditions, long-term, minor, adverse impacts to wildlife would result from reduction in habitat. If the Center is transferred with conditions protecting wildlife and their habitat, the long-term impacts would be negligible to minor and beneficial as the amount of wildlife habitat for local populations could be maintained, if not increased.

**Summary.** Removal of some or all of the existing structures on the Center for use as open space or a park would have beneficial impacts on wildlife if the building sites were revegetated prior to transfer with species that could serve as wildlife habitat, and if the recipient sustained those revegetation efforts. If none of the existing structures would be reused or removed, and a new structure is erected in the area that is currently open space, and if any existing natural areas would be cleared and replaced with turf or nonnative vegetation, the area that supports wildlife habitat could be reduced. The impacts to wildlife would be short term, negligible, and adverse due to construction activity, and long term, minor, and adverse due to reduced habitat and potentially increased public use of the Center. Long-term, minor, beneficial impacts to wildlife would occur assuming some conversion of space to wildlife habitat.

## Hydrology

**Description.** The 27.32-acre Center is located on the eastern boundary of the Minnehaha Creek watershed, just south of the intersection of the east-flowing Minnehaha Creek with the Mississippi River, on the west bank of the river. The main drainage from the site is from Camp Coldwater Spring and the associated reservoir. Groundwater can be found within about 20 feet of the land surface in most places within the Minnehaha Creek watershed, including the Center.

Camp Coldwater Spring is fed by groundwater from upgradient of the Center and it is not expected that any of the alternatives proposed in this document would affect the source of the spring. Factors that could affect the hydrologic features of the Center under the following scenarios include the amount of impermeable surface area, and the maintenance of the Camp Coldwater Reservoir.



## Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Creation of open space / a park at the Center by a university or nonfederal government entity could involve continued use of the existing open space as such, or as a park. Under this scenario, whether the Center would be used as open space or as a park would not result in different impacts to hydrology. While the federal government would manage and bear the costs for modification of all or part of the land, structures, or other improvements prior to transfer, the entity making the modifications would not change the impacts to hydrology. Assuming all structures would be removed prior to transfer, localized long-term, minor to moderate, beneficial impacts to hydrology would result as the local hydrologic processes would be positively affected by reductions in impermeable surfaces.

Under alternative D, conditions may or may not be put in place to assure there would be no change to Camp Coldwater Reservoir; however, it is assumed that the reservoir would be an attractive feature of any open space or park and as such would not be changed.

## Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Use of the Center as an interpretive / nature / history center could imply management of the Center to maintain or increase open space and to maintain or restore natural systems where possible. Under alternative D, the federal government would manage and bear the costs for modification of all or part of the land, structures, or other improvements prior to conveyance or retention of the Center. Modifications could include removal of all or a portion of the existing structures and associated aboveground infrastructure (roads, powerlines, ore bins, etc.) at the Center. Modifications could also include construction of new structures, or rehabilitation of existing buildings, or both. The impacts to hydrology resulting from these modifications would be the same as those described under alternative C: localized, long term, minor to moderate, and beneficial, depending on whether any structures are removed.

Construction of a new structure at the Center for use as an interpretive / nature / history center in a location of an existing structure without removal of any other existing structures would result in the continuance of localized, short- and long-term, negligible, adverse impacts to hydrology because there would be no change in the amount of impermeable surfaces. Construction of a new structure in a location of an existing structure, along with removal of some or all unused structures would result in localized long-term, minor to moderate, beneficial impacts to hydrology due to a decrease in impermeable surfaces.

Should the Center be transferred without a conservation easement and the recipient elect to construct more structures, long-term impacts to hydrology would be localized, minor, and adverse.

Under alternative D, conditions may or may not be put in place that could ensure that there would be no change to the Camp Coldwater Reservoir or that any future construction after transfer would take place in locations of existing structures to avoid the potential increase in impermeable surfaces. However it is assumed that the reservoir would be an attractive feature of any interpretive / nature / history center and as such would not be changed.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to hydrology from new construction and building reuse under the training center / office park scenario would be similar to the interpretive / nature / history center scenario. The main difference between the two scenarios would be that under the interpretive / nature / history center scenario there could be some emphasis on maintaining open space (a permeable surface). Under alternative D, a federal entity would make modifications to the Center prior to transfer. Those modifications could include construction of a new structure in a new location, with or without retention of the existing structures, or construction of a new structure in the location of an existing structure. Modifications of the Center prior to transfer using a combination of building reuse and new construction in existing building locations with no reduction in the total number of structures would result in localized, short- and long-term, negligible, adverse impacts to hydrology. Complete reuse or new construction in existing structure locations with a reduction in the total number of structures, with no change of the Camp Coldwater Reservoir, would result in localized long-term minor beneficial impacts to hydrology.

Should the Center be transferred without a conservation easement, the recipient could construct new structures in the future, increasing impermeable surfaces, resulting in long-term, minor to moderate, adverse impacts to hydrology.

Under alternative D, conditions may or may not be put in place prohibiting future new construction that would increase impermeable surfaces, and make any changes to Camp

Coldwater Reservoir. Complete reuse or new construction in existing structure locations with a reduction in the total number of structures, with elimination of the Camp Coldwater Reservoir, would result in localized long-term, minor to moderate, adverse impacts to hydrology.

**Summary.** Camp Coldwater Reservoir could be considered an attractive feature of open space or a park or in proximity to a interpretive / nature / history center; under these conditions impacts to hydrology would be short and long term, negligible, and beneficial. Under the training center / office park scenario a combination of building reuse and new construction would result in increased density of buildings over the current condition, which would result in an increase in impermeable surfaces. Under alternative D the federal government would manage and bear the costs for modification of all or part of the land, structures, or other improvements prior to transfer. Impacts to hydrology from construction/demolition would be the same regardless of the entity making the modifications, and regardless of whether the modifications are made before or after transfer. Conditions could be placed on the amount of impermeable surface permitted and the removal of Camp Coldwater Reservoir prohibited.

## **Water Quality**

**Description.** The outflow from the Camp Coldwater Reservoir is measured for water quality along with the flow rate. The water quality measurements include temperature and specific conductivity.

The main factors that could affect water quality at the Center would be sediment loads in the short term, and nonpoint source pollution, such as contaminants from vehicles and potentially from use of fertilizer, insecticides or herbicides in the long term.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under alternative D, the federal government would manage and bear the costs for modification of all or part of the land, structures, or other improvements prior to transfer of the Center to a nonfederal government entity or university for use as open space or a park. All work could be done so as to minimize impacts to surface water resources on the Center, and any unavoidable damage repaired (through revegetation, etc.) prior to transfer. Short-term impacts to water quality resulting from federal modifications to the Center prior to transfer would be minor and adverse.

Long-term impacts to water quality would depend on the actions of the recipient after transfer of the Center, and would be localized, long term, minor, and adverse, as described under alternative C, regardless of potential conditions placed on the transfer.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Creation of an interpretive / nature / history center would result in increased public use, which could translate to an increase in the number of vehicles contributing to long-term nonpoint source pollution on the Center. Impacts under this scenario would be the same as those described for the open space / park scenario because structures may or may not be constructed or demolished. Short-term impacts to water quality resulting from federal modifications to the Center prior to transfer would be minor and adverse. Long-term impacts to water quality would depend on the actions of the recipient after transfer of the Center, and would be localized, long term, minor, and adverse, as described under alternative B and C, regardless of potential conditions placed on the transfer.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Under alternative D, the federal government would manage and bear the costs for modification of all or part of the land, structures, or other improvements prior to transfer of the Center to a nonfederal government or university entity for use as an interpretive / nature / history center.

Impacts to water quality from new construction and building reuse under the training center / office park scenario would be similar to the other scenarios in that structures may be constructed or demolished with mitigation measures in place to protect water quality. Increased vehicular traffic could be expected. The grounds of a training center / office park may be more likely to be managed in a cultivated fashion, adding to nonpoint source pollution of the Center. However, the potential impacts of this scenario would still be anticipated to be similar to those described in the scenarios above. Short-term impacts to water quality resulting from federal modifications to the Center prior to transfer would be minor and adverse. Long-term impacts to water quality would depend on the actions of the recipient after transfer of the

Center, and would be localized long term, minor, and adverse, as described under alternative B and C, regardless of potential conditions placed on the transfer.

**Summary.** Short-term impacts to water quality would be reduced to negligible to minor and adverse should structures be removed or constructed if provisions to protect water quality are established. Increased public use would result in increased use of existing or new parking areas where vehicles could leak fluids that could adversely impact water quality through stormwater drainage. This scenario would result in localized long-term minor adverse impacts to water quality.

## Wetlands

**Description.** The *National Wetlands Inventory* map that includes the Center site shows a single wetland within the Center boundaries: Camp Coldwater Reservoir. An onsite delineation also revealed the presence of additional wetlands that are not shown on the *National Wetlands Inventory* map.

The main factor that could potentially impact wetlands on the Center would be construction work that would damage, alter, or destroy wetlands resources. Work affecting the course, current, or cross-section of a wetlands may require a permit from one or all applicable federal, state, or local agencies.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under alternative D, the federal government would manage and bear the costs for modification of all or part of the land, structures, or other improvements prior to transfer of the Center to a nonfederal government or university entity for use as open space or a park. Mitigation measures could be implemented to protect wetland resources during the demolition process, to repair any damage the wetland may sustain during the process, and to rehabilitate modified wetlands prior to transfer.

This process would result in short-term minor and long-term major adverse impacts to wetlands. If structures were removed from former wetlands, short-term, minor to moderate, adverse impacts and long-term, moderate to major, beneficial impacts would occur. Under alternative D, the Center could be transferred to a nonfederal government or university entity with or without conditions. Because wetlands could be considered a valuable element of open

space or a park, protection of wetlands from future impacts through conditions on the transfer may change the future impacts.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Under alternative D, the federal government would manage and bear the costs for modification of all or part of the land, structures, or other improvements prior to transfer of the Center to a nonfederal government or university entity for use as open space or a park. Mitigation measures could be implemented to protect wetland resources during the demolition process, and to repair any damage the wetland may sustain during the process and prior to transfer. Modification prior to transfer without removal of any existing structures would result in short-term minor and long-term major adverse impacts as described in the open space / park scenario. If structures were removed from former wetlands, short-term, minor to moderate, adverse impacts and long-term, moderate to major, beneficial impacts would occur. Conditions may or may not be placed on the transfer to protect wetlands resources on the Center. Because wetlands could be considered a valuable element of open space or a park, protection of wetlands from future impacts through conditions on the transfer may change the future impacts.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Impacts to wetlands from new construction and building reuse under the training center / office park scenario would be short term minor to moderate and long term major and adverse, similar to the interpretive / nature / history center scenario. The main difference between the two scenarios would be that under the interpretive / nature / history center scenario there could be some emphasis on maintaining open space (a permeable surface). Alternative D may or may not contain conditions protecting wetlands. Without conditions on the transfer, future development at the Center could destroy wetlands, possibly continuing in long-term major adverse impacts. Placing conditions on the transfer that would protect wetlands would result in short-term, minor to moderate, adverse impacts and long-term major adverse impacts. If structures were removed from former wetlands, short-term, minor to moderate, adverse impacts and long-term, moderate to major, beneficial impacts would occur.

**Summary.** The main factor that could potentially impact wetlands on the Center would be construction work that would damage, alter, or destroy wetlands resources. Under alternative D, the federal government would manage and bear the costs for modification of all or part of the land, structures, or other improvements, and in that process mitigation measures could be put in place to protect wetlands, or steps could be taken to restore any damage to wetlands. Alternative D may or may not allow for a conditions on the transfer to prevent unacceptable damage to, or loss of, wetlands. Measures to minimize impacts to wetlands would result in short-term, minor to moderate, adverse impacts; however, long-term major adverse impacts to wetlands would remain if buildings remained in former wetlands. If structures were removed from former wetlands, short-term, minor to moderate, adverse impacts and long-term, moderate to major, beneficial impacts would occur.

## **Socioeconomics**

**Description.** The Center is an integral part of the socioeconomic composition of the surrounding community. When operational it employed as many as 200 workers. Today it functions as an informal adjunct to adjoining properties and, when open to the public, a destination for visitors to the Camp Coldwater Spring area. One aspect of the socioeconomy other than employment that could be affected by the various alternatives is operation and maintenance of the Center.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** The impact of this scenario would be similar to alternatives B or C, depending on what conditions were placed on the eventual transfer. The most significant difference with this alternative is that by renovation and/or clearing buildings and completing remediation of the site prior to disposition, the government would be more likely to find a willing transferee because they would then be spared the cost and risk of such activities. Operations and maintenance costs would likely decrease if the area was converted to a park or open space. The impact of this scenario would be local, moderate, and beneficial.

### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished.

Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Similarly, this scenario would be more easily implemented if the site were cleared. One complicating factor in this scenario is the uncertainty as to whether any of the existing buildings would be useful for the intended purpose. Renovation without an identified end user could hinder implementation of this scenario. Operations and maintenance costs would likely decrease or remain similar if the area was converted to this type of facility. The impact of this scenario would be regional, moderate, and beneficial.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Alternative D provides the most flexibility and the least cost and risk to the eventual developer of the Center. However, this could accelerate any adverse effects if the Center eventually were to be transferred without conditions. Operations and maintenance costs would likely increase if the area was converted to this type of facility. With conditions, the impact of this scenario would be regional, moderate, and beneficial.

**Summary.** Overall impacts to the socioeconomy under alternative D would be for the most part beneficial. In the case of the park and interpretive center, the benefits would accrue to the neighboring residents and the regional visitors. In the case of an office park, the benefits would accrue through added employment in the region and an enhanced local tax base. However, these benefits could be less than those of alternative B, assuming conditions could be placed on the size of the development and the number of employees. Operations and maintenance costs would likely decrease or remain similar if the area was converted to open space or a nature center but increase if converted to an office park. Although the impacts would be similar to alternative B or C, there is a greater likelihood that any of the scenarios could be implemented, or implemented sooner, if the site were cleared and cleaned prior to disposition.

## Health and Safety

**Description.** In anticipation of divestiture of the Center, the TCRC Closure Team conducted an extensive environmental cleanup in the late 1990s. Although many potentially hazardous materials, such as chemicals and wastes associated with laboratories, were removed, others (e.g., asbestos, mold) remain in some buildings.

Under alternative D, all unused buildings could be removed, and any remaining buildings could be rehabilitated prior to transfer to a university or nonfederal government entity.



### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** With mitigation measures such as testing building environments for potential contamination, and with the proper PPE for workers, the federal government managing and bearing the costs for modification of all or part of the land, structures, or other improvements would result in short-term negligible adverse impacts to workers during the demolition and rehabilitation process. Long-term minor beneficial impacts to health and safety would result from elimination of hazardous conditions that could be encountered by workers or potential intruders in the future, regardless of any conditions placed on the transfer.

### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** The impacts for this scenario would be the same as those described for the open space / park scenario. Short-term negligible adverse impacts to workers during the demolition and rehabilitation process, and long-term minor beneficial impacts to health and safety would result from elimination of hazardous conditions that could be encountered by workers or potential intruders in the future, regardless of any conditions placed on the transfer.

### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** The impacts for this scenario would be the same as those described for the open space / park scenario. Short-term negligible adverse impacts to workers during the demolition and rehabilitation process, and long-term minor beneficial impacts to health and safety would

result from elimination of hazardous conditions that could be encountered by workers or potential intruders in the future, regardless of any conditions placed on the transfer.

**Summary.** If a restriction were put on the transfer requiring some or all unused buildings be removed, the impacts to health and safety would be short term, negligible, and adverse with mitigation measures such as testing of building environments for contamination and with the proper PPE for workers. Long-term impacts would be minor and beneficial due to elimination of potential hazardous situations for workers and potential intruders.

## Land Use

**Description.** The land use of the Center from the first construction in 1949 through closure in 1995 was for governmental light industrial purposes. The lands surrounding the Center are primarily government-owned and used for recreation or for government offices or a medical center. The other prominent land use in the area is the Minneapolis-St. Paul International Airport, which lies southwest of the Center. Although the airport is not contiguous with the Center, airport zoning regulations and Federal Aviation Administration airspace obstruction rules play an important role in governing land uses at the Center.

Impacts to land use under alternative D would be the same as those described for all scenarios under alternative B because all scenarios appear to be consistent with existing area land uses; the entity making changes to the Center would not make a difference in the impacts to land use and adding conditions to the transfer of the Center may not result in additional beneficial impacts. Short- and long-term, minor, beneficial impacts on land use would result under any scenario if existing structures were removed that are not currently in conformance.

**Summary.** Impacts to land use under alternative D would be short and long term, minor, and beneficial, as described for all scenarios under alternative B because all scenarios appear to be consistent with existing area land uses; the entity making changes to the Center would not make a difference in the impacts to land use and adding conditions to the transfer of the Center may not result in additional beneficial impacts.

## Public Use and Experience

**Description.** The Center, which is open to the public during specified hours, has a park-like setting, with grassy lawn areas and occasional shade trees surrounding vacant buildings and the Camp Coldwater Spring area. During the time that the Center was operating in its official capacity (until 1995), it was not open for general public use and visitation. The Center is now used by the public on a frequent basis as an extension of the open space present in the surrounding parks and open areas. The area around Camp Coldwater Spring is viewed by some members of the public as being spiritually important and is used for meditation and a source of inspiration. Many groups of people have a special fondness for the Center property. Visitors to the Center include American Indians, spiritualists, environmentalists, and residents of the nearby neighborhoods. The alternatives presented in this draft EIS along with the scenarios present differing levels of access to the Center by the public for continuing the personal rituals and meditations as they currently exist.

## Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance.

**Impacts.** Under alternative D, the federal government would manage and bear the costs for modification of all or part of the land, structures, or other improvements prior to transfer of the Center to a university or nonfederal government entity for use as open space or a park.

Modification prior to transfer could expand the area available for public use and would result in short-term, negligible to minor, adverse impacts during the demolition process due to equipment operation and activity. If the Center is transferred without conditions and no changes are made to the hours the Center is open to the public, long-term moderate beneficial impacts would result as the changes would be prominent and the area available for public use expanded.

If conditions could be placed on the transfer requiring the hours the Center could be open to the public to be expanded, beneficial impacts to public use and experience would be expected. Long-term impacts would be moderate to major and beneficial as the visibility of the changes to the Center may be prominent and hours and area available for use could be expanded.

The impact of this scenario would be similar to alternatives B or C depending on if and what conditions were placed on the eventual transfer. The most significant difference with this alternative is that by renovating and/or clearing buildings and completing remediation of the site prior to disposition, the government could be more likely to find a willing transferee because they would then be spared the cost and risk of such activities. Clearing the buildings would also likely result in a larger area devoted to public use and access. Impacts on access to the Camp Coldwater Spring area may be regional, long term, moderate, and adverse.

## Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired.

**Impacts.** Under alternative D, the federal government would manage and bear the costs for modification of rehabilitation of one or more structures, or new construction in an existing

building location, in conjunction with demolition of all remaining unused structures and site rehabilitation prior to transfer. These modifications would result in short-term, negligible to minor, adverse impacts due to construction work on-site and long-term, moderate, beneficial impacts to public use and experience through prominent visibility of the changes and expanded public use of the Center.

Similarly this scenario could be more easily implemented and result in a larger public-use area if the site were cleared. Otherwise the impacts to public use and experience would be the same as alternative B or C, depending on whether conditions are placed on the transferee. Impacts on access to the Camp Coldwater Spring area may be regional, long term, and moderate. The impacts would be adverse or beneficial, depending on any conditions or conditions of the transfer.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required.

**Impacts.** Under alternative D, the federal government would manage and bear the costs for modification of rehabilitation of one or more structures, or new construction in an existing building location, resulting in some or all of the existing structures being rehabilitated or new construction at existing building sites taking place on the Center prior to transfer to a university or nonfederal government entity for a training center / office park. These modifications would result in short-term, minor, adverse impacts to public use and experience due to construction activity. If the Center were subsequently transferred with no conditions, this approach could significantly reduce or eliminate public use of the Center, depending on the policies of the recipient. This would have a long-term, major, adverse impact on public use and experience.

If a restriction on the transfer could be put in place requiring continued public access to areas of current public use and expansion of hours would result in long-term, negligible to minor, beneficial impacts.

Alternative D could provide the most flexibility and the least cost and risk to the eventual developer of the Center under this scenario. However, that could only accelerate, not avoid, any adverse consequence if the Center were eventually transferred without conditions. Impacts on access to the Camp Coldwater Spring area would likely be regional, long term, major, and adverse.

This scenario perhaps benefits the most from alternative D, because it would provide the most flexibility and the least cost and risk to the eventual developer of the Center. However, that would only accelerate, not avoid, any adverse consequence if the Center were eventually transferred without conditions. Therefore without conditions, impacts under this alternative and scenario would be regional, major and adverse. With public access to the Camp Coldwater

Spring area assured, through conditions on the transfer or continued federal ownership, impacts would be regional, moderate, and beneficial.

