



DRAFT
Environmental Assessment

for the

**Transformation of Facilities and Infrastructure for the Non-Nuclear
Production Activities Conducted at the NNSA Kansas City Plant (KCP)**

DOE/EA – 1592

November 14, 2007

EXECUTIVE SUMMARY

The General Services Administration (GSA), as the lead agency, and the National Nuclear Security Administration (NNSA), as a cooperating agency, have prepared this environmental assessment (EA) to evaluate the potential environmental impacts associated with the following project: Transformation of Facilities and Infrastructure for the Non-Nuclear Production Activities Conducted at the NNSA Kansas City Plant (KCP). The proposed action is for GSA to procure the construction of a new multi-structure facility to house NNSA's non-nuclear component procurement and manufacturing operations. GSA would issue a Solicitation for Offers to the real estate development community. The successful developer would purchase the property, and would partner with GSA and NNSA to design and construct a campus that meets NNSA's needs. GSA would lease the campus on NNSA's behalf, and NNSA would relocate its non-nuclear operations from the existing KCP at the Bannister Federal Complex in Kansas City, Missouri to the new facility and conduct future operations in the new facilities. The proposed new NNSA KCP would be a smaller production facility designed for flexibility to enable rapid reconfiguration to meet changing production requirements, reducing annual operating costs while improving the responsiveness, facility utilization and reliability of the supply of non-nuclear components to NNSA. In addition to these business improvements, the new facility would enable a reduction in the environmental footprint associated with KCP operations including reduced air and water emissions and waste generation.

The EA report examines and evaluates the environmental conditions on a portion of the Bannister Federal Complex located on Bannister Road in Kansas City, Missouri and for a site currently developed for agricultural usage on the northwest corner of Botts Road and Highway 150 in Kansas City, Missouri. The EA evaluates the baseline environmental conditions, environmental consequences, and cumulative impacts of the following alternatives:

- Preferred Option – Construct New Office and Manufacturing Facility at Botts Road and MO Highway 150
- Alternative No. 1 – No Action
- Alternative No. 2 – Renovate Existing GSA Office/Warehouse Space
- Alternative No. 3 – Renovate Existing GSA Office Space, Demolish Warehouse Space, and Build a New Manufacturing Facility
- Alternative No. 4 – Demolish Existing GSA Office and Warehouse Space and Construct New Office and Manufacturing Facility

Table 1 summarizes the potential environmental consequences resulting from each of the alternatives evaluated. Table 2 summarizes the environmental permitting requirements.

The analysis of the preferred option identified several potential environmental impacts. These aspects and the mitigated features associated with each impact are described below.

1) Impact to Wetlands:

Based upon a preliminary jurisdictional waters determination, non-jurisdictional wetlands and potential jurisdictional tributaries and wetlands exist onsite. Mitigation of impacts to non-jurisdictional wetlands would take place in accordance with Executive Order 11990, and to jurisdictional waters in accordance with Section 404 Permitting, which requires avoidance of wetlands impacts, minimization of potential impacts on wetlands, and compensation for any remaining unavoidable impacts. A wetland assessment will be completed in accordance with the requirements of 10 CFR 1022 once the proposed site layout is known. The SFO will require the developer to address the management of any wetlands on the site. Based on the small relative size of the wetlands (less than one 1.5 acres combined) and the likelihood of onsite mitigation, the impact to wetlands it is not anticipated to be a significant environmental impact.

2) Subsurface Pipeline:

Soil borings along the nitrogen filled subsurface petroleum pipeline transecting the site show no contamination. Site development plans specify relocation of the pipeline as far north as practicable based upon site conditions. No structures would be placed upon the pipeline easement. The relocation and possible future use are not considered to be a significant environmental impact.

3) Air Emissions:

Construction of new boilers, improvements and refinements to the manufacturing process, and the elimination of chrome plating operations would result in a cumulative annual reduction of approximately 28% from current facility air emissions. The preferred option results in the greatest decrease in KCP air emissions of any of the alternatives considered.

4) Cumulative Traffic Impacts:

Commercial development currently ongoing in the area of the preferred option would result in a substantial increase in daily traffic on MO Highway 150 and adjacent roadways, to which the preferred option would contribute. The Missouri Department of Transportation (MODOT) and the City of Kansas City are currently working on road improvement projects in the site vicinity to mitigate the increased projected traffic load resulting from development in the area. Due to the small contribution of traffic flow to the area attributed by KCP and the planned road improvements, cumulative traffic impacts are not considered to be a significant environmental impact.

5) Cumulative Stormwater Flow:

Development in the area of the preferred option may result in an increase of stormwater runoff into the Little Blue River Watershed. The City of Kansas City is responsible for stormwater management, planning, and permitting and all individual developers in the area of the preferred site will be required by code to mitigate impacts of stormwater runoff and adhere to local building codes for

storm drainage systems and facilities. Due to these mitigating actions cumulative stormwater impacts are not considered to be a significant environmental impact.

The analysis of Alternatives 1 and 2 identified no potentially significant environmental impacts. The analysis of Alternatives 3 and 4 identified that construction activities may disturb known and suspected areas of groundwater and soils contaminated with polychlorinated biphenyls (PCBs) and volatile organic compounds (VOCs). Per Resource Conservation and Recovery Act (RCRA) Part B closure permits, plans are in place to handle impacted groundwater and soils which may be encountered during site excavation activities. Therefore, due to the mitigation features in the Part B permit, construction activities impacting contaminated groundwater and soils are not considered to be significant.

In conclusion, the EA was completed for the Transformation of Facilities and Infrastructure for Non-Nuclear Production Activities Conducted at the NNSA KCP based on the guidelines set forth in NEPA. Based on these guidelines, the EA has evaluated environmental impacts and identified no significant adverse environmental impacts resulting from implementation of the preferred option. Any impacts that were identified would be minimized through mitigation measures described in the report. A discussion of the commitments, mitigation measures proposed and permits needed for all of the alternatives considered, are included in this report.

**Table 1 (page 1 of 2)
Summary of Environmental Consequences**

	Impacted Environments								
	Land Use/Geology & Soils	Hydrology & Groundwater	Flora & Fauna	Air Quality & Permitting	Historical & Cultural Resources	Socioeconomic	Cumulative	Intentional Acts (Terrorism)	Solid/Hazardous Waste
No Action - Alternative 1	No additional adverse impacts expected.	No additional adverse impacts expected.	No adverse impacts expected.	No reduction in air emissions and chrome plating may continue. Site operations will require permitting per Title 10, Division 10, Chapters 2 & 6	No adverse impacts expected.	Downsizing of approximately 350 workers (FY05 baseline) due to transformational improvements	No cumulative impacts expected.	No adverse impacts expected.	Routine operations generate 37,000 lbs hazardous waste and 2.0M lbs non-hazardous waste per year. Construction and non-process waste from facility refurbishment and maintenance activities generate an additional 2.3M lbs of hazardous and non-hazardous waste per year. 43% of total waste generated is recycled. LLW will remain unchanged.
Preferred Option (Botts Road)	Zoning change from agricultural to industrial. Magellan pipeline transects the site - if contaminated soil is encountered affected soils will need to be properly managed. Soil test results did not indicate contamination.	Impacts to surface waters & wetlands awaiting USACE jurisdictional determination (Section 404 permit may be required). Site construction requires a Land Disturbance Permit & SWPPP. Site operations will require Stormwater Operating Permit &	Areas of existing flora & fauna would be impacted by site construction.	Approximately 28% reduction in air emissions from current operations. Site operations will require permitting per Title 10, Division 10, Chapters 2 & 6. Facility may be permitted with a Basic Source Operating permit and classified as a Hazardous Air	No adverse impacts expected.	Downsizing of approximately 900 (FY05 baseline) workers due to transformational improvements and relocation. Reduction may be offset slightly by growth in work for others business.	Increased traffic on Hwy. 150 and Botts Road due to increased development, potential traffic delays during construction process, change in land use from agricultural development to industrial development, air emissions from	No adverse impacts expected.	Routine operations will generate 26,000 lbs of hazardous waste and 1.3M lbs of non-hazardous waste per year. Construction and non-process waste generation will be less than 500,000 lbs per year. LLW will remain unchanged.

**Table 1 (page 2 of 2)
Summary of Environmental Consequences**

	Impacted Environments								
	Land Use/Geology & Soils	Hydrology & Groundwater	Flora & Fauna	Air Quality & Permitting	Historical & Cultural Resources	Socioeconomic	Cumulative	Intentional Acts (Terrorism)	Solid/Hazardous Waste
Alternative 2 (renovate existing GSA office/warehouse space)	No adverse impacts expected.	No adverse impacts expected.	No adverse impacts expected.	Approximately 19% reduction in air emissions from current operations**. Site operations will require permitting per Title 10, Division 10. Chapters 2 & 6	Building may be eligible for listing on National Register of Historic Places- if eligible, may require recordation.*	Downsizing of approximately 700 workers (FY05 baseline) due to transformational improvements and relocation.	None- traffic delays, noise during construction not expected to be significant.	No adverse impacts expected.	Routine operation will generate 26,000 lbs of hazardous waste and 1.3M lbs of non-hazardous waste/year. Construction and non-process waste will be approximately 1M lbs/year due to older subsurface infrastructure and contaminated soils/groundwater on site. One time generation of construction debris from renovation of 650,000 sq. ft. of GSA space. LLW will remain unchanged.
Alternative 3 (renovate GSA office space, demo warehouse & build a new manufacturing facility)	May disturb areas contaminated with PCBs & VOCs.	Excavations exceeding ~8-15' may encounter impacted groundwater (PCBs/VOCs).	Minimal impact to flora & fauna.	Approximately 19% reduction in air emissions from current operations**. Site operations will require permitting per Title 10, Division 10. Chapters 2 & 6	Building may be eligible for listing on National Register of Historic Places- if eligible, may require recordation.*	Downsizing of approximately 700 workers (FY05 baseline) due to transformational improvements and relocation.	None- traffic delays, noise during construction not expected to be significant.	No adverse impacts expected.	Routine operation will generate 26,000 lbs of hazardous waste & 1.3M lbs of non-hazardous waste/year. Construction and non-process waste generation will be approximately 1M lbs/year due to the older subsurface infrastructure and contaminated soils/groundwater on site. One time generation of construction debris from renovation of 250,000 sq. ft., demolition of 400,000 sq. ft. of GSA space and construction of the new factory. LLW will remain unchanged.
Alternative 4 (demo existing GSA office & warehouse space & construct new office/manufacturing facilities)	May disturb areas contaminated with PCBs & VOCs.	Excavations exceeding ~8-15' may encounter impacted groundwater (PCBs/VOCs).	Minimal impact to flora & fauna.	Approximately 19% reduction in air emissions from current operations**. Site operations will require permitting per Title 10, Division 10. Chapters 2 & 6	Building may be eligible for listing on National Register of Historic Places- if eligible, may require recordation.*	Downsizing of approximately 750 workers (FY05 baseline) due to transformational improvements and relocation.	None- traffic delays, noise during construction not expected to be significant.	No adverse impacts expected.	Routine operation will generate 26,000 lbs of hazardous waste and 1.3M lbs of non-hazardous waste per year. Construction and non-process waste generation will be approximately 1M lbs/year due to the older subsurface infrastructure and contaminated soils/groundwater on site. One time generation of construction debris from initial demolition of 650,000 sq. ft. of GSA space and construction of the new office and factory. LLW will remain unchanged.

*If, after presenting photographs and a description of the building it is considered ineligible for listing on the NRHP then there is nothing more to do. If a building is considered eligible SHPO will determine the level of recordation required. This could depend on the plans involved (demo vs. rehab) and the fact that the project only affects part of the overall building. Recordation can involve detailed photographs, drawings, possibly elevations & a more in-depth historical background of the building. SHPO typically does not require nominating the building for listing on the NRHP, even if it is eligible.

** Alternatives No. 2, 3, & 4 assume that existing boilers would continue operation. The ~19% reduction in air emissions from current operations can be attributed to planned elimination or reduction of some processes.

**Table 2
Summary of Required Permits**

	Wetlands/Jurisdictional Water	Stormwater Permits	Spill Prevention	Wastewater Permits	Air Permits
No Action - Alternative 1	None	Missouri State Operating Permit & Storm Water Pollution Prevention Plan	Spill Prevention, Control, and Countermeasure (SPCC) plan in accordance with 40 CFR 112	Industrial Wastewater Discharge Permit from Kansas City, MO.	Facility (Major Source Permit), Boilers (Title 10, Division 10, Chapters 2 and 6 of the Missouri Code of State Regulations (10 CSR 10-2 and 10 CSR 10-6)), Solvent Metal Cleaning (Missouri Statute 10 CSR 10-2.210 and "Control of Emissions from Metal Cleaning), Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T)
Preferred Option (Botts Road)	Section 404 Permit (Need Army Corps of Engineers approval if more than 1 acre of wetlands is impacted.)	Land disturbance permits from Kansas City, MO and MO Dept. of Natural Resources. Missouri State Operating Permit & Storm Water Pollution Prevention Plan.	Spill Prevention, Control, and Countermeasure (SPCC) plan in accordance with 40 CFR 112	Industrial Wastewater Discharge Permit from Kansas City, MO.	Facility (Basic Source Permit), Boilers (Title 10, Division 10, Chapters 2 and 6 of the Missouri Code of State Regulations (10 CSR 10-2 and 10 CSR 10-6)), Electronic Solvent Spray Cleaning ((40 CFR, Part 63, Subpart T) and Missouri Statute 10 CSR 10-2.210 "Control of Emissions from Metal Cleaning),
Alternative 2 (renovate existing GSA office/warehouse space)	None	Missouri State Operating Permit & Storm Water Pollution Prevention Plan	Spill Prevention, Control, and Countermeasure (SPCC) plan in accordance with 40 CFR 112	Industrial Wastewater Discharge Permit from Kansas City, MO.	Facility (Major Source Permit), Boilers (Title 10, Division 10, Chapters 2 and 6 of the Missouri Code of State Regulations (10 CSR 10-2 and 10 CSR 10-6)), Solvent Metal Cleaning (Missouri Statute 10 CSR 10-2.210 and "Control of Emissions from Metal Cleaning), Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T)
Alternative 3 (renovate GSA office space, demo warehouse & build a new manufacturing facility)	None	Land disturbance permits from Kansas City, MO and MO Dept. of Natural Resources. Missouri State Operating Permit & Storm Water Pollution Prevention Plan	Spill Prevention, Control, and Countermeasure (SPCC) plan in accordance with 40 CFR 112	Industrial Wastewater Discharge Permit from Kansas City, MO.	Facility (Major Source Permit), Boilers (Title 10, Division 10, Chapters 2 and 6 of the Missouri Code of State Regulations (10 CSR 10-2 and 10 CSR 10-6)), Solvent Metal Cleaning (Missouri Statute 10 CSR 10-2.210 and "Control of Emissions from Metal Cleaning), Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T)
Alternative 4 (demo existing GSA office & warehouse space & construct new office/manufacturing facilities)	None	Land disturbance permits from Kansas City, MO and MO Dept. of Natural Resources. Missouri State Operating Permit & Storm Water Pollution Prevention Plan	Spill Prevention, Control, and Countermeasure (SPCC) plan in accordance with 40 CFR 112	Industrial Wastewater Discharge Permit from Kansas City, MO.	Facility (Major Source Permit), Boilers (Title 10, Division 10, Chapters 2 and 6 of the Missouri Code of State Regulations (10 CSR 10-2 and 10 CSR 10-6)), Solvent Metal Cleaning (Missouri Statute 10 CSR 10-2.210 and "Control of Emissions from Metal Cleaning), Halogenated Solvent Cleaning (40 CFR, Part 63, Subpart T)

**Table 3
Summary of Alternatives**

	New Space	Renovated Space	Demolished Space	Central Utility Plant	Chrome Plating	Industrial Waste Water Treatment	Groundwater Treatment
No Action - Alternative 1	No new construction.	No renovated space.	No demolition activities.	Existing steam boilers, chillers and cooling tower will remain in operation.	Use of existing chrome plating lines and associated pollution control equipment will continue.	Plating baths and Industrial wastewater, including chrome and cyanide will continue to be treated at the existing industrial wastewater pretreatment facility.	Use of the existing groundwater treatment unit will continue.
Preferred Option (Botts Road)	All new construction, multiple buildings.	No renovated space.	Minor demolition at former radio beacon site and general site preparation.	New hot water boilers, chillers and cooling tower will be installed.	Chrome planting will be outsourced and will not transition to the new site.	Industrial wastewater will be pretreated prior to discharge to the sanitary sewer using a skid-mounted treatment unit. Concentrated baths and chrome and cyanide wastewaters will be shipped off-site for treatment or disposal.	There will be no need to treat groundwater at the new site. Treatment at the Bannister Federal Complex will continue after relocation to the new site is complete.
Alternative 2 (renovate on Bannister Federal Complex)	New specialty manufacturing operations building and covered storage area.	Renovate existing GSA office space and warehouse space.	Demolition of GSA building 50.	Existing steam boilers, chillers and cooling tower will remain in operation.	Chrome planting will be outsourced and will not transition to the new site.	Plating baths and Industrial wastewater, including chrome and cyanide will continue to be treated at the existing industrial wastewater pretreatment facility.	Use of the existing groundwater treatment unit will continue.
Alternative 3 (renovate & new build on Bannister Federal Complex)	New specialty manufacturing operations building, covered storage area and main manufacturing building.	Renovate existing GSA office space.	Demolition of GSA building 50 and GSA warehouse space.	Existing steam boilers, chillers and cooling tower will remain in operation.	Chrome planting will be outsourced and will not transition to the new site.	Plating baths and Industrial wastewater, including chrome and cyanide will continue to be treated at the existing industrial wastewater pretreatment facility.	Use of the existing groundwater treatment unit will continue.
Alternative 4 (new build on Bannister Federal Complex)	All new construction, multiple buildings on GSA site.	No renovated space.	Demolition of GSA building 50, warehouse space and office space.	Existing steam boilers, chillers and cooling tower will remain in operation.	Chrome planting will be outsourced and will not transition to the new site.	Plating baths and Industrial wastewater, including chrome and cyanide will continue to be treated at the existing industrial wastewater pretreatment facility.	Use of the existing groundwater treatment unit will continue.

