

Executive Summary

Introduction

The Federal Center is a 640-acre secured federal facility operated by the U.S. General Services Administration (GSA). The Federal Center was acquired in 1941 by the U.S. government and is currently used for office, research, and administrative purposes by 26 federal agencies. There are approximately 4.1 million square feet of space in ~~65~~ approximately 50 active buildings at the Federal Center, and there are approximately 6,000 on-site employees. The site, formerly part of unincorporated Jefferson County, was recently annexed into the City of Lakewood itself is an unincorporated portion of Jefferson County and is surrounded by the City of Lakewood (Exhibit 1-1).

GSA proposes to implement a new Master Site Plan for the Federal Center that will replace the 1997 plan and address new opportunities for site development. This Final ~~This Draft~~ Environmental Impact Statement (EIS) was ~~has been~~ prepared to comply with National Environmental Policy Act (NEPA) and evaluates the proposed Master Site Plan alternatives and identifies the environmental effects associated with implementing the proposed alternatives. Since ~~With~~ the closure of the public comment period on the Draft Environmental Impact Statement (DEIS), a Final Master Site Plan has been ~~will be~~ prepared by GSA to articulate the vision for the Federal Center. The A Final EIS accompanies (FEIS) ~~will be prepared to accompany~~ the Final Master Site Plan. A Record of Decision will be prepared that summarizes the Final Master Site Plan and FEIS decisions.

GSA ~~has sold~~ is currently in the process of selling approximately 65 acres to the City of Lakewood through the federal land disposal process. The land was sold by the city to the Regional Transportation District (RTD) and Saint Anthony Hospital to allow construction of the RTD Intermodal Station and for the relocation of Saint Anthony Hospital to the site. The land disposal would allow for the construction of an inter-modal transit station as part of the Regional Transportation District's (RTD) larger West Corridor Light Rail Transit Line project and for the relocation of St. Anthony Hospital to the site. The alternatives addressed in this EIS assume successful completion of the transit station and the hospital. Also underway are plans to upgrade and expand the infrastructure and utility systems at the Federal Center site.

Organization of the EIS

Volume I of the FEIS presents the revised DEIS text and the DEIS technical appendices. Comments addressed by changing the text of the DEIS are indicated, in Volume I, as double-underlined text (insertions) or stricken text (deletions).

Volume II of the FEIS provides a content analysis and summary of the public and agency comments received during the comment period and at public meetings. The topics are arranged by major headings, organized alphabetically and by subheadings that reflect the issues that were identified during the public comment period. These issues are further broken down into specific questions or concerns raised by the public. Substantive comments were

addressed in the comment and response section (i.e., in this volume), the text of the DEIS, or both places.

Purpose and Need

The current Master Site Plan for the Federal Center was completed in 1997. Since that time, potential development and redevelopment opportunities in and around the site have been identified. The purpose of the Master Site Plan is to provide a new vision and development strategy for the Federal Center over the next 20 years through an integrated, collaborative planning process. The Master Site Plan is intended to establish the nature, character, and location of activities and development; to encourage orderly growth and change throughout the Federal Center site; and to provide the basis for future implementation actions. Ultimately, the Master Site Plan provides guiding direction for development to shape future growth and investment on the Federal Center site. ~~The proposed action, and the~~ primary focus of this EIS, is the implementation of a new Master Site Plan for the Federal Center. The two action alternatives for achieving a new Master Site Plan offer differing development configurations and densities.

Institutional Process

GSA's comprehensive planning process to develop a long-range Master Site Plan incorporates communication and outreach to approximately 50 federal, state, and local agencies, as well as community stakeholder groups and members of the general public. To date, the master planning effort has included design charrettes, roundtable committee meetings, federal focus groups, federal tenant meetings, and numerous stakeholder interviews.

The public scoping process has included an informal open house workshop, two formal scoping meetings, and two smaller group meetings. These meetings were held at the start of the EIS process as a means to present and discuss the preliminary plan concepts with the public and stakeholders. The input received during scoping was documented and compiled into a scoping report that is available upon request from GSA.

Concurrent with the review of comments received on the Draft Master Site Plan and DEIS, GSA began the process of examining the range of alternatives for selection of a preferred alternative. GSA examined the purpose and need identified at the beginning of the planning process, the vision developed in conjunction with a range of stakeholders, public comments, consultations, and laws and policies.