**Summary.** Under alternative D, short-term adverse impacts to public use and experience ranging from negligible to minor in intensity would result from demolition/construction activity under the management of the federal government prior to transfer. Long-term impacts to public use and experience would depend on the use and policies of the recipient. Moderate to major adverse impacts to public use and experience would result in the long term should the recipient reduce or eliminate the area or hours the Center is available for public use. Conditions placed on the transfer that could require future public access and restrict development from current open space would result in long-term impacts that range from no change to moderately beneficial.

Overall impacts to the ability to visit the Camp Coldwater Springs area could be preserved under alternative D. Access and the nature of public visitation would be provided through a conservation easement or the federal government could retain ownership and management of that portion of the Center. If no conditions are placed on the disposition after clearing and cleaning the site, there would be the possibility of denied public access, or even removal of the spring and reservoir altogether as posed by alternative B.

## **Visual Resources**

Description: The visual characteristics of the Center include a relatively limited viewshed (less than 1,000 feet and not expansive), dense woods and bluffs, nonnative vegetation and landscaping, driveways and parking lots, the Center buildings, and the Camp Coldwater Spring and Reservoir. Characteristics along the Center boundaries include views of an urban setting with commercial and residential buildings and SH 55 and SH 68. The overall visual quality is average to below average because of lack of vividness and distinctiveness. This is due to lack of coordinated or harmonious design, deteriorating condition of the buildings and grounds.

### Open Space / Park Scenario

**Assumptions.** Under this scenario, the Center would be converted to open space and natural areas where the focus would be on restoration and use of the natural environment. The Center would become a park or be used as open space. This could be accomplished by removing some or all of the buildings, structures, and roadways. Nonnative plant species would be identified and removed. Native vegetation would then be planted and the site naturalized to recreate the historical characteristics of an open oak savanna, prairie-type setting. After conveyance, the USDI would have no control over any landscaping plans or other measures to modify the land, meaning all surfaces and subsurfaces would be subject to disturbance. This scenario is expected to have the lowest density of buildings and the greatest open/nature space. No development is expected along the wooded, bluff portion east of and adjacent to the Center, therefore the wooded screen of the Center from the east is expected to remain.

**Impacts.** The federal government could modify the Center under this alternative prior to disposition. Short-term minor to moderate adverse impacts on visual quality from demolition

or other related work would result from modification activities, and would depend on the degree of modification undertaken by the federal government. This is because from one to all of the buildings at the Center could be demolished prior to disposition under this alternative, resulting in a wide range of potential impacts.

Upon disposition, impacts to visual resources at the Center would be the same as under alternative B if the Center were transferred with no conditions. Similarly, impacts to visual resources at the Center upon disposition would be the same as under alternative C if the Center were transferred with conditions.

#### Interpretive / Nature / History Center Scenario

**Assumptions.** Under this conceptual scenario, some portion of the Center would represent a natural environment, while development and structures would be used in conjunction with the natural environment for learning and interpretation. It is assumed that new structures would be built at the Center, and that all or a portion of the existing structures would be demolished. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements may be required if reuse is desired. This scenario is expected to have a balance between building density and open/nature space. No development is expected along the wooded, bluff portion east of and adjacent to the Center, therefore the wooded screen of the Center from the east is expected to remain.

**Impacts.** The federal government could modify the Center under this alternative prior to disposition. Short-term minor to moderate adverse impacts on visual quality from demolition or other related work would result from modification activities, and would depend on the degree of modification undertaken by the federal government. This is because from one to all of the buildings at the Center could be demolished prior to disposition under this alternative, resulting in a wide range of potential impacts.

Upon disposition, impacts to visual resources at the Center would be the same as under alternative B if the Center were transferred with no conditions. Similarly, impacts to visual resources at the Center upon disposition would be the same as under alternative C if the Center were transferred with conditions.

#### Training Center / Office Park Scenario

**Assumptions.** Under this scenario, the focus of the Center would be the built environment and active reuse of the Center. Use would include total reuse of existing structures, reuse of as few as one building, and all new construction. Most existing buildings have the potential for reuse; however, some are in better condition and more readily lend themselves to reuse. Most of the infrastructure is not reusable in its current form; improvements would be required. This scenario is expected to have the highest density of buildings and the least amount of open / nature space. No development is expected along the wooded, bluff portion east of and adjacent to the Center, therefore the wooded screen of the Center from the east is expected to remain.

**Impacts.** The federal government could modify the Center under this alternative prior to disposition. Short-term minor to moderate adverse impacts on visual quality from demolition or other related work would result from modification activities, and would depend on the degree of modification undertaken by the federal government. This is because from one to all of the buildings at the Center could be demolished prior to disposition under this alternative, resulting in a wide range of potential impacts.

Upon disposition, impacts to visual resources at the Center would be the same as under alternative B if the Center were transferred with no conditions. Similarly, impacts to visual resources at the Center upon disposition would be the same as under alternative C if the Center were transferred with conditions.

**Summary.** Overall impacts to visual resources under the open space / park scenario would be beneficial in the long term. The existing buildings and structures create a low to medium visual experience. With each scenario, as more buildings are removed from the Center, the greater the beneficial effect would be. Long-term impact would be localized, beneficial and range from negligible to major. Removal of the Camp Coldwater Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center, but could be mitigated by placing conditions on the property transfer. Short-term impacts due to construction activities would be localized, short term, adverse, and minor. Additional short-term, minor to moderate, adverse impacts would result under this alternative due to federal government modification activities prior to disposition.

## CUMULATIVE IMPACTS

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

### PROJECTS THAT MAKE UP THE CUMULATIVE IMPACT SCENARIO

To determine potential cumulative impacts, projects within the area surrounding and contiguous to the Center, and in and near the MNRRA were identified. The area included lands administered by the USFWS, the State of Minnesota, and the Minneapolis Parks and Recreation Board. Projects were determined by meetings and phone calls with area land managers. The cumulative impact scenario includes any planning or development activity that has occurred, is currently being implemented, or that would be implemented in the reasonably foreseeable future.

These cumulative actions are evaluated in the cumulative impact analysis in conjunction with each individual alternative to determine if they would have any additive effects on a particular natural resource, cultural resource, visitor use, or the socioeconomic environment. Because some of the actions that make up the cumulative impact scenario are in the early planning stages, the evaluation of cumulative effects was based on a general description of each project.

The following past actions could contribute to cumulative impacts:

#### **Fort Snelling State Park, Removal of Medical Waste Dump and Establishment of Wetlands**

In 2004, Fort Snelling State Park partnered with the MAC in implementing this project. Approximately 90% of a medical waste dump was removed and the remaining was capped. The project, located at the north end of Snelling Lake, south of SH 55, and east of the airport, involved 2.5 acres of excavation, and was revegetated to create 5.0 acres of wetlands.

Fort Snelling State Park's partnership with the MAC to clean up the medical waste site results in localized long-term, negligible to minor, beneficial impact on health and safety through elimination of potentially hazardous materials that could come into contact with the public. Because approximately 2.5 acres were excavated in conjunction with this project, short-term, negligible to minor, adverse impacts to soils, vegetation, and water quality would result. Disturbed soils would be subject to erosion and compaction associated with equipment use. Soil disturbance would also likely disturb native plants in the area. Soil disturbed through the excavation could be eroded and affect water quality. Long-term, minor, beneficial impacts to wildlife, wetlands, and water quality resulting from creation of 5 acres of new wetlands would result. Establishment of new wetlands would likely attract and provide habitat for wildlife such



as water fowl. In addition, wetlands play an important role in water quality by providing a place for particulate matter to settle, among other things.

Current actions and those projected for the future could also contribute to cumulative effects. These include:

### **Minnesota Valley National Wildlife Refuge, Installation of Water-Control Structure**

A culvert currently providing drainage from Long Meadow Lake within the national wildlife refuge would be replaced with a water-control structure. The new structure would allow the lake to be drawn down to simulate natural drought conditions and enhance existing wetlands through improvements to aquatic vegetation.

Installation of a water-control structure within Minnesota Valley National Wildlife Refuge would result in short-term, negligible, adverse impacts to soils and water quality from disturbance and compaction of soils associated with equipment operation. Long-term, minor to moderate, beneficial impacts to wetlands would result as the water in Long Meadow Lake would be drawn down to simulate drought conditions, allowing wetlands vegetation to flourish. Long-term, negligible to minor, beneficial impacts to wildlife, hydrology, and public use and experience would result. Wildlife, such as migratory water fowl, would benefit from the enhanced wetlands environment. Hydrology would be somewhat improved with greater control over the outflow from the lake through the use of the new water-control structure. Public use and experience of the area would be benefited by enhanced habitat attracting and/or retaining wildlife.

### **Fort Snelling Upper Bluff Property and Historic Structures**

The Federal Government does not own the land known as the Ft. Snelling Upper Bluff (Upper Bluff). The Federal Lands to Parks Program of the U.S. Department of the Interior, on behalf of the United States Government, transferred the 141-acre Upper Bluff to the State of Minnesota, Department of Natural Resources (DNR) in 1971 for public recreation uses. The National Park Service (NPS) continues to oversee program compliance and perpetual recreational use of the property through required compliance reports and site visits.

While the Minnesota DNR, in partnership with the Minneapolis Park and Recreation Board, over the years developed extensive recreational amenities on the property, the historic buildings were neglected because recreational uses for them could not be found. In 2005, the State of Minnesota DNR concluded that restoration and reuse of the historic structures at the Upper Bluff was no longer within the mission of the agency. As a result, the DNR, NPS and the General Services Administration (GSA) are currently exploring potential solutions for the future of the property. One of the options would be to transfer the property to another eligible entity under the available federal authorities. The NPS role would be to ensure that the new entity is eligible and to approve their application for the property. The State of Minnesota would then deed the property to a new entity.

Under Section 203 (k)(2) of Public Law 91-485, as amended (40 U.S.C. 484 (k)(2)), the National Park Service's Federal Lands to Parks Program conveys surplus Federal land to communities, usually at no cost, for public park and recreation purposes. Under this program only states, counties, municipalities, and similar government entities may acquire surplus Federal land for parks and recreational areas through an approved application by the Federal Lands to Parks Program.

If the State of Minnesota decides to voluntarily revert the Upper Bluff back to the United States, the Federal Property and Administrative Services Act of 1949, as amended, would provide the authority for the Federal Government to dispose of excess or surplus federal property. The GSA is the Federal agency usually responsible for disposal of surplus Federal property. Any disposal of surplus Federal property would need to comply with other applicable laws as well, including but not limited to the National Environmental Policy Act (NEPA) and the National Historic Preservation Act.

### **Fort Snelling State Park, Trail Construction**

The state park is planning on construction of three trails. A small section of the Dakota County Trail (approximately 300 yards) is planned to be replaced and the old trail section eliminated in 2006–2007.

An existing trail on Pike Island is being undercut by the river. A route for the new trail section has not been determined, but may follow the existing powerline cut, with work beginning in 2008.

A 7-mile trail will be constructed across the Minnesota Valley National Wildlife Refuge, connecting to 4 miles of existing trail on the state park. The new trail will cross a waste area of sand and gravel under Interstate 494, access the refuge via a dredge soil berm, and continue to Interstate 35 West. The trail will mostly follow existing service roads within the refuge, and new disturbance would be minimal. The project is pending funding and a start date is unknown.

Trail construction by Fort Snelling State Park in various locations would result in short-term, negligible to minor, adverse impacts to soils, vegetation, wildlife, water quality, and public use and experience; a long-term, negligible, beneficial impact on health and safety; a long-term, negligible to minor, beneficial impact to soils and vegetation; and a long-term, minor to moderate, beneficial impact on public use and experience.

Soils, vegetation, and wildlife would be somewhat disturbed during construction of the trails. Disturbance of soils would result in erosion of particles into the water affecting water quality. Public use and experience could be adversely affected in the areas of trail construction as the construction activity would detract from the experience of the natural setting. Moving the trail away from an undercut area along the river on Pike Island would result in beneficial impacts to health and safety as trail users would be protected from trips, falls, and possible inadvertently coming into contact with the river. Long-term beneficial impacts to soils and vegetation would result because trail users would be less likely to walk off trail and create social trails avoiding the area where the trail is undercut by the river. Substantial beneficial impacts to public use

and experience would be realized through construction of the new 7-mile section of trail through the national wildlife refuge, offering new opportunities for hiking in the natural setting, and extending existing trail systems.

### **Minneapolis Parks and Recreation Board, Rehabilitation within the Waban Portion of Minnehaha Park**

The Waban portion of Minnehaha Park is located south of 46th Street in Minneapolis, approximately 1.5 miles north of the Center. Planned renovation includes rehabilitation of a parking lot and addition of two trails and a few picnic shelters.

Trail construction in the Waban portion of Minnehaha Park would result in similar impacts to those described for trail work by Fort Snelling State Park above. Rehabilitation of the parking lot and construction of additional picnic shelters would have negligible short-term adverse impacts to soils and vegetation as the park setting is already modified from native vegetation and receives a certain amount of trampling from public use. Long-term impacts to public use and experience would be minor and beneficial as two new picnic shelters would enhance recreational use.

## **ALTERNATIVE A**

The Secretary of the Interior is authorized, but not directed, to convey the Center under the closure legislation, Pub. L. 104-134 (1996). Accordingly, the Center could be retained by the federal government. The no-action alternative would continue the existing conditions for the Center. Disposition of the Center to a university or nonfederal government entity would not occur.

## **Archeological Resources**

**Description.** Based on the 2001 study, the Center was organized into five distinct zones based on their potential to yield archeological information. Zones III, IV, and V were found to contain no important cultural materials and warrant no further archeological study. Zone I was recommended for further testing to determine if the area contains cultural materials that would contribute to the Fort Snelling National Historic Landmark and National Historic District. Zone II was found to contain in situ cultural deposits that correspond to the period of significance of the national historic landmark and national historic district. The 2001 study also recommended a revision to the boundaries of the Fort Snelling National Landmark to include Zones I and II (Clouse 2001). That revision is currently in process; for purposes of this draft EIS, it is assumed the boundaries include Zones I and II.

**Cumulative Impacts.** Management of archeological resources would continue according to current policies. Impacts would be long term, site specific, minor, and adverse. Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and the no-action alternative would result in long-term, negligible, adverse impacts.

**Summary.** Impacts related to visitor use and lack of regular monitoring of site conditions would continue to be long term, site specific, minor, and adverse. Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and the no-action alternative would result in long term, negligible, adverse impacts.

### **Historic Structures and Districts**

**Description.** There are no individually NRHP-eligible structures within the Center. Eleven of the buildings and structures at the Center are contributing elements to the USBM Twin Cities Research Center Historic District. Camp Coldwater Reservoir and the spring house are considered structures, but are not contributing elements of the USBM Twin Cities Research Center Historic District. Approximately half of the land within the Center falls within the boundaries of the Fort Snelling National Historic Landmark. Resources within the Center of significance to the national historic landmark include Camp Coldwater Spring and Reservoir (Henning 2002). Archeological resources exist at the Center that are considered contributing elements to the Fort Snelling National Historic District and Fort Snelling National Historic Landmark.

**Cumulative Impacts.** The potential for impacts to historic structures and districts from implementation of the no-action alternative are adverse, and would range from minor to moderate as a result of continued deterioration of the structures on the Center. These impacts, in conjunction with the potential adverse impacts to the Fort Snelling Upper Bluff property historic structures, would result in long-term, moderate to major, adverse, cumulative impacts to historic structures and districts.

**Summary.** Impacts from the no-action alternative, in conjunction with the potential adverse impacts to the Fort Snelling Upper Bluff property historic structures, would result in long-term, moderate to major, adverse, cumulative impacts to historic structures and districts.

### **Ethnographic Resources**

**Description.** Although no historical documentation of American Indian use of Camp Coldwater Spring has been found, the oral traditions and histories collected during investigation suggest that natural springs, like Camp Coldwater Spring, are associated with sacred healing ceremonies. Camp Coldwater Spring is currently used by some members of the federally recognized Dakota and Ojibwe communities, and other American Indians as a source of water for ceremonies. The confluence of the Minnesota and Mississippi rivers is not located within the area of the proposed action, but Camp Coldwater Spring should be considered within this larger context. Many American Indian communities have a traditional association with the area surrounding the spring.

**Cumulative Impacts.** Because no changes would be made under the no-action alternative, access to and the integrity of Camp Coldwater Spring would remain the same. Therefore, no contribution to cumulative impacts would be expected from implementation of the no-action alternative.

**Summary.** Because no changes would be made under the no-action alternative, access to and the integrity of Camp Coldwater Spring would remain the same. Therefore, no contribution to cumulative impacts would be expected from implementation of the no-action alternative.

## Soils

**Description.** The Center site contains the following soil series and types: Dorset, Forada, Sandberg, Urban Land-Hubbard, and Urban Land-Udipsamments (NRCS 2005). Platteville limestone underlies surficial soils 10 to 50 feet below the ground surface. It is important to note that recent archeological testing suggests that soils over much of the Center site have been disturbed (buried, cut and filled, etc.) during construction of facilities and roads.

**Cumulative Impacts.** Because no changes would be made under the no-action alternative, impacts to soils at the Center would remain short and long term, negligible, and adverse, largely as a result of erosion associated with social trails. Short-term impacts to soils from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be negligible to minor and adverse. Under the cumulative impact scenario the long-term impacts to soils would be negligible to minor and adverse since none of the projects would result in large amounts of soil disturbances or mass wastage.

Cumulative short- and long-term impacts to soils under the no-action alternative would be negligible to minor and adverse.

**Summary.** Cumulatively, short- and long-term impacts to soils under the no-action alternative would be negligible to minor and adverse when the effects of the existing conditions at the Center are combined with the effects of construction activities associated with projects in the cumulative impacts scenario.

## Vegetation

**Description.** Natural vegetation exists on the site's bluff slope, toeslope, and on the Mississippi River floodplain terrace. The bluff slope located on the eastern boundary of the project site supports a maple – basswood forest community. The toeslope, maintained in a saturated condition by natural groundwater seepage, supports a black ash swamp community. Occupying the Mississippi River floodplain adjacent to the toeslope and to the river's edge is a relatively unaltered forest community characterized by silver maple, American elm, green ash, black willow, and eastern cottonwood. Currently, the Center is occupied by business infrastructure and open areas that were constructed or planted following land-leveling activities. In addition, wetlands and successional deciduous woodlands remain from the natural, pre-settlement condition or have become established on sites disturbed by development.

Removal of trees from the project site, particularly buckthorn (an aggressive nonnative shrub) and species of elm (to control the spread of Dutch elm disease), has occurred in recent years. This practice is anticipated to continue under the no-action alternative.

**Cumulative Impacts.** Because no changes to current practices would be made under the no-action alternative, impacts to vegetation at the Center would be short and long term, minor, and adverse. Short-term impacts to vegetation resulting from construction at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be minor and adverse. Cumulatively, short-term impacts to vegetation would be minor and adverse, and long-term impacts would be minor and adverse.

**Summary.** Cumulatively, short-term impacts to vegetation would be minor and adverse resulting from the combination of existing impacts at the Center and short-term impacts resulting from construction projects in the cumulative impacts scenario. Long-term impacts would be minor and adverse.

## Wildlife

**Description.** The Mississippi River valley and its tributaries in east-central Minnesota attract an array of wildlife that use diverse habitats. Over 260 birds species are common to this area, and of these, 120 are known to nest in this part of Minnesota. At least 50 mammals occur within the Mississippi River corridor and some are likely visitors on the Center.

**Cumulative Impacts.** Because no changes would be made under the no-action alternative, existing impacts to wildlife at the Center would remain short and long term, negligible, and adverse. Impacts to wildlife from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be short term, minor, and adverse. Enhancements to wetlands wildlife habitat at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge would result in long-term, minor beneficial impacts to wildlife that would offset existing adverse impacts at the Center. The contribution of the potential adverse impacts to wildlife on the Center to cumulative impacts would be minimal because the proportion of habitat involved would be relatively small. Therefore, cumulatively, short-term impacts to wildlife would be minor and adverse, and long-term impacts would be minor and beneficial.

**Summary.** Short-term cumulative impacts to wildlife would be minor and adverse resulting from existing impacts at the Center combined with effects of construction associated with projects in the cumulative impacts scenario. Long-term impacts would be minor and beneficial, as the beneficial effects of the cumulative impacts projects would offset the proportionally small existing adverse impacts to wildlife at the Center.

## Hydrology

**Description.** The 27.32-acre Center is located on the eastern boundary of the Minnehaha Creek watershed, just south of the intersection of the east-flowing Minnehaha Creek with the Mississippi River, on the west bank of the river. The main drainage from the site is from Camp Coldwater Spring and the associated reservoir. Groundwater can be found within about 20 feet of the land surface in most places within the Minnehaha Creek watershed, including the Center.