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Figure 8 – Botts Road Site Aerial Photograph

List of Acronyms

(ASTs)	Above Ground Storage Tanks
(CATEX)	Categorical Exclusion
(CO2)	Carbon Dioxide
(CEQ)	Council on Environmental Quality
(DOE)	Department of Energy
(EA)	Environmental Assessment
(EIS)	Environmental Impact Statement
(FPPA)	Farmlands Protection Policy Act
(FONSI)	Finding of No Significant Impact
(FY)	Fiscal Year
(FTE)	Full Time Equivalent
(GSA)	General Services Administration
(HAPs)	Hazardous Air Pollutants
(HVAC)	Heating Ventilation Air Conditioning
(KCP)	Kansas City Plant
(KCRIMS)	Kansas City Responsive Infrastructure Manufacturing and Sourcing
(LEED)	Leadership in Energy and Environmental Design
(MDNR)	Missouri Department of Natural Resources
(NPDES)	Nation Pollutant Discharge Elimination System
(NESHAP)	National Emission Standards for Hazardous Air Pollutants
(NEPA)	National Environmental Policy Act
(NNSA)	National Nuclear Security Administration
(NO2)	Nitrogen Dioxide
(NOI)	Notice of Intent
(PBS)	Public Buildings Service
(PM10)	Particulate Matter 10 micron cutoff
(PCBs)	Polychlorinated Biphenyls

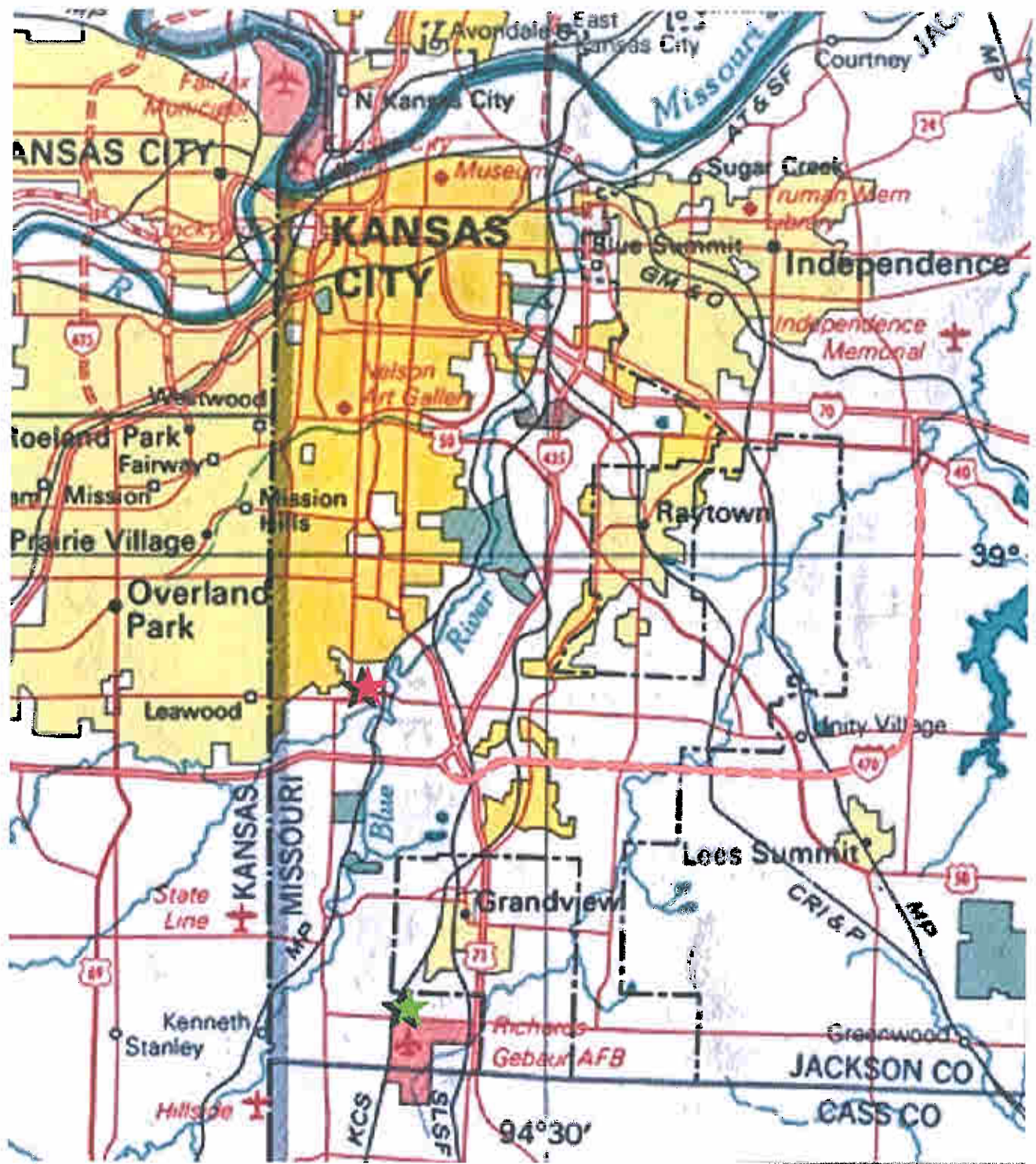
(PEIS)	Programmatic Environmental Impact Statement
(POTW)	Publicly Owned Treatment Works
(ROD)	Record of Decision
(RGA)	Richards Gebaur Air Force Base
(SHPO)	Missouri State Historic Preservation Officer
(SNL)	Sandia National Laboratory
(SWMUs)	Solid Waste Management Units
(SPCC)	Spill Prevention Control and Countermeasure
(SWPPP)	Storm Water Pollution Prevention Plan
(SO ₂)	Sulfur Dioxide
(USTs)	Underground Storage Tanks
(USACE)	United States Army Corps of Engineers
(VOCs)	Volatile Organic Compounds

1.0 PURPOSE

The National Environmental Policy Act of 1969 (NEPA) requires Federal officials to consider the environmental consequences of proposed actions prior to making decisions. The purpose of this Environmental Assessment (EA) is to provide Federal officials detailed information and analysis to determine if a Finding of No Significant Impact (FONSI) can be issued or if an Environmental Impact Statement (EIS) needs to be prepared.

The EA process is a systematic approach that is utilized to determine the impact of the evaluated alternatives on the environment. Potentially affected resources, including physical (including but not limited to air, hydrology, ecology, soils, plants and animals), cultural (including but not limited to archeological and historic) and socioeconomic (including but not limited to traffic, utilities, infrastructure) resources, are to be identified and characterized prior to implementation of the proposed action. The EA is used to identify and analyze potentially significant adverse environmental and socioeconomic impacts associated with the proposed activities. The No Action alternative provides the environmental baseline for performing the analysis. Effects are compared against the impacts of taking no action. If deemed appropriate, potential mitigation measures are also evaluated.

The General Services Administration (GSA), as the lead agency, and the National Nuclear Security Administration (NNSA), as a cooperating agency, have prepared this EA to evaluate the potential environmental impacts associated with the following project: Transformation of Facilities and Infrastructure for the Non-Nuclear Production Activities Conducted at the NNSA Kansas City Plant (KCP). This EA provides information and analysis of the proposed relocation of the NNSA KCP from its current location at the Bannister Federal Complex to a site currently developed for agricultural usage at the intersection of Botts Road and Missouri Highway 150, both located in Kansas City, Jackson County, Missouri (see Figure 1). The NNSA KCP proposes to construct and operate a new facility to reduce annual operating costs while improving responsiveness,



- ★ - BANNISTER ROAD SITE
- ★ - BOTTS ROAD SITE

psi Information
To Build On
 Engineering • Consulting • Testing
 Environmental Services
 1211 W. Cambridge Circle Dr. Kansas City, KS 66103
 PHONE: (913) 310-1600 FAX: (913) 310-1601

Figure 1.0

GSA-NEPA
 Site Vicinity Drawing
 Kansas City, Missouri

Scale:	NO SCALE
Date:	9-14-07
File Name:	gas-nepa
Project Number:	603-7G006

facility utilization and reliability for the supply of non-nuclear components to NNSA. The proposed new NNSA KCP would be a smaller production facility designed for flexibility to enable rapid reconfiguration to meet changing production requirements. The proposed facility would be at least 50% smaller in size than the current facility, resulting in reduced maintenance and energy costs.

The existing KCP is collocated on the Bannister Federal Complex with GSA and shares both individual buildings and utilities. At this time it is anticipated that GSA would also relocate to new office space and vacate the Bannister Federal Complex on approximately the same time schedule as the Kansas City Plant. It is also anticipated that disposal of the DOE-owned portion of the complex would be coordinated with the redeployment of the GSA-owned parcels, and may be managed as a single real property disposition action. Therefore, disposition and cleanup activities for the existing NNSA facility at the KCP are not part of the current proposed action and will be addressed in appropriate future environmental analyses.

The information contained in this EA will be used by GSA to determine if the proposed action is a major federal action posing a significant impact to the environment, requiring preparation of an EIS. NNSA intends to adopt this EA for use as a basis for decisions regarding the further transformation and downsizing of non-nuclear production activities performed at its KCP. This EA has been prepared pursuant to the National Environmental Policy Act of 1969 (NEPA), and regulations implementing NEPA issued by the Council on Environmental Quality (40 CFR Parts 1500-1508), GSA (ADM 1095.1F), and to the extent not inconsistent with ADM 1095.1F, DOE (10 CFR Part 1021).

Background

NNSA's non-nuclear operations include the procurement and manufacture of electrical, electronic, electromechanical, plastic, and mechanical components for the nuclear weapons program. Hazardous wastes are generated through general industrial processes and include acidic and alkaline liquids, solvents, oils and coolants. The KCP is

a non-nuclear site and does not have special nuclear materials, but operations do generate small quantities of low-level radioactive waste consistent with general industry practices.

The Department of Energy (DOE) completed a Nuclear Weapons Complex Reconfiguration (Complex-21) Study in January 1991, which identified significant cost savings that could be achieved by downsizing the nuclear weapons complex. On January 27, 1992, the Department issued a Notice of Intent (NOI) (57 FR 3046) to prepare an EA (DOE/EA-0792) for the consolidation of non-nuclear production activities within the nuclear weapons complex. On September 14, 1993, DOE published a Finding of No Significant Impact (FONSI) regarding its proposal (58 FR 48043) to terminate non-nuclear production missions at the Mound Plant in Ohio, the Pinellas Plant in Florida, and the Rocky Flats Plant in Colorado, and consolidate the electrical and mechanical manufacturing functions at the KCP.

DOE issued a NOI on June 6, 1995 (60 FR 31291), along with a final Stockpile Stewardship and Management Programmatic Environmental Impact Statement (PEIS) on November 19, 1996 (61 FR 58871) and a Record of Decision (ROD) on December 26, 1996 (61 FR 68014), announcing its decision to transform the weapons production complex by further downsizing of the nuclear weapons complex. This decision included reducing non-nuclear component fabrication capacity at the KCP. In these documents, DOE evaluated alternatives for consolidation of non-nuclear manufacturing, storage and surveillance functions of the nuclear weapons complex to the KCP and reducing the capacity for non-nuclear component fabrication. This was the environmentally preferable alternative, exhibited the least technical risk, and was also the least-cost alternative. The proposed action would continue the consolidation and downsizing of non-nuclear activities at the KCP, which began in the early 1990s.

In addition, NNSA is currently considering alternatives that would consolidate, relocate or eliminate duplicative facilities and programs and improve operating efficiencies. Because the non-nuclear operations at KCP are essential and are not duplicative, no proposal for relocation or elimination of these missions was formulated.

KCP occupies a large and aging industrial complex in Kansas City collocated on a site with the U.S. General Services Administration (GSA). The current complex is much larger than is required by NNSA and, because of its age and size, is expensive to operate. The alternatives evaluated in this EA are constructed around the mission need to maintain the KCP while downsizing for cost efficiency with projected savings of approximately \$100M per year. Separately, NNSA is preparing a Supplement to the Stockpile Stewardship and Management Programmatic Environmental Impact Statement (SPEIS) (DOE/EIS-0236-S4) that evaluates alternatives for the continued transformation of other sites within the nuclear weapons complex.

Further, while the operations at KCP could be made more efficient at the proposed new KCP facility, a recent analysis has concluded that transferring these operations to a site other than one within the immediate Kansas City area would not be cost effective. (see Section 3.4) Consequently, the non-nuclear operations would remain at either the current KCP or the proposed new KCP facility because (1) KCP downsizing has benefits independent of the rest of the transformation proposal, (2) KCP downsizing decisions would neither affect nor be affected by the transformation decisions around proposed actions or alternatives in the SPEIS, (3) NNSA expects a decision on construction of the new KCP facility to be made prior to any decisions that would be made based on the SPEIS allowing NNSA to take advantage of projected cost savings, and (4) maintaining and downsizing the KCP in the Kansas City area is consistent with previous NEPA analysis and recent cost analysis.