The two most often received comments referred to the desire for a maximum amount of open space and concerns regarding development, especially in the southeastern corner of the site. Based on public comments and the changes to protect open space and support the transit-oriented area, the Federal Quad Alternative was selected as the preferred alternative. This plan is shown in Exhibit 2-2.

Numerous comments were also received on the various aspects of security. In response, GSA expanded the discussion of security found in Chapter 1, Subsection 1.3.2.6, to include the

various aspects of security as well as the capital and recurring expense associated with security measures and upgrades.

Key Environmental Issues

The environmental issues and topics that could be affected by implementation of the Master Site Plan alternatives were identified based on the comments received during the public scoping meetings and in consideration of technical information specific to the proposed study area. The natural and man-made environmental resources analyzed in this EIS include the following:

- Land Use
- Socioeconomics
- Environmental Justice
- Community Services
- Public Utilities
- Transportation
- Geology and Soils
- Hazardous Materials
- Hydrology and Water Quality
- Vegetation
- Wildlife
- Cultural Resources
- Visual Resources
- Air Quality
- Noise/Vibration

In particular, the key issues mentioned during scoping included traffic, parking, preservation of open space, visual aesthetics, environmental contamination issues, and security. Scoping comments were reviewed and considered as the preliminary Master Site Plan concepts were refined into the two action alternatives analyzed in this EIS.

Master Site Plan

The Master Site Plan will provide a new vision and redevelopment strategy for the Federal Center, including the character and location of new development. As such, the Master Site Plan will serve as a guiding document to ensure that future changes benefit the Federal Center by capitalizing on the availability of transit service and helping to protect the best features of the site, including its premier location and campus setting. In an effort to help realize a new vision for the Federal Center site, the following goals were established at the beginning of the planning process:

- Safeguard the interests and meet the current and future needs of federal tenants.
- Maximize the value and appeal of the Federal Center site.
- Establish a vision for a dynamic, mixed-use center.
- Capitalize on the premier location and setting to attract new federal and non-federal users.

There are numerous consistent or shared elements of the two action alternatives. These include a mix of land uses for the Federal Center; designation of transit-oriented development for the area immediately adjacent to the proposed RTD light rail transit station; an aggressive building demolition/replacement scenario; a stepped-down density pattern from north to south and west to east within the Federal Center site and approaching Alameda Avenue and Kipling Street; and preservation and enhancement of the McIntyre Gulch

corridor as a recreational component with stormwater detention and bio-filtration recharge opportunities.

Alternatives

Two action alternatives and a No Action Alternative were identified based on agency and public scoping input and are analyzed for potential impacts in this EIS. ~~The preferred alternative, which may include or exclude specific Master Site Plan components, will be identified in the final EIS.~~

The action alternatives are long-range development plans for the Federal Center that differ primarily in the amount of open space planned for the southeastern portion of the site and for residential development in close proximity to transit-oriented development in the northwestern portion of the development (including the number of residential units), physical layout, circulation patterns, and appearance.

Federal Quad Alternative—Preferred Alternative

The defining characteristic of the Federal Quad Alternative is the central “Quad” that would be located in the center of the Federal Center site. The enhanced streetscapes throughout the campus would encourage area workers to walk to and from transit and into adjacent districts. The new, mixed-use center around the Quad would be the heart of the plan and would be woven into the fabric of the surrounding neighborhoods and commercial districts via road and land use connections. The Quad would be surrounded by complementary office buildings, including secure federal buildings, non-secure federal buildings, and research buildings.

The Federal Quad Alternative includes a development plan with approximately 3.6 million gross square feet of new development, plus 1,400 ~~290~~ residential units, organized around a ~~two~~ formal open space/park areas that suggests a university campus setting. Taking into account the selected retention and demolition of existing buildings, full build-out of the Federal Quad Alternative would include 6.4 million square feet of new and existing developed space and 1,400 residential units. Land uses would be organized in districts and would include office, mixed-use, research and development, campus, retail, quad, and open space. The central Quad area would be an amenity and compact focal point for the Federal Center. The distance between the quad and the transit station, via an urban street, would be equivalent to a 10-minute walk.

Federal Mall Alternative

The defining characteristic of the Federal Mall Alternative would be the creation of a linear “Federal Mall” that runs along Center Avenue, connecting Union Boulevard, St. Anthony Hospital, and the central core of the Federal Center. The Mall itself would enhance the aesthetics of the site via a linear, landscaped hardscape that would provide a grand entry and pedestrian access from the western boundary into the heart of the central core of the Federal Center. In addition to the linear mall, the plan contains an open space square as an amenity to the Mall district and other surrounding uses within the Federal Center.