Camp Coldwater Spring is fed by groundwater from an area above the Center. The spring is protected under state law if it is under the administration of a state entity, but if the Center were transferred to a private university, for example, this law would not be applicable.

**Cumulative Impacts.** Because no changes would be made under the no-action alternative, impacts to hydrology at the Center would remain short and long term, negligible, and adverse. Enhancements to wetlands at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge would result in long-term minor beneficial cumulative impacts to hydrology. Cumulative impacts to hydrology would be short term, negligible, and adverse, and long term, negligible to minor, and beneficial.

**Summary.** Cumulative impacts to hydrology would be short term, negligible and adverse due to short-term impacts associated with construction under the cumulative impact scenario in conjunction with existing impacts. Long-term, negligible to minor, beneficial impacts would result from improvements to wetland resources that would also beneficially impact hydrology.

## Water Quality

**Description.** The outflow from Camp Coldwater Reservoir is measured for water quality along with the flow rate. The water quality measurements include temperature and specific conductivity.

**Cumulative Impacts.** Because no changes would be made under the no-action alternative, impacts to hydrology at the Center would remain short and long term, negligible, and adverse. Short-term, minor, adverse impacts to water quality would also occur as a result of construction activity at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park. Long-term, minor, beneficial impacts to water quality would result from enhancement and expansion of wetlands at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. Cumulatively, these projects would result in short-term, minor, adverse, and long-term, minor, beneficial impacts to water quality.

**Summary.** Short-term, minor, adverse, and long-term, minor, beneficial cumulative impacts to water quality would result from the short-term effects of construction under the cumulative impacts scenario, and the long-term improvements to wetlands.

## Wetlands

**Description.** The *National Wetlands Inventory* map that includes the Center site shows a single wetland within the Center boundaries: Camp Coldwater Reservoir. An onsite delineation also revealed the presence of additional wetlands that are not shown on the *National Wetlands Inventory* map.

**Impacts.** Because no changes would be made under the no-action alternative, impacts to wetlands at the Center would be considered short and long term, major, and adverse. Structures have been built in existing wetlands, destroying some habitat. Long-term, minor to moderate beneficial effects from the construction of wetlands expansion/enhancement at Fort

Snelling State Park and Minnesota Valley National Wildlife Refuge, in conjunction with the existing impacts at the center, would result in short- and long-term, moderate, adverse cumulative impacts to wetlands.

**Summary.** Beneficial impacts to wetlands resulting from expansion/enhancements under the cumulative impacts scenario would offset the major adverse impacts under existing conditions at the Center to result in short- and long-term, moderate, adverse, cumulative impacts to wetlands.

## Health and Safety

**Description.** In anticipation of divestiture of the Center in the late 1990s, the TCRC Closure Team conducted an extensive environmental cleanup. Although many potentially hazardous materials, such as chemicals and wastes associated with laboratories, were removed, others (e.g., asbestos, mold) remain in some buildings.

A recent safety evaluation (USFWS 2005) determined that “break-ins” into the Center grounds and buildings continue to occur, and potential intruders could be exposed to electrical hazards, fall hazards, and physical hazards (such as broken windows). Aging and weathering of the buildings over time would result in increased incidence of hazardous conditions, which, if encountered by potential intruders would result in a localized long-term, negligible, adverse impact to health and safety.

**Cumulative Impacts.** Because no changes would be made under the no-action alternative, aging and weathering of the buildings would result in localized long-term adverse impacts to health and safety to a negligible level. The Fort Snelling State Park partnership with the MAC to clean up the medical waste site resulted in a localized, long-term, negligible to minor, beneficial impact on health and safety. The impacts to health and safety from the no-action alternative would be localized, long-term, negligible, beneficial impacts.

**Summary.** Cumulative impacts to health and safety under the no-action alternative would be localized, long term, negligible, and beneficial.

## Public Use and Experience

**Description.** The Center, which is open to the public during specified hours, has a park-like setting, with grassy lawn areas and occasional shade trees surrounding vacant buildings and the Camp Coldwater Spring area. During the time that the Center was operating in its official capacity (until 1995), it was not open for general public use and visitation. The Center is now used by the public on a frequent basis as an extension of the open space present in the surrounding parks and open areas. The area around Camp Coldwater Spring is viewed by some members of the public as being spiritually important and is used for meditation and a source of inspiration. Many groups of people have a special fondness for the Center property. Visitors to the Center include American Indians, spiritualists, environmentalists, and residents of the nearby neighborhoods. The alternatives presented in this draft EIS along with the



scenarios present differing levels of access to the Center by the public for continuing the personal rituals and meditations as they currently exist.

Under the no-action alternative, the public may currently access the Center Monday through Friday, 9:00 a.m. to 3:00 p.m., excluding federal holidays. Recent installation of additional fencing to limit public access when the Center is open directs the public to Camp Coldwater Spring and Reservoir and prohibits entrance to site buildings. American Indian, spiritual, environmental, and neighborhood groups who now visit the site would continue as they do now.

**Cumulative Impacts.** Public scoping comments indicated the public would like access to the Center on evenings and weekends. However, no changes to public use would be made under the no-action alternative. Because public access to and use of the Center is limited to Monday through Friday, 9:00 a.m. to 3:00 p.m., existing impacts to public use and experience at the Center would be considered short and long term, moderate to major, and adverse. Long-term minor to moderate, beneficial impacts to public use and experience from trail construction and habitat enhancements at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would combine with the existing impacts at the Center to result in long-term, minor to moderate beneficial impacts. Cumulative impacts to public use and experience would be short term, moderate to major, and long term, minor to moderate, and adverse.

**Summary.** Long-term, minor to moderate, beneficial impacts to public use and experience resulting from improvements made under the cumulative impacts scenario could offset existing moderate to major adverse impacts at the Center to result in short-term, moderate to major, and long-term, minor to moderate, adverse cumulative impacts.

## **Visual Resources**

**Description.** The visual characteristics of the Center include a relatively limited viewshed (less than 1,000 feet and not expansive), dense woods and bluffs, nonnative vegetation and landscaping, driveways and parking lots, the Center buildings, and Camp Coldwater Spring and Reservoir. Characteristics along the Center boundaries include views of an urban setting with commercial and residential buildings and SH 55 and SH 68. The overall scenic quality is average to below average as a result of the lack of vividness and distinctiveness. This is due to lack of coordinated or harmonious design, and deteriorating condition of the buildings and grounds.

**Cumulative Impacts.** The no-action alternative would not change the characteristics of the Center, nor would minimal maintenance of the center improve visual quality. Impacts to visual resources under the no-action alternative would, therefore, be localized, continue to be long term, minor to moderate, and adverse. Most of the projects under the cumulative impacts scenario may or may not be visually noticeable, therefore would minimally impact visual resources resulting in short-term, negligible adverse, and long-term, negligible beneficial impacts. Continued deterioration of the historic structures on the Fort Snelling Upper Bluff would result in similar effects to visual resources as those experienced at the Center under the no-action alternative, and short- and long-term, minor to moderate adverse impacts would

occur. Therefore cumulative impacts to visual resources under the no-action alternative would be short and long term, moderate, and adverse.

**Summary.** The continued deterioration of historic structures on the Fort Snelling Upper Bluff property would combine with impacts to visual resources at the Center resulting in short- and long-term, moderate, adverse impacts to visual resources.

## **ALTERNATIVE B**

Under alternative B, the Center would be conveyed to a university or nonfederal government entity with no conditions imposed on the future use of the Center, or the land, except for those restrictions on use that currently exist for the Center and arise from applicable laws and regulations. The university or nonfederal government entity that receives the Center would have no restrictions on its subsequent transfer or sale. Therefore, any future owner under this alternative would be free to subsequently use, sell, and transfer the Center to a private entity for various uses or development.

### **Archeological Resources**

**Description.** Based on the 2001 study, the Center was organized into five distinct zones based on their potential to yield archeological information. Zones III, IV, and V were found to contain no important cultural materials and warrant no further archeological study. Zone I was recommended for further testing to determine if the area contains cultural materials that would contribute to the Fort Snelling National Historic Landmark and National Historic District. Zone II was found to contain in situ cultural deposits that correspond to the period of significance of the national historic landmark and national historic district. The 2001 study also recommended a revision to the boundaries of the Fort Snelling National Landmark to include Zones I and II (Clouse 2001). That revision is currently in process; for purposes of this draft EIS, it is assumed the boundaries include Zones I and II.

**Cumulative Impacts.** Analysis by land use scenario is not presented in this section because the impacts would be the same for all scenarios. Prior to transfer of ownership to a university or nonfederal government entity, the USDI would complete the section 106 process to properly consider the effects of the transfer on archeological resources. Regardless of any of the land use scenarios, the overall impact on the resource would be long term, moderate, and adverse because the resource would be permanently removed from context, but the information available in the data recovered would be available for future research. Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and alternative B would result in long term, minor, adverse impacts.

**Summary.** Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and alternative B would result in long-term, minor, adverse impacts.

## Historic Structures and Districts

**Description.** There are no individually NRHP-eligible structures within the Center. Eleven of the buildings and structures at the Center are contributing elements to the USBM Twin Cities Research Center Historic District. Camp Coldwater Reservoir and the spring house are considered structures, but are not contributing elements of the USBM Twin Cities Research Center Historic District. Approximately half of the land within the Center falls within the boundaries of the Fort Snelling National Historic Landmark. Resources within the Center of significance to the national historic landmark include Camp Coldwater Spring and Reservoir (Henning 2002). Archeological resources exist at the Center that are considered contributing elements to the Fort Snelling National Historic District and Fort Snelling National Historic Landmark.

Factors affecting historic structures and districts at the Center under the following scenarios could include repair, rehabilitation, renovation, or demolition of structures.

### Open Space / Park Scenario

**Cumulative Impacts.** Impacts to historic structures and districts under this scenario would be long term, moderate and adverse because the loss of some or all structures and associated documentation of structures would be assumed. Continued deterioration of historic structures on the Fort Snelling Upper Bluff property would adversely impact the historic character of this area and the national historic landmark status. However, removal of some of the buildings at the Center which are non-contributing elements to the Landmark, would have a long term minor beneficial impact. However, taken together, the loss of some or all structures would result in long-term, moderate to major, adverse impacts to historic structures and districts.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Impacts to historic structures and districts under this scenario would be much the same as those under the previous scenario.

### Training Center / Office Park Scenario

**Cumulative Impacts.** Impacts to historic structures and districts under this scenario would be much the same as those under the previous scenario.

**Summary.** Cumulative impacts to historic structures and districts under alternative B and under all the scenarios would be long term, moderate to major, and adverse because of the potential for continued deterioration of the structures on the Fort Snelling Upper Bluff property and the continued deterioration or loss of structures at the Center.

## Ethnographic Resources

**Description.** Although no historical documentation of American Indian use of Camp Coldwater Spring has been found, the oral traditions and histories collected during investigation suggest that natural springs, like Camp Coldwater Spring, are associated with sacred healing ceremonies. Camp Coldwater Spring is currently used by some members of the federally recognized Dakota and Ojibwe communities, and other American Indians as a source of water for ceremonies. The confluence of the Minnesota and Mississippi rivers is not located within the area of the proposed action, but Camp Coldwater Spring should be considered within this larger context. Many American Indian communities have a traditional association with the area surrounding the spring.

### Open Space / Park Scenario

**Cumulative Impacts.** Overall impacts to ethnographic resources under the open space / park scenario would be long term, range from negligible to minor and beneficial, and long term, major, and adverse. Other past, present, and future projects in the area would not impact ethnographic resources; cumulatively, these projects and alternative B would result in long-term, major, adverse impacts.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Overall impacts to ethnographic resources under the interpretive / nature / history center scenario would be long term, range from negligible to minor and beneficial, and moderate to major and adverse. Other past, present, and future projects in the area would not impact ethnographic resources; cumulatively, these projects and alternative B would result in long term impacts ranging from negligible to minor and beneficial, and moderate to major and adverse.

### Training Center / Office Park Scenario

**Cumulative Impacts.** Overall impacts to ethnographic resources under the training center /office park scenario would be long term, moderate to major, and adverse. Other past, present, and future projects in the area would not impact ethnographic resources; cumulatively, these projects and alternative B would result in long-term, moderate to major, adverse impacts.

**Summary.** Cumulative impacts range widely depending on the scenario that is implemented. Other past, present, and future projects in the area would not impact ethnographic resources; cumulatively, these projects and alternative B would result in long-term, minor to major, adverse impacts.

## Soils

**Description.** The Center site contains the following soil series and types: Dorset, Forada, Sandberg, Urban Land-Hubbard, and Urban Land-Udipsamments (NRCS 2005). Platteville limestone underlies surficial soils 10 to 50 feet below the ground surface. It is important to note that recent archeological testing suggests that soils over much of the Center site have been disturbed (buried, cut and filled, etc.) during construction of facilities and roads.

Factors that could affect soils at the Center under the following scenarios include disturbance, erosion potential, and increases or decreases in impermeable surfaces associated with rehabilitation or new construction of structures.

### Open Space / Park Scenario

**Cumulative Impacts.** Should the recipient of the Center elect not to implement mitigation measures to reduce possible adverse effects such as soil erosion from construction or related activities, short-term impacts to soils would be negligible to minor and adverse. Short-term impacts to soils from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be negligible to minor and adverse. Cumulatively, short-term impacts to soils would be minor and adverse.

Long-term impacts to soils at the Center under the open space / park scenario would be minor to moderate and adverse if no mitigation measures were implemented to reduce the effects of removing buildings. Under the cumulative impact scenario the long-term impacts to soils would be negligible to minor and adverse because none of the projects would result in large amounts of soil disturbances or mass wastage.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under the interpretive / nature / history center scenario, short-term adverse impacts to soils at the Center would be minor due to disturbance that would result in soil erosion. Construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would result in short-term, minor to moderate, adverse impacts to soils. Cumulatively, short-term impacts to soils would be moderate and adverse.

Long-term impacts to soils under the interpretive / nature / history center scenario would range from negligible to minor and adverse should the recipient of the Center elect not to implement mitigation measures that would reduce adverse impacts such as erosion and destruction of plant cover from any construction activity undertaken. Under the cumulative impact scenario the long-term impacts to soils would be negligible to minor and adverse because none of the projects would result in large amounts of soil disturbances or mass wastage.

## Training Center / Office Park Scenario

**Cumulative Impacts.** Under the training center / office park scenario, should the recipient of the Center elect to expand the development and density of structures at the Center without mitigation measures to protect soils, short- and long-term impacts to soils would be minor and adverse. Construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would result in minor to moderate adverse impacts to soils in the short term. Cumulatively, the projects would result in short-term minor adverse impacts and long-term, minor to moderate, adverse impacts to soils.

**Summary.** Adverse short-term impacts to soils at the Center would be accentuated cumulatively by the projects at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park, but none of these projects would result in large amounts of disturbed or eroded soils. Short-term impacts would be adverse and range from minor to moderate in intensity. Long-term impacts to soils would result in cumulative, long-term, negligible to minor, adverse impacts.

## Vegetation

**Description.** Natural vegetation exists on the site's bluff slope, toeslope, and on the Mississippi River floodplain terrace. The bluff slope located on the eastern boundary of the project site supports a maple – basswood forest community. The toeslope, maintained in a saturated condition by natural groundwater seepage, supports a black ash swamp community. Occupying the Mississippi River floodplain adjacent to the toeslope and to the river's edge is a relatively unaltered forest community characterized by silver maple, American elm, green ash, black willow, and eastern cottonwood. Currently, the Center is occupied by business infrastructure and open areas that were constructed or planted following land-leveling activities. In addition, wetlands and successional deciduous woodlands remain from the natural, pre-settlement condition or have become established on sites disturbed by development.

Factors affecting native vegetation at the Center under the following scenarios could include disturbance due to rehabilitation and construction, and potential for revegetation with native species. The airport zoning ordinance could require that a university or nonfederal governmental entity manage trees on the Center such that no new trees would be allowed to grow in the portion of the Center that lies in Safety Zone A, and trees in all other areas of the Center could be required to be maintained at designated height requirements or perhaps removed.

## Open Space / Park Scenario

**Cumulative Impacts.** Should the recipient of the Center elect not to implement measures to reduce adverse effects to native vegetation, short-term impacts to vegetation at the Center would be negligible to minor and adverse. Short-term impacts to vegetation resulting from construction at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and

Minnehaha Park would be minor and adverse. Cumulatively, short-term impacts to vegetation would be minor to moderate and adverse.

Long-term impacts to vegetation at the Center would range from negligible and adverse to minor and beneficial under this scenario depending on the level of human activity, which can result in trampling vegetation, and on whether buildings are removed and areas revegetated. Effects to vegetation from the other projects would combine with the effects from the Center, largely from efforts in revegetation, to result in long-term minor beneficial impacts to vegetation.

#### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under the interpretive / nature / history center scenario, short-term adverse impacts to native vegetation at the Center would be minor. Construction at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would result in short-term, minor to moderate, adverse impacts to vegetation. Cumulatively, short-term impacts to soils would be minor to moderate and adverse.

Long-term impacts to vegetation at the Center under the interpretive / nature / history center scenario would be negligible to minor and adverse should the recipient of the Center elect not to implement measures to reduce adverse impacts to native plants from any construction activity undertaken. Effects to vegetation from the other projects would combine with the effects from the Center, largely from efforts in revegetation, to result in long-term, minor, beneficial impacts to vegetation.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Impacts to vegetation from development of the Center as a training center or office park without conditions on the transfer would result in short- and long-term, negligible to moderate, adverse impacts from disturbance associated with construction. This wide variance in intensity range is because development could include just a small portion of the center or all it. Short-term, minor, adverse impacts to vegetation would result from disturbance associated with construction at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park. Long-term, negligible to minor, beneficial impacts to vegetation would result from projects at Fort Snelling State Park and Minnehaha Park, and from enhanced and expanded wetlands habitat at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. Effects to vegetation from the other projects would combine with the effects from the Center to result in long-term, minor, beneficial impacts to vegetation.

**Summary.** Adverse short-term impacts to vegetation at the Center would combine with those of projects at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park to produce resulting in short-term adverse impacts that would be minor in intensity. However, long-term beneficial impacts to vegetation realized from all other projects would offset potential long-term adverse impacts to vegetation at the Center, resulting in cumulative long-term impacts that are mostly beneficial and negligible to minor in intensity.

## Wildlife

**Description.** The Mississippi River valley and its tributaries in east-central Minnesota attract an array of wildlife that use diverse habitats. Over 260 birds species are common to this area, and of these, 120 are known to nest in this part of Minnesota. At least 50 mammals occur within the Mississippi River corridor and some are likely visitors on the Center.

Factors that could affect wildlife under the following scenarios include increased public use and amount of habitat.

### Open Space / Park Scenario

**Cumulative Impacts.** Should the recipient of the Center elect not to implement mitigation measures to reduce possible adverse effects, such as destruction of wildlife habitat, short-term impacts to wildlife would be negligible to minor and adverse. Impacts to wildlife from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be short term, minor, and adverse. The contribution of the potential adverse impacts to wildlife on the Center to cumulative impacts would be minimal because the proportion of habitat involved would be relatively small. Therefore, cumulatively, short-term impacts to wildlife would be minor and adverse.

The open space / park scenario would result in long-term impacts to wildlife at the Center that range from negligible to minor and adverse resulting from destruction of habitat. Enhancements to wetlands wildlife habitat at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge would combine with the impacts to wildlife at the Center from the open space / park scenario to result in long-term, minor to moderate, beneficial, cumulative impacts to wildlife.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under the interpretive / nature / history center scenario, short-term impacts to wildlife would be negligible due to disturbance that would result in reduction in wildlife habitat. Minor adverse effects to wildlife would result from construction at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park. The contribution of the potential adverse impacts to wildlife on the Center to cumulative impacts would be minimal because the proportion of habitat involved would be relatively small. Therefore, cumulatively, these projects would result in short-term, minor, adverse impacts to wildlife. Minor beneficial long-term impacts to wildlife would result from expanding and enhancing wetlands wildlife habitat at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. Long-term minor adverse impacts to wildlife at the Center under the interpretive / nature / history center scenario would result from destruction of some habitat. The long-term cumulative effect of all these actions on wildlife would be negligible and beneficial.



## Training Center / Office Park Scenario

**Cumulative Impacts.** Impacts to wildlife from development of the Center as a training center or office park without a covenant or easement (conservation or other) would result in short- and long-term, minor to moderate, adverse impacts from disturbance associated with construction. Short-term, minor, adverse impacts to wildlife at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would result from disturbance associated with construction. The contribution of the potential adverse impacts to wildlife on the Center to cumulative impacts would be minimal because the proportion of habitat involved would be relatively small. Therefore, taken together, these projects would result in short-term, minor to moderate, adverse cumulative impacts to wildlife. Long-term, negligible to minor beneficial impacts to wildlife would result from enhanced and expanded wetlands habitat at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. Cumulatively, all these projects would have long-term negligible adverse cumulative impacts on wildlife.