Public Comment

The GSA and NNSA issued a Notice of Intent (NOI) on 1 May 2007 in the Federal Register (Vol. 72, No 83, page 23822) informing the public and other stakeholders of the proposed action. The NOI also stated that public comments were being requested and that a public scoping meeting would be held in Kansas City, MO. To facilitate public comment on the proposed action a public scoping meeting was held on 23 May 2007. A total of 97 people signed in at the public meeting. Fourteen written comments were submitted and twenty-four speakers provide comments that were

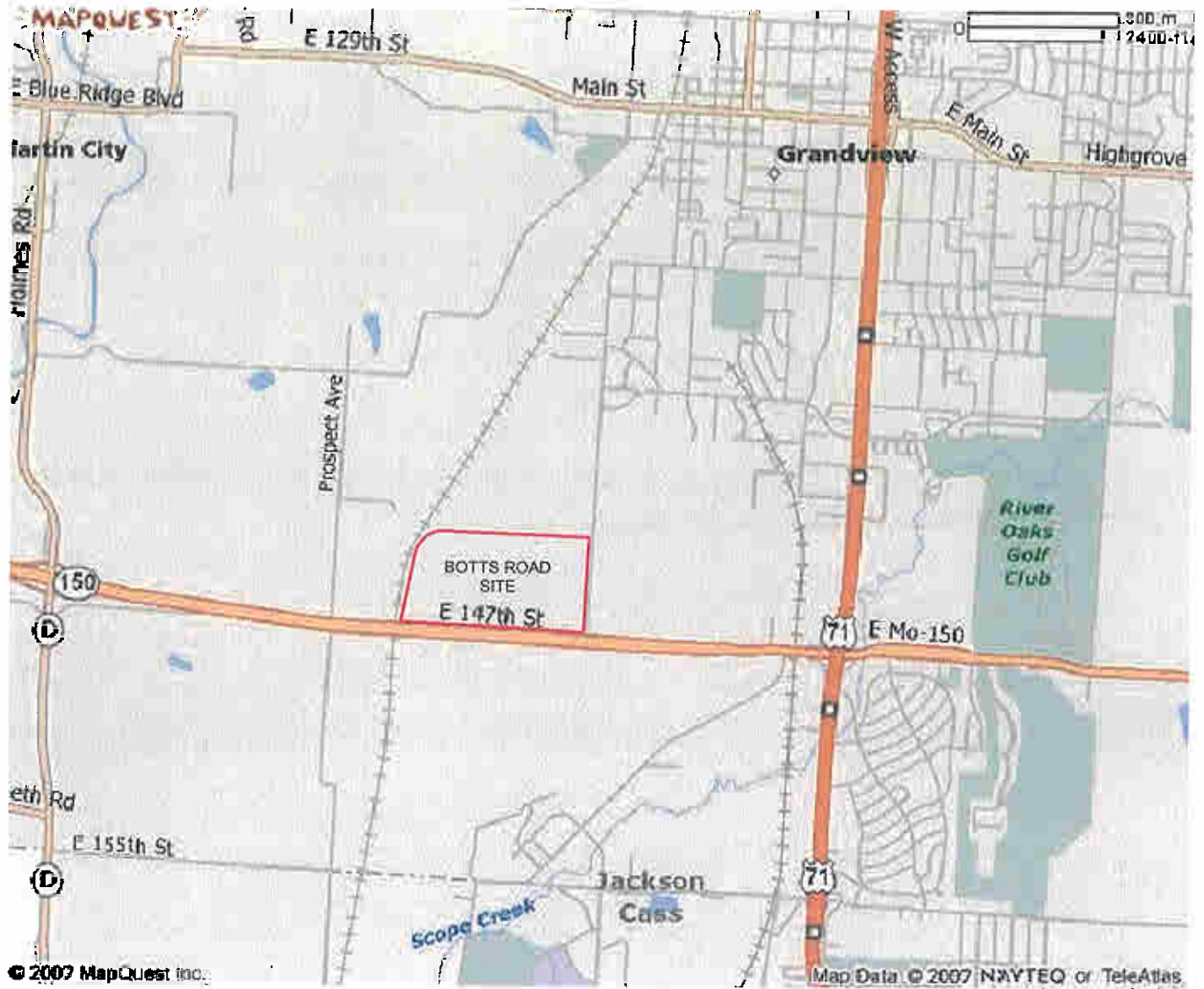
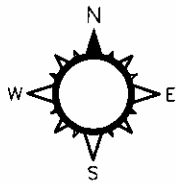
transcribed for the record. Everyone who requested to speak was provided the opportunity.

Public comments on the scope of the EA were requested to be submitted to GSA by 30 May 2007. Approximately 500 people provided comments including those received during the public scoping meeting. All comments were considered during the preparation of the EA. The comment period was not extended beyond 30 days due to the fact that the public would be given another opportunity to review and comment on the draft EA prior to publishing the final EA. All comments received are posted on the GSA website. (www.gsa.gov/kansascityplant)

The public is also being asked to comment on this draft EA. Comments should be provided as requested in the Notice of Availability posting in the Federal Register for this EA. All comments received will be considered and responses will be provided in an appendix to the final EA. There is no requirement for GSA or NNSA to hold public scoping meetings or public comment periods for an EA. In response to public interest, NNSA has requested GSA to involve the public to the extent practicable in preparing this EA and to encourage and facilitate public involvement in decisions which affect the quality of the human environment.. No additional public meetings are scheduled for this EA.

2.0 DESCRIPTION OF PREFERRED OPTION

The proposed action is for GSA to procure the construction of a new multi-structure facility and for NNSA to operate its non-nuclear component procurement and manufacturing mission. The new facility would be located approximately eight (8) miles south of the existing plant on a site currently developed for agricultural usage, situated at the northwest corner of Missouri Highway 150 and Botts Road in Kansas City, Missouri (see Figure 2). GSA would issue a Solicitation for Offers to the real estate development community. The successful developer would partner with GSA and NNSA to design and construct a campus that meets NNSA's needs. GSA would lease the facility on NNSA's



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— APPROXIMATE SITE BOUNDARY

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Figure 2

GSA-NEPA
Botts Road Site
Kansas City, Missouri

Scale:

NO SCALE

Date:

9-14-07

File Name:

gsa-nepa

Project Number:

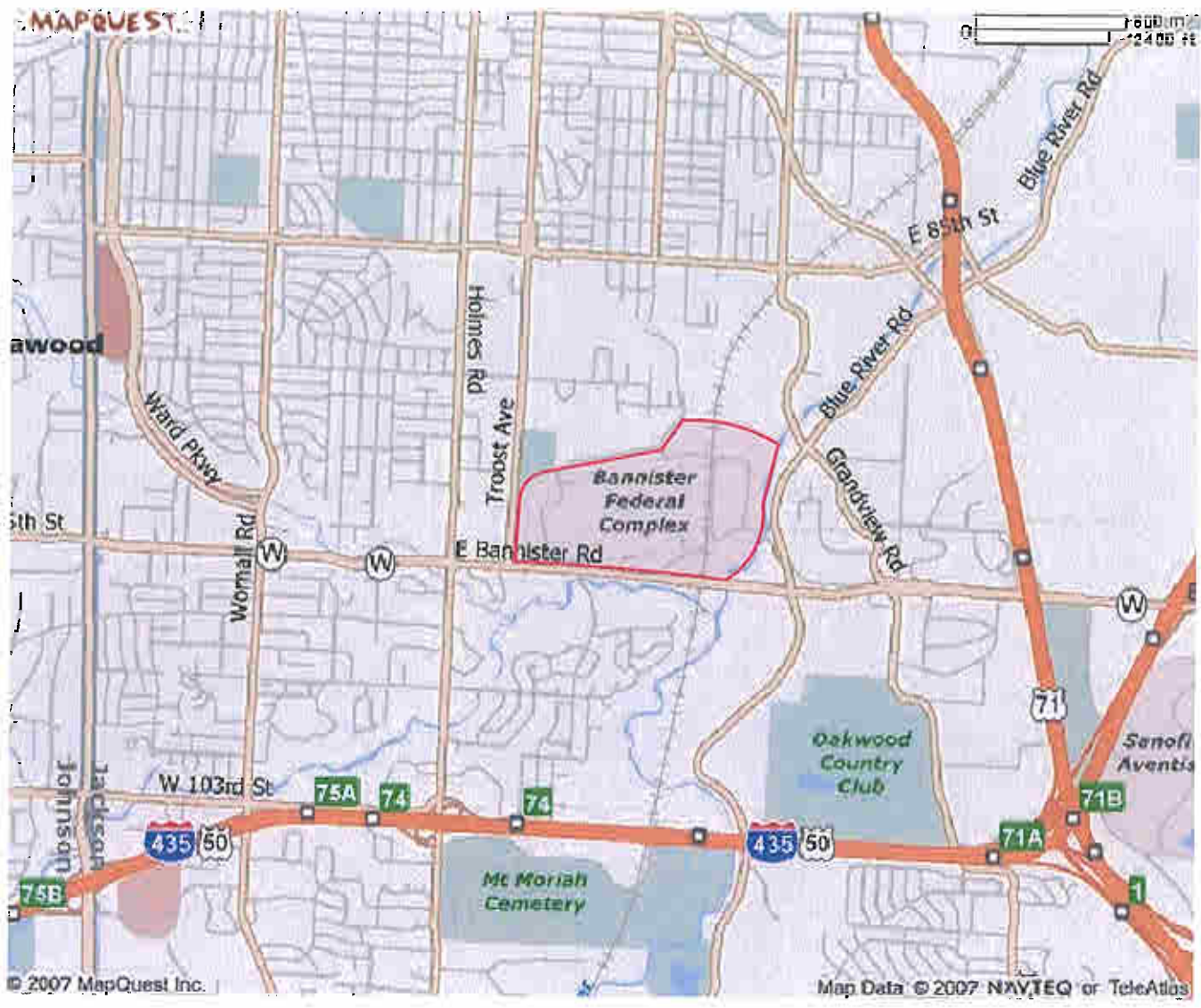
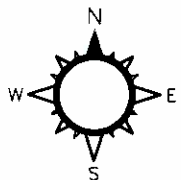
603-7G006

behalf and NNSA would relocate its non-nuclear operations from the existing KCP at the Bannister Federal Complex in Kansas City, Missouri (see Figure 3), to the new facility and conduct future operations in the new facility. The relocation would involve moving approximately two-thirds of the existing capital and process equipment to the new facility.

The proposed facility would cover approximately 1 to 1.55 million rentable square feet and provide up to 2,900 surface parking spaces. The current facilities are approximately 3 million square feet. The proposed facility would meet current and future production requirements for NNSA in a modern, cost effective, and flexible manner through reductions in the current facility footprint while significantly reducing operational, maintenance, security, and energy costs. It should be noted that the preferred site is currently developed for agricultural usage and utilities such as sanitary and storm sewer are not currently available to the site. Therefore, improvements to basic infrastructure would be required.

The GSA and NNSA are committed to the construction of a high-performing, environmentally sustainable facility. The new campus would be constructed to pursue a Leadership in Energy and Environmental Design (LEED), version 2.2, Gold certification, as defined by the United States Green Building Council. In addition, the campus would meet all executive orders on energy conservation.

A workforce reduction of approximately 900 employees (fiscal year (FY)05 baseline) would be enacted under this option due to the implementation of business process improvements, reduced facility square footage, and the shift in facility infrastructure maintenance from KCP to the building owner. However, at the end of FY07, 250 of the 900 full time equivalent (FTE) reduction has already been realized. The growth of the work for others business could result in offsetting the reduction..



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Figure 3
 GSA-NEPA
 Bannister Road Site
 Kansas City, Missouri

Scale:	NO SCALE
Date:	9-14-07
File Name:	gsa-nepa
Project Number:	603-7G006

3.0 ALTERNATIVES CONSIDERED

3.1 Introduction

In addition to the Preferred Option, a variety of other facility options are being considered for transformation of the NNSA KCP. The additional alternatives under consideration are outlined below:

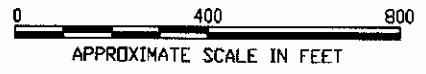
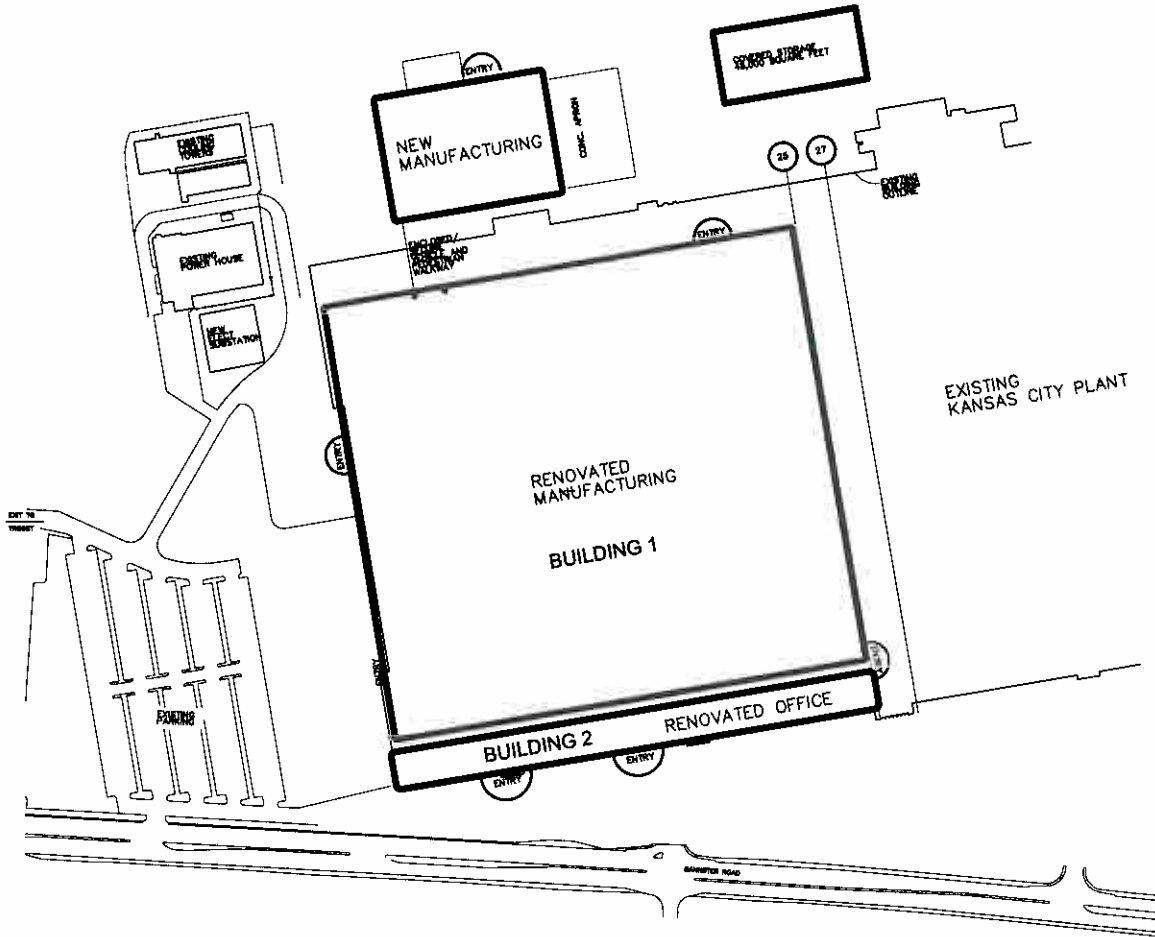
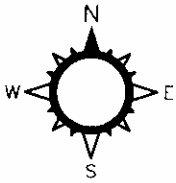
3.2 Alternative No. 1 – No Action

Under the no action scenario, NNSA's current non-nuclear operations at the existing 65 year old Bannister Federal Complex would continue without modification. This alternative would maintain the status quo at a relatively high fixed cost of operation, but inhibit the ability to realize significant infrastructure cost savings associated with construction of a new facility designed to meet changing production requirements. Facility infrastructure improvement projects, both deferred and new, would need to be designed and incorporated into the plant operating budget to ensure continuity of operations and maintaining the long-term viability of the site. A workforce reduction of approximately 350 employees (FY05 baseline) would be enacted under this alternative due to the implementation of business improvements. At the end of FY07, 250 of the 350 FTE reduction has already been realized.