The Federal Mall Alternative includes a development plan with approximately 3.8 million gross square feet of new development, plus 1,400 residential units, organized around a landscaped boulevard. Taking into account the selected retention and demolition of existing buildings, full build-out of the Federal Mall Alternative would include 6.7 million square feet of new and existing developed space and 1,400 residential units. This alternative would include additional space allocated to federal uses, devote a tract in the southeastern portion of the property to residential development, and reserve additional land for office and retail development. Its physical arrangement would feature a landscaped boulevard (Mall) as an organizing element. The Mall would be a grand entry from Union Boulevard to the heart of the Federal Center. It would be bordered on the north by a community park and would terminate at a prominent hardscape plaza that would frame a landmark building.

No Action Alternative

Under the No Action Alternative, GSA would not implement a new Master Site Plan for the Federal Center and no new development (residential or non-residential) would occur. Though currently planned upgrades to site infrastructure would continue to move forward, a new vision for a dynamic, mixed-use center would not be established and the value and appeal of the Federal Center site would not be maximized. With growing capital needs of the existing buildings, facilities would decline and there would be an inability to provide necessary space and services to tenants. The attraction to new federal tenants and the appeal to existing tenants may decline over time under the No Action Alternative.

The goals set forth in the 1997 Master Site Plan included land use, transportation and circulation, design, infrastructure, environmental quality, community context and tenant services. That basic framework is reflected in the new Master Site Plan. Much as those developed in 1997, the goals today retain a comprehensive scope and are interrelated to provide a coordinated approach to guiding the future development of the Federal Center. The goals and objectives of the new Master Site Plan are designed to address opportunities and development in the 21st century in ways that could not have been anticipated in 1997.

Affected Environment

The affected environment for the action alternatives is established by describing the existing conditions of the Federal Center site. The existing baseline conditions are documented for each of the natural and man-made resource disciplines identified previously.

Land Use

The Federal Center site is a 640-acre federal facility surrounded by the City of Lakewood, Colorado, just west of Denver. The Federal Center site currently contains ~~65~~ approximately 50 active buildings, including approximately 4.1 million square feet of space, set within an open landscape. Just more than half of the total site area is in the form of undeveloped land and natural open space. The majority of the buildings consist of federal space, including office and related uses such as laboratory, research, and warehouse uses for 26 agencies and bureaus. The surrounding study area is generally a mixture of residential uses, commercial and federally leased office space, retail and restaurant establishments, and other service uses.

Socioeconomics

The Federal Center is located within a metropolitan setting of interdependent neighborhoods, employment centers, and commercial and institutional nodes. Currently, there are no residents of the Federal Center itself. Because the City of Lakewood is largely built-out, its population growth has slowed significantly in recent years. The ethnic profile of residents within the Federal Center study area is predominantly white, with similar levels of educational attainment and slightly lower incomes than Lakewood residents overall.

The Federal Center includes approximately 6,000 employees and is considered a large regional employment center. The majority of the Federal Center is used for federal government operations and public uses. Union Center, located along Union Boulevard to the west of the Federal Center, is a major urban center with approximately 6,000 jobs, a wide range of community and regional retail uses, offices space, business and personal services, and residential uses. Several federal agencies lease space in the area surrounding the Federal Center, such as the Department of Veterans Affairs and National Park Service.

Environmental Justice

No substantial (25 percent or higher) concentrations of low-income populations and no substantial or disproportionate representation of any minority groups are located within the study area. Although low-income and minority populations were not found to constitute a substantial proportion of the study area, substantial efforts were made to reach these stakeholder groups through newspaper advertisements, mass mailing notifications, newsletters, e-mail and web postings, public television, and bi-lingual flyers.

Community Services

The Federal Center area is currently served by a variety of community services, including medical facilities, fire protection, police protection, and public utilities services. While there are no existing hospitals located within the City of Lakewood, adequate medical facilities and hospital services currently serving the area are considered adequate. Adequate fire and police protection and emergency response services are available for the existing facilities at the Federal Center.