**Summary.** Adverse short-term impacts to wildlife at the Center in combination with the projects at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would result in short-term adverse impacts that would range from minor to moderate in intensity. However, long-term beneficial impacts to wildlife realized from the projects in the cumulative impacts scenario may partially offset any potential long-term adverse impacts to wildlife at the Center (particularly those of an office park or training center), resulting in cumulative long-term impacts that are beneficial and would range from negligible to moderate in intensity.

## Hydrology

**Description.** The 27.32-acre Center is located on the eastern boundary of the Minnehaha Creek watershed, just south of the intersection of the east-flowing Minnehaha Creek with the Mississippi River, on the west bank of the river. The main drainage from the site is from Camp Coldwater Spring and the associated reservoir. Groundwater can be found within about 20 feet of the land surface in most places within the Minnehaha Creek watershed, including the Center.

Camp Coldwater Spring is fed by groundwater from an area above the Center. The spring is protected under state law if it is under the administration of a state entity, but if the Center were transferred to a private university, for example, this law would not be applicable. Factors that could affect the hydrologic features of the Center under the following scenarios include the amount of impermeable surface area and the maintenance of Camp Coldwater Reservoir.

## Open Space / Park Scenario

**Cumulative Impacts.** The open space / park scenario would result in a continuance of localized, short- and long-term, negligible, adverse impacts to hydrology at the Center with no change to the existing developments. Enhancements to wetlands at Fort Snelling State Park

and Minnesota Valley National Wildlife Refuge would result in long-term minor beneficial cumulative impacts to hydrology.

#### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Construction of a new structure at the Center for use as an interpretive / nature / history center in a new location without removal of any existing structures would result in localized long-term minor adverse impacts to hydrology due to a reduction in permeable surfaces. Long-term, negligible to minor, beneficial effects to hydrology would result from improved ability to control the flow from Long Meadow Lake at Minnesota Valley National Wildlife Refuge. These beneficial impacts could reduce the adverse effects to hydrology at the Center from the interpretive / nature / history center scenario such that long-term negligible adverse cumulative impacts would result.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** New construction that would increase building density at the Center would result in localized short- and long-term, minor to moderate, adverse impacts to hydrology. Long-term, negligible to minor, beneficial impacts to hydrology would result from an improved ability to control the flow from Long Meadow Lake at Minnesota Valley National Wildlife Refuge. These beneficial impacts could partially reduce the adverse effects to hydrology at the Center from the training center / office park scenario such that long-term, negligible to minor, adverse, cumulative impacts would result.

**Summary.** There would be long-term adverse impacts to hydrology at the Center under the interpretive / nature / history center and training center / office park scenarios. Long-term beneficial impacts would occur at Minnesota Valley National Wildlife Refuge from the improved ability to control the flow from Long Meadow Lake. Therefore, based largely on the extent of development at the Center, overall long-term cumulative impacts to hydrology would be adverse, ranging from negligible to minor in intensity.

### Water Quality

**Description.** The outflow from the Camp Coldwater Reservoir is measured for water quality along with the flow rate. The water quality measurements include temperature and specific conductivity. The main factors that could affect water quality on the Center would be sediment loads in the short term, and nonpoint source pollution, such as contaminants from vehicles and potentially use of fertilizer, insecticides or herbicides in the long term.

#### Open Space / Park Scenario

**Cumulative Impacts.** Short-term localized minor adverse impacts to water quality would result from implementation of the open space / park scenario, due to disturbance associated with construction causing erosion of soils into surface water. Short-term minor adverse impacts to water quality would also occur as a result of construction activity at Fort Snelling

State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park. Long-term minor beneficial impacts to water quality would result from enhancement and expansion of wetlands at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. Cumulatively, these projects would result in short-term, minor, adverse impacts, and long-term, negligible, beneficial impacts to water quality.

#### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under the interpretive / nature / history center scenario short-term impacts to water quality would be minor due to disturbance that would result in sedimentation affecting water quality. Similar effects would result from construction at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park. In the cumulative impact scenario, there would be short-term, minor to moderate, adverse impacts to water quality. Minor beneficial long-term impacts to water quality would result from the expansion and enhancement of wetlands at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. Long-term adverse impacts to water quality at the Center under the interpretive / nature / history center scenario would result from nonpoint source pollution. The long-term cumulative effect of these actions on water quality would be negligible and beneficial.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Short- and long-term localized minor adverse impacts to water quality at the Center would result from the training center / office park scenario should the Center be developed by a recipient without regard for mitigation measure to protect water quality from factors such as soil erosion and nonpoint source pollution. The effects to water quality from construction at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be short term, minor, and adverse. Long-term, minor, beneficial impacts to water quality would result from enhancement and/or expansion of wetlands at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. Cumulatively, these projects would have short-term, minor to moderate, adverse impacts and long-term negligible beneficial cumulative impacts on water quality.

**Summary.** Short-term adverse impacts to water quality at the Center resulting from construction activities would combine with similar short-term impacts from the other projects, resulting in cumulative short-term adverse impacts to water quality that range from minor to moderate in intensity. Expansion and enhancement of wetlands under the cumulative impact scenario would result in beneficial long-term impacts to water quality, possibly offsetting the potential adverse impacts at the Center from nonpoint source pollution. Long-term cumulative impacts to water quality would be negligible and beneficial.

## Wetlands

**Description.** The *National Wetlands Inventory* map that includes the Center site shows a single wetland within the Center boundaries: Camp Coldwater Reservoir. An onsite

delineation also revealed the presence of additional wetlands that are not shown on the *National Wetlands Inventory* map.

The main factor that would potentially impact wetlands on the Center would be construction work that would damage, alter or destroy wetland resources. Work affecting the course, current, or cross-section of a wetland would require a permit from the appropriate federal, state, or local agencies.

#### Open Space / Park Scenario

**Cumulative Impacts.** Should the recipient of the Center choose to remove structures and expand the area available for use as open space or as a park, operation of vehicles or demolition work could damage the wetland resources on the Center, resulting in short- and long-term adverse impacts ranging from negligible to moderate depending on the extent of damage. If any buildings were to be removed from wetlands, there is a possibility of a long-term, minor to moderate, beneficial impact on wetlands. Mitigation requirements by the USACE would ensure no net loss of wetlands, at a minimum. Beneficial effects from the construction of wetlands expansion/enhancement at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge, in conjunction with the impacts under the open space / park scenario, would result in a long-term, minor to moderate, beneficial cumulative impact to wetlands.

#### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Moderate long-term beneficial impacts to wetlands would result from enhancement and expansion of wetlands at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. The interpretive / nature / history center scenario would result in long-term, minor to moderate, adverse impacts to wetlands at the Center should they be damaged or destroyed. Mitigation requirements by the USACE would ensure no net loss of wetlands, at a minimum. The combination of projects would result in cumulative long-term negligible to minor beneficial impacts to wetlands.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Under the training center / office park scenario, increased density of buildings and damage to, or loss of, wetlands would result in long-term moderate adverse impacts. Mitigation requirements by the USACE would ensure no net loss of wetlands, at a minimum. Enhancement and/or expansion of wetlands at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge would result in long-term minor beneficial impacts to wetlands. Cumulatively, these beneficial impacts could offset the potential adverse impacts to wetlands at the Center such that cumulative impacts to wetlands would be long term, negligible to minor, and adverse.

**Summary.** All scenarios for the Center have the potential to result in adverse impacts to wetlands, depending on the actions taken and level of disturbance. Projects at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge are anticipated to result in

enhanced and expanded wetlands. The beneficial effects of the cumulative impacts scenario could offset some of the potential adverse effects to wetlands at the Center, resulting in long-term cumulative impacts that may be beneficial or adverse, and negligible to minor in intensity.

## Health and Safety

**Description.** In anticipation of divestiture of the Center in the late 1990s, the TCRC Closure Team conducted an extensive environmental cleanup. Although many potentially hazardous materials, such as chemicals and wastes associated with laboratories, were removed, others (e.g., asbestos, mold) remain in some buildings.

Under alternative B, the Center would be transferred with no restrictions, and there would be no requirement that the existing structures and fences be maintained to protect health and safety.

### Open Space / Park Scenario

**Cumulative Impacts.** The open space / park scenario would result in long-term impacts to health and safety at the Center that range from negligible to minor from the retention of the deteriorating structures. Beneficial impacts to health and safety resulting from the elimination of the medical waste dump at Fort Snelling State Park would combine with the impacts from the open space / park scenario to result in long-term, minor to moderate, beneficial, cumulative impacts to health and safety.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Long-term negligible adverse impacts to health and safety at the Center would result from the interpretive / nature / history center scenario should the existing structures remain and continue to deteriorate. If any were removed or their associated wastes cleaned up, long-term minor to moderate beneficial impacts would result. Beneficial impacts to health and safety under the cumulative impact scenario would result from elimination of the medical waste dump at Fort Snelling State Park. Long-term cumulative impacts to health and safety would therefore be negligibly adverse to minor and beneficial, largely based on the extent of building removal and clean up at the Center.

### Training Center / Office Park Scenario

**Cumulative Impacts.** Long-term negligible adverse impacts to health and safety at the Center would result from the training center / office park scenario should the existing structures remain and continue to deteriorate. If any were removed or their associated wastes cleaned up, long-term minor to moderate beneficial impacts would result. Beneficial impacts to health and safety under the cumulative impact scenario would result from elimination of the medical waste dump at Fort Snelling State Park. Long-term cumulative impacts to health and safety would therefore be negligibly adverse to moderately beneficial, largely based on the extent of building removal and clean up at the Center.

**Summary.** Potential long-term adverse impacts to health and safety would arise from retention of existing deteriorating structures under all scenarios. Cleanup of the medical waste dump at Fort Snelling State Park results in long-term beneficial impacts to health and safety that would offset any potential adverse impacts at the Center. Cumulative impacts to health and safety would be beneficial and would range from negligible to moderate depending on the actions taken at the Center, largely removal or cleanup of contaminated buildings.

### **Public Use and Experience**

**Description.** The Center, which is open to the public during specified hours, has a park-like setting, with grassy lawn areas and occasional shade trees surrounding vacant buildings and the Camp Coldwater Spring area. During the time that the Center was operating in its official capacity (until 1995), it was not open for general public use and visitation. The Center is now used by the public on a frequent basis as an extension of the open space present in the surrounding parks and open areas. The area around Camp Coldwater Spring is viewed by some members of the public as being spiritually important and is used for meditation and a source of inspiration. Many groups of people have a special fondness for the Center property. Visitors to the Center include American Indians, spiritualists, environmentalists, and residents of the nearby neighborhoods. The alternatives presented in this draft EIS along with the scenarios present differing levels of access to the Center by the public for continuing the personal rituals and meditations as they currently exist.

#### Open Space / Park Scenario

**Cumulative Impacts.** Should some or all of the structures at the Center be removed, short-term impacts to public use and experience would be negligible to minor and adverse during demolition due to equipment operation and activity. Impacts related to Camp Coldwater Spring access would possibly be regional, long term, moderate, and adverse should future access be denied for habitat conservation. Long-term minor to moderate beneficial impacts to public use and experience from trail construction and habitat enhancements at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would combine with the open space / park scenario impacts to result in long-term moderate beneficial impacts to public use and experience, but this is highly dependent on access to Camp Coldwater Spring.

#### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under the interpretive / nature / history center scenario, short-term impacts to public use and experience at the Center would be negligible to minor and adverse due to construction activity. Similar construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would result in short-term, minor to moderate, adverse impacts to public use and experience. Cumulatively, these projects would result in short-term moderate adverse impacts to public use and experience due to construction activity. Moderate long-term beneficial impacts to public use and experience would result from construction of new trails and extension of existing trails offering greater opportunity for outdoor recreation at Fort Snelling State Park, Minnesota Valley National

Wildlife Refuge, and Minnehaha Park. Cumulative impacts to public use and experience under this scenario would be long term, minor to moderate, and beneficial, depending on the management of public access to the Center.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Impacts to public use and experience from development of the Center as a training center / office park would be short term, minor to moderate, and adverse during construction and long term, major, and adverse should the area available for public recreation diminish or be closed to public access. Construction restricting or impinging on recreation at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would result in short-term minor adverse impacts to public use and experience and long-term moderate beneficial impacts due to the expansion of available trails for recreation. Taken together these projects would have short-term moderate adverse impacts and long-term, minor to moderate, adverse impacts on public use and experience.

**Summary.** Impacts to public use and experience at the Center under the scenarios would vary depending on the level of public use allowed by the recipient. Short-term impacts from construction or demolition would be adverse and minor to moderate. Similar short-term impacts from construction under the cumulative impact scenario would result in overall moderate adverse impacts to public use and experience.

Long-term impacts to public use and experience at the Center would be moderate to major and beneficial should the recipient expand hours the Center is open to the public, or adverse should the recipient curtail or eliminate public access to the Center. Improvements to public use and experience under the cumulative impacts scenario would contribute long-term moderate beneficial impacts. Overall cumulative impacts to public use and experience would be minor to major and adverse or beneficial, largely dependent on access to the Center, particularly Camp Coldwater Spring.

#### Visual Resources

**Description.** The visual characteristics of the Center include a relatively limited viewshed (less than 1,000 feet and not expansive), dense woods and bluffs, nonnative vegetation and landscaping, driveways and parking lots, the Center buildings, and the Camp Coldwater Spring and Reservoir. Characteristics along the Center boundaries include views of an urban setting with commercial and residential buildings and SH 55 and SH 68. The overall visual quality is average to below average because of lack of vividness and distinctiveness. This is due to lack of coordinated or harmonious design, deteriorating condition of the buildings and grounds.

#### Open Space / Park Scenario

**Cumulative Impacts.** Removal of some or all of the existing structures from the Center under this scenario would result in short-term, negligible to minor, adverse impacts. In the long term, removal of the unused structures and rehabilitation of the building sites would result in moderate to major beneficial impacts to visual resources. Removal of the Camp Coldwater

Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center. Views of the Center from outside would not be expected to change from the current condition, and therefore result in negligible, long-term impacts, if any.

Most of the projects under the cumulative impacts scenario may or may not be visually noticeable, therefore would minimally impact visual resources resulting in short-term negligible adverse impacts and long-term negligible beneficial impacts. Continued deterioration of the historic structures on the Fort Snelling Upper Bluff property would result in similar effects to visual resources as those experienced at the Center, and short- and long-term, minor to moderate, adverse impacts would occur.

#### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Rehabilitation of some existing structures for use as an interpretive / nature / history center in conjunction with removal of all remaining unused structures and rehabilitation of the building sites would result in improved visual character and quality. Short-term impacts would be negligible to minor, adverse impacts due to equipment and activity associated with rehabilitation work. Long-term impacts would be minor to moderate and beneficial due to the removal of some structures and improved appearance of remaining structure(s) and increased natural areas. Removal of the Camp Coldwater Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center. Because viewers outside the Center are in motion or from a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore result in negligible, long-term impacts, if any.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Reuse of many or all existing structures on the Center for training center / office park in conjunction with removal of any unused structures and rehabilitation of building sites would result in short-term minor adverse impacts to visual resources due to construction equipment and activities. Long-term impacts would be minor and beneficial as the outward appearance of the rehabilitated structures could detract less from the visual resources than the unused structures. It is assumed that new construction and design for a training center or office park scenario would be more aesthetically pleasing than existing structures and buildings, also resulting in long-term, localized, minor, beneficial impacts. Removal of Camp Coldwater Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center. Because viewers outside the Center are in motion or from a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore result in negligible, long-term impacts, if any.

**Summary.** Most of the projects under the cumulative impacts scenario may or may not be visually noticeable, therefore would minimally impact visual resources resulting in short-term, negligible, adverse impacts, and long-term, negligible, beneficial impacts. Continued



deterioration of the historic structures on the Fort Snelling Upper Bluff property would result in similar effects to visual resources as those experienced at the Center, and short- and long-term, minor to moderate, adverse impacts would occur. Because viewers outside the Center are in motion or from a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore result in negligible long-term impacts.

## **ALTERNATIVE C**

Under alternative C, the Center would be conveyed to a university or nonfederal government entity with conditions (retention of property or a conservation easement) imposed on the future use of the Center that would limit the recipient's use or create affirmative obligations to be carried out by the recipient. The university or nonfederal government entity that receives the Center would have conditions on subsequent transfer or sale of the Center. Affirmative obligations that may be placed on the transfer include those that create a duty in the recipient to manage or maintain the Center or its resources in a specific way. For example, the federal government could convey with conditions (retention of property or a conservation easement) that would be designed to protect natural, historical, and cultural resources. Methods by which conditions on use of the Center may be imposed by the transfer agreement include the use of a conservation easement or by retaining a portion of the Center.

### **Archeological Resources**

**Description.** Based on the 2001 study, the Center was organized into five distinct zones based on their potential to yield archeological information. Zones III, IV, and V were found to contain no important cultural materials and warrant no further archeological study. Zone I was recommended for further testing to determine if the area contains cultural materials that would contribute to the Fort Snelling National Historic Landmark and National Historic District. Zone II was found to contain in situ cultural deposits that correspond to the period of significance of the national historic landmark and national historic district. The 2001 study also recommended a revision to the boundaries of the Fort Snelling National Landmark to include Zones I and II (Clouse 2001). That revision is currently in process; for purposes of this draft EIS, it is assumed the boundaries include Zones I and II.

#### Open Space / Park Scenario

**Cumulative Impacts.** Prior to transfer of ownership to a university or nonfederal government entity, the USDI would complete a section 106 process to properly consider the effects of the transfer on archeological resources and possibly apply conservation easements on land containing eligible or listed resources. Under the open space / park scenario, this would result in long-term, minor, beneficial impacts because the resource would be protected. Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and alternative B would result in long-term, minor, beneficial impacts.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Prior to transfer of ownership to a university or nonfederal government entity, the USDI would complete a section 106 process to properly consider the effects of the transfer on archeological resources and possibly apply conservation easements on land containing eligible or listed resources. Under the interpretive / nature / history center scenario, this would result in long-term, minor, beneficial impacts because the resource would be protected. Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and alternative B would result in long-term, minor, beneficial impacts.

### Training Center / Office Park Scenario

**Cumulative Impacts.** Prior to transfer of ownership to a university or nonfederal government entity, the USDI would complete a section 106 process to properly consider the effects of the transfer on archeological resources and possibly apply conservation easements on land containing eligible or listed resources. Under the training center / office park scenario, it is assumed that the resource would be impacted due to development plans and result in a long-term, moderate, and adverse impact because the resource would be permanently removed from context, but the information available in the recovered data would be available for future research. Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and alternative B would result in long-term, moderate, adverse impacts.

**Summary.** Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and alternative C would result in long-term impacts that would range from minor and beneficial to moderate and adverse.

## Historic Structures and Districts

**Description.** There are no individually NRHP-eligible structures within the Center. Eleven of the buildings and structures at the Center are contributing elements to the USBM Twin Cities Research Center Historic District. Camp Coldwater Reservoir and the spring house are considered structures, but are not contributing elements of the USBM Twin Cities Research Center Historic District. Approximately half of the land within the Center falls within the boundaries of the Fort Snelling National Historic Landmark. Resources within the Center of significance to the national historic landmark include Camp Coldwater Spring and Reservoir (Henning 2002). Archeological resources exist at the Center that are considered contributing elements to the Fort Snelling National Historic District and Fort Snelling National Historic Landmark.

**Cumulative Impacts.** Analysis by land use scenario is not presented in this section because the impacts would be the same for all scenarios. Use of the Center under any of the scenarios by a university or nonfederal government entity under alternative C would result in long-term, minor to major, beneficial impacts. These impacts would result from the potential requirement for the new university or nonfederal governmental owner of the Center to adaptively reuse the

existing structures in accordance with the Secretary of the Interior's Standards for Rehabilitation (36 C.F.R. 67); complete HABS recordation of the structures within the USBM Twin Cities Research Center Historic District in the event of demolition of some or all of the structures; or design new construction to minimize potential impacts on the viewsheds of the three historic districts and national historic landmark.

Continued deterioration of historic structures on the Fort Snelling Upper Bluff property would adversely impact the historic character of this area and the national historic landmark status, resulting in long-term, minor to moderate, adverse impacts to historic structures and districts. These impacts combined with the potential beneficial impacts under alternative C would result in long-term, negligible to moderate, beneficial cumulative impacts to historic structures.