3.3 Proposed Facilities at Bannister Federal Complex

3.3.1 Alternative No. 2 – Renovate Existing GSA Office/Warehouse Space

Alternative No. 2 proposes renovation of the existing GSA office and warehouse space (Buildings #1 and #2) located on the western portion of the Bannister Federal Complex (see Figure 4). NNSA's operations would relocate to the renovated facility. The office building would be reconfigured to maximize the space available for open office workstations and the warehouse building would be converted to a manufacturing



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Figure 4
Conceptual Layout Plan Alternative No. 2
 GSA-NEPA
 Bannister Road
 Kansas City, Missouri

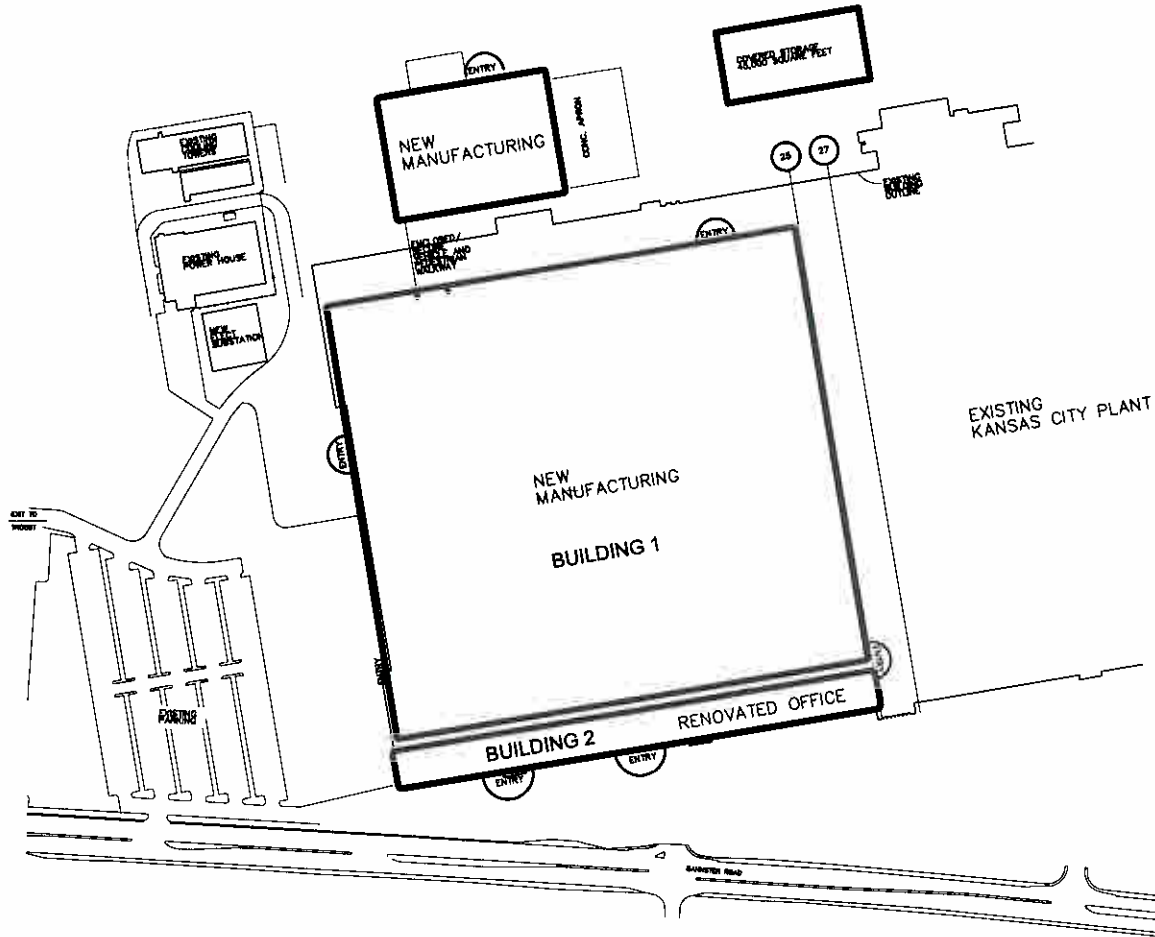
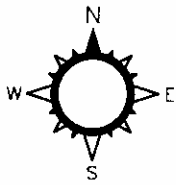
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File Name:	gsa-nepa
Project Number:	603-7G006

environment. Small outbuildings located north of the renovated GSA warehouse space would be demolished and a new manufacturing building would be constructed to house specialty manufacturing operations. The two buildings would be connected using enclosed, secured vehicle/pedestrian traffic ways. Office renovation work would include new carpeting, ceilings, walls, lighting, plumbing, HVAC, electrical, telephone, and data network infrastructure. The exterior façade of the building would be removed and replaced. The warehouse building renovation would include the removal and replacement of floor slabs and supporting floor structures, reconstruction of the roof and removal/replacement of the exterior façade of the building, along with the renovation of the utility and data network infrastructure described for the office building renovation.

A workforce reduction of approximately 700 employees (FY05 baseline) would be enacted under this alternative due to the implementation of business improvements and the reduced square footage to be maintained. At the end of FY07, 250 of the 700 FTE reduction has already been realized.

3.3.2 Alternative No. 3 - Renovate Existing GSA Office Space, Demolish Warehouse Space, and Build a New Manufacturing Facility

Alternative No. 3 proposes renovation of the existing GSA office space (Building #2) and demolition of the existing GSA warehouse space (Building #1) (see Figure 5). A new manufacturing, laboratory, and warehouse facility would be constructed adjacent to the renovated office space. Small outbuildings north of the existing GSA warehouse space would be demolished and a second new manufacturing building would be constructed to house specialty manufacturing operations. The two new buildings and the renovated office building would be connected using enclosed, secured vehicle/pedestrian traffic ways. The new building would include high bay, clear span manufacturing space to accommodate large equipment and unique operations. Renovation of the office building would be as described in Alternative No. 2.



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Figure 5
Conceptual Layout Plan Alternative No. 3

GSA-NEPA
Bannister Road
Kansas City, Missouri

Scale:	NO SCALE
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3.3.3 Alternative No. 4 - Demolish Existing GSA Office and Warehouse Space and Construct New Office and Manufacturing Facility

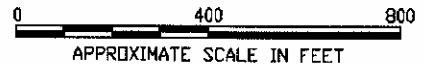
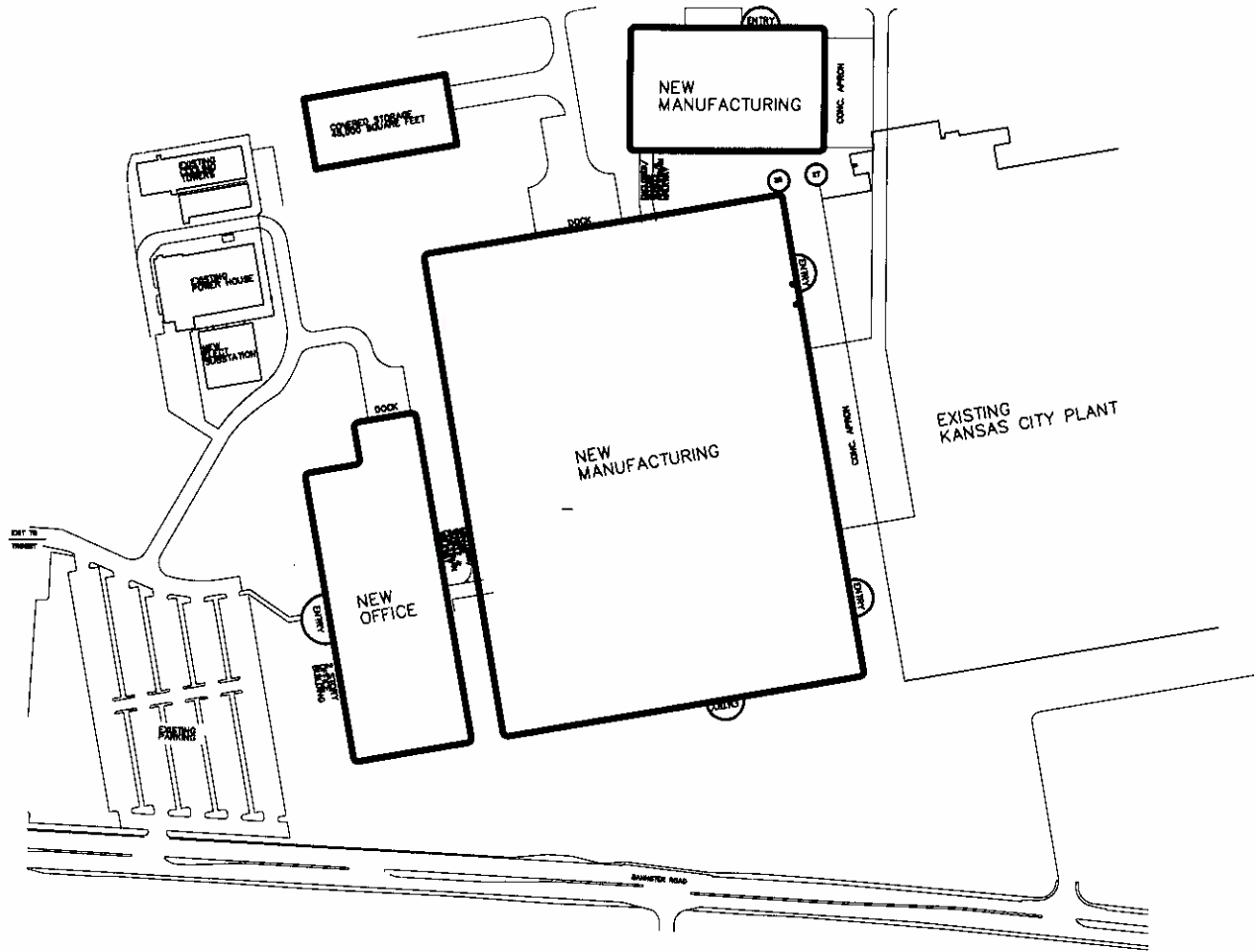
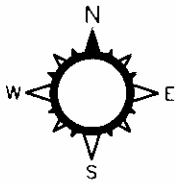
Alternative No. 4 proposes demolition of the existing GSA office and warehouse spaces (Buildings #1 and #2) and the small outbuildings located north of the existing GSA warehouse space. Following demolition, new office and manufacturing facilities would be constructed on GSA's portion of the Bannister Federal Complex (see Figure 6). The new buildings constructed under this alternative would differ from those in the proposed alternative in that the existing industrial wastewater pretreatment facility may be used to service the new facility.

A workforce reduction of approximately 750 employees (FY05 baseline) would be enacted under this alternative due to the implementation of business improvements and a further reduction in square footage of 135,000 square feet to be maintained. At the end of FY07, 250 of the 750 FTE reduction has already been realized.

3.4 Alternatives Considered but not Further Evaluated

3.4.1 Alternatives Considered in Kansas City Metropolitan Area

GSA's NEPA implementing regulations -- the GSA Public Buildings Service (PBS) NEPA Desk Guide (October 1999) -- provide an automatic "categorical exclusion" (CATEX) for the acquisition of property interests such as the option to purchase and develop the Botts Road/Highway 150 property described above in Section 2.0. GSA's NEPA standards also require any post-acquisition use of such property interests be analyzed under NEPA prior to their use. Therefore, in examining the alternatives to meeting NNSA's purpose and need, the environmental impacts of this specific alternative -- the development of an alternative site to the Bannister Federal Complex -- are being studied in this Environmental Assessment.



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Figure 6
 Conceptual Layout Plan Alternative No. 4

GSA-NEPA
 Bannister Road
 Kansas City, Missouri

Scale:	NO SCALE
Date:	9-14-07
File Name:	gsa-nepa
Project Number:	603-7G006

Although the decision to acquire this property interest is subject to a CATEX, several other alternative locations for the Bannister Federal Complex were nonetheless considered before deciding to acquire the Botts Road/Highway 150 development rights in 2007. In particular, multiple sites in the Kansas City metropolitan area were visited and evaluated during a GSA-conducted market survey held in 2007. These sites were examined and ranked using criteria that included lot size, topography, employee impact, zoning, land-use development potential, accessibility, existing conditions, and available services and utilities. The property located at the northwest corner of Botts Road and Highway 150 became the preferred site for an alternative to the Bannister Federal Complex because the results of applying these criteria favored its selection. In particular, the Botts Road/Highway 150 location:

- represented the least disruption to the commuting patterns of the existing plant workers
- contained excellent access to road and rail infrastructure with plans by the City, County and State to further upgrade the roads to reduce adverse impacts on traffic attributable to development of the Botts Road/Highway 150 parcel; and
- while currently zoned for agricultural use, was deemed in its projected state of development to match the proposed zoning development of the area, as is set forth in the Kansas City Planning Commission's Area Plan for Martin City/Richards-Gebaur (June 14, 2001).

The second ranked site already had a purchase option on the property by another developer so was unavailable. Other sites either did not satisfy or only partially satisfied project needs and were not further evaluated due to adverse impacts to employee commute, inadequate site accessibility, proximity to residential areas, need for extensive site work or lack of infrastructure support.

In sum, the site for the preferred option represented the best business case decision and its environmental impacts are being evaluated in this EA.

An option to renovate the current KCP was also considered and removed from further consideration due to program risk and cost to the NNSA for the extensive renovation required. This alternative would have involved extensive build-ahead planning and upfront investment to accommodate the extended product line interruption associated with renovation of the existing site. Renovation of the existing NNSA facility has been performed on several occasions, always at considerable cost and disruption to the continuity of operations. It would be difficult if not impossible to completely replace infrastructure and transform the facility into a flexible, responsive operation without a complete shutdown of operations for two to three years.

3.4.2 Alternative Considered Outside Kansas City Metropolitan Area

In response to comments made during the public scoping comment period, the NNSA Office of Transformation prepared an independent and objective assessment of the business case for moving non-nuclear production from the KCP to an alternate city for comparison with alternatives identified in the GSA/NNSA EA NOI. The report assessed alternate locations that would co-locate non-nuclear production with other defense program activities and selected Albuquerque, New Mexico as the location that would offer the highest co-location benefits to NNSA. Sandia National Laboratory (SNL), the primary design laboratory for non-nuclear components, is in Albuquerque.

The report concluded that moving non-nuclear production outside the Kansas City metropolitan area does not present a competitive business case for NNSA. This conclusion remains valid throughout the range of reasonable values for the parameters modeled. The potential financial benefits accrued from co-locating non-nuclear production with non-nuclear design are very unlikely to outweigh the costs of relocating production under the most optimistic assumptions. The most likely outcome of relocating the non-nuclear production to Albuquerque results in a negative net present value of approximately \$289 million from FY 2008 to FY 2030 compared with retaining the facility in Kansas City. Schedule risk weighed very heavily in the final outcome of the study as well as near-term

negative cash flow from increased upfront investment required for an alternate city move (SAIC, 2007).

The Kansas City Responsive Infrastructure, Manufacturing, and Sourcing (KCRIMS) model has the best associated business case for relocation based on the conclusions made in the report, therefore, this alternative has not been further assessed in this EA.

4.0 AFFECTED ENVIRONMENT

4.1 Introduction

The purpose of the EA in general is to evaluate potential environmental impacts, thus providing the scientific and technical basis for comparing the alternatives presented in the alternatives section. The current environmental conditions at the Bannister Federal Complex and the property located at Botts Road and Missouri Highway 150 are presented in the following sections, and serve as a baseline against which the proposed alternatives are considered.

4.2 Baseline Environmental Conditions at Bannister Federal Complex

4.2.1 Location and Physical Description

The Bannister Federal Complex is located approximately 8.5 miles south of the city center of Kansas City in Jackson County, Missouri, within the incorporated city limits. The Bannister Federal Complex can be accessed via several major roads (Interstate 435 and Highway 71), as well as other smaller secondary streets (see Figure 1). The Bannister Federal Complex occupies approximately 310 acres and houses facilities used by multiple federal agencies including the NNSA and GSA. The KCP currently occupies approximately 136 acres on the Bannister Federal Complex.

4.2.2 Land Use

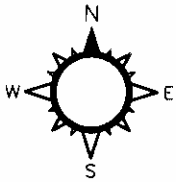
The Bannister Federal Complex currently houses GSA office and warehouse space, as well as NNSA office space, warehouse space and manufacturing facilities. The 310-acre complex is comprised of a total of 53 buildings, 38 of which are utilized by NNSA and 15 of which are utilized by GSA. As many buildings are contiguous, only 16 separate buildings would appear from an aerial view of the Bannister Federal Complex (see Figure 7).

4.2.3 Demographics

In 2000, the City of Kansas City, Missouri had a population of 441,545 people; with 25.4% of the population under 18 years of age and 11.7% of the population over the age of 65 years. The majority of the population was white (60.7%) or black/African American (31.2%). The median household income in 1999 was \$37,198 (U.S. Census Bureau, 2007a).

In 2000, Jackson County, Missouri had a population of 662,959 people; with 25.2% of the population under 18 years of age and 12.2% of the population over the age of 65 years. In 2005, the majority of the population was white (72.6%) or black/African American (23.4%). The 2003 median household income was \$42,066 (U.S. Census Bureau, 2007b).