Belmar, the City of Lakewood's new downtown, is located to the southwest of the Federal Center, off Alameda Avenue and Wadsworth Avenue. A variety of amenities are available at Belmar—retail services, gallery space, restaurants, parks, plazas, and residential uses—along with access to free parking and public transportation.

Utilities

A review of the existing utilities systems and infrastructure was completed as part of the EIS. Although the existing water supply, sanitary sewer system, stormwater system, electrical power system, natural gas service, and telecommunications system are adequate to meet the existing demand, some are at capacity and in poor condition. As a result, improvements to these urban resources are currently being implemented by GSA through various infrastructure projects. The completion of these projects is contingent upon funding.

Transportation

The Federal Center is bounded by four major roadways and is served by an internal network of collector and local streets. The Federal Center has five functional access points, which are all secured entrances. The traffic study conducted as part of the Master Site Planning process revealed that all intersections operate at acceptable service levels in both peak periods, with one notable exception, the intersection of Union Boulevard and Alameda Avenue.

The Federal Center is also served by public transit service, including local, express, and regional bus service. Currently there is an RTD-operated bus transfer and park-n-Ride station located near the intersection of Union Boulevard and West 4th Avenue on land leased from GSA. In addition, bicycle paths are located along three of the Federal Center's perimeter streets.

Current RTD plans for the expansion of the light rail transit system anticipate construction of the West Corridor rail line to Golden Lakewood in 2013. The line will generally follow the alignment of 6th Avenue and include a station in the northwestern portion of the Federal Center.

Geology/Soils

The Federal Center site is located within the Denver Basin, which encompasses an area of approximately 6,700 square miles. The geologic materials found at the site include alluvial deposit composed of unconsolidated, stratified, poorly to well-sorted gravel, sand, and silt materials eroded from the Rocky Mountain Front Range. The topography of the site is primarily flat, sloping gradually from the west to east at a 2 to 3 percent grade. Six detailed soil map units occur within the Federal Center boundaries. The six soils identified are generally clay or clay loams with a potential swell rating between 1.5 percent and 4.5 percent.

Hazardous Materials

Historical activities at the Federal Center over a more than half a century ~~65-year operating period~~ have resulted in the contamination of soil, sediment, surface water, and groundwater within and around the Federal Center site. Investigation and remediation work is currently being conducted under three Consent Orders issued by the Colorado Department of Public Health and Environment.

While groundwater at the Federal Center is not currently used for drinking water or irrigation, groundwater to the west of the site (upgradient) is used as a source of irrigation water. Solvents and other analytes of unknown origin (including anions, metals, polynuclear aromatic hydrocarbons, pesticides, semivolatile organic compounds, and volatile organic compounds) have been detected in groundwater in concentrations exceeding their respective criteria. Inorganic and organic potential contaminants of concern (PCOCs), including explosive contaminants and radionuclides, have been identified in soils, sediments, and surface water at the Federal Center in concentrations in excess of screening level criteria. Additional contamination concerns that were investigated on the Federal Center site and within a 1-mile radius include underground storage tanks, landfills, hazardous waste

generation or treatment, storage and disposal facilities, and potential subsurface contamination.

Hydrology and Water Quality

The Federal Center is drained by McIntyre Gulch, a natural drainage area. Two constructed irrigation canals are located within the Federal Center site: the Agricultural Ditch and Welch Ditch. Three detention ponds divert stormwater runoff originating from the west of the site through each basin from west to east and, if necessary, into Agricultural Ditch. Downing Reservoir is the single permanent surface water impoundment on the Federal Center site. The reservoir is supplied by cooling water, spring water, and stormwater.

Vegetation

The Federal Center site is located within the Great Plains-Palouse Dry Steppe Province. Developed portions of the Federal Center site are surrounded by landscaped vegetation. Undeveloped open space areas are categorized as either open mixed grasslands or open disturbed areas. Open disturbed areas have little or no vegetation as a result of human-caused disturbances. In some disturbed areas, invasive exotic plant species are prevalent. The riparian community found along McIntyre Gulch and its tributaries retains valuable native vegetation communities and includes deciduous trees and shrubs, such as cottonwood and various willow species.

Both non-jurisdictional and jurisdictional wetlands are located on the Federal Center site. Wetland communities within the site are dominated by cattail, willow, and mixed wetland species. Riparian/wetland communities along McIntyre Gulch and its tributaries include a mix of woody riparian vegetation and a fringe of herbaceous wetland vegetation along the banks.