**Summary.** Continued deterioration of historic structures on the Fort Snelling Upper Bluff property combined with potential requirements affording protection to historic structures and districts at the Center would result in long-term, negligible to moderate, beneficial cumulative impacts to historic structures.

## **Ethnographic Resources**

**Description.** Although no historical documentation of American Indian use of Camp Coldwater Spring has been found, the oral traditions and histories collected during investigation suggest that natural springs, like Camp Coldwater Spring, are associated with sacred healing ceremonies. Camp Coldwater Spring is currently used by some members of the federally recognized Dakota and Ojibwe communities, and other American Indians as a source of water for ceremonies. The confluence of the Minnesota and Mississippi rivers is not located within the area of the proposed action, but Camp Coldwater Spring should be considered within this larger context. Many American Indian communities have a traditional association with the area surrounding the spring.

**Cumulative Impacts.** Analysis by land use scenario is not presented in this section because the impacts would be the same for all scenarios. Under alternative C, conditions on the transfer of the Center to a university or nonfederal government entity could be used to require preservation of and provide access by American Indian communities to Camp Coldwater Spring or associated resources. Overall impacts to ethnographic resources under this alternative would be long term, minor to moderate, and beneficial. Other past, present, and future projects in the area would not impact ethnographic resources at the Center; cumulatively, these projects and alternative C would result in long-term, minor, adverse impacts.

**Summary.** Other past, present, and future projects in the area would not impact ethnographic resources; cumulatively, these projects and alternative C would result in long-term, minor, adverse impacts.

## Soils

**Description.** The Center site contains the following soil series and types: Dorset, Forada, Sandberg, Urban Land-Hubbard, and Urban Land-Udipsamments (NRCS 2005). Platteville limestone underlies surficial soils 10 to 50 feet below the ground surface. It is important to note that recent archeological testing suggests that soils over much of the Center site have been disturbed (buried, cut and filled, etc.) during construction of facilities and roads.

### Open Space / Park Scenario

**Cumulative Impacts.** Under alternative C, should the recipient opt to manage the Center as open space or a park without removal of any existing structures, there would be a continuance of localized, short- and long-term, negligible, adverse impacts to soils. With removal of some or all structures, and with conditions (retention of property or a conservation easement) placed on the transfer of the Center requiring the recipient to take steps to avoid adverse impacts to soils, impacts would be short term, minor to moderate, and adverse. Short-term impacts to soils from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be negligible to minor and adverse. Cumulatively, short-term impacts to soils would be moderate and adverse.

Long-term impacts to soils under this scenario would be minor to moderate and beneficial. Under the cumulative impact scenario the long-term impacts to soils would be negligible to minor and adverse since none of the projects would result in large amounts of soil disturbances or mass wastage. Taken together the long-term cumulative impacts to soils would be negligible to minor and beneficial.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under alternative C, conditions (retention of property or a conservation easement) could be placed on the transfer of the Center requiring the recipient to take steps to avoid adverse impacts to soils. Impacts to soils would be short-term, negligible to minor, and adverse and long term, minor, and beneficial if new construction takes place in an area where human-made structures currently exist and other structures are removed from the Center.

Short-term impacts to soils from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be negligible to minor and adverse. Cumulatively, short-term impacts to soils would be minor and adverse. Under the cumulative impact scenario the long-term impacts to soils would be negligible to minor and adverse since none of the projects would result in large amounts of soil disturbances or erosion. Taken together the long-term cumulative impacts to soils would be negligible and beneficial.

## Training Center / Office Park Scenario

**Cumulative Impacts.** Impacts to soils from the training center / office park scenario would be short and long term, minor, and adverse with construction in new locations and an increase in the total number of structures on the Center. Impacts would be short and long term, negligible, and adverse with complete reuse or new construction in existing structure locations and no reduction in overall number of structures, and with appropriate mitigation. Impacts would be short term negligible, and adverse and long term, negligible to minor, and beneficial with complete reuse or new construction in existing structure locations, with reduction in the total number of structures, and rehabilitation of soils in those locations.

Short-term impacts to soils from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be negligible to minor and adverse. Under the cumulative impact scenario the long-term impacts to soils would be negligible to minor and adverse since none of the projects would result in large amounts of soil disturbances or mass wastage. Cumulatively, short-term impacts to soils would be negligible to minor and adverse. Taken together the long-term cumulative impacts to soils would be negligible to minor and adverse.

**Summary.** Short-term impacts to soils from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be negligible to minor and adverse. Cumulatively, short-term impacts to soils would be moderate and adverse. Long-term impacts to soils under this would be minor to moderate and beneficial. Under the cumulative impact scenario the long-term impacts to soils would be negligible to minor and adverse since none of the projects would result in large amounts of soil disturbances or mass wastage.

## Vegetation

**Description.** Natural vegetation exists on the site's bluff slope, toeslope, and on the Mississippi River floodplain terrace. The bluff slope located on the eastern boundary of the project site supports a maple – basswood forest community. The toeslope, maintained in a saturated condition by natural groundwater seepage, supports a black ash swamp community. Occupying the Mississippi River floodplain adjacent to the toeslope and to the river's edge is a relatively unaltered forest community characterized by silver maple, American elm, green ash, black willow, and eastern cottonwood. Currently, the Center is occupied by business infrastructure and open areas that were constructed or planted following land-leveling activities. In addition, wetlands and successional deciduous woodlands remain from the natural, presettlement condition or have become established on sites disturbed by development.

Factors affecting native vegetation at the Center under the following scenarios could include disturbance due to rehabilitation and construction, and potential for revegetation with native species. The airport zoning ordinance could require that a university or nonfederal governmental entity manage trees on the Center such that no new trees would be allowed to grow in the portion of the Center that lies in Safety Zone A, and trees in all other areas of the Center could be required to be maintained at designated height requirements or perhaps removed.

**Cumulative Impacts.** Analysis by land use scenario is not presented in this section because the impacts would be the same for all scenarios. Long-term, minor, beneficial impacts to vegetation would result under any of the scenarios by a university or nonfederal government entity under alternative C. The new university or nonfederal governmental owner of the Center could be required to restore the sites of existing structures to native vegetation, remove existing nonnative vegetation and/or control the spread of invasive species (such as buck-thorn) in the future (see discussion of “Tree Management,” chapter 3).

Short-term impacts to vegetation resulting from construction at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be minor and adverse. Cumulatively, short-term impacts to vegetation would be minor and adverse. Effects to vegetation from the other projects would combine with the effects from the Center, largely from efforts in revegetation, to result in long-term, minor, beneficial cumulative impact

**Summary.** Short-term cumulative impacts to vegetation would be minor and adverse resulting from disturbance associated with construction. Long-term cumulative impacts to vegetation would be minor and beneficial, largely resulting from efforts in revegetation.

## Wildlife

**Description.** The Mississippi River valley and its tributaries in east-central Minnesota attract an array of wildlife that use diverse habitats. Over 260 birds species are common to this area, and of these, 120 are known to nest in this part of Minnesota. At least 50 mammals occur within the Mississippi River corridor and some are likely visitors on the Center.

Factors that could affect wildlife under the following scenarios include increased public use and amount of habitat.

### Open Space / Park Scenario

**Cumulative Impacts.** Conditions (retention of property or a conservation easement) could be placed on the transfer under alternative C that would result in short-term impacts to wildlife that are negligible and adverse resulting from demolition activity. Under these conditions, long-term impacts would range from negligible and adverse with increased public use; to negligible to minor and beneficial with revegetation in support of wildlife habitat.

Impacts to wildlife from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be short term, minor, and adverse. The contribution of the potential adverse impacts to wildlife on the Center to cumulative impacts would be minimal because the proportion of habitat involved would be relatively small. Therefore, cumulatively, short-term impacts to wildlife would be minor and adverse. Enhancements to wetlands wildlife habitat at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge would combine with the impacts to wildlife at the Center from the open space / park scenario to result in long-term, minor to moderate, and beneficial cumulative impacts to wildlife.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under alternative C, the impacts to wildlife would be short term, negligible, and adverse as rehabilitation and demolition activity would disrupt existing wildlife. Impacts in the long term range from negligible and adverse due to potentially increased public use of the Center to negligible to minor and beneficial if the area available for wildlife habitat could be expanded.

Impacts to wildlife from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be short term, minor, and adverse. The contribution of the potential adverse impacts to wildlife on the Center to cumulative impacts would be minimal because the proportion of habitat involved would be relatively small. Therefore, cumulatively, short-term impacts to wildlife would be minor and adverse. Enhancements to wetlands wildlife habitat at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge would combine with the impacts to wildlife at the Center from the open space / park scenario to result in long-term, minor, beneficial cumulative impacts to wildlife.

### Training Center / Office Park Scenario

**Cumulative Impacts.** Under alternative C, construction in new locations with no elimination of existing structures on the Center would result in short- and long-term, minor to moderate, adverse impacts. Complete reuse or new construction in existing structure locations with a reduction in the total number of structures and revegetation with species to support wildlife habitat in those locations would result in short-term, negligible, adverse impacts due to rehabilitation, demolition, and/or construction activity. Long-term minor beneficial impacts to wildlife would occur assuming some rehabilitation of space to support wildlife habitat.

Impacts to wildlife from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be short term, minor, and adverse. The contribution of the potential adverse impacts to wildlife on the Center to cumulative impacts would be minimal because the proportion of habitat involved would be relatively small. Therefore, cumulatively, short-term impacts to wildlife would be short term, minor, and adverse. Enhancements to wetlands wildlife habitat at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge would combine with the impacts to wildlife at the Center from the open space / park scenario to result in long-term, minor to moderate beneficial cumulative impacts to wildlife.

**Summary.** Impacts to wildlife from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be short term, minor, and adverse. The contribution of the potential adverse impacts to wildlife on the Center to cumulative impacts would be minimal because the proportion of habitat involved would be relatively small. Therefore, cumulatively, short-term impacts to wildlife would be short term, minor, and adverse. Enhancements to wetlands wildlife habitat at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge would combine with the impacts to wildlife at the Center from the open space / park scenario to result in long-term, minor to moderate, beneficial cumulative impacts to wildlife. Conversion of wildlife habitat, for example into a

parking lot under the training center / office park scenario, would decrease this beneficial cumulative impact.

## Hydrology

**Description.** The 27.32-acre Center is located on the eastern boundary of the Minnehaha Creek watershed, just south of the intersection of the east-flowing Minnehaha Creek with the Mississippi River, on the west bank of the river. The main drainage from the site is from Camp Coldwater Spring and the associated reservoir. Groundwater can be found within about 20 feet of the land surface in most places within the Minnehaha Creek watershed, including the Center.

Camp Coldwater Spring is fed by groundwater from an area above the Center. The spring is protected under state law if it is under the administration of a state entity, but if the Center were transferred to a private university, for example, this law would not be applicable. Factors that could affect the hydrologic features of the Center under the following scenarios include the amount of impermeable surface area and the maintenance of Camp Coldwater Reservoir.

### Open Space / Park Scenario

**Cumulative Impacts.** Future operation of the Center with continued use of the existing open space as open space or a park without removing any existing structures would result in localized, short- and long-term, negligible, adverse impacts to hydrology. Impacts to hydrology under this scenario would be localized, long term, minor to moderate, and beneficial with removal of some or all structures.

Long-term, negligible to minor, beneficial effects to hydrology would result from improved ability to control the flow from Long Meadow Lake at Minnesota Valley National Wildlife Refuge. These beneficial impacts would combine with the impacts of this scenario such that long-term, moderate, beneficial cumulative impacts to hydrology would result.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under alternative C, construction of a new structure at the Center for use as an interpretive / nature / history center in a location of an existing structure without removal of any other existing structures would result in a continuance of localized, short- and long-term, negligible, adverse impacts to hydrology because there would be no change in the amount of impermeable surfaces. Construction of a new structure in a location of an existing structure, along with removal of some or all unused structures would result in localized long-term, minor to moderate, beneficial impacts to hydrology due to a decrease in impermeable surfaces.

Long-term, negligible to minor, beneficial effects to hydrology would result from improved ability to control the flow from Long Meadow Lake at Minnesota Valley National Wildlife Refuge. These beneficial impacts would combine with the effects to hydrology at the Center



from the interpretive / nature / history center scenario such that long-term cumulative impacts would be moderate and beneficial.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Development of a training center / office park using a combination of building reuse and new construction in existing building locations with no reduction in the total number of structures would result in localized, short- and long-term, negligible, adverse impacts to hydrology. Complete reuse or new construction in existing structure locations with a reduction in the total number of structures, with no change of the Camp Coldwater Reservoir, would result in localized long-term, minor, beneficial impacts to hydrology.

Long-term, negligible to minor, beneficial effects to hydrology would result from improved ability to control the flow from Long Meadow Lake at Minnesota Valley National Wildlife Refuge. These beneficial impacts would combine with the effects to hydrology at the Center from the interpretive / nature / history center scenario such that long-term, minor to moderate, beneficial cumulative impacts to hydrology would result.

**Summary.** Complete reuse or new construction in existing structure locations with a reduction in the total number of structures, with no change of the Camp Coldwater Reservoir, would result in localized long-term minor beneficial impacts to hydrology. Long-term, negligible to minor, beneficial effects to hydrology would result from improved ability to control the flow from Long Meadow Lake at Minnesota Valley National Wildlife Refuge. These beneficial impacts would combine with the effects to hydrology at the Center from the open space /park and interpretive / nature / history center scenarios such that long-term, minor to moderate, beneficial cumulative impacts to hydrology would result. The training center / office park scenario would likely lessen this beneficial impact.

## Water Quality

**Description.** The outflow from the Camp Coldwater Reservoir is measured for water quality along with the flow rate. The water quality measurements include temperature and specific conductivity. The main factors that could affect water quality on the Center would be sediment loads in the short term, and nonpoint source pollution, such as contaminants from vehicles and potentially use of fertilizer, insecticides or herbicides in the long term.

#### Open Space / Park Scenario

**Cumulative Impacts.** Under alternative C, short-term impacts to water quality would range from no impact if none of the existing structures are removed to localized negligible adverse impacts should structures be removed with mitigation. The potential long-term impacts to water quality would range from localized negligible adverse impacts with no demolition, construction or changes in visitor use to localized long-term minor adverse impacts to water quality with changes in structures and visitor use, and implementation of mitigation measures.

Short-term minor adverse impacts to water quality would occur as a result of construction activity at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park. Long-term minor beneficial impacts to water quality would result from enhancement and expansion of wetlands at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. Cumulatively, these projects would result in short-term, minor, adverse, cumulative impacts. Long-term cumulative impacts would range from negligible and adverse to negligible and beneficial.

#### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Impacts under this scenario would be short term, localized, negligible, and adverse, and localized long term, minor, and adverse, because structures may or may not be constructed or demolished.

Short-term, minor, adverse impacts to water quality would occur as a result of construction activity at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park. Long-term, minor, beneficial impacts to water quality would result from enhancement and expansion of wetlands at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. Cumulatively, these projects would result in short-term, minor to moderate adverse impacts. Long-term cumulative impacts would range from negligible and adverse to negligible and beneficial.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Potential cumulative impacts of this scenario would be anticipated to be similar to those described in the scenarios above.

**Summary.** Long-term minor beneficial impacts to water quality would result from enhancement and expansion of wetlands at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. Cumulatively, these projects and those at the Center would result in short-term, minor, adverse, cumulative impacts. Long-term cumulative impacts would range from negligible and adverse to negligible and beneficial, depending largely on any increase in nonpoint source pollution.

## Wetlands

**Description.** The *National Wetlands Inventory* map that includes the Center site shows a single wetland within the Center boundaries: Camp Coldwater Reservoir. An onsite delineation also revealed the presence of additional wetlands that are not shown on the *National Wetlands Inventory* map.

The main factor that would potentially impact wetlands on the Center would be construction work that would damage, alter or destroy wetland resources. Work affecting the course, current, or cross-section of a wetland would require a permit from the appropriate federal, state, or local agencies.

### Open Space / Park Scenario

**Cumulative Impacts.** Under alternative C, impacts to wetlands would be long term, major, and adverse if existing structures remained in the wetlands. Removal of existing structures eliminating existing adverse impacts, and restoration of wetlands would result in short-term, minor to moderate, adverse impacts and long-term, moderate to major, beneficial impacts to wetlands. Beneficial effects from the construction of wetlands expansion/enhancement at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge, in conjunction with the impacts under the open space / park scenario, would result in cumulative impacts that are short term, moderate, and adverse; and long term, minor to major, and beneficial.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under alternative C, short-term impacts to wetlands would range from negligible to moderate and adverse; and long-term impacts would range from negligible and adverse to moderate to major and beneficial. Beneficial effects from the construction of wetlands expansion/enhancement at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge, in conjunction with the impacts under the open space / park scenario, would result in short-term cumulative impacts that range from negligible to moderate and adverse; and long-term, minor to major, beneficial cumulative impacts.

### Training Center / Office Park Scenario

**Cumulative Impacts.** Under alternative C, complete reuse or new construction in existing structure locations, in combination with mitigation measures to minimize impacts to wetlands and revegetation efforts to restore any damage, would result in short-term, minor to moderate, and long-term, negligible, adverse impacts to wetlands. Removal of existing structures eliminating existing adverse impacts, and restoration of wetlands would result in long-term, moderate to major beneficial impacts to wetlands.

Beneficial effects from the construction of wetlands expansion/enhancement at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge, in conjunction with the impacts under the open space / park scenario, would result in short-term, minor to moderate, adverse cumulative impacts; and long-term, minor to major, beneficial cumulative impacts.

**Summary.** Removal of existing structures eliminating existing adverse impacts, and restoration of wetlands would result in long-term, moderate to major beneficial impacts to wetlands. Beneficial effects from wetlands expansion/enhancement at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge, in conjunction with the impacts under the open space / park and interpretive / nature / history center scenarios, would result in short-term cumulative impacts that range from negligible to moderate and adverse and long-term, minor to major, beneficial cumulative impacts.

## Health and Safety

**Description.** In anticipation of divestiture of the Center in the late 1990s, the TCRC Closure Team conducted an extensive environmental cleanup. Although many potentially hazardous materials, such as chemicals and wastes associated with laboratories, were removed, others (e.g., asbestos, mold) remain in some buildings.

Under alternative B, the Center would be transferred with no restrictions, and there would be no requirement that the existing structures and fences be maintained to protect health and safety.

### Open Space / Park Scenario

**Cumulative Impacts.** Under alternative C, impacts to health and safety would range from localized, long term, negligible, and adverse; to long term, minor and beneficial with elimination of potential hazardous situations for workers and potential intruders. Beneficial impacts to health and safety resulting from the elimination of the medical waste dump at Fort Snelling State Park would combine with the impacts from the open space / park scenario to result in long-term, negligible to minor, beneficial cumulative impacts to health and safety.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Cumulative impacts to health and safety under this scenario would be the same as described for the open space / park scenario.

### Training Center / Office Park Scenario

**Cumulative Impacts.** Cumulative impacts to health and safety under this scenario would be the same as described for the open space / park scenario.

**Summary.** Beneficial impacts to health and safety resulting from the elimination of the medical waste dump at Fort Snelling State Park would combine with the impacts from the open space / park scenario to result in long-term, negligible to minor, beneficial cumulative impacts to health and safety under all scenarios.

## Public Use and Experience

**Description.** The Center, which is open to the public during specified hours, has a park-like setting, with grassy lawn areas and occasional shade trees surrounding vacant buildings and the Camp Coldwater Spring area. During the time that the Center was operating in its official capacity (until 1995), it was not open for general public use and visitation. The Center is now used by the public on a frequent basis as an extension of the open space present in the surrounding parks and open areas. The area around Camp Coldwater Spring is viewed by some members of the public as being spiritually important and is used for meditation and a source of inspiration. Many groups of people have a special fondness for the Center property.

Visitors to the Center include American Indians, spiritualists, environmentalists, and residents of the nearby neighborhoods. The alternatives presented in this draft EIS along with the scenarios present differing levels of access to the Center by the public for continuing the personal rituals and meditations as they currently exist.

#### Open Space / Park Scenario

**Impacts.** Under alternative C, short-term impacts would be negligible to minor and adverse during the demolition process due to equipment operation and activity. Long-term impacts would be moderate to major and beneficial as the visibility of the changes to the Center may be prominent and the area and hours available for public use would be expanded. Long-term minor to moderate beneficial impacts to public use and experience from trail construction and habitat enhancements at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would combine with the open space / park scenario impacts to result in long-term, major, beneficial cumulative impacts to public use and experience.

#### Interpretive / Nature / History Center Scenario

**Impacts.** Under this scenario, impacts to public use and experience would be short-term, negligible to minor adverse impacts due to construction work on-site, and long-term moderate beneficial impacts to public use and experience could be expected through expanded area and hours available for public use of the Center. Long-term minor to moderate beneficial impacts to public use and experience from trail construction and habitat enhancements at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would combine with the open space / park scenario impacts to result in short-term, negligible to minor, adverse and long-term, moderate to major, beneficial cumulative impacts to public use and experience.