According to the 2000 census, 65,857 people lived within a three mile radius of the Bannister Federal Complex., with 24.4% of the population under the age of 19 years and 17.8% of the population over the age of 65 years. The majority of the population was white (50.6%) or black/African American (41.6%). The median household income was \$41,318 (KC, MO 2007a).



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Figure 7
 Bannister Road Site Aerial Photography

GSA-NEPA
 Bannister Road Site
 Kansas City, Missouri

Scale:	NO SCALE
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4.2.4 Climate

From 1971 to 2000, the annual mean temperature in Kansas City was 56.5°F. The coldest month is January, with a mean temperature of 29.3°F and the warmest month is July, with a mean temperature of 81.3°F. The coldest recorded temperature was -19°F in December 1989 and the highest recorded temperature was 112°F in July 1954. The annual mean precipitation is 35.51 inches and the annual mean snowfall is 12.6 inches (NCDC, 2004).

4.2.5 Geology

The Bannister Federal Complex is underlain by stream alluvium. The alluvium is approximately 40 to 45 feet thick and includes a continuous upper layer of thin-bedded clayey silt, with minor amounts of sand and a basal gravel within a sand-silt-clay matrix. The basal gravel ranges in thickness from a few inches to 8 feet and consists of fragments of eroded bedrock in a sand-silt-clay matrix. The basal gravel is continuous throughout the site. The uppermost clayey silt and basal gravel layers are separated in certain areas by a layer of olive to blue-green clayey silt.

The bedrock underlying the alluvium consists of shales and sandstones of the Pleasanton Group. The overlying Kansas City Group has been eroded away and is no longer present at the Bannister Federal Complex. The erosional surface of the Pleasanton Group is in direct contact with the alluvium and slopes gently to the east towards the Blue River.

The Knobtown Sandstone underlies the alluvium across the central portion of the Bannister Federal Complex. This sandstone is a well-sorted, very fine-grained, well-cemented, lithic arkose of marine origin. Generally, the Knobtown consists of monocrystalline quartz, sedimentary rock fragments, authigenic clay, potassium feldspar, plagioclase, chlorite from altered biotite, muscovite, and carbonaceous material. The Knobtown ranges in thickness from approximately 5 to 10 feet and is present in the upper

30 feet of the Pleasanton Group, except where it has been removed by Quaternary erosion. The surrounding unnamed shales of the Pleasanton Group show transitional features due to their formation in near-shore sands to off-shore muds. Approximately 20 feet of shale are present over the Hepler sandstone with at least 20 feet of shales present below the Hepler based on logs of historical bedrock wells at the facility.

4.2.6 Soils

The Bannister Federal Complex occupies areas where much of the surface is covered by concrete, asphalt, buildings, or other impervious material. In many parts of the facility, fill material has been added over the years and comprises near surface material. Due to the extensive amount of construction on the complex, native soils are rare or nonexistent. Vegetation consists mainly of ornamental trees, shrubs, and lawn grasses.

4.2.7 Groundwater Hydrology

The Western Interior Plains aquifer system underlies most of Kansas, the eastern and southern parts of Nebraska, and a small area in west-central Missouri. The aquifer system consists of water-yielding dolomite, limestone and sandstone that are stratigraphically equivalent to aquifers of the Ozarks Plateaus aquifer system. The Western Interior Plains aquifer contains no freshwater.

The Western Interior Plains aquifer system consists of lower aquifer units in rocks of the Ordovician and Cambrian age, a shale confining unit of Mississippian and Devonian age, and an upper aquifer unit comprised of Mississippian limestone. The thickness of the aquifer (including the confining unit) ranges from less than 500 feet to more than 3,000 feet. The aquifer system is thin or absent on structural uplifts and is thickest in downwarps.

Regional groundwater in the aquifer system flows towards the southeast-east. Much of the water discharges from the aquifer system in the transition zone between the Western Interior Plains and the Ozark Plateaus aquifer systems. The aquifer system is considered to have a low permeability.

Dissolved-solids concentrations of water in the Western Interior Plains aquifer system are typically greater than 1,000 milligrams per liter. In thick, deeply buried parts of the aquifer system, dissolved-solids concentrations of more than 200,000 milligrams per liter have been reported. The elevated concentrations are due in part to the slow movement of groundwater in the aquifer system.

The Western Interior Plains aquifer system is not generally developed for potable use because the aquifer system is deeply buried and contains highly mineralized water. Locally, deeply buried parts of the aquifer system contain oil and gas, and some brine that is a by-product of hydrocarbon production is injected into disposable wells, which are completed in permeable parts of the system (USGS, 1997).

4.2.8 Surface Water Hydrology

The Bannister Federal Complex is located in the alluvial flood plain of the Blue River and Indian Creek. The facility is drained by a combination of four National Pollutant Discharge Elimination System (NPDES) permitted storm sewer systems, six nonpermitted (i.e., non-industrial) storm sewers, and surface drainage ditches. Selected fire protection system test flows, heating ventilation air conditioning (HVAC) condensate, and rainwater from building roofs and paved areas in the manufacturing areas drain into a network of underground laterals which connect to storm sewer system mains and then to the outfall areas that empty into the two streams. Some parking and undeveloped areas within the facility are drained through a ditch system along the western, southeastern, and a portion of the northern site boundaries.

Surface waters around the KCP consist of the two bordering streams and intermittent stormwater runoff in the drainage ditches. Sampling by the KCP is periodically performed at locations along the streams and at the four permitted storm sewer outfalls in compliance with the NPDES permit.

The Blue River and Indian Creek are subject to frequent flooding due to intense urban development, especially in the lower basin of the river. This has caused even moderate flood flows to become a serious problem. The Blue River and Indian Creek leave their banks several times a year; however, the water generally flows onto undeveloped land, including currently vacant portions of Bannister Federal Complex (i.e., primarily the northeast portion of the property, along the Blue River). A flood-protection system completed in 1994 is designed to prevent 500-year floods from reaching the KCP.

Operating under an Industrial Wastewater Discharge Permit from Kansas City, MO, the KCP discharges approximately 290,000 gallons/day of wastewater to the Blue River Wastewater Treatment facility. Water generated from onsite groundwater treatment, as well as all regulated process and industrial wastewater is treated at the onsite industrial wastewater pretreatment facility prior to reuse as cooling tower make-up water or discharge to the sanitary sewer system.

4.2.9 Flora and Fauna

The majority of the Bannister Federal Complex is currently developed with buildings, roads, and parking lots. There are several small vegetated areas around the site and a larger vegetated area on the northwest corner of the complex. There are no records of species or habitats of federal or state conservation concern within one mile of the site (MDC 2007a). No threatened or endangered species are known to occupy the site and there are no documented wetlands existing on the site.

4.2.10 Air Quality & Permitting

The current annual air emissions from the KCP are 17.8 tons. The emissions are from the boilers and process heaters (13.8 tons), electronic solvent spray cleaning operations (3.5 tons), painting operations (0.4 tons), and chrome plating operations (0.1 tons). Currently the KCP is designated as a major source as defined by the National Emission Standards for Hazardous Air Pollutants (NESHAP) of the Clean Air Act.

4.2.11 Historical and Cultural Resources

A Cultural Resource Assessment was performed by SCI Engineering, Inc. for the Bannister Federal Complex. Due to the fact that the property has been previously disturbed by the construction of the existing complex, and the fact that proposed construction is in developed portions of the site, there is a low probability for finding prehistoric, historic Native American and historic Euro-American archeological sites within the project area.

The KCP may, however, be eligible for listing on the National Register of Historic Places under Criteria A, Events for Pratt & Whitney's engines use during World War II and for its role in the development of the U.S. nuclear program; and also under Criteria C, Architecture, for its facility design. If the facility is considered to be eligible, the Missouri State Historic Preservation Officer (SHPO) will determine the level of recordation necessary (SCI, 2007). A copy of the SHPO determination letter is attached in Appendix A.

4.2.12 Solid and Hazardous Waste

KCP operations generate approximately 4.4M lbs of waste per year. This waste can be categorized as routine and non-routine and further characterized as hazardous or non-hazardous. Routine waste is generated from normal production, maintenance, or support activities while non-routine waste is typically generated from construction or

refurbishment activities and environmental restoration activities. Routine hazardous waste disposed from the existing KCP is approximately 37,000 lbs/year. The non-routine hazardous waste disposal from environmental restoration activities, construction projects, or maintenance activities conducted within contaminated areas totals approximately 390,000 lbs/year. Routine non-hazardous waste accounts for 1.4M lbs per year while non-routine non-hazardous waste totals 0.6M lbs per year. An additional 1.9M lbs of hazardous and non-hazardous waste is recycled each year, representing approximately 43% of the total waste generated. Approximately 40 pounds of low level radioactive waste is generated each year from typical industrial processes.

4.3 Baseline Environmental Conditions at Botts Road

4.3.1 Location and Physical Description

The subject property is located approximately 16 miles southwest of the city center of Kansas City in Jackson County, Missouri, within the incorporated city limits (see Figure 1.0). The subject property consists of approximately 185 acres of land that is primarily developed for agricultural usage and is located on the northwest corner of the intersection of Missouri Highway 150 and Botts Road. Remnants of agricultural and housing structures are located along a former roadway extending in an east-west direction through the central portion of the property. A separate north-south trending roadway extends from Missouri Highway 150, near the southwest corner of the property, approximately 915 feet into the property. Remnants of structures associated with a former radio beacon utilized by the Air Force in conjunction with Richards-Gebaur Airport are fenced-in and located at the terminus of the roadway. A small vacant building is located within the fenced-in area.

4.3.2 Land Use

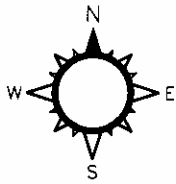
The property consists of approximately 185 acres of land that is primarily developed for agricultural usage (see Figure 8). Portions of the property have previously been developed with a residence, scattered auxiliary structures utilized in the agricultural enterprise and a radio beacon for the southern adjoining former airport. The majority of the site is currently used for agricultural purposes, although some remnants of the former agricultural structures remain and the partially fenced radio beacon parcel contains a small vacant building and several concrete slabs. A petroleum pipeline, held in nitrogen owned by Magellan Midstream Partner, L.P. transects the northern half of the site from east to west.

4.3.3 Demographics

In 2000, the City of Kansas City, Missouri had a population of 441,545 people; with 25.4% of the population under 18 years of age and 11.7% of the population over the age of 65 years. The majority of the population was white (60.7%) or black/African American (31.2%). The median household income in 1999 was \$37,198 (U.S. Census Bureau, 2007a).

In 2000, Jackson County, Missouri had a population of 662,959 people; with 25.2% of the population under 18 years of age and 12.2% of the population over the age of 65 years. In 2005, the majority of the population was white (72.6%) or black/African American (23.4%). The 2003 median household income was \$42,066 (U.S. Census Bureau, 2007b).

According to the 2000 census, 33,406 people live within a three mile radius of the Botts Road site, with 31.4% of the population under the age of 19 years and 9.4% of the population over the age of 65 years. The majority of the population was white (78.7%) or black/African American (15.5%). The median household income was \$42,242 (KC, MO 2007b).



LEGEND

— APPROXIMATE SITE BOUNDARY

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Figure 8
Botts Road Site Aerial Photograph

GSA-NEPA
Botts Road Site
Kansas City, Missouri

Scale:	NO SCALE
Date:	9-14-07
File Name:	gsa-nepa
Project Number:	603-7G006

4.3.4 Climate

From 1971 to 2000, the annual mean temperature in Kansas City was 56.5°F. The coldest month is January, with a mean temperature of 29.3°F and the warmest month is July, with a mean temperature of 81.3°F. The coldest recorded temperature was -19°F in December 1989 and the highest recorded temperature was 112°F in July 1954. The annual mean precipitation is 35.51 inches and the annual mean snowfall is 12.6 inches (NCDC, 2004).

4.3.5 Geology

The Kansas City Group includes a succession of beds that extends from the base of the Hertha Formation to the top of the Bonner Springs Shale. The succession is divided into three subgroups, in ascending order: the Bronson, the Linn and the Zarah. The top and base of the Kansas City Group are conformable with strata above and below, and the subgroup boundaries are also conformable. The Kansas City Group is well exposed at many localities in western and northern Missouri. The Bronson Subgroup is approximately 80 feet thick and contains the Hertha, Ladore, Swope, Galesburg and Dennis formations. The Bethany Falls and Winterset Limestone are the most prominent lithologic units in the subgroup.

The Botts Road Site is underlain by the Bonner Springs Formation, which consists of the Bonner Springs Shale. The Bonner Springs Shale is composed principally of silty, gray, micaceous shale, but includes lenticular sandstone and locally, silty limestone in the upper part. An extremely thin, irregular coal bed has been reported to occur in the uppermost part of the formation at some localities in Northern Missouri. The lower and middle parts of the formation at some localities contain scattered clay-ironstone concretions. The thickness of the formation ranges from less than 20 feet to as much as 40 feet.

The Bonner Springs Formation is underlain by the Wyandotte Formation which consists of interbedded shale and limestone. The upper member of the Wyandotte Formation is the Farley Limestone Member. The Farley Limestone Member contains two limestone units and an intervening shale bed in its type area. The lower limestone unit is oolitic and extremely variable in thickness. The overlying shale contains a poorly-defined coal horizon in its upper part. The upper limestone is largely composed of algal debris and ranges in thickness from 2 to 3 feet. The member contains many gastropods and pelecypods. The average thickness of the Farley Limestone Member is about 15 feet (Thompson, 1995) (Gentile, 1983).

4.3.6 Soils

The Sharpsburg silt loam, 2 to 5 percent slopes, was identified as being located on the western portion of the subject property. The Sharpsburg silt loam is characterized by deep, gently sloping, moderately well drained soil on convex ridgetops. Permeability is moderately slow and surface runoff is medium. Natural fertility and available water capacity are high. Organic matter content is high and the shrink-swell potential is moderate.

The Sharpsburg silt loam, 5 to 9 percent slopes, was identified as being located on the southwest portion of the subject property. This moderately sloping, moderately well drained soil occurs on convex side slopes and narrow, convex ridgetops. Permeability is moderately slow and surface runoff from cultivated areas is medium. Natural fertility is medium and available water capacity is high. The organic matter content and the shrink-swell potential are moderate.

The Greenton silty clay loam, 5 to 9 percent slopes, was identified as being located on the eastern portion of the subject property. This deep, moderately sloping, somewhat poorly drained soil occurs on upland side slopes. Permeability is slow in this Greenton soil and surface runoff from cultivated areas is medium. The available water

capacity and natural fertility are high. Organic matter content is moderate. The shrink-swell potential is high in the subsurface.

4.3.7 Groundwater Hydrology

The Western Interior Plains aquifer system underlies most of Kansas, the eastern and southern parts of Nebraska, and a small area in west-central Missouri. The aquifer system consists of water-yielding dolomite, limestone and sandstone that are stratigraphically equivalent to aquifers of the Ozarks Plateaus aquifer system. The Western Interior Plains aquifer contains no freshwater.

The Western Interior Plains aquifer system consists of lower aquifer units in rocks of the Ordovician and Cambrian age, a shale confining unit of Mississippian and Devonian age, and an upper aquifer unit comprised of Mississippian limestone. The thickness of the aquifer (including the confining unit) ranges from less than 500 feet to more than 3,000 feet. The aquifer system is thin or absent on structural uplifts and is thickest in downwarps.

Regional groundwater in the aquifer system flows towards the southeast-east. Much of the water discharges from the aquifer system in the transition zone between the Western Interior Plains and the Ozark Plateaus aquifer systems. The aquifer system is considered to have a low permeability.

Dissolved-solids concentrations of water in the Western Interior Plains aquifer system are typically greater than 1,000 milligrams per liter. In thick, deeply buried parts of the aquifer system, dissolved-solids concentrations of more than 200,000 milligrams per liter have been reported. The elevated concentrations are due in part to the slow movement of groundwater in the aquifer system.

The Western Interior Plains aquifer system is not generally developed for potable use because the aquifer system is deeply buried and contains highly mineralized water.

Locally, deeply buried parts of the aquifer system contain oil and gas, and some brine that is a by-product of hydrocarbon production is injected into disposable wells, which are completed in permeable parts of the system (USGS, 1997).