Wildlife

The open grassland habitats within the Federal Center site support the potential occurrence of more than 40 species of mammals, including mule deer, prairie dogs and other various rodents, and several carnivore species. Generally, the wildlife population at the Federal Center site is regarded as a positive component of the environment; however, some conflicts between wildlife and humans do occur. Several bird species that occur on the Federal Center site are protected by the Migratory Bird Treaty Act, which prohibits possession, sale, purchase, barter, transport, import, export, and take of active nests of protected species. A variety of reptiles and amphibians are known or likely to occur on the Federal Center site, some of which help control rodent populations, which are often a sanitation concern. No rare, threatened, and endangered species are known to occur on the site.

Cultural Resources

A cultural resource survey of the Federal Center conducted in 1978 identified eight prehistoric artifacts—six flakes and two hammer stones—on the ground surface within the Federal Center site. The surveys concluded that these were “isolated finds” and the potential for surviving undisturbed prehistoric archeological resources was low because the property

has undergone extensive landscape transformation since 1941. The Federal Center operates a museum in Building 41 that captures the history of the site since 1941. There are several hundred artifacts catalogued in the museum.

Extensive architectural and general cultural resources inventories of the Federal Center site have been conducted and two buildings on the site, the Office of Civil Defense Emergency Operations Center and Building 710, have been listed in the National Register of Historic Places. The Federal Center as a whole was determined not eligible for the Register given the extensive amount of changes that have occurred to the on-site buildings since they were first constructed.

Visual Resources

The majority of the 65 active buildings within the Federal Center are located in the central core area—the portion of the site where building, railroad lines, and streets were originally built. The central core area primarily consists of large one- and two-story converted warehouse buildings, constructed of brick with flat roofs, as well as associated surface parking. On the north side of the central core area, North Avenue divides the low brick buildings of the core from a natural area to the north. In the western portion of the site, development is somewhat haphazard, with small industrial buildings sited within an open grassy landscape dotted with small trees. The streets in this area diverge from the diagonally oriented grid within the central core area to connect with the major east-west roads that cross Union Boulevard. The southern portion of the Federal Center is primarily an open landscape.

Air Quality

The Denver metropolitan area is currently ~~now~~ in attainment for federal health standards for carbon monoxide, fine particulate matter, ozone, and other National Ambient Air Quality Standards. The principal air quality concern in the Denver metropolitan area continues to be ozone, and the metropolitan area violated the 8-hour ozone standard in 2007. The U.S. Environmental Protection Agency is expected to formally re-designate the area to nonattainment for the federal 8-hour ozone standard. The Denver metropolitan area violates the state visibility standard approximately 150 days per year.

Noise Levels/Vibration

The Federal Center and nearby area is subject to the City of Lakewood's Noise Control Ordinance as well as the Jefferson County Noise Abatement Regulation. Noise sources in the vicinity include traffic on internal and nearby roadways, ongoing construction, demolition, and remediation activities and various noise sources associated with existing buildings and activities. Ambient noise levels in the vicinity of the site range from 52 to 71 decibels (A-weighted scale).

Environmental Consequences

Land Use Impacts

Under the Federal Quad Alternative, the Federal Center site would be organized into a series of distinct functional areas, centered around an elliptical park, the Federal Quad. This alternative would include approximately 3.6 million square feet of new development, including federal space and a mix of uses such as office, laboratories, research and development space (R&D), and industrial flex space. Overall, given the selected retention and demolition of existing buildings, there would be a net increase of approximately 2.3 million square feet and 1,400 ~~290~~ residential units added to the site.

Under the Federal Mall Alternative, the Federal Center site would be organized into a series of distinct functional areas, situated around a landscaped boulevard (the Federal Mall). This alternative would include approximately 3.8 million square feet of new development, including federal office, laboratory, R&D, and related space at the site. Overall, given the selected retention and demolition of existing buildings, there would be a net increase of approximately 2.6 million square feet and 1,400 residential units added to the site.

Overall, both action alternatives would increase the density of the Federal Center, improve the functional organization of the site, and enhance the physical setting of the site. As a result, the action alternatives would provide land use benefits to existing and future employees, visitors, and residents.

Socioeconomics Impacts

Under the Federal Quad Alternative, population growth resulting from the addition of 1,400 ~~290~~ residential units would likely have a negligible impact on existing residential markets in the surrounding area. Over a 25-year development timeframe, this alternative would create a net job growth of approximately 1.5 percent annually.