#### Training Center / Office Park Scenario

**Impacts.** Under this scenario, impacts to public use and experience would be short-term, negligible to minor, adverse impacts due to equipment activity associated with construction work and long-term, minor to moderate, beneficial, impacts due to expanded hours of availability of the Center for public use, and revitalization of the structures that are currently decaying and not in use. Long-term minor to moderate beneficial impacts to public use and experience from trail construction and habitat enhancements at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would combine with the open space / park scenario impacts to result in short-term, negligible to minor, and adverse; and long-term, moderate, beneficial cumulative impacts to public use and experience.

**Summary.** Beneficial impacts to public use and experience would be expected through expanded area and hours available for public use of the Center. Long-term minor to moderate beneficial impacts to public use and experience from trail construction and habitat enhancements at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would combine with impacts of the open space / park and interpretive / nature / history center scenarios resulting in short-term, negligible to minor, adverse and long-term, moderate

to major, beneficial cumulative impacts to public use and experience. The training center / office park scenario would likely lessen this beneficial impact.

## Visual Resources

**Description.** The visual characteristics of the Center include a relatively limited viewshed (less than 1,000 feet and not expansive), dense woods and bluffs, nonnative vegetation and landscaping, driveways and parking lots, the Center buildings, and Camp Coldwater Spring and Reservoir. Characteristics along the Center boundaries include views of an urban setting with commercial and residential buildings and SH 55 and SH 68. The overall visual quality is average to below average because of lack of vividness and distinctiveness. This is due to lack of coordinated or harmonious design, deteriorating condition of the buildings and grounds.

### Open Space / Park Scenario

**Cumulative Impacts.** Under alternative C, impacts to visual resources would range from no to negligible long-term impacts, to moderate to major, and beneficial if all existing structures are removed. Most of the projects under the cumulative impacts scenario may or may not be visually noticeable, therefore would minimally impact visual resources resulting in short-term, negligible adverse, and long-term, negligible beneficial impacts. Continued deterioration of the historic structures on the Fort Snelling Upper Bluff property would result in long-term, minor to moderate, adverse impacts, similar effects to visual resources as those experienced at the Center under the no-action alternative. Combined, the cumulative impacts would be short-term, negligible and adverse. Long-term cumulative impacts to visual resources would range from minor to moderate, and adverse; to negligible to minor, and beneficial.

### Interpretive / Nature / History Center Scenario

**Impacts.** Under alternative C, impacts to visual resources would be short-term, negligible to minor, adverse impacts due to equipment and activity associated with rehabilitation work; and long-term, minor to moderate, beneficial impacts to visual resources due to the removal of some structures and improved appearance of remaining structure(s). Most of the projects under the cumulative impacts scenario may or may not be visually noticeable, and therefore, would minimally impact visual resources resulting in short-term, negligible adverse, and long-term, negligible beneficial impacts. Continued deterioration of the historic structures on the Fort Snelling Upper Bluff property would result in long-term, minor to moderate, adverse impacts, similar effects to visual resources as those experienced at the Center. Combined, the cumulative short-term impacts to visual resources would be short term, negligible to minor, and adverse. Long-term cumulative impacts would be negligible and beneficial.

### Training Center / Office Park Scenario

**Impacts.** Under alternative C, impacts to visual resources would be short term, minor, and adverse due to construction equipment and activity. Long-term impacts would be negligible to minor beneficial as the outward appearance of the rehabilitated or new structures would

detract less from the visual resources than the unused structures. Most of the projects under the cumulative impacts scenario may or may not be visually noticeable, therefore would minimally impact visual resources resulting in short-term, negligible adverse, and long-term, negligible beneficial impacts. Continued deterioration of the historic structures on the Fort Snelling Upper Bluff would result in long-term, minor to moderate, adverse impacts, similar effects to visual resources as those experienced at the Center. Combined, the cumulative short-term impacts would be minor and adverse. Long-term cumulative impacts would be negligible to minor, and adverse.

**Summary.** Most of the projects under the cumulative impacts scenario may or may not be visually noticeable, therefore would minimally impact visual resources resulting in short-term, negligible adverse, and long-term, negligible beneficial impacts. Continued deterioration of the historic structures on the Fort Snelling Upper Bluff would result in long-term, minor to moderate, adverse impacts, similar effects to visual resources as those experienced at the Center. Long-term cumulative impacts would be negligible to minor, and adverse.

## **ALTERNATIVE D**

Under alternative D, the federal government would manage and bear the cost for modification of all or part of the land, structures, or other improvements prior to conveyance or retention of the Center. Following completion of the modifications, the Center would be disposed through transfer to a university or nonfederal government entity without conditions (retention of property or a conservation easement) (alternative B), transfer to a university or nonfederal government entity with conditions (alternative C), or retention by the federal government for use such as those described under the three conceptual land use situations.

## **Archeological Resources**

**Description.** Based on the 2001 study, the Center was organized into five distinct zones based on their potential to yield archeological information. Zones III, IV, and V were found to contain no important cultural materials and warrant no further archeological study. Zone I was recommended for further testing to determine if the area contains cultural materials that would contribute to the Fort Snelling National Historic Landmark and National Historic District. Zone II was found to contain in situ cultural deposits that correspond to the period of significance of the national historic landmark and national historic district. The 2001 study also recommended a revision to the boundaries of the Fort Snelling National Landmark to include Zones I and II (Clouse 2001). That revision is currently in process; for purposes of this draft EIS, it is assumed the boundaries include Zones I and II.

### Open Space / Park Scenario

**Cumulative Impacts.** Upon completion of federal government modifications to the Center, it is assumed that the archeological resources would not be adversely impacted. Prior to transfer of ownership to a university or nonfederal government entity, the USDI would complete the section 106 process to properly consider the effects of the transfer on archeological resources.

If the Center is transferred without conditions, the impacts would be long term, moderate, and adverse because the resource would be permanently removed from context, but the information available in the data recovered would be available for future research. If the Center is transferred with conditions, under the open space / park scenario, this would result in long-term, minor, beneficial impacts because the resource could be protected. Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and alternative D would result in impacts that could either be long-term, moderate, and adverse or long-term, minor, and beneficial, depending on whether conditions are placed on the transfer.

#### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Upon completion of federal government modifications to the Center, it is assumed that the archeological resources would not be adversely impacted. Prior to transfer of ownership to a university or nonfederal government entity, the USDI would complete the section 106 process to properly consider the effects of the transfer on archeological resources. If the Center is transferred without conditions, the impacts would be long term, moderate, and adverse because the resource would be permanently removed from context, but the information available in the data recovered would be available for future research. If the Center is transferred with conditions, under the interpretive / nature / history center scenario, this would result in long-term, minor, beneficial impacts because the resource could be protected. Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and alternative D would result in impacts that could either be long-term, moderate, and adverse or long-term, minor, and beneficial, depending on whether conditions are placed on the transfer.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Upon completion of federal government modifications to the Center, it is assumed that the archeological resources would not be adversely impacted. Prior to transfer of ownership to a university or nonfederal government entity, the USDI would complete the section 106 process to properly consider the effects of the transfer on archeological resources. If the Center is transferred without conditions, the impacts would be long term, moderate, and adverse because the resource would be permanently removed from context, but the information available in the data recovered would be available for future research. If the Center is transferred with conditions, under the training center / office park scenario, it is assumed that the resource would be impacted due to development plans and result in long-term, moderate, and adverse impacts because the resource would be permanently removed from context, but the information available in the recovered data would be available for future research. Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and alternative D would result in long-term, moderate, adverse impacts.

**Summary.** Other past, present, and future projects in the area would not impact archeological resources; cumulatively, these projects and alternative D would result in long-term impacts that could be moderate and adverse or minor and beneficial.



## **Historic Structures and Districts**

**Description.** There are no individually NRHP-eligible structures within the Center. Eleven of the buildings and structures at the Center are contributing elements to the USBM Twin Cities Research Center Historic District. Camp Coldwater Reservoir and the spring house are considered structures, but are not contributing elements of the USBM Twin Cities Research Center Historic District. Approximately half of the land within the Center falls within the boundaries of the Fort Snelling National Historic Landmark. Resources within the Center of significance to the national historic landmark include Camp Coldwater Spring and Reservoir (Henning 2002). Archeological resources exist at the Center that are considered contributing elements to the Fort Snelling National Historic District and Fort Snelling National Historic Landmark.

**Cumulative Impacts.** Analysis by land use scenario is not presented in this section because the impacts would be the same for all scenarios. The impacts from any federal government modification of the Center would be short term, minor (if minimized or mitigated), and adverse; or long term, minor to major, and beneficial (if structures are adaptively reused). Continued deterioration of historic structures on the Fort Snelling Upper Bluff property would adversely impact the historic character of this area and the national historic landmark status, resulting in long-term, minor to moderate, adverse impacts to historic structures and districts. Short-term cumulative impacts would be minor and adverse. Long-term impacts would combine to result in minor to moderate, beneficial cumulative impacts to historic structures and districts.

If the Center is conveyed to a university or nonfederal government entity without conditions, and historic structures and districts remain within the Center after any federal modifications have been completed; use of the Center under any of the scenarios (open space / park; interpretive / nature / historic center; training center / office park) would have the same cumulative impacts as described under alternative B.

If the Center is conveyed to a university or nonfederal government entity with conditions or affirmative obligations, and historic structures and districts remain within the Center after any federal modifications have been completed; use of the Center under any of the scenarios (open space / park; interpretive / nature / historic center; training center / office park) would have the same cumulative impacts as described under alternative C.

If the federal government retains the Center, use of the Center under any of scenarios (open space / park; interpretive / nature / historic center; training center / office park) would have cumulative impacts similar to those described under alternative C, because the protections mandated under federal law, (and implemented through conditions or affirmative obligations under alternative C) would apply to the Center as long as it remained under federal control.

**Summary.** The cumulative impacts under alternative D would be the same as those under alternatives B or C, depending on the nature of the modifications made by the federal government prior to conveyance or retention, and whether the Center was conveyed with or without conditions to a university or nonfederal government entity.

## Ethnographic Resources

**Description.** Although no historical documentation of American Indian use of Camp Coldwater Spring has been found, the oral traditions and histories collected during investigation suggest that natural springs, like Camp Coldwater Spring, are associated with sacred healing ceremonies. Camp Coldwater Spring is currently used by some members of the federally recognized Dakota and Ojibwe communities, and other American Indians as a source of water for ceremonies. The confluence of the Minnesota and Mississippi rivers is not located within the area of the proposed action, but Camp Coldwater Spring should be considered within this larger context. Many American Indian communities have a traditional association with the area surrounding the spring.

### Open Space / Park Scenario

**Cumulative Impacts.** If conditions are not placed on the transfer under alternative D, there would be no guarantee of preservation of or access by American Indian communities to the Camp Coldwater Spring area. Overall impacts to ethnographic resources under the open space / park scenario would be long term, negligible to minor, and beneficial, or long term, moderate to major, and adverse. Other past, present, and future projects in the area would not impact ethnographic resources; cumulatively, these projects and alternative D would result in impacts that are long term, negligible to minor, and beneficial, or long term, moderate to major, and adverse.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** If conditions are not placed on the transfer under alternative D, there would be no guarantee of preservation of or access by American Indian communities to the Camp Coldwater Spring area. Overall impacts to ethnographic resources under the interpretive / nature / history center scenario would be long term, range from negligible to minor and beneficial; and negligible to major, adverse. Other past, present, and future projects in the area would not impact ethnographic resources; cumulatively, these projects and alternative D would result in impacts that are long term, and range from negligible to minor and beneficial; and negligible to major, adverse.

### Training Center / Office Park Scenario

**Cumulative Impacts.** If conditions are not placed on the transfer under alternative D, there would be no guarantee of preservation of or access by American Indian communities to the Camp Coldwater Spring area. Overall impacts to ethnographic resources under the training center / office park scenario would be long term, range from moderate to major, adverse; and minor, beneficial impacts. Other past, present, and future projects in the area would not impact ethnographic resources; cumulatively, these projects and alternative D would result in impacts that are long term, and range from moderate to major, adverse; and minor, beneficial.

**Summary.** Impacts range widely under alternative D because the Center could be transferred either with or without conditions after modification. Other past, present, and future projects in the area would not impact ethnographic resources; cumulatively, these projects and alternative D would result in long-term, minor to moderate, adverse impacts or long-term, negligible, beneficial impacts.

## **Soils**

**Description.** The Center site contains the following soil series and types: Dorset, Forada, Sandberg, Urban Land-Hubbard, and Urban Land-Udipsamments (NRCS 2005). Platteville limestone underlies surficial soils 10 to 50 feet below the ground surface. It is important to note that recent archeological testing suggests that soils over much of the Center site have been disturbed (buried, cut and filled, etc.) during construction of facilities and roads.

### Open Space / Park Scenario

**Cumulative Impacts.** Under alternative D, with mitigation, short-term impacts would be negligible to minor and adverse. If the Center is then transferred with no covenant or easement (conservation or other), it would result in long-term, minor to moderate, adverse impacts to soils. If the transfer of the Center includes conditions, the long-term impacts to soils would be minor to moderate and beneficial.

Short-term impacts to soils from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be negligible to minor and adverse. Cumulatively, short-term impacts to soils would be minor and adverse. Under the cumulative impact scenario the long-term impacts to soils would be negligible to minor and adverse since none of the projects would result in large amounts of soil disturbances or mass wastage. Taken together the long-term cumulative impacts to soils would range from moderate and adverse, to negligible to minor and beneficial, depending on any conditions placed on the transfer.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under alternative D short-term adverse impacts to soils ranging from negligible to minor would result from modifications prior to transfer. If the Center is transferred to the recipient without conditions, long-term impacts to soils would be minor to moderate and adverse, depending on the extent of the modification prior to transfer. If the transfer of the Center includes conditions, the long-term impacts to soils would be minor to moderate and beneficial.

Short-term impacts to soils from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be negligible to minor and adverse. Cumulatively, short-term impacts to soils would be minor and adverse. Under the cumulative impact scenario the long-term impacts to soils would be negligible to minor and adverse since none of the projects would result in large amounts of soil disturbances or mass

wastage. Taken together, the long-term cumulative impacts to soils would range from moderate and adverse, to negligible to minor and beneficial.

### Training Center / Office Park Scenario

**Cumulative Impacts.** Under alternative D, short-term, adverse impacts to soils ranging from negligible to minor in intensity would result from modification of the Center prior to transfer. Should the Center transfer without the benefit of conditions, long-term impacts to soils would be minor to moderate and adverse. Conditions could be placed on the transfer of the Center requiring the recipient to take steps to avoid adverse impacts to soils, resulting in long-term beneficial impacts that would be negligible to minor with mitigation directed by conditions on the transfer.

Short-term impacts to soils from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be negligible to minor and adverse. Cumulatively, short-term impacts to soils would be minor and adverse. Under the cumulative impact scenario the long-term impacts to soils would be negligible to minor and adverse since none of the projects would result in large amounts of soil disturbances or mass wastage. Taken together the long-term cumulative impacts to soils would range from minor to moderate and would be adverse.

**Summary.** Short-term impacts to soils from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be negligible to minor and adverse. Cumulatively, short-term impacts to soils would be moderate and adverse. Long-term impacts to soils under this would be minor to moderate and beneficial. Under the cumulative impact scenario the long-term impacts to soils would be negligible to minor and adverse since none of the projects would result in large amounts of soil disturbances or mass wastage.

### Vegetation

**Description.** Natural vegetation exists on the site's bluff slope, toeslope, and on the Mississippi River floodplain terrace. The bluff slope located on the eastern boundary of the project site supports a maple – basswood forest community. The toeslope, maintained in a saturated condition by natural groundwater seepage, supports a black ash swamp community. Occupying the Mississippi River floodplain adjacent to the toeslope and to the river's edge is a relatively unaltered forest community characterized by silver maple, American elm, green ash, black willow, and eastern cottonwood. Currently, the Center is occupied by business infrastructure and open areas that were constructed or planted following land-leveling activities. In addition, wetlands and successional deciduous woodlands remain from the natural, pre-settlement condition or have become established on sites disturbed by development.

Factors affecting native vegetation at the Center under the following scenarios could include disturbance due to rehabilitation and construction, and potential for revegetation with native species. The airport zoning ordinance could require that a university or nonfederal

governmental entity manage trees on the Center such that no new trees would be allowed to grow in the portion of the Center that lies in Safety Zone A, and trees in all other areas of the Center could be required to be maintained at designated height requirements or perhaps removed.

**Cumulative Impacts.** Analysis by land use scenario is not presented in this section because the impacts would be the same for all scenarios. Modification of the Center prior to transfer, followed by use of the Center by a university or nonfederal government entity under any of the scenarios under alternative D would result in short-term, negligible to minor, adverse and long term, moderate to major, beneficial impacts. Short-term impacts to vegetation resulting from construction at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be minor and adverse. Cumulatively, short-term impacts to vegetation would be minor and adverse. Effects to vegetation from the other projects would combine with the effects from the Center, largely from efforts in revegetation, to result in long-term, moderate to major, beneficial cumulative impacts.

**Summary.** Short-term cumulative impacts to vegetation would be minor and adverse resulting from disturbance associated with construction. Long-term cumulative impacts to vegetation would be minor and beneficial, largely resulting from efforts in revegetation.

## **Wildlife**

**Description.** The Mississippi River valley and its tributaries in east-central Minnesota attract an array of wildlife that use diverse habitats. Over 260 birds species are common to this area, and of these, 120 are known to nest in this part of Minnesota. At least 50 mammals occur within the Mississippi River corridor and some are likely visitors on the Center.

Factors that could affect wildlife under the following scenarios include increased public use and amount of habitat.

### Open Space / Park Scenario

**Impacts.** Under alternative D, in the short term, wildlife would be adversely impacted by the demolition activity performed prior to transfer; however, those impacts are anticipated to be negligible. If the Center were transferred without conditions, long-term, negligible to minor, adverse impact on wildlife due to the reduction in habitat would result. If the Center is transferred with conditions protecting wildlife and their habitat, the long-term impacts would be negligible to minor and beneficial.

Impacts to wildlife from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be short term, minor, and adverse. The contribution of the potential adverse impacts to wildlife on the Center to cumulative impacts would be minimal because the proportion of habitat involved would be relatively small. Therefore, cumulatively, short-term impacts to wildlife would be minor and adverse. Enhancements to wetlands wildlife habitat at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge would combine with the impacts to wildlife at the Center from the

open space / park scenario to result in long-term cumulative impacts that are negligible to minor and beneficial.

Interpretive / Nature / History Center Scenario

**Impacts.** Cumulative impacts to wildlife would be the same as those described for the open space / park scenario above.

Training Center / Office Park Scenario

**Impacts.** Cumulative impacts to wildlife would be the same as those described for the open space / park scenario above.

**Summary.** Impacts to wildlife from construction activities at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would be short term, minor, and adverse. The contribution of the potential adverse impacts to wildlife on the Center to cumulative impacts would be minimal because the proportion of habitat involved would be relatively small. Therefore, cumulatively, short-term impacts to wildlife would be short term, minor, and adverse. Enhancements to wetlands wildlife habitat at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge would combine with the impacts to wildlife at the Center from the open space / park scenario to result in long-term, minor to moderate, beneficial cumulative impacts to wildlife. Conversion of wildlife habitat, for example into a parking lot under the training center / office park scenario, would decrease this beneficial cumulative impact.

## Hydrology

**Description.** The 27.32-acre Center is located on the eastern boundary of the Minnehaha Creek watershed, just south of the intersection of the east-flowing Minnehaha Creek with the Mississippi River, on the west bank of the river. The main drainage from the site is from Camp Coldwater Spring and the associated reservoir. Groundwater can be found within about 20 feet of the land surface in most places within the Minnehaha Creek watershed, including the Center.

Camp Coldwater Spring is fed by groundwater from an area above the Center. The spring is protected under state law if it is under the administration of a state entity, but if the Center were transferred to a private university, for example, this law would not be applicable. Factors that could affect the hydrologic features of the Center under the following scenarios include the amount of impermeable surface area and the maintenance of Camp Coldwater Reservoir.

Open Space / Park Scenario

**Cumulative Impacts.** Localized long-term, minor to moderate, beneficial impacts to hydrology would result as the local hydrologic processes would be positively affected by reductions in impermeable surfaces. Long-term, negligible to minor, beneficial effects to

hydrology would result from improved ability to control the flow from Long Meadow Lake at Minnesota Valley National Wildlife Refuge. These beneficial impacts would combine with the impacts of this scenario such that long-term, moderate, beneficial cumulative impacts to hydrology would result.

#### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under alternative D, construction of a new structure at the Center for use as an interpretive / nature / history center in a location of an existing structure without removal of any other existing structures would result in localized, short- and long-term, negligible adverse impacts to hydrology because there would be no change in the amount of impermeable surfaces. Construction of a new structure in a location of an existing structure, along with removal of some or all unused structures would result in localized long-term, minor to moderate, beneficial impacts to hydrology due to a decrease in impermeable surfaces.

Long-term, negligible to minor, beneficial effects to hydrology would result from improved ability to control the flow from Long Meadow Lake at Minnesota Valley National Wildlife Refuge. These beneficial impacts would combine with the impacts of this scenario such that long-term, minor to moderate, beneficial cumulative impacts to hydrology would result.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Under alternative D, development of a training center / office park using a combination of building reuse and new construction in existing building locations with no reduction in the total number of structures would result in localized, short- and long-term, negligible adverse impacts to hydrology. Complete reuse or new construction in existing structure locations with a reduction in the total number of structures, with elimination of the Camp Coldwater Reservoir, would result in localized long-term, minor to moderate, adverse impacts to hydrology. Complete reuse or new construction in existing structure locations with a reduction in the total number of structures, with no change of the Camp Coldwater Reservoir, would result in localized long-term, minor, beneficial impacts to hydrology.

Long-term, negligible to minor, beneficial effects to hydrology would result from improved ability to control the flow from Long Meadow Lake at Minnesota Valley National Wildlife Refuge. These beneficial impacts would combine with the impacts of this scenario such that long-term cumulative impacts would range from minor and adverse to minor and beneficial.

**Summary.** Complete reuse or new construction in existing structure locations with a reduction in the total number of structures, with no change of the Camp Coldwater Reservoir, would result in localized long-term minor beneficial impacts to hydrology. Long-term, negligible to minor, beneficial effects to hydrology would result from improved ability to control the flow from Long Meadow Lake at Minnesota Valley National Wildlife Refuge. These beneficial impacts would combine with the effects to hydrology at the Center from the open space /park and interpretive / nature / history center scenarios such that long-term, minor to moderate, beneficial cumulative impacts to hydrology would result. The training center / office park scenario would likely lessen this beneficial impact.

## Water Quality

**Description.** The outflow from the Camp Coldwater Reservoir is measured for water quality along with the flow rate. The water quality measurements include temperature and specific conductivity. The main factors that could affect water quality on the Center would be sediment loads in the short term, and nonpoint source pollution, such as contaminants from vehicles and potentially use of fertilizer, insecticides or herbicides in the long term.

### Open Space / Park Scenario

**Cumulative Impacts.** Under alternative D, short-term impacts to water quality resulting from federal modifications to the Center prior to transfer would be minor and adverse. Long-term impacts to water quality would depend on the actions of the recipient after transfer of the Center, and would be localized long term, minor, and adverse. Short-term minor adverse impacts to water quality would occur as a result of construction activity at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park. Long-term minor beneficial impacts to water quality would result from enhancement and expansion of wetlands at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge. Cumulatively, these projects would result in short-term, minor, adverse, cumulative impacts. Long-term cumulative impacts would range from negligible and adverse to negligible and beneficial.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Cumulative impacts to water quality would be the same as those described for the open space / park scenario above.

### Training Center / Office Park Scenario

**Cumulative Impacts.** Cumulative impacts to water quality would be the same as those described for the open space / park scenario above.

**Summary.** Cumulative impacts to water quality would be short-term, minor, and adverse and long-term impacts would range from negligible and adverse to negligible and beneficial, regardless of scenario.

## Wetlands

**Description.** The *National Wetlands Inventory* map that includes the Center site shows a single wetland within the Center boundaries: Camp Coldwater Reservoir. An on-site delineation also revealed the presence of additional wetlands that are not shown on the *National Wetlands Inventory* map.

The main factor that would potentially impact wetlands on the Center would be construction work that would damage, alter or destroy wetland resources. Work affecting the course,



current, or cross-section of a wetland would require a permit from the appropriate federal, state, or local agencies.

#### Open Space / Park Scenario

**Cumulative Impacts.** Under alternative D, short-term minor and long-term negligible adverse impacts to wetlands would result from modifications made prior to transfer. Under alternative D, the Center could be transferred to a nonfederal government or university entity with or without a covenant or easement (conservation or other). Because wetlands could be considered a valuable element of open space or a park, protection of wetlands from future impacts through conditions on the transfer may not change the future impacts. Beneficial effects from the construction of wetlands expansion/enhancement at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge, in conjunction with the impacts under the open space / park scenario, would result in cumulative impacts that are short term, minor and adverse, and long term, minor and beneficial.

#### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Cumulative impacts to wetlands would be the same as those described for the open space / park scenario above.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Impacts to wetlands from new construction and building reuse under the training center / office park scenario would be short term, minor, and long term, negligible, and adverse. Without conditions on the transfer, future development at the Center could destroy wetlands, possibly resulting in long-term moderate adverse impacts. Placing restrictions on the transfer that would protect wetlands would result in short-term, minor to moderate, adverse impacts and long-term negligible adverse impacts.

Beneficial effects from the construction of wetlands expansion/enhancement at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge, in conjunction with the impacts under this scenario, would result in cumulative impacts that are short-term, minor to moderate, and adverse; and long-term cumulative impacts that would range from negligible and adverse, to long term, negligible to minor, and beneficial.

**Summary.** Removal of existing structures eliminating existing adverse impacts, and restoration of wetlands would result in long-term, moderate to major beneficial impacts to wetlands. Beneficial effects from wetlands expansion/enhancement at Fort Snelling State Park and Minnesota Valley National Wildlife Refuge, in conjunction with the impacts under the open space / park and interpretive / nature / history center scenarios, would result in short-term cumulative impacts that range from negligible to moderate and adverse and long-term, minor to major, beneficial cumulative impacts.

## Health and Safety

**Description.** In anticipation of divestiture of the Center in the late 1990s, the TCRC Closure Team conducted an extensive environmental cleanup. Although many potentially hazardous materials, such as chemicals and wastes associated with laboratories, were removed, others (e.g., asbestos, mold) remain in some buildings.

Under alternative D, all unused buildings could be removed, and any remaining buildings could be rehabilitated prior to transfer to a university or nonfederal government entity.

### Open Space / Park Scenario

**Cumulative Impacts.** With mitigation measures the federal government managing and bearing the costs for modification of all or part of the land, structures, or other improvements would result in short-term negligible adverse impacts to workers during the demolition and rehabilitation process. Long-term minor beneficial impacts to health and safety would result from elimination of hazardous conditions that could be encountered by workers or potential intruders in the future, regardless of any conditions placed on the transfer.

Short-term cumulative impacts to health and safety would be negligible and adverse. Beneficial impacts to health and safety resulting from the elimination of the medical waste dump at Fort Snelling State Park would combine with the impacts from the open space / park scenario to result in long-term, minor, beneficial cumulative impacts to health and safety.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Cumulative impacts to health and safety would be the same as those described for the open space / park scenario above.

### Training Center / Office Park Scenario

**Cumulative Impacts.** Cumulative impacts to health and safety would be the same as those described for the open space / park scenario above.

**Summary.** Beneficial impacts to health and safety resulting from the elimination of the medical waste dump at Fort Snelling State Park would combine with the impacts from the open space / park scenario to result in long-term, negligible to minor, beneficial cumulative impacts to health and safety under all scenarios.

## Public Use and Experience

**Description.** The Center, which is open to the public during specified hours, has a park-like setting, with grassy lawn areas and occasional shade trees surrounding vacant buildings and the Camp Coldwater Spring area. During the time that the Center was operating in its official capacity (until 1995), it was not open for general public use and visitation. The Center is now

used by the public on a frequent basis as an extension of the open space present in the surrounding parks and open areas. The area around Camp Coldwater Spring is viewed by some members of the public as being spiritually important and is used for meditation and a source of inspiration. Many groups of people have a special fondness for the Center property. Visitors to the Center include American Indians, spiritualists, environmentalists, and residents of the nearby neighborhoods. The alternatives presented in this draft EIS along with the scenarios present differing levels of access to the Center by the public for continuing the personal rituals and meditations as they currently exist.

#### Open Space / Park Scenario

**Cumulative Impacts.** Under alternative D, short-term impacts would be negligible to minor and adverse during the demolition process due to equipment operation and activity. Long-term impacts would be moderate to major and beneficial as the visibility of the changes to the Center may be prominent and the area and hours available for public use would be expanded. Long-term minor to moderate beneficial impacts to public use and experience from trail construction and habitat enhancements at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would combine with the open space / park scenario impacts to result in long-term, major, beneficial cumulative impacts to public use and experience.

#### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Under this scenario, impacts to public use and experience would be short-term, negligible to minor, adverse impacts due to construction work on-site, and long-term moderate beneficial impacts to public use and experience could be expected through expanded area and hours available for public use of the Center. Long-term minor to moderate beneficial impacts to public use and experience from trail construction and habitat enhancements at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would combine with the open space / park scenario impacts to result in short-term, negligible to minor, adverse and long-term, moderate to major, beneficial cumulative impacts to public use and experience.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Under this scenario, impacts to public use and experience would be short-term, negligible to minor, adverse impacts due to equipment activity associated with construction work and long-term, negligible to minor, beneficial, impacts due to expanded hours of availability of the Center for public use, and revitalization of the structures that are currently decaying and not in use. Long-term minor to moderate beneficial impacts to public use and experience from trail construction and habitat enhancements at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would combine with the open space / park scenario impacts to result in short-term, negligible to minor, and adverse; and long-term, moderate, beneficial cumulative impacts to public use and experience.

**Summary.** Beneficial impacts to public use and experience would be expected through expanded area and hours available for public use of the Center. Long-term minor to moderate beneficial impacts to public use and experience from trail construction and habitat enhancements at Fort Snelling State Park, Minnesota Valley National Wildlife Refuge, and Minnehaha Park would combine with impacts of the open space / park and interpretive / nature / history center scenarios resulting in short-term, negligible to minor, adverse and long-term, moderate to major, beneficial cumulative impacts to public use and experience. The training center / office park scenario would likely lessen this beneficial impact.

## Visual Resources

**Description.** The visual characteristics of the Center include a relatively limited viewshed (less than 1,000 feet and not expansive), dense woods and bluffs, nonnative vegetation and landscaping, driveways and parking lots, the Center buildings, and the Camp Coldwater Spring and Reservoir. Characteristics along the Center boundaries include views of an urban setting with commercial and residential buildings and SH 55 and SH 68. The overall visual quality is average to below average because of lack of vividness and distinctiveness. This is due to lack of coordinated or harmonious design and the deteriorating condition of the buildings and grounds.

### Open Space / Park Scenario

**Cumulative Impacts.** Removal of some or all of the existing structures from the Center under this scenario would result in short-term, negligible to minor, adverse impacts. In the long term, removal of the unused structures and rehabilitation of the building sites would result in moderate to major beneficial impacts to visual resources. Removal of Camp Coldwater Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center. Views of the Center from outside would not be expected to change from the current condition, and therefore, result in no to negligible, long-term impacts.

Most of the projects under the cumulative impacts scenario may or may not be visually noticeable, therefore would minimally impact visual resources resulting in short-term negligible adverse impacts and long-term negligible beneficial impacts. Continued deterioration of the historic structures on the Fort Snelling Upper Bluff property would result in similar effects to visual resources as those experienced at the Center, and short- and long-term, minor to moderate, adverse impacts would occur.

### Interpretive / Nature / History Center Scenario

**Cumulative Impacts.** Rehabilitation of some existing structures for use as an interpretive / nature / history center in conjunction with removal of all remaining unused structures and rehabilitation of the building sites would result in improved visual character and quality. Short-term impacts would be negligible to minor, adverse impacts due to equipment and activity associated with rehabilitation work. Long-term impacts would be minor to moderate and beneficial due to the removal of some structures and improved appearance of remaining

structure(s) and increased natural areas. Removal of the Camp Coldwater Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center. Because viewers outside the Center are in motion or from a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore result in negligible, long-term impacts, if any.

#### Training Center / Office Park Scenario

**Cumulative Impacts.** Reuse of many or all existing structures on the Center for training center / office park in conjunction with removal of any unused structures and rehabilitation of building sites would result in short-term, minor, adverse impacts to visual resources due to construction equipment and activities. Long-term impacts would be minor and beneficial as the outward appearance of the rehabilitated structures could detract less from the visual resources than the unused structures. It is assumed that new construction and design for a training center or office park scenario would be more aesthetically pleasing than existing structures and buildings, also resulting in long-term, localized, minor, beneficial impacts. Removal of Camp Coldwater Spring and Reservoir, a unique visual feature, would result in a long-term, localized, moderate, adverse impact to the visual quality and character of the Center. Because viewers outside the Center are in motion or from a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore result in negligible, long-term impacts, if any.

**Summary.** Most of the projects under the cumulative impacts scenario may or may not be visually noticeable, therefore would minimally impact visual resources resulting in short-term negligible adverse impacts and long-term negligible beneficial impacts. Continued deterioration of the historic structures on the Fort Snelling Upper Bluff property would result in similar effects to visual resources as those experienced at the Center, and short- and long-term, minor to moderate, adverse impacts would occur. Because viewers outside the Center are in motion or from a distance, and the wooded screen on the east side is not expected to change, views of the Center from outside would not be expected to change from the current condition, and therefore result in negligible, long-term impacts, if any.

## **SUSTAINABILITY AND LONG-TERM MANAGEMENT**

This section discusses the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity. It describes the effects of the short-term use of the Center and whether the immediate use under each alternative is (1) likely to adversely affect productivity of resources and (2) be sustainable without significant degradation of the environment.

### **Alternative A**

Short-term use under alternative A would include continued public access to the Center Monday through Friday from 9:00 a.m. to 3:00 p.m., and occasional special uses permitted at

the Center outside of those hours. Because no changes would be made under alternative A, there would be no changes to either the short-term use or the long-term productivity of the Center.

### **Alternative B**

In the long term, under the open space / park scenario, removal of the structures would expand and enhance the open space, which would enhance the long-term productivity of the Center as open space or a park by the public. However, long-term productivity of the Center in terms of historic structures and districts would be adversely impacted by removal of the structures that comprise the district. In addition, the long-term productivity of the Center in terms of archeological resources would also be adversely impacted should archeological resources be encountered during building demolition. The long-term productivity of natural resources would be enhanced. Individual public use of the open space / park would be short in duration. Assuming no significant increases in volume of use, public use would result in no changes to the long-term productivity of the Center.

Under the interpretive / nature / history center scenario, should the recipient of the Center elect to remove some or all of the existing structures, the impacts would be the same as those discussed under the open space / park scenario. Should the recipient choose to leave all existing structures in place and construct an additional structure, some natural resources would be temporarily adversely impacted in the short term by construction activities. The long-term productivity of the Center in terms of historic structures and districts, and archeological resources would be impacted in the same manner as described under the open space / park scenario. Individual public use of the interpretive / nature / history center would be individually short in duration, and would be assumed to increase the volume of use. Increased volume of use would result in adverse impacts to long-term productivity through trampling of native vegetation, compaction of soils, and increased noise that would disturb and reduce the frequency of wildlife at the Center.

Under the training center / office park scenario, the natural resources would be temporarily adversely impacted in the short term by construction and/or demolition activities associated with demolition or rehabilitation of existing structures, and/or new construction. Should the overall density of structures on the Center increase (new construction in addition to the existing structures, whether used or unused) long-term productivity would be adversely impacted. Should the recipient elect to remove some or all of the existing structures such that the overall density of structures on the Center is reduced, the long-term productivity of natural resources would be beneficially impacted. However, removal of some or all of the structures would adversely impact the long-term productivity of the Center in terms of historic structures and districts and archeological resources. Use of the Center for a training center or office park would result in long-term, minor to moderate beneficial impacts to socioeconomics, which would enhance the long-term socioeconomic productivity of the Center. Long-term productivity of the Center for public use and experience would be either beneficially or adversely impacted depending on the recipient's decision regarding allowing public access and use.

## **Alternative C**

Under the open space / park scenario, should some or all of the existing structures be removed, most aspects of the open space resource would be temporarily adversely impacted by demolition. However, in the long term, removal of the structures would expand and enhance the open space, which would enhance the long-term productivity of the Center as open space or a park by the public. Restrictions requiring the replacement of topsoil with locally acquired topsoil, replacement of vegetation with native vegetation, and protection of wildlife habitat and wetlands would beneficially impact the productivity of natural resources in the long term. Individual public use of the open space / park would be short in duration. Assuming no significant increases in volume of use, public use would result in no changes to the long-term productivity of the Center.

Under the interpretive / nature / history center scenario, should the recipient of the Center remove some or all of the existing structures the impacts would be the same as those discussed under the open space / park scenario. An easement requiring the replacement of topsoil with locally acquired topsoil, replacement of vegetation with native vegetation, and protection of wildlife habitat and wetlands would beneficially impact the productivity of natural resources in the long term. Individual public use of the interpretive / nature / history center would be short in duration, and would be assumed to increase the volume of use. Increased volume of use would result in adverse impacts to long-term productivity of the resources through trampling of native vegetation, compaction of soils, and increased noise that would disturb and reduce the frequency of wildlife at the Center.

Under the training center / office park scenario, some resources would be temporarily adversely impacted in the short term by construction and/or demolition activities associated with demolition or rehabilitation of existing structures, and/or new construction. Should the recipient remove some or all of the existing structures such that the overall density of structures on the Center is reduced, the long-term productivity of natural resources would be beneficially impacted. Long-term socioeconomic productivity would only be minimally enhanced under alternative C as a conservation easement could limit the extent of development. Long-term productivity of the Center for public use and experience would be beneficially impacted if the recipient continues to allow public access and if availability is expanded.

## **Alternative D**

Under alternative D, the federal government would manage and bear the cost for modification of all or part of the land, structures, or other improvements prior to conveyance of the Center. Most aspects of the Center would be temporarily adversely impacted by demolition; however, long-term productivity would be beneficially impacted. In the long term, removal of structures would expand and enhance open space, which would enhance the long-term productivity of the Center as open space or a park, or as an interpretive / nature / history center. Rehabilitation of existing structures or construction of new structures increases the probability of the site being a viable training center or office park because usable infrastructure would already be in place.

Should the center be transferred without an easement, the long-term productivity of natural resources of the Center under all three scenarios would be adversely impacted. Long-term productivity of the Center for public use and experience under the training center / office park scenario would be either beneficially or adversely impacted depending on the recipient's decision regarding allowing public access and use.

Under all three scenarios, an easement on the transfer requiring the replacement of topsoil with locally acquired topsoil, replacement of vegetation with native vegetation, and protection of wildlife habitat and wetlands would beneficially impact the productivity of natural resources in the long term. Individual public use of the open space / park or interpretive / nature / history center would be short in duration. Assuming no significant increases in total volume, public use would result in no changes to the long-term productivity of the Center. However, public use of the interpretive / nature / history center would be assumed to increase the volume of use, which would result in adverse impacts to long-term productivity through trampling of native vegetation, compaction of soils, and increased noise that would disturb and reduce the frequency of wildlife at the Center. Long-term productivity of the Center for public use and experience under the training center / office park scenario would be beneficially impacted if the recipient is required to continue to allow public access and use, or if the availability is expanded.

#### **IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES THAT WOULD BE INVOLVED IF THE ALTERNATIVE WERE IMPLEMENTED**

This section describes irreversible and irretrievable commitments of resources at the Center. An irreversible commitment of resources occurs if the commitment cannot be changed once made throughout the lifespan of the action. Irretrievably committed resources are used, consumed, destroyed, or degraded during implementation of the alternative and could not be reused or recovered.

#### **Alternative A**

Because impacts to archeological resources related to visitor use and lack of regular monitoring of site conditions would continue to be site-specific, adverse, and minor, the no-action alternative would result in some archeological resources being irretrievable. The potential impacts to historic structures and districts from implementation of the no-action alternative are adverse, and would range from minor to moderate; therefore, impacts to historic structures or district resources would be irreversible. Because there would be no changes to use or management under alternative A, there would be no change to the existing commitment of the rest of the resources at the Center.



## **Alternative B**

Under the open space / park scenario, should the recipient of the Center elect to remove some or all of the existing structures in conversion of the Center to open space or a park, historic structures would be irretrievably committed and lost. Should archeological resources be encountered in the process of removing the buildings, those resources would also become irretrievably committed. In addition, should the recipient not elect to recycle any of the building materials from the existing structures, materials could be disposed of in a landfill resulting in an irreversible commitment of resources.