4.3.8 Surface Water Hydrology

The Botts Road site is located in the Little Blue River Watershed. Site runoff flows into unnamed tributaries which flow generally to the east into the Little Blue River. The Little Blue River then drains into the Missouri River. Based upon a Jurisdictional Waters Determination conducted by Adaptive Ecosystems, the site contains approximately 8,541 linear feet (0.26 acres) of potential jurisdictional tributaries and approximately 0.39 acres of potential jurisdictional wetlands. Isolated non-jurisdictional wetlands comprise approximately 0.98 acres of the site (AEI, 2007).

4.3.9 Flora and Fauna

The majority of the 185 acres located at Botts Road are currently developed for agricultural usage. In addition to the seasonal crops in the field, there are several vegetated areas around the perimeter of the site, vegetation along some tributaries and ditches, and several scattered stands of trees and grasses. There are no records of species or habitats of federal or state conservation concern within one mile of the site (MDC 2007b). No threatened or endangered species are known to occupy the site and currently the U.S. Army Corps of Engineers is performing a jurisdictional review to determine if jurisdictional wetlands are present on the site.

4.3.10 Air Quality & Permitting

Currently the Botts Road site is developed for agricultural usage. Therefore, no air quality issues exist with the site. The aesthetics of the site are characteristic of agricultural ground and noise is limited to traffic on the adjacent roadways, rail traffic on the adjacent railroad, and the periodic usage of farm equipment onsite.

4.3.11 Historical and Cultural Resources

The Cultural Resource Assessment by SCI Engineering, Inc. did not identify specific areas of concern within the 185 acre Botts Road site. No previously recorded archeological sites are located within the project area. The largest area surveyed is the approximately 2,000-acre Richards-Gebaur airport located immediately south of the project area. It was surveyed in the early 1980s with no archeological sites recorded.

Native Americans inhabited this entire region prior to European Settlement. Border war and Civil War skirmishes also occurred within this region, but nothing was noted within the project area specifically. The American Indian Council was contacted on June 19, 2007 and they indicated that no federally recognized Indian land exists in Jackson County, Missouri.

The Kansas City Southern railroad line, established in the late 1800s, runs just to the west of the project area. The depot is to the northeast in the town of Grandview with no other stops located near the project area. None of the people associated with this property were considered to be historically significant. The only exception to this would be Solomon Young, as the maternal grandfather of Harry S. Truman. Solomon owned 80-acres within the project area for a short time; however, no residences were documented on this parcel at this time. No cemeteries or family plots are known to exist within the raw land project area.

Based upon the assessment, there is a medium probability for finding prehistoric, historic Native American and historic Euro-American archeological sites within the project area. There are a relatively low number of known sites within the area; however, the project area lies within a dissected upland close to water sources. There is a low probability for long-term occupation sites, but a medium probability for short-term camp sites within this location. The historic atlases also show structures along Botts Road. There is a possibility that remains of 19th Century residences (i.e. houses, cellars, wells or cisterns) may exist in this portion of the site (SCI, 2007).

The Missouri State Historic Preservation Officer (SHPO) reviewed the Cultural Resource Assessment and determined that a Phase One Archeological Survey is not required and no historic properties would be affected at the Botts Road site. The SHPO determination letter is attached in Appendix A.

4.3.12 Solid and Hazardous Waste

Current agricultural operations at the site do not result in the generation of solid or hazardous waste.

5.0 ENVIRONMENTAL CONSEQUENCES

5.1 Introduction

This section presents the potential environmental impacts that are likely to occur from implementation of the preferred option, as well as the other alternatives considered.

5.2 Environmental Consequences of Preferred Option

5.2.1 Land Use, Geology, and Soils

Construction of the proposed NNSA facility at Missouri Highway 150 and Botts Road would change the land use from agricultural to industrial and require re-zoning of the property from agricultural to light industrial. Currently, the master plan for Kansas City, MO proposes light industrial zoning for this property. In order to complete the necessary re-zoning, a pre-application meeting with the city zoning department would be required, followed by approval of the proposed zoning reclassification by the City Planning Commission and the City Council.

The proposed NNSA facility would cover approximately 1 to 1.55 million rentable square feet and provide up 2,900 surface parking spaces. During proposed site construction, the soils and topography would be disturbed by construction activity, site grading, and possible placement of fill materials. These impacts would be mitigated by conforming to local building codes and land disturbance permits which include erosion and sediment control specifications.

Constraints on developing portions of the parcel include a Magellan Midstream Partners, L.P. (Magellan) subsurface pipeline which is located on an easement that transects the northern half of the site from east to west. The purpose of the pipeline is to transport petroleum products. The petroleum pipeline has been inactive for several years, is currently held in nitrogen, and the KCP is not aware of any near term plans to reactivate the pipeline. The pipeline would be relocated as far to the north as is practicable based upon site conditions. The portion of the pipeline that currently transects the site would be removed. Due to the former use of the pipeline for petroleum transport, the potential for soil impact in the soil surrounding the pipeline was considered. In June 2007, ten soil borings were installed along the pipeline and soil was tested for the presence of petroleum parameters. No petroleum was detected in these samples. If during construction, soils appearing to be impacted by petroleum are identified by visual or olfactory evidence, the contractor has been directed to immediately notify the GSA Contracting Officer and affected soils will be managed in accordance with applicable local, state, and Federal regulations. Magellan is the responsible party for any existing petroleum contamination that may be present in the area of the current pipeline. In addition, Magellan will be responsible for maintenance and any contamination resulting from future use of the pipeline in an alternate location onsite. Direct impacts to NNSA operations from accidental pipeline releases are not anticipated as the proposed facility would be sited outside the area of the pipeline easement.

Additional constraints include the presence of tributaries and potential regulated wetlands, as described in Section 5.2.3.

The Sharpsburg silt loam soil identified in Section 4.3.6 is generally considered to be prime farmland soil according to the United States Department of Agriculture. Prime farmland soils are protected under the Farmlands Protection Policy Act (FPPA) to minimize the impact Federal programs contribute to the conversion of farmland for non-agricultural purposes. However, land already in or committed to urban development or water storage is excluded from the FPPA. The land in this proposed option is identified as part of an ‘urbanized area’ on Census Bureau maps and would therefore not be considered prime farmland. The removal of the approximately 185 acres of farmland from agricultural production would not have a significant impact on the Kansas City Metropolitan area agricultural economy. Adequate farmland remains in the Kansas City area to support agricultural needs.

5.2.2 Groundwater Hydrology

Previous site assessment indicated the sporadic presence of shallow groundwater at depths ranging from approximately 5 to 11 feet below ground surface at the site. Groundwater samples collected onsite did not indicate the presence of hydrocarbon, pesticide, or herbicide impacts in shallow groundwater. The potential exists to excavate below the groundwater table. Building design would be in accordance to code with inspection by the City of Kansas City. Footing tile drains may be necessary and would be routed to the stormwater collection system.

The proposed facility design does not include the use of underground storage tanks (USTs) and all proposed above ground storage tanks (ASTs) would be constructed with secondary containment. Industrial facilities would be constructed and managed to ensure materials (raw, intermediate and final product, and wastes) and activities are completely sheltered from stormwater. Facility operations would follow local, state, and federal guidelines. Therefore, adverse impacts to groundwater from proposed site operations are not anticipated.

5.2.3 Surface Water Hydrology

If the proposed NNSA facility is constructed at this location, impact is expected to the surface waters and wetlands at the site. A Jurisdictional Water Determination study was conducted by Adaptive Ecosystems, Inc. to comply with 10 CFR 1022 to identify potential wetlands onsite which may be impacted by the proposed action. Based on that study conducted by Adaptive Ecosystems, the site contains approximately 8,541 linear feet (0.26 acres) of potential jurisdictional tributaries and approximately 0.39 acres of potential jurisdictional wetlands. Isolated non-jurisdictional wetlands comprise approximately 0.98 acres of the site (AEI, 2007). Based upon preliminary site design plans and the widespread nature of the tributaries and wetland areas onsite, impact to the tributaries and wetlands is anticipated.

Should the NNSA proceed with plans to build a new facility at this site, the United States Army Corps of Engineers (USACE), Kansas City District would have the ultimate responsibility for providing a jurisdictional determination for potential jurisdictional tributaries and wetlands. Upon completion of the jurisdictional determination, mitigation thru Section 404 Permitting process would begin. The Permit process requires that the applicant:

- Takes steps to avoid wetlands impacts;
- Minimize potential impacts on wetlands; and,
- Provide compensation for any remaining unavoidable impacts.

Obtaining the actual Section 404 Permit and mitigating the impacts would be the responsibility of the developer. A Section 404 Permit typically requires four to six months of processing time. The USACE will send out a public notice to all surrounding landowners, as well as state and federal agencies. The public interest review period is 21 days. Other public agencies also review the permit. Reviewing agencies would likely include the Missouri Department of Natural Resources, the Missouri Department of Conservation, the U.S. Fish and Wildlife Service and the Environmental Protection Agency.

Since the proposed action involves a design-build contract it is not possible at this time to show building locations and their possible impacts to wetlands. A Notice of Proposed Wetland Action will be included in the EA Notice of Availability posted in the Federal Register to allow for the 15 day public comment period. A wetland assessment will be completed in accordance with the requirements of 10 CFR 1022 once the proposed site layout is known. The SFO will require the developer to address the management of any wetlands (jurisdictional and non-jurisdictional) on the site in accordance with Executive Order 11990 and Section 404 Permitting.

Site construction activities would require Missouri State Operating Permit, Land Disturbance General Permit # MO-R10A000. This permit requires development of a Storm Water Pollution Prevention Plan (SWPPP) to control runoff and erosion associated with site construction activities. If it is determined that more than one acre of land disturbed is defined as a wetland, proof of approval by the U.S. Army Corps of Engineers should be submitted with the permit application.

Construction of the new NNSA facility would increase surface water runoff at the site. Fire protection system test flows would generate on average approximately 1000 gallons/day and heating ventilation and air conditioning (HVAC) would generate approximately 14,400 to 43,200 gallons/day of surface water runoff. In addition the hard impermeable surfaces of the proposed buildings and parking lots would increase the quantity of storm water runoff, as there would be less permeable area for rainwater infiltration into the ground. Site design plans to mitigate and control stormwater may include such things as detention basins, extended detention basins, and constructed wetlands. The proposed facility would have a site specific stormwater operating permit, although the facility operator may opt to pursue a “No Exposure” certification in the future. The proposed facility would be designed to qualify for “No Exposure” certification. However, for boilerhouse operations a general permit would still be required to address backup fuel oil storage.

The new NNSA facility would utilize natural gas-fired boilers to provide heating for the facility. The boilers would be designed to fire #2 diesel fuel as a backup fuel source in case there is a disruption of natural gas from the local utility. The diesel fuel would be stored in two 25,000-gallon above ground storage tanks (ASTs). Since this volume of above ground storage of diesel fuel is greater than 1,320 gallons, the new ASTs would have to be equipped with a secondary containment system designed to contain the entire contents of the storage container plus sufficient freeboard to allow for precipitation. Due to the presence of ASTs onsite, a general stormwater permit would be required. In addition, the new NNSA facility would have to comply with the Oil Pollution Prevention Regulations of the Clean Water Act (40 CFR 112) by developing a site-specific Spill Prevention, Control, and Countermeasure (SPCC) plan in accordance with 40 CFR 112.

The volume of wastewater discharged to the sanitary sewer system from the Botts Road facility has been projected to be approximately 86,500 gallons per day. This is a projected reduction of over 168,000 gallons per day from the existing facility. The projected reduction is due to several factors:

- The boilers to be installed at the new NNSA facility would utilize a closed-loop system instead of a pass-through system;
- There is no known groundwater contamination at the new facility; therefore, the new NNSA facility would not have an on-site groundwater treatment facility to add to the sanitary sewer discharge;
- There would be just one cooling tower location discharging a smaller quantity of “blow down” to the sanitary sewer at the new facility; and
- The amount of water usage (and subsequent wastewater discharge) for the regulated industrial processes would be reduced by approximately 12,800 gallons per day (primarily due to the elimination of the on-site chrome plating operations).

Regulated industrial and process wastewater would be routed to an onsite skid-mounted microfiltration-based treatment unit. Prior to treatment, process wastewater would be stored in onsite tanks with secondary containment to prevent accidental release to stormwater systems. The treated water would be discharged to the sanitary sewer system. All sanitary and treated industrial wastewater from the proposed NNSA facility would be discharged to a publicly owned treatment works (POTW) owned and operated by the Kansas City Water Services Department Blue River Wastewater Treatment Facility. The POTW operates and monitors its discharge in accordance with Missouri State Operating Permit No. MO-0024911 that was issued by the Missouri Department of Natural Resources (MDNR) on December 30, 2005, and expires on December 29, 2010. The discharge from a new NNSA facility built at Botts Road would not adversely affect the POTW's ability to meet its operating permit due to the following reasons:

- The wastewater generated at Botts Road would be piped to and treated at the same POTW (Blue River Wastewater Treatment Facility) as the wastewater currently generated at the existing KCP;
- The amount of wastewater generated at the Botts Road facility would be a reduction of approximately 51% compared to the wastewater currently being discharged at the existing KCP; and,
- The elimination of the chrome plating operation would reduce the contaminant loading of the wastewater discharged to the POTW.
- Industrial wastewater regulated under the metal finishing pretreatment category would be treated onsite prior to discharge to the sanitary sewer system.

5.2.4 Flora and Fauna

The majority of the site at Missouri Highway 150 and Botts Road is currently developed for agricultural usage. There are several small clusters of trees and vegetated areas along the onsite tributaries. Proposed NNSA facility construction may impair growth, damage, or eliminate portions of the existing onsite flora. There are no records

of species or habitats of federal or state conservation concern within one mile of the site (MDC 2007b).

5.2.5 Solid and Hazardous Waste

The new NNSA facility would generate hazardous and non-hazardous solid waste from production operations and support activities. The hazardous waste disposal rate is anticipated to be approximately 26,000 lbs/year. This represents a 30% reduction from current operations at the Bannister site due to process improvements and outsourcing. Non-hazardous waste is also expected to experience a similar reduction due to the smaller operations and reduced facility refurbishments. Recycling of many waste materials would continue, although the generation rates of recycled waste streams such as asphalt and concrete would be significantly reduced in the near-term from existing operations. Some of the waste streams planned for recycling include batteries, paper, wood, computers, precious metals, plastic, oils/solvents, and industrial wastewater treatment sludge. Low level radioactive waste generation is projected to be consistent with current generation rates of approximately 40 lbs per year. All waste materials would be transported off-site for disposal in accordance with Federal, state and local requirements. The number of shipments may be reduced due to the reduction in waste generation.

In addition to routine operations, the initial construction of the facility would result in the generation of construction debris. The debris would be recycled or disposed off site.

5.2.6 Air Quality and Permitting

As stated above, the new NNSA facility would utilize natural gas-fired boilers to provide heating for the facility. The preliminary peak heating load is estimated at 80MBTU/hour. The new boilers would be required to be permitted and operated in accordance with Title 10, Division 10, Chapters 2 and 6 of the Missouri Code of State Regulations (10 CSR 10-2 and 10 CSR 10-6). 10 CSR 10-6 contains air pollution control

regulations for the entire state of Missouri, and 10 CSR 10-2 contains air pollution control rules specific to the Kansas City metropolitan area.

The total estimated annual air emissions from the new NNSA facility are 12.8 tons. The emissions consist of 10.4 tons from the boilers and process heaters, 2.0 tons from electronic component solvent spray cleaning operations, and 0.4 tons from painting operations. These estimated total annual air emissions are approximately 28% less than the annual air emissions from the current facility. The reduction of air emissions would be the result of the reduction of the size of the facility, improvements and refinements to the manufacturing processes, and the elimination of the existing chrome plating operations.

The overall reduction in air emissions and elimination or reduction in emissions of hazardous air pollutants would result in less stringent air emissions permitting requirements. For example, the air emissions reductions may allow the new NNSA facility to be classified as an area source for hazardous air pollutants (HAPs) instead of a major source as defined by the National Emission Standards for Hazardous Air Pollutants (NESHAP) of the Clean Air Act.