Under the Federal Mall Alternative, population growth would result from the addition of 1,400 residential units, including condominiums, apartments, and townhouses. This level of residential development should have a negligible impact on existing populations in the surrounding area. Over a 25-year development timeframe, this alternative would create a net job growth of approximately 1.7 percent annually.

Implementation of either action alternative is not anticipated to have substantive impacts to the ethnic profile or education levels of the surrounding area. Overall, impacts to the existing demographic characteristics of the surrounding area would not be expected. Slight positive impacts on income levels may result.

Environmental Justice Impacts

Neither low-income nor minority populations were found in the study area in substantial or disproportionate measure. As a result, the action alternatives would not have a disproportionate effect on environmental justice communities. To the extent that employment

levels increase within the Federal Center and study area, the action alternatives could have a positive impact on environmental justice.

Community Services Impacts

Changes to medical facilities and services would not occur under either action alternative; therefore, direct impacts on medical facilities would not result. Implementation of either action alternative may potentially result in an increase in demand for fire and police protection services as daily and residential populations grow. Because these services have the capacity to grow and serve additional demand, no adverse impacts would be expected.

Positive cumulative impacts to medical facilities would occur as a result of the relocation of the hospital. Once the RTD transit line and associated Federal Center station and park-n-Rides facilities are available, the demand for, and use of, transit services would be expected to increase, contributing to a positive cumulative impact.

Utilities Impacts

Under either alternative, the demand for public utilities would increase, requiring upgrades to the infrastructure and service capacity, resulting in a slight impact on utilities. Upgrades to the sanitary sewer system would address the issue of contamination and result in a positive impact to the sanitary sewer system. Given the poor existing condition of the utilities systems, expansion and upgrades of the systems and implementation of other mitigation measures would result in positive impacts. Other ongoing or proposed projects in the area would upgrade the infrastructure, resulting in the potential for positive cumulative impacts on utilities.

Transportation Impacts

The Federal Quad Alternative is expected to generate approximately 61,300 vehicle trips per day at full build-out. With implementation of mitigation measures, including transit service and roadway and intersection improvements, all intersections would meet the minimum level of service established by the City of Lakewood with the exception of the Union Boulevard and Alameda Avenue intersection in the PM peak hour. Therefore, a negligible impact on transportation resources would result.

The Federal Mall Alternative is expected to generate approximately 75,600 vehicle trips per day at full build-out. With the implementation of mitigation measures, including transit service and roadway and intersection improvements, all intersections would meet the minimum level of service established by the City of Lakewood with the exception of the Union Boulevard and Alameda Avenue intersection in the PM peak hour. A negligible impact on transportation resources would therefore result.

Under both action alternatives, the internal roadway network has adequate capacity to serve the increased daily population accessing the Federal Center. In addition, the alternatives are consistent with recommendations contained in the *Lakewood Bicycle Master Plan* and complement the transit plans for the area.

Geology/Soils Impacts

Given the scale of potential development under the Master Site Plan alternatives, no impacts to site geology would occur. ~~Either~~ Neither action alternative, paired with implementation of best management practices, would result in negligible impacts to soils.

Hazardous Materials Impacts

Under either action alternative, designated land uses within certain areas of the Federal Center could disturb existing soils, groundwater, surface water and sediment PCOCs. However, development of the Federal Center could provide an opportunity to accelerate the removal of contamination from the site consistent with the Consent Orders currently in place. To further mitigate potential impacts relating to PCOCs during implementation of the master plan, specific appropriate administrative and/or engineering controls will be applied prior to ground-disturbing activities such as the installation of utilities, basements, and subsurface parking.

Hydrology and Water Quality Impacts

Under either alternative, existing surface water features, including McIntyre Gulch, the Agricultural Ditch, and Downing Reservoir, would be incorporated as designated open space areas. Preservation and potential enhancement to these features would contribute to a positive impact on surface water features.

Vegetation Impacts

Because much of the Federal Center site has been previously developed or disturbed, vegetation impacts would be minimal. Under either action alternative, riparian communities on the Federal Center site would be preserved and incorporated as part of designated open space areas, and would remain a valuable asset for both humans and wildlife alike. Overall, the preservation and enhancement of riparian communities and improved wetlands protection could result in positive impacts.