Under the interpretive / nature / history center and training center / office park scenarios, should the recipient of the Center elect to remove some or all of the existing structures in conversion of the Center, those structural resources (and thus the historic structure resources) would be irretrievably committed. Should archeological resources be encountered in the process of removing the buildings, those resources would also become irretrievably committed and lost. In addition, should the recipient not elect to salvage any of the building materials from the existing structures, the materials could be disposed of in the landfill resulting in an irreversible commitment of resources. Should the recipient construct a new structure, the materials such as wood, concrete, steel, etc., would be irretrievably committed. Materials would also be irreversibly committed should the recipient elect to rehabilitate any of the existing structures.

## **Alternative C**

Under the open space / park scenario, should the recipient of the Center remove some or all of the existing structures in conversion of the Center to open space or a park, those structural resources would be irretrievably committed. Under alternative C, a conservation easement could be placed on the transfer requiring salvage of the materials from the removed structures, which would reduce the amount of resources irreversibly committed (as compared to alternative B). A small amount of materials (such as gasoline) would be used in the conversion of the space for use as open space or a park.

Under the interpretive / nature / history center and training center / office park scenarios, should the recipient of the Center remove some or all of the existing structures in conversion of the Center, those structural resources would be irretrievably committed. Under alternative C, a conservation easement could be placed on the transfer requiring the salvage of the materials from the removed structures, which would reduce the amount of landfill resource irreversibly committed (as compared to alternative B). Should the recipient construct a new structure, or rehabilitate any of the existing structures the materials such as wood, concrete, steel, etc. would be irretrievably committed.

## **Alternative D**

Under alternative D, the existing structures at the Center would be demolished or rehabilitated, and new construction, if any would be completed prior to transfer of the Center. Because this work would be federally directed, a maximum amount of materials could be

retrieved from any demolition of existing structures and recycled. In addition, materials used in new construction could include recycled and “green” products. Together these efforts would reduce the amount of materials that would be irretrievable, and use of landfill space that would be irreversible.

Should existing structures be rehabilitated, or new structures constructed prior to transfer, materials (such as wood, concrete, and steel) would be irretrievably committed.

Should the recipient construct a new structure after a transfer, with or without associated restrictions, materials such as wood, concrete, steel, etc. would be irretrievably committed. Materials would also be irreversibly committed should the recipient elect to rehabilitate any of the existing structures.

**SUMMARY OF ENVIRONMENTAL IMPACTS BY ALTERNATIVE**

The following table summarizes the environmental impacts for each alternative.

**TABLE 9. SUMMARY OF ENVIRONMENTAL IMPACTS**

<b>Alternative A No-Action Impacts</b>	<b>Land Use Scenarios Applicable to Alternatives B, C, D</b>	<b>Alternative B: Transfer Without Restrictions Impacts</b>		<b>Alternative C: Transfer With Restrictions Impacts</b>	<b>Alternative D: Modify Prior to Transfer Impacts</b>
<b>Archeological Resources</b>					
Localized, long-term, minor, adverse impacts	<i>Open Space / Park</i>	Long-term moderate adverse impacts		Long-term minor beneficial impacts	Same as alternatives B or C, depending on the nature of the modifications made by the federal government prior to conveyance or retention, and whether the property was conveyed with or without restrictions
	<i>Interpretive / Nature / History Center</i>	Long-term moderate adverse impacts		Long-term minor beneficial impacts	Same as alternatives B or C, depending on the nature of the modifications made by the federal government prior to conveyance or retention, and whether the property was conveyed with or without restrictions
	<i>Training Center / Office Park</i>	Long-term moderate adverse impacts		Long-term moderate adverse impacts	Same as alternatives B or C, depending on the nature of the modifications made by the federal government prior to conveyance or retention, and whether the property was conveyed with or without restrictions
<b>Historic Structures and Districts</b>					
Minor to moderate, adverse impacts	<i>Open Space / Park</i>	Long-term moderate adverse impacts		Long-term moderate adverse impacts to long-term minor beneficial impacts	Same as alternatives B or C, depending on the nature of the modifications made by the federal government prior to conveyance or retention, and whether the property was conveyed with or without restrictions
Minor to moderate, adverse impacts	<i>Interpretive / Nature / History Center</i>	Long-term moderate adverse impacts		Long-term moderate adverse impacts to long-term minor beneficial impacts	Same as alternatives B or C, depending on the nature of the modifications made by the federal government prior to conveyance or retention, and whether the property was conveyed with or without restrictions
	<i>Training Center / Office Park</i>	Long-term moderate adverse impacts		Long-term moderate adverse impacts to long-term minor beneficial impacts	Same as alternatives B or C, depending on the nature of the modifications made by the federal government prior to conveyance or retention, and whether the property was conveyed with or without restrictions
<b>Ethnographic Resources</b>					
No Impacts	<i>Open Space / Park</i>	<i>From:</i> Long-term, moderate to major, adverse impacts	<i>To:</i> Long-term, negligible to minor, beneficial impacts	No impact	Long-term, moderate to major, adverse impacts to long-term, negligible to moderate, beneficial impacts
	<i>Interpretive / Nature / History Center</i>	<i>From:</i> Long-term, moderate to major, adverse impacts	<i>To:</i> Long-term, negligible to minor, beneficial impacts	Long-term, minor to moderate, beneficial impacts	Long-term, moderate to major, adverse impacts to long-term, negligible to moderate, beneficial impacts
	<i>Training Center / Office Park</i>	Long-term, moderate to major, adverse impacts		Long-term, minor to moderate, beneficial impacts	Long-term, moderate to major, adverse impacts to long-term, negligible to moderate, beneficial impacts

TABLE 9. SUMMARY OF ENVIRONMENTAL IMPACTS

Alternative A No-Action Impacts	Land Use Scenarios Applicable to Alternatives B, C, D	Alternative B: Transfer Without Restrictions Impacts		Alternative C: Transfer With Restrictions Impacts		Alternative D: Modify Prior to Transfer Impacts	
<b>Soils</b>							
Short- and long-term, negligible, adverse impacts	<i>Open Space / Park</i>	<i>From:</i> Short-term, negligible to minor, adverse impacts, and long-term, minor to moderate, adverse impacts	<i>To:</i> Short-term, negligible, adverse impacts, and long-term, minor to moderate, beneficial impacts	Short-term, minor to moderate, adverse impacts and long-term, minor to moderate, beneficial impacts		<i>From:</i> Short-term, negligible to minor adverse impacts, and long-term, minor to moderate adverse impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts, and long-term, minor to moderate, beneficial impacts
	<i>Interpretive / Nature / History Center</i>	<i>From:</i> Short- and long-term, minor, adverse impacts	<i>To:</i> Short-term, minor, adverse impacts and long-term, minor beneficial impacts	Short-term, negligible to minor, adverse and long-term, minor, beneficial impacts		<i>From:</i> Short-term, negligible to minor, adverse impacts, and long-term minor to moderate adverse impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts, and long-term, minor to moderate, beneficial impacts
	<i>Training Center / Office Park</i>	<i>From:</i> Short-and long-term, minor to moderate, adverse impacts	<i>To:</i> Short-term negligible, adverse impacts and long-term, negligible to minor, beneficial impacts	<i>From:</i> Short-and long-term negligible to minor, adverse impacts	<i>To:</i> Long-term, negligible to minor, beneficial impacts	<i>From:</i> Short-term, negligible to minor, adverse impacts, and long-term minor to moderate, adverse impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts, and long-term negligible to minor, beneficial impacts
<b>Vegetation</b>							
Short- and long-term, minor, adverse impacts	<i>Open Space / Park</i>	<i>From:</i> Short-term, negligible to minor, adverse impacts, and long-term, minor, adverse impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts, and long-term, moderate to major, beneficial impacts	Short-term, negligible to minor, adverse impacts and long-term, moderate to major, beneficial impacts		<i>From:</i> Short-term, negligible to minor and long-term, minor adverse impacts	<i>To:</i> Short-term, negligible to minor and long-term moderate to major beneficial impacts
	<i>Interpretive / Nature / History Center</i>	<i>From:</i> Short- and long-term, negligible to minor, adverse impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts, and long-term, moderate, beneficial impacts	Short-term, negligible to minor, adverse impacts and long-term, moderate to major, beneficial impacts		<i>From:</i> Short- and long-term, negligible to minor adverse impacts	<i>To:</i> Short-term, negligible to minor, adverse and long-term, moderate beneficial impacts
	<i>Training Center / Office Park</i>	<i>From:</i> Short- and long-term, negligible to minor, adverse impacts	<i>To:</i> Short-term negligible, adverse, and long-term, negligible to minor, beneficial impacts	Short-term, negligible, adverse impacts and long-term, negligible to minor, beneficial impacts		<i>From:</i> Short- and long-term, negligible to minor, adverse impacts	<i>To:</i> Short-term negligible, adverse, and long-term, negligible to minor, beneficial impacts

TABLE 9. SUMMARY OF ENVIRONMENTAL IMPACTS

Alternative A No-Action Impacts	Land Use Scenarios Applicable to Alternatives B, C, D	Alternative B: Transfer Without Restrictions Impacts	Alternative C: Transfer With Restrictions Impacts	Alternative D: Modify Prior to Transfer Impacts
<b>Wildlife</b>				
Short- and long-term, minor, adverse impacts	<i>Open Space / Park</i>	<i>From:</i> Short- and long-term, negligible to minor, adverse impacts	<i>To:</i> Short-term, negligible, adverse impacts, and long-term, minor to moderate, beneficial impacts	<i>From:</i> Short-term, negligible, adverse impacts and long-term, negligible to minor, adverse impacts
	<i>Interpretive / Nature / History Center</i>	<i>From:</i> Short-term, negligible, adverse, and long-term, minor, adverse impacts	<i>To:</i> Short-term negligible adverse impacts, and long-term, minor to moderate, beneficial impacts	<i>From:</i> Short- and long-term, negligible, adverse impacts
	<i>Training Center / Office Park</i>	<i>From:</i> Short-and long-term, minor to moderate, adverse impacts	<i>To:</i> Short-term negligible, adverse impacts, and long-term, minor, beneficial impacts	<i>From:</i> Short- and long-term, minor to moderate, adverse impacts
<b>Hydrology</b>				
Short- and long-term, negligible, adverse impacts	<i>Open Space / Park</i>	<i>From:</i> Short- and long-term negligible, adverse impacts	<i>To:</i> Localized long-term, minor to moderate, beneficial impacts	<i>From:</i> Short- and long-term negligible, adverse impacts
	<i>Interpretive / Nature / History Center</i>	<i>From:</i> Localized long-term, minor, adverse impacts	<i>To:</i> Localized long-term, minor to moderate, beneficial impacts	<i>From:</i> Short- and long-term negligible, adverse impacts
	<i>Training Center / Office Park</i>	<i>From:</i> Localized long-term, minor to moderate, adverse impacts	<i>To:</i> Localized long-term, minor, beneficial impacts	<i>From:</i> Long-term, negligible to moderate. Adverse impacts
<b>Water Quality</b>				
Short- and long-term, negligible, adverse impacts	<i>Open Space / Park</i>	<i>From:</i> Short-term minor adverse, and localized, long-term, minor, adverse impacts	<i>To:</i> Short-term, minor, adverse, and long-term, negligible to minor, beneficial impacts	<i>From:</i> Short- and long-term, minor, adverse impacts

TABLE 9. SUMMARY OF ENVIRONMENTAL IMPACTS

Alternative A No-Action Impacts	Land Use Scenarios Applicable to Alternatives B, C, D	Alternative B: Transfer Without Restrictions Impacts		Alternative C: Transfer With Restrictions Impacts		Alternative D: Modify Prior to Transfer Impacts	
Short- and long-term, negligible, adverse impacts	<i>Interpretive / Nature / History Center</i>	<i>From:</i> Short- and long-term, localized, minor, adverse impacts	<i>To:</i> Short-term, minor, adverse, and long-term, negligible to minor, beneficial impacts	<i>From:</i> Short- and long-term, localized, minor, adverse impacts	<i>To:</i> Short-term, minor, adverse, and long-term, negligible to minor, beneficial impacts	Short-term, minor, adverse, and localized, long-term, minor, adverse impacts	
	<i>Training Center / Office Park</i>	<i>From:</i> Short- and long-term, localized, minor, adverse impacts	<i>To:</i> Short-term, minor, adverse, and long-term, negligible to minor, beneficial impacts	<i>From:</i> Short- and long-term, localized, minor, adverse impacts	<i>To:</i> Short-term, minor, adverse, and long-term, negligible to minor, beneficial impacts	<i>From:</i> Short-term, minor, adverse impacts, and localized, long-term, minor, adverse impacts	
<b>Wetlands</b>							
Short- and long-term, major, adverse impacts	<i>Open Space / Park</i>	<i>From:</i> Long-term major adverse impacts	<i>To:</i> Short-term, negligible to moderate, adverse impacts and long-term, moderate to major, beneficial impacts	<i>From:</i> Short- and long-term, major, adverse impacts	<i>To:</i> Short-term, minor to moderate, and long-term, moderate to major, beneficial impacts	Short-term, minor to moderate, adverse and long-term, moderate to major, beneficial impacts	
Short- and long-term, major, adverse impacts	<i>Interpretive / Nature / History Center</i>	<i>From:</i> Long-term major adverse impacts	<i>To:</i> Short- and long-term, minor to moderate, adverse impacts and long-term, moderate to major, beneficial impacts	<i>From:</i> Short-term, minor to moderate, and long-term, major, adverse impacts	<i>To:</i> Short-term, minor to moderate, adverse and long-term, moderate to major, beneficial impacts	<i>To:</i> Short-term minor adverse impacts and long-term major adverse impacts	<i>From:</i> Short-term, minor to moderate, and long-term, moderate to major, beneficial impacts
	<i>Training Center / Office Park</i>	<i>From:</i> Short- and long-term, major, adverse impacts	<i>To:</i> Short-term, minor to moderate, adverse impacts and long-term, moderate to major, beneficial impacts	<i>From:</i> Short-term, minor to moderate, and long-term major adverse impacts	<i>To:</i> Short-term, minor to moderate, adverse, and long-term, moderate to major, beneficial impacts	<i>From:</i> Short-term, minor to moderate, and long-term, major, adverse impacts	<i>To:</i> Short-term, minor to moderate, adverse, and long-term, moderate to major, beneficial impacts
<b>Socioeconomics</b>							
No Impacts	<i>Open Space / Park</i>	Local, long-term, minor, and beneficial		Local, long-term, moderate, and beneficial		Local, long-term, moderate, and beneficial	
	<i>Interpretive / Nature / History Center</i>	Regional, long-term, minor, and beneficial		Regional, moderate, and beneficial		Regional, long-term, moderate, and beneficial	
	<i>Training Center / Office Park</i>	Regional, long term, moderate, and beneficial; some possible local minor adverse impacts		Regional, minor, and beneficial		Regional, long-term, moderate, and beneficial	

TABLE 9. SUMMARY OF ENVIRONMENTAL IMPACTS

Alternative A No-Action Impacts	Land Use Scenarios Applicable to Alternatives B, C, D	Alternative B: Transfer Without Restrictions Impacts		Alternative C: Transfer With Restrictions Impacts		Alternative D: Modify Prior to Transfer Impacts	
<b>Health &amp; Safety</b>							
Localized, long-term, negligible and adverse impacts	<i>Open Space / Park</i>	<i>From:</i> Localized, long-term, negligible and adverse impacts	<i>To:</i> Short-term, negligible, adverse, and long-term, negligible, beneficial impacts	<i>From:</i> Localized, long term, negligible, and adverse	<i>To:</i> Short-term, negligible, adverse impacts, and long-term, minor, beneficial impacts	Short-term, negligible, and adverse impacts, and long-term, minor, beneficial impacts	
	<i>Interpretive / Nature / History Center</i>	<i>From:</i> Short- and long-term, negligible, adverse impacts	<i>To:</i> Short-term, negligible, adverse, and long-term, minor, beneficial impacts	<i>From:</i> Localized, long term, negligible, and adverse	<i>To:</i> Short-term, negligible, adverse impacts, and long-term, minor beneficial impacts	Short-term, negligible, adverse impacts, and long-term, minor, beneficial impacts	
	<i>Training Center / Office Park</i>	<i>From:</i> Short- and long-term, negligible, adverse impacts	<i>To:</i> Short-term, negligible, adverse, and long-term, minor, beneficial impacts	<i>From:</i> Localized, long term, negligible, and adverse	<i>To:</i> Short-term, negligible, adverse impacts, and long-term, minor, beneficial impacts	Short-term, negligible, adverse impacts, and long-term, minor, beneficial impacts	
<b>Land Use</b>							
No impact	<i>Open Space / Park</i>	<i>From:</i> No impact	<i>To:</i> Short- and long-term, minor, beneficial impacts	<i>From:</i> No impact	<i>To:</i> Short- and long-term, minor, beneficial impacts	<i>From:</i> No impact	<i>To:</i> Short and long-term, minor, beneficial impacts
No impact	<i>Interpretive / Nature / History Center</i>	<i>From:</i> No impact	<i>To:</i> Short- and long-term minor beneficial impacts	<i>From:</i> No impact	<i>To:</i> Short- and long-term, minor, beneficial impacts	<i>From:</i> No impact	<i>To:</i> Short and long-term, minor, beneficial impacts
	<i>Training Center / Office Park</i>	<i>From:</i> No impact	<i>To:</i> Short- and long-term, minor, beneficial impacts	<i>From:</i> No impact	<i>To:</i> Short- and long-term, minor, beneficial impacts	No impact	
<b>Public Use and Experience</b>							
Short- and long-term, moderate to major, adverse impacts	<i>Open Space / Park</i>	<i>From:</i> Short- and long-term, moderate to major, adverse impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts and long-term, moderate beneficial impacts	Short-term, negligible to minor, adverse impacts and long-term, moderate to major, beneficial impacts		<i>From:</i> Short-term, negligible to minor, adverse impacts, and long-term moderate beneficial impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts, and long-term, moderate to major, beneficial impacts
	<i>Interpretive / Nature / History Center</i>	<i>From:</i> Short-term, negligible to minor, adverse impacts, and long-term negligible beneficial impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts, and long-term moderate, beneficial impacts.	Short-term, negligible to minor adverse impacts, and long-term, moderate beneficial impacts		<i>From:</i> Short-term, negligible to minor, adverse impacts, and long-term, moderate, beneficial impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts, long-term, moderate to major, beneficial impacts

TABLE 9. SUMMARY OF ENVIRONMENTAL IMPACTS

Alternative A No-Action Impacts	Land Use Scenarios Applicable to Alternatives B, C, D	Alternative B: Transfer Without Restrictions Impacts		Alternative C: Transfer With Restrictions Impacts		Alternative D: Modify Prior to Transfer Impacts	
Short- and long-term, moderate to major, adverse impacts	<i>Training Center / Office Park</i>	<i>From:</i> Short-term, minor to moderate, adverse impacts and long-term, major, adverse impacts	<i>To:</i> Short-term, negligible to minor adverse impacts and long-term, negligible to minor, beneficial impacts	Short-term, negligible to minor, adverse impacts, and long-term, negligible to minor beneficial impacts		<i>From:</i> Short-term, minor, adverse impacts, and long-term, major, adverse impacts	<i>To:</i> Short-term, minor, adverse impacts, and long-term, negligible to minor, beneficial impacts
<b>Visual Resources</b>							
Localized, long-term, minor to moderate adverse impacts	<i>Open Space / Park</i>	<i>From:</i> Short-term, negligible to minor, adverse impacts and long-term, moderate, adverse impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts, and long-term, moderate to major, beneficial impacts	<i>From:</i> Short-term, negligible to minor, adverse, and long-term, negligible to minor beneficial	<i>To:</i> Short-term, negligible to minor, adverse, and long-term, moderate to major, beneficial impacts	<i>From:</i> Short-term, minor to moderate, adverse, and long-term, moderate adverse impacts	<i>To:</i> Short-term, minor to moderate, adverse, and long-term, moderate to major, beneficial impacts
	<i>Interpretive / Nature / History Center</i>	<i>From:</i> Short-term, negligible to minor, adverse impacts and localized long-term moderate adverse impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts and long-term, minor to moderate, beneficial impacts	<i>From:</i> Short- and long-term, negligible to minor, adverse impacts	<i>To:</i> Short-term, negligible to minor, adverse impacts, and long-term, minor to moderate, beneficial impacts	Without conditions, impacts would be the same as Alternative B	With conditions, impacts would be the same as Alternative C
Localized, long-term, minor to moderate adverse impacts	<i>Training Center / Office Park</i>	<i>From:</i> Short-term, minor, adverse impacts and localized long-term moderate adverse impacts	<i>To:</i> Short-term, minor, adverse impacts, and long-term minor beneficial impacts	<i>From:</i> Short- and long-term, minor, adverse impacts	<i>To:</i> Short-term, minor, adverse impacts, and long-term, negligible to minor, beneficial impacts	Without conditions, impacts would be the same as Alternative B	With conditions, impacts would be the same as Alternative C