The increased traffic load for the proposed KCP at Botts Road would require significant upgrades to Botts Road from north of Missouri Highway 150 to the city limit of Grandview. Traffic studies conducted by TranSystems project an increase of approximately 800 vehicles during the morning peak hour and approximately 912 vehicles during the evening rush peak hour. The daily increase in vehicles for the proposed KCP at Botts Road is 5,900 vehicles. The impact on air emissions due to employee traffic is minimal when compared to the no action alternative.

During site preparation, construction, and road improvements the use of heavy equipment would generate combustion engine exhaust containing air pollutants associated with diesel combustion (NO₂, CO₂, SO₂, PM₁₀ and volatile organic compounds). Similar air emissions would be generated from delivery vehicles bringing

supplies and equipment to the construction site and from construction workers commuting in their personal vehicles. Emissions from site preparation and construction would be short-term, sporadic, and localized (except for emissions associated with the personal vehicles of construction workers and vehicles transporting construction materials and equipment). Dispersion would decrease concentrations of pollutants in the ambient air as distance from the construction site increased. The number of personnel and vehicles onsite during the construction phase would be less than the number of employees and employee vehicle onsite during the operation of the proposed KCP. The quantities of air pollutants produced by vehicles and equipment associated with construction would not be a substantial contribution to the total emissions from mobile sources already operating in the area and would not be expected to adversely affect local air quality.

In addition, construction activities could generate an increase in fugitive dust (i.e. airborne particulate matter that escapes from a construction site) from earthwork and other construction vehicle movement. Not all of the area available for construction would be under construction at any one time. Control measures for lowering fugitive dust emissions (i.e. water or chemical dust suppressants) would minimize these emissions. Construction activities would be in accordance with permits from local, state and Federal jurisdictions.

5.2.7 Historical or Cultural Resources

The Missouri State Historic Preservation Officer (SHPO) reviewed the Cultural Resource Assessment and determined that a Phase One Archeological Survey is not required and no historic properties will be affected at the Botts Road site. In the event that items of archeological significance are found during site excavation of the site for new construction, the developer would be directed to stop the excavation in the vicinity of the find and notify the GSA Contracting Officer immediately so that the government can coordinate with the appropriate SHPO officer and or other applicable officials. In addition, the developer shall follow all applicable local, state, and federal laws with

regard to archeological findings. No adverse impacts to historical or cultural resources are expected at the Botts Road site as a result of the preferred option. The SHPO determination letter is attached in Appendix A.

5.2.8 Socioeconomic Environment/Environmental Justice

Pursuant to Executive Order No. 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, which directs federal agencies to identify disproportionately high and adverse human health or environmental effects of their actions on minority or low-income populations, an evaluation of the affects of the proposed action on the socioeconomic environment and environmental justice was performed. Based upon 2000 census data, 33,406 people live within a 3-mile radius of the Botts Road site. Within the 3-mile radius 24.2% of the population is minority and 9.7% of people live below the poverty level. For comparison, 441,545 people live in the City of Kansas City, with a minority population of 42.4%, and 14.0% of the population live below the poverty level (KC, MO 2007a & 2007b).

The KCP workforce is currently made up of over 2,400 employees. The average age is 49.6 and the average years of service are 20.9. Approximately 31% of the workforce resides within 10 miles of the Bannister Federal Complex, with the plant population center located approximately 4 miles to the south and east of the plant. An eight-mile move to the south would not appreciably change the average commuting distance per employee as 30.3% of the plant population lives within 10 miles of the Botts Road site. Therefore, it is not anticipated that plant relocation would be the primary driver for employee household moves.

Although a 34% reduction in plant census (FY05 baseline) is planned, representing approximately 900 workers, it is not anticipated that involuntary reductions in force would be required to any significant extent. The KCP is experiencing an annual attrition rate of over 10% during the past 2 years, which if sustained would exceed the planned reduction. The plant census at the end of FY07 is 2,400 workers, an 8.5% reduction. To ensure the proper skills mix for the workforce that would relocate to the

new facility, some involuntary reductions may be enacted. A workforce transformation plan is being developed to, in part, identify those workers who are at risk of displacement and identify transfer opportunities within the plant for those individuals. For those workers that are displaced as a result of transformation activities, job placement and educational assistance programs would be established as part of the workforce transformation plan.

In summary, no significant socioeconomic impacts are expected to result from the preferred option. Construction of the proposed KCP at the preferred site does not adversely affect or target low income or minority populations. The average commuting distance for the KCP workforce would not significantly change or require household relocation and the proposed reduction in workforce would mainly be achieved through employee attrition.

5.2.9 Intentional Destructive Acts

Per the Department of Energy's Design Basis Threat Policy (DOE Order 470.3A), the Kansas City Plant is designated a Threat Level 4 facility and has no terrorist threat. Threat Level 4 is the lowest threat classification based on the general consequences of loss, destruction, or impact to public health and safety. The KCP has no critical assets or critical facilities. Hazard assessments, which evaluate a range of potential accidents and the nature of each hazard, have been completed and are reviewed annually for the existing plant. The KCP is considered a low-hazard industrial facility and operations at the KCP involve hazards of the type and magnitude routinely encountered in industry and generally accepted by the public. Emergency plans are in place to respond to such emergencies as accidents, incidents, events or natural phenomena. Extensive security measures are in place to protect identified assets. Cooperating arrangements exist with the local police, fire and FBI for emergency response. A plan exists to assure continuity of operations in the event that normal operations cannot be conducted at the plant. The likelihood of detrimental exposure because of an operational accident, intentional destructive act or natural phenomena is extremely unlikely because of mitigating factors

used in normal operations combined with the benefits of site engineered controls and facility construction.

The functions to be relocated to the proposed new facility are common industrial processes that are the same as those currently being performed at the existing KCP so the current accident profile would not change as a result of the relocation. The existing hazard assessment and emergency response plans would be updated for the proposed new facility, however, it is anticipated that reduced hazard levels associated with reduced operations (e.g., discontinuing chrome plating) and current design requirements would reduce any potential impact at the new facility as compared to current operations. It is not anticipated that any intentional destructive act at or near the proposed new facility would have a greater impact than that already evaluated under current hazard assessments.

5.2.10 Cumulative Impacts

This section describes present actions as well as reasonably foreseeable future actions that are considered pertinent to the analysis of cumulative impacts for relocation of the KCP to the northwest corner of Botts Road and Missouri Highway 150. In 40 CFR 1508.7, the Council on Environmental Quality (CEQ) defines cumulative impact as: “the impact on the environment from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time”.

Redevelopment of Former Richards Gebaur Air Force Base

The City of Kansas City, Missouri and the Port Authority of Kansas City, Missouri have recently completed a series of redevelopment and sales agreements for the former Richards Gebaur Air Force Base (RGA), located adjacent and south of the Botts

Road site, across Missouri Highway 150. The current plan for RGA proposes development of approximately 924 acres of industrial land and 52 acres of retail land. Development activities include construction of a Kansas City Southern Railroad intermodal facility featuring a rail facility and adjacent light manufacturing, distribution and warehousing facilities. When completed, the facility is expected to attract industrial users and shippers within a 500-mile radius, and may employ an estimated 2,000 people.

In addition, underground industrial development is planned for the eastern portion of the RGA site. The underground development would entail mining/quarry operations, with the eventual conversion of the mined space to storage and industrial useage. Currently there is an auto-load facility operating on the western portion of the RGA site. The auto-load facility transfers vehicles to and from railcars for transport.

Sanitary Wastewater

Wastewater from the proposed KCP under the preferred alternative would most likely be routed to the Kansas City Water Services Department Blue River Wastewater Treatment Facility. At this time the site is not served by sanitary sewer. The wastewater discharges from plant operations and sanitary discharges from human occupation would not increase flows to the POTW as the existing KCP operations and the Botts Road site discharge to the same POTW.

Stormwater

Construction of the proposed KCP at the Botts Road site would increase stormwater runoff in the Little Blue River Watershed. Proposed development activities at the former Richards Gebaur Air Force Base would further increase the quantity of stormwater flow in the Little Blue River Watershed.

Proposed development activities at the former RGA facility include re-development of approximately 1400 acres. Current design plans for the proposed RGA

facility are not known at this time. The development of 185 acres for the preferred option is approximately 13% of the total size of the proposed RGA development. The City of Kansas City, MO is responsible for stormwater management planning and permitting and would require all individual developers in the area of the preferred site to consider impacts of stormwater runoff. The City of Kansas City, MO adopted the American Public Works Association (APWA) Division V, Section 5600 criteria for storm drainage systems and facilities. According to APWA 5600 a storm drainage system shall be provided that is capable of conveying the peak discharge generated by a 1% storm (1% probability such a storm would be equaled or exceeded in 1 year). Site design plans to mitigate and control stormwater may include such things as detention basins, extended detention basins, and constructed wetlands.

Air Quality

Operation of the KCP at the new location at Botts Road would result in new emissions at this location. However, the new facility is designed to produce approximately 28% lower emissions than the existing KCP. Additionally, this facility is a replacement for the existing KCP at the Bannister Federal Complex. Therefore, the net effect within the Kansas City Metro area is a decrease in air emissions from continuing operations.

Impacts from constructing the proposed facility, such as additional traffic and construction emissions, would be temporary and similar to those associated with any other commercial building of comparable size. While particulate emissions from on-site construction would contribute to total particulate emissions from the proposed construction on RGA, these emissions can be controlled using standard construction site dust control techniques.

Solid and Hazardous Waste

Although no waste would be disposed on site, operation of the KCP at the Botts

Road would result in the need to transport solid and hazardous waste from the site. Waste shipments from the new site would replace those being transported from the former site at Bannister road. The same highways would be used by the waste haulers with the exception of the short distance on Missouri Highway 150 from the new site to highway 71. The increase in truck traffic would be minimal as fewer than four shipments of hazardous waste and 12 shipments of non-hazardous waste are projected per month.

Traffic/Transportation

Preliminary traffic studies of the preferred option, conducted by TranSystems project an increase of approximately 800 vehicles during the morning peak hour, approximately 912 vehicles during the evening rush peak hour, and a total daily traffic load of 5,900 vehicles. Preliminary traffic studies indicate that an overpass at Botts Road and Missouri Highway 150 would be necessary. Preliminary NNSA site design plans would include construction of two site entrances off Botts Road. According to information provided by TranSystems, traffic flow at the intersection would require the first entrance (South Drive) to be located approximately 1,500 feet north of Missouri Highway 150 and the second entrance (North Drive) would be approximately 1,000 feet north of the first entrance. In addition, a minor entrance/exit with limited access may be constructed off Missouri Highway 150 which would allow only right turns into and out of the proposed KCP complex.

Traffic hazards to KCP workers are minimal as the current and projected traffic flows in the vicinity of the existing KCP are consistent with projected growth in the area of the preferred option. Current traffic flow at the Bannister Federal Complex is 89% of the current traffic flow on Missouri Highway 150.

The proposed development of the KCP and surrounding area is projected to increase the daily traffic flows on Missouri Highway 150 and the adjacent roadways. Currently, Missouri Highway 150 has a daily traffic load of approximately 28,230 vehicles. The TranSystems study evaluated projected traffic increases through the year

2025. The cumulative planned development within the local area is projected to increase the traffic load on Missouri Highway 150 by approximately 67,055 vehicles per day (TranSystems, 2007). The proposed KCP traffic increase would be approximately 8.9% of the cumulative projected 67,055 vehicle per day increase. The traffic study evaluated traffic increases through the year 2025. MODOT and the City of Kansas City are currently working on road improvement projects in the site vicinity to mitigate the increased cumulative projected traffic load for all development in the area.

Socioeconomic Environment/Environmental Justice

The proposed KCP at Botts Road would be within 8 miles of the existing facility, therefore most of the existing workforce would not relocate or experience significantly increased traffic commute times. In addition, facility relocation at Botts Road does not appear to adversely affect or target low income or minority populations.

Growth in the area of the preferred site is expected to change the character of the preferred site region from generally open/agricultural with sporadic industrial, to more industrial. This growth has been anticipated and desired by local and state government. As part of the anticipated area growth, significant infrastructure such as sewers and road improvements would be required to support the proposed KCP and the intermodal facility at RGA.

5.3 Environmental Consequences of Alternative No. 2, 3, & 4

5.3.1 Land Use, Geology, and Soils

Alternatives 2, 3, and 4 include the demolition of existing buildings which may disturb known areas of soil contaminated by volatile organic compounds (e.g., trichloroethylene), polychlorinated biphenyls (PCBs) and petroleum hydrocarbons (TPH). Three solid waste management units (SWMUs) addressed by DOE as a part of environmental restoration activities performed under the Resource Conservation and

Recovery Act (RCRA) are located within the footprint of the areas where ground would be disturbed during the demolition and reconstruction activities proposed under alternatives 2, 3 and 4. In addition, Building 50, currently being investigated by GSA for contaminant releases, is also located in an area that would be disturbed under Alternatives 2, 3 and 4. The potentially impacted areas are described immediately below.

- SWMU 16 – Former Sales Building. This building was constructed in the mid 1940s as a bus or trolley stop. Sometime early in its history, the building was enclosed. From the 1940s to 1972 it was used to store surplus equipment for sale. The building was razed in 1981 and the area was paved with asphalt. Degreasing solvents may have been used inside the building while it was used as a storage building and may have contributed to groundwater contamination currently existing in the area.
- SWMU 18 – North Lot. An area of the north parking lot north of Building 1 was used to store drums and equipment based on analysis of historical aerial photographs. However, no contamination has been detected at this location.
- SWMU 40 – Former Aluminum Chip Handling Building. This building was constructed in 1944 to store and recycle aluminum chips derived from manufacturing processes within the plant. Metal chips soaked in oil and solvents were stored at this site. The facility was last used in 1949. The building was subsequently used to store equipment. The building was razed in 1974 and the area paved with asphalt.

Environmental investigations of SWMU 18 revealed no evidence of contamination. As a result, EPA granted a "No Further Action" determination for this SWMU. Therefore, any excavation conducted in the area of SWMU 18 during the demolition or remodeling of the existing KCP would not adversely impact the environment or workers.

Subsurface contamination was identified at SWMUs 16 and 40 during environmental investigations. Specifically groundwater contamination by chlorinated solvents was found with groundwater clean up activities implemented starting in 1998. The groundwater clean up activities include the collection of groundwater, treatment in an on-site treatment system and discharge of the treated groundwater by permit to the sanitary sewer. Groundwater in the vicinity of SWMU 16 and 40 is captured by building footing tile drains located in the basement of the main manufacturing building. This captured groundwater is pumped to the on-site groundwater treatment facility.

Data collected in 1991 indicated soil contamination at SWMUs 16 and 40 has not been detected over site clean up standards at depths less than approximately 14 feet bgs. However, the presence of shallow soil contamination cannot be precluded based on the limited data collected in 1991. Therefore, excavation in the area of the Former Sales Building and the former Aluminum Chip Handling Building may expose on site workers to pockets of soil contamination at any depth. Excavations in contaminated soil at the KCP are managed through institutional controls implemented as a part of the facility's RCRA Part B post closure permit. To assure that excavations are performed safely, the MDNR requires the submission of a notification or workplan, depending on the specific area of soil contamination, for work that may occur. The document describes the work to be performed, the size of the excavation, the nature and level of contamination in the excavation area based on actual sampling, how long the excavation would remain open and how the excavated soil would be managed. Information regarding the contaminants present in the soil are also conveyed to those persons performing the work so that they are aware of potential hazards posed by the contaminants and appropriate personal protective equipment may be worn.

- Building 50- This building was constructed in the early to mid 1950s and was apparently used a fuel components laboratory for jet engine development work that was occurring elsewhere on the Bannister Federal Complex. A Low Power Components laboratory was housed here as well. The building is slab-on-grade with concrete walls and blast-away ceilings. It included large refrigeration units

that were powered by a unit substation. Two above-ground storage tanks on the northeast side of the building also historically existed.

Environmental releases from this building are being addressed by GSA pursuant to a Memorandum of Agreement (MOA) between GSA, DOE and the US Army Corps of Engineers. A number of voluntary environmental investigations have been conducted at Building 50 over the past 10 years. Releases to soil and groundwater have been documented from these investigations primarily consisting of chlorinated solvents, PCBs and petroleum hydrocarbons.