Wildlife Impacts

Implementation of either action alternative would protect the existing highest quality habitat areas. The large amount of open space areas planned would benefit wildlife habitat resources. Though some impacts to individuals or habitats would likely occur, mitigation measures that would include development of a wildlife management plan, would ensure that wildlife populations would continue to be an asset of the Federal Center site. Because no rare, threatened, or endangered species occur on the Federal Center site and the site does not provide suitable habitat for regular occurrence of any of these species, no impacts to these species would result.

Cultural Resources Effects

Given that the Federal Center has undergone extensive landscape transformation since 1941, it is unlikely that the implementation of either alternative would uncover intact archaeological resources. Adverse affects to archaeological resources are therefore unlikely. No impacts to historic resources are expected.

Visual Resources Effects

Under the Federal Quad Alternative, the irregular street edges of the central core area would be replaced with a series of mid-scale signature buildings located around an oval park. This alternative would enhance the visual connections between distinct functional areas of the site, resulting in a positive impact on the western portion of the site and minor positive impacts to the north, south, and east. In addition, major views of the Rocky Mountains and the Denver skyline would also be preserved.

Under the Federal Mall Alternative, the irregular street edges of the central core area, and the more random development to the west of the central core area, would be replaced with a series of mid-scale signature buildings located along a landscaped boulevard, the Federal Mall. The Mall would be wide, bordered on the north by a park and include a hardscaped plaza. The replacement of an area of haphazard development, set within a somewhat sparse landscape, with a series of office buildings and wide boulevards visually connected to the neighborhood to the west would result in a positive visual impact. Impacts to the north would be minor, because 6th Avenue is a wide highway and a green buffer would be maintained along most of the northern edge of the site.

Air Quality Impacts

Construction of roadways, buildings and other features associated with implementation of the Master Site Plan could result in localized, minor, short-term impacts to air quality. Assuming that the disturbed areas and the pace of construction would occur over a 5- to 20-year timeframe for each of the two action alternatives, the air quality impacts associated with construction of each of the alternatives would be minor.

Primary air quality impacts from the operation of the Federal Center are projected to be automobile-related emissions from employee and visitor vehicular traffic and building-related emissions from space heating and cooling systems and other miscellaneous emission sources. Overall, neither action alternative would be expected to result in a measurable deterioration of regional air quality or lead to a violation of applicable standards.

Noise and Vibration Impacts

The use of heavy equipment during construction activities would result in a short-term increase in noise levels in the project area, resulting in a minor impact. Each of the action alternatives would increase traffic volumes on nearby major arterials and at key intersections surrounding the Federal Center. The additional traffic volumes would moderately increase traffic noise on the major arterials; however, this increase would not constitute a significant impact. Impacts from properly installed and maintained heating and cooling equipment are

expected to be negligible. Cumulative noise impacts could increase under the Federal Quad Alternative given the proximity of the mixed use district with the hospital project. Cumulative noise impacts would not increase under the Federal Mall Alternative. Cumulative vibration impacts would be low under either action alternative.

Relationships of Impacts and Commitments of Resources

Based on a thorough analysis of environmental resources, the current and future context of the preferred alternative ~~proposed action~~ (implementation of a new Master Site Plan), none of the identified environmental impacts is considered to be of significant intensity. While disruption to the natural environment could include an increased amount of impervious surfaces, and the loss of some vacant land and vegetation, the most environmentally sensitive areas of the Federal Center would be preserved as usable open space and wildlife habitat under either action alternative. Impacts to the human environment could likely include a changed visual environment, and increased congestion on roadway systems.

The short-term impacts on the environment would be offset by the numerous land use, economic, and community benefits that the action alternatives would generate in the long term. The redevelopment of the Federal Center site would provide a range of employment opportunities, improve working conditions, help retain federal agencies, and increase the accessibility of the site. In addition, implementation of an action alternative would generate increased economic spending and resulting fiscal revenues from real estate, income, and sales taxes.

Furthermore, the proposed office, research and development, retail, residential, and recreation opportunities that would be offered under either action alternative would transform the Federal Center into a mixed-use, transit-oriented employment center with a regional focus. The high-quality development of the action alternatives would create an attractive destination, enhance the status of the immediate area, and serve as a catalyst for further investment in the surrounding community.

If the property is not redeveloped, the long-term productivity of the site will be compromised given the suburban context of the Federal Center site. Under the No Action Alternative, the relationship of short-term uses of the environment and long-term productivity would not be maximized.