The primary source of VOC contamination at building 50 is located near the northeast corner of the building, either just outside or beneath it. This contamination has impacted groundwater in the vicinity of the building. Groundwater flows west and south from the building. This contaminated groundwater is believed to be captured by building footing tile drains associated with the West Boilerhouse and the Main Manufacturing Building (Building 1).

Additional investigatory work continues at the site primarily relating to an evaluation of potential indoor air impacts from chlorinated solvents and PCB releases to soil.

Petroleum hydrocarbon contamination exists in soils at the site over 700 parts per million derived from a former underground tank farm that existed in the area. The tanks have been removed and MDNR has stated that no further work with regard to petroleum derived from the former tanks is required.

Upon completion of all investigations it is anticipated that regulatory concurrence would be required to formalize the adequacy of work performed to date at Building 50. It is expected that institutional controls similar those already in place at DOE controlled areas would be implemented for releases documented at Building 50.

In summary limited environmental consequences for Alternatives 2, 3 and 4 are anticipated as impacted soils are likely to be encountered during site redevelopment activities. Formal institutional controls, approved by MDNR, are in place to manage impacted soils that may be encountered during excavation activities at DOE controlled areas (SWMUs 16 and 40). Similar controls are expected to be implemented upon final completion of GSA lead environmental investigatory activities at Building 50.

5.3.2 Groundwater Hydrology

Alternatives 2, 3, and 4 include the demolition of existing buildings. Construction activities during these alternatives may disturb known or suspected areas of groundwater contaminated VOCs at SWMUs 16 and 40 as well as Building 50.

SWMUs 16 and 40 are located within the footprint of the areas where the ground would be disturbed during the demolition and reconstruction activities proposed under Alternatives 2, 3, and 4. The depth to groundwater at SWMUs 16 and 40 ranges from approximately 8 to 15 feet below ground surface (bgs) but may be shallower during times of high precipitation. Residual groundwater contamination is present at these SWMU locations. Therefore, if an excavation extends to groundwater (approximately 8 to 15 feet bgs), the atmosphere and on-site workers may become exposed to residual groundwater contamination and appropriate protective measures would need to be implemented.

Excavations encountering impacted groundwater in areas of SWMUs 16 and 40 are addressed through institutional controls implemented as a part of the DOE's RCRA Part B post closure permit. To assure that excavations that may contact contaminated groundwater at these SWMUs are performed safely, the MDNR requires the submission of a notification or a work plan (depending on the specific SWMU or area of contamination) before work may occur. The document describes the work to be performed, the size of the excavation, the nature and level of contamination in the excavation area based on actual sampling, how long the excavation would remain open and how the excavated material would be managed. Information regarding contaminants

present in the groundwater is also conveyed to those persons performing the work so that they are aware of potential hazards posed by the contaminants and appropriate personal protective equipment may be worn.

Environmental releases from Building 50 are being addressed by GSA pursuant to a Memorandum of Agreement between GSA, DOE and the US Army Corps of Engineers. A number of voluntary environmental investigations have been conducted at Building 50 over the past 10 years. Groundwater contamination comprised of volatile organic compounds is present at the site.

Upon completion of all investigations at Building 50, it is anticipated that regulatory concurrence would be required to formalize the adequacy of work performed. It is expected that institutional controls similar those already in place at DOE controlled areas would be implemented for releases to groundwater documented at Building 50.

In summary limited environmental consequences for Alternatives 2, 3 and 4 are anticipated as impacted groundwater may be encountered during site redevelopment activities. Formal institutional controls are in place to manage impacted groundwater that may be encountered during excavation activities at DOE controlled sites (SWMUs 16 and 40). Similar controls are expected to be implemented upon completion of GSA lead environmental investigatory activities at Building 50.

5.3.3 Surface Water Hydrology

The Bannister Federal Complex is located in the alluvial flood plain of the Blue River and Indian Creek. The Blue River and Indian Creek are subject to frequent flooding due to intense urban development, especially in the lower basin of the river. This has caused even moderate flood flows to become a serious problem. The Blue River and Indian Creek leave their banks several times a year; however, the water generally flows onto undeveloped land, including currently vacant portions of Bannister Federal Complex (i.e., primarily the northeast portion of the property along the Blue River). A flood-

protection wall completed in 1994 is designed to prevent 500-year floods from reaching the KCP.

Site construction activities would require Missouri State Operating Permit, Land Disturbance General Permit # MO-R10A000. This permit requires development of a SWPPP to control runoff and erosion associated with site construction activities.

Construction of the new NNSA facility would have no net increase to surface water runoff at the site. Fire protection system test flows would generate approximately 1000 gallons/day and HVAC condensate and infiltration would generate approximately 14,400 to 43,200 gallons/day of surface water runoff. In addition, the hard impermeable surfaces of the proposed buildings and parking lots would contribute to storm water runoff. The proposed facility would have a site specific stormwater operating permit.

The existing KCP utilizes approximately 484,300 gallons of potable water per day from the City of Kansas City, Missouri. Of this volume, approximately 32% is used for domestic purposes, 1% is used to operate the boilers, 34% is used in the cooling towers, 13% in unregulated processes (i.e., steam condensate and sprinkler drains), and 4% is used in regulated industrial processes (i.e., laboratory drains, plating rinse water, and other manufacturing process rinse water).

Most of the water that is not used in the cooling towers is ultimately discharged to the Blue River Wastewater Treatment Facility. In addition, approximately 32,400 gallons of water from the on-site groundwater treatment facility is also discharged to the POTW on a daily basis. The total amount of wastewater at the existing KCP that is discharged to the POTW is approximately 290,000 gallons per day. However, for all three alternatives (Nos. 2, 3, and 4) the volume of wastewater generated at the KCP is projected to be reduced, primarily due to the elimination of the on-site chrome plating operations. Since wastewater would be discharged to the same POTW as is currently used, and since the volume of the wastewater effluent would be reduced for all three alternatives, the wastewater generated by Alternatives No. 2, 3, and 4 should not adversely affect the

POTW or prevent the POTW's ability to meet its operating permit. Therefore, no environmental consequences on surface water hydrology are expected for Alternatives No. 2, 3, and 4.

5.3.4 Flora and Fauna

The majority of the Bannister Federal Complex is currently developed with buildings, roads, and parking lots. There are several small vegetated areas around the site and a larger vegetated area on the northwest corner of the complex. There are no records of species or habitats of federal or state conservation concern within one mile of the site (MDC 2007a). No threatened or endangered species are known to occupy the site and there are no documented wetlands existing on the site. Alternative Nos. 2, 3, and 4 propose building or renovation on previously improved areas of the complex. There should be minimal if any impact to existing flora and fauna, as the redevelopment would occur on already improved portions of the site.

5.3.5 Solid and Hazardous Waste

KCP operations under Alternative Nos. 2, 3, and 4 would generate waste and would continue shipment off-site as no waste would be disposed on site. Waste shipments from the new facilities on the west end of the Bannister Federal Complex would replace the waste shipments currently generated from the existing KCP. There would be no change in the waste hauler transport routes. One outcome of the relocation would be a slight reduction in hazardous waste shipments from an average of six to fewer than five per month. Non-hazardous shipments would also be reduced from an average of 25 per month to approximately 15 per month. In addition to routine operations, the initial renovation and/or demolition of the existing GSA space and the construction of the new facility would result in the generation of construction debris. The debris would be recycled or disposed off site. Due to the subsurface contamination that may be encountered with construction operations in the vicinity of solid waste management units at the site, some of the construction/demolition debris may be classified and shipped off

site as hazardous waste. Alternative No. 4 would generate the largest quantity of construction debris and Alternative No. 2 would generate the smallest quantity of construction debris.

5.3.6 Air Quality and Permitting

The current annual air emissions from the KCP are 17.8 tons. The emissions are from the boilers and process heaters (13.8 tons), electronic solvent spray cleaning operations (3.5 tons), painting operations (0.4 tons), and chrome plating operations (0.1 tons). Alternatives No. 2, 3, and 4 would result in reductions of the annual air emissions due to the reduction in size of the facility, improvements to processes, and the elimination of the chrome plating operations. Additionally, Alternatives No. 2, 3, and 4 assume that the current boilers would continue operation. The estimated annual air emissions for these three alternatives are 14.4 tons total emissions, with 12.0 tons from the boilers and process heaters, 2.0 tons from the electronic solvent spray cleaning, and 0.4 tons from the painting operations.

The overall reduction in air emissions and elimination or reduction in emissions of hazardous air pollutants would result in less stringent air emissions permitting requirements. For example, the air emissions reductions may allow the new NNSA facility to be classified as an area source HAP instead of a major source HAP (as defined by the NESHAP).

During site demolition, preparation, and construction, the use of heavy equipment would generate combustion engine exhaust containing air pollutants associated with diesel combustion (NO₂, CO₂, SO₂, PM₁₀ and volatile organic compounds). Similar air emissions would be generated from delivery vehicles bringing supplies and equipment to the construction site and from construction workers commuting in their personal vehicles. Emissions from site preparation and construction would be short-term, sporadic, and localized (except for emissions associated with the personal vehicles of construction workers and vehicles transporting construction materials and equipment). Dispersion

would decrease concentrations of pollutants in the ambient air as distance from the construction site increased. There would be a relatively limited amount of construction equipment and a small number of construction workers. The quantities of air pollutants produced by vehicles and equipment associated with construction would not be a substantial contribution to the total emissions from mobile sources already operating in the area and would not be expected to adversely affect local air quality.

In addition, construction activities could generate an increase in fugitive dust from earthwork and other construction vehicle movement. Not all of the area available for construction would be under construction at any one time. Control measures for lowering fugitive dust emissions (i.e. water or chemical dust suppressants) would minimize these emissions.

Environmental consequences related to Air Quality and Permitting for Alternatives No. 2, 3, and 4 are not considered significant.

5.3.7 Historical or Cultural Resources

The KCP may be eligible for listing on the National Register of Historic Places under Criteria A, Events for Pratt & Whitney's engines use during World War II and for its role in the development of the U.S. nuclear program; and also under Criteria C, Architecture, for its facility design. If the facility is considered to be eligible SHPO would determine the level of recordation necessary.

5.3.8 Socioeconomic Environment/Environmental Justice

Executive Order No. 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*, direct federal agencies to identify disproportionately high and adverse human health or environmental effects of their actions on minority or low-income populations. Based upon 2000 census data, 65,857 people live within a 3-mile radius of the Bannister Federal Complex. Within the 3-mile

radius, 34.3% of the population is minority and 8.3% of people live below the poverty level. For comparison, 441,545 people live in the City of Kansas City, with minorities comprising 42.4% of the population, and 14.0% of the population living below the poverty level (KC, MO 2007a).

The Bannister Federal Complex is located in Jackson County, Missouri. The KCP contributes substantially to the socioeconomics of the region by employing approximately 2,697 people. The Kansas City 6th Council District lists the KCP as one of the major employers in the district. Based upon postal codes of current employees, the majority (47.6%) of employees live in Jackson County or adjacent Johnson (23.6%), Cass (17.3), and Clay (3.4%) counties.

For Alternatives No. 2 and 3 a workforce reduction of approximately 700 employees (FY05 baseline) would be enacted under this option due to the implementation of transformational improvements and the reduced square footage to be maintained. By the end of FY07, 250 of the 700 FTE reduction has already been realized.

For Alternative No. 4 a workforce reduction of approximately 750 employees (FY05 baseline) would be enacted under this alternative due to the implementation of transformational improvements and a further reduction in square footage of 135,000 square feet to be maintained. By the end of FY07, 250 of the 750 FTE reduction has already been realized.

In summary, no significant socioeconomic impacts are expected to result from Alternatives No. 2, 3, and 4. Renovation or construction of the proposed KCP at the Bannister Federal Complex does not adversely affect or target low income or minority populations. The proposed reductions in workforce would mainly be achieved thru employee attrition.

5.3.9 Intentional Destructive Acts

Per the Department of Energy’s Design Basis Threat Policy (DOE Order 470.3A), the Kansas City Plant is designated a Threat Level 4 facility and has no terrorist threat. Threat Level 4 is the lowest threat classification based on the general consequences of loss, destruction, or impact to public health and safety. The KCP has no critical assets or critical facilities. Hazard assessments, which evaluate a range of potential accidents and the nature of each hazard, have been completed and are reviewed annually for the existing plant. The KCP is considered a low-hazard industrial facility and operations at the KCP involve hazards of the type and magnitude routinely encountered in industry and generally accepted by the public. Emergency plans are in place to respond to such emergencies as accidents, incidents, events or natural phenomena. Extensive security measures are in place to protect identified assets. Cooperating arrangements exist with the local police, fire and FBI for emergency response. A plan exists to assure continuity of operations in the event that normal operations cannot be conducted at the plant. The likelihood of detrimental exposure because of an operational accident, intentional destructive act or natural phenomena is extremely unlikely because of mitigating factors used in normal operations combined with the benefits of site engineered controls and facility construction.

The alternatives discussed in section 3.3 differ only in the degree of renovation of facilities already located on the Bannister Federal Complex. No increased impacts are expected as all of the alternatives would fall within the scope of existing hazard assessments and emergency plans currently in place for the KCP.

5.3.10 Cumulative Impacts

This section describes present actions as well as reasonably foreseeable future actions that are considered pertinent to the analysis of cumulative impacts for relocation of the KCP to the western end of the Bannister Federal Complex, currently occupied by GSA operations. In 40 CFR 1508.7, the Council on Environmental Quality (CEQ) defines cumulative impact as: “the impact on the environment from the incremental

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

Sanitary Wastewater

Wastewater from the three alternative options at the Bannister Federal Complex would most likely be routed to the Kansas City Missouri Blue River Wastewater Treatment Facility. The wastewater discharges from plant operations and sanitary discharges from human occupation would not increase flows to the POTW as the existing KCP operations currently discharge to the same POTW.

Air Quality

Operation of a new KCP under Alternatives No. 2, 3 & 4 at the Bannister Federal Complex would not result in new emissions at this location. However, the new facility design for the three alternatives would produce approximately 19% lower emissions than the existing KCP operations. Therefore, the net effect within the Kansas City Metro area is a decrease in air emissions from continuing operations.

Impacts from constructing the proposed facility, such as additional traffic and construction emissions, would be temporary and similar to those associated with any other commercial building of comparable size. These particulate emissions can be controlled using standard construction site dust control techniques.

Traffic/Transportation

Site construction activities for the three alternatives would increase traffic on the roads around the Bannister Federal Complex. However, the increase in traffic would only be temporary while the site is under construction. Following site construction

activities, the traffic load would return to normal volumes as the existing KCP employees would move from the eastern to western portion of the Bannister Federal Complex.

APPENDIX A

AUG 09 2007

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Matt Blunt, Governor • Doyle Childers, Director

www.dnr.mo.gov

August 3, 2007

Kathryn A. Warner
SCI Engineering, Inc.
130 Point West Boulevard
St. Charles, Missouri 63301

Re: GSA Kansas City Plant (GSA) Jackson County, Missouri

Dear Ms. Warner:

Thank you for submitting information on the above referenced project for our review pursuant to Section 106 of the National Historic Preservation Act (P.L. 89-665, as amended) and the Advisory Council on Historic Preservation's regulation 36 CFR Part 800, which requires identification and evaluation of cultural resources.

We have reviewed the revised June 2007 report entitled *Cultural Resource Assessment, GSA Kansas City Plant, Jackson County, Missouri*. Based on this review it is evident that a thorough and adequate cultural resources review has been conducted of the project area. While we concur that there will be **no historic properties affected** at the 183-Acre raw Land Project Area, and that the history presented in the report suggests that the Bannister Federal Complex may be eligible for inclusion in the National Register of Historic Places We cannot make a more definite determination without photographs, site plans, and other relevant information that demonstrates if the complex retains integrity.

Please be advised that, should project plans change, information documenting the revisions should be submitted to this office for further review. In the event that cultural materials are encountered during project activities, all construction should be halted, and this office notified as soon as possible in order to determine the appropriate course of action.

If you have any questions, please write Judith Deel at State Historic Preservation Office, P.O. Box 176, Jefferson City, Missouri 65102 or call 573/751-7862. Please be sure to include the SHPO Log Number **(140-JA-07)** on all future correspondence or inquiries relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE



Mark A. Miles
Director and Deputy
State Historic Preservation Officer

MAM:jd

c Brad Wolf, KC

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