DOE/EA-1947-S1

SUPPLEMENTAL FINAL ENVIRONMENTAL ASSESSMENT

FOR THE

TRANSFER OF THE KANSAS CITY PLANT, KANSAS CITY, MISSOURI

U.S. Department of Energy
National Nuclear Security Administration

December 2017

Supplemental Final Environmental Assessment

for the

Transfer of the Kansas City Plant, Kansas City, Missouri

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ACRONYMS AND ABBREVIATIONS

APE	direct area of potential effects
BFC	Bannister Federal Complex
BFC EIS	Environmental Impact Statement for the Disposition of the Bannister Federal Complex, Kansas City, Missouri (DOE/EIS-0475)
BGEPA	Bald and Golden Eagle Protection Act
BLS	Bureau of Land Statistics
Burns & McDonnell	Burns & McDonnell Engineering Company, Inc.
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1976
CFR	Code of Federal Regulations
CSR	Code of State Regulations
dbh	diameter at breast height
DOE	U.S. Department of Energy
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
FR	Federal Register
HSWA	Hazardous and Solid Waste Amendments of 1984
IPaC	Information, Planning, and Conservation system
GPS	global positioning system
GSA	General Services Administration
KCATA	Kansas City Transit Authority
KCMO	Kansas City, Missouri
KCNSC	Kansas City National Security Campus
KCP	Kansas City Plant
KCPL	Kansas City Power & Light
MBTA	Migratory Bird Treaty Act
MDC	Missouri Department of Conservation
MoDNR	Missouri Department of Natural Resources
MH	manhole
MHWMF	Missouri Hazardous Waste Management Facility
NEPA	National Environmental Policy Act, as amended
NHPA	National Historic Preservation Act
NNSA	National Nuclear Security Administration
NRHP	National Register of Historic Places
NOA	Notice of Availability
NOI	Notice of Intent
NRCS SSURGO	Natural Resources Conservation Service Soil Survey Geographic Database
NWI	National Wetland Inventory
NWP	Nationwide Permit
OHWM	ordinary high water mark

PCBs	polychlorinated biphenyls
PCN	Pre-Construction Notification
RCRA	Resource Conservation and Recovery Act of 1976
SHPO	State Historic Preservation Office
Supplemental Final EA	Supplemental Final Environmental Assessment
SWMU	solid waste management unit
THPO	Tribal Historic Preservation Office
TPH	total petroleum hydrocarbon
USFWS	U.S. Fish and Wildlife Service
U.S.C.	United States Code
UPRR	Union Pacific Railroad

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1.0 INTRODUCTION, PURPOSE AND NEED FOR ACTION

The National Nuclear Security Administration (NNSA) has transferred a portion of the Bannister Federal Complex (BFC), located in Kansas City, Missouri, to a private developer (Figure 1-1). This action was reviewed in accordance with the *National Environmental Policy Act* (42 U.S.C. §§ 4321 *et seq.*; NEPA) by completion of an Environmental Assessment (EA) for the Transfer of the Kansas City Plant, Kansas City, MO (U.S. Department of Energy [DOE]/EA-1947) which supported a Finding of No Significant Impact (FONSI), issued May 1, 2013. This initial FONSI was updated August 30, 2016, to account for inclusion of all excess Federal property located at the BFC. NNSA is preparing this Supplemental Final Environmental Assessment (Supplemental Final EA) to assess the removal and abandonment in place of a 24-inch sewer line[1] that extends north of the BFC from Liberty Drive to 85th Street, which was not included as part of the DOE/EA-1947 (Figure 1-2, Figure 1-3; Appendix A). Removal and abandonment of this sewer line was not contemplated in DOE/EA-1947 under an assumption that a subsequent owner would continue to use this sewer line. However, the recently completed property transfer did not include this sewer line. Accordingly, it remains to NNSA to dispose of this excess property. The sewer line includes both above and below ground facilities. The southern section, closest to the BFC, is above ground and is to be removed as part of the land transfer of this property. The remaining below ground facilities further north are to be abandoned in place, with pipe and manholes sealed to prevent access.

This Supplemental Final EA has been prepared in accordance with the Council on Environmental Quality (CEQ) NEPA regulations (40 Code of Federal Regulations [CFR] Parts 1500 to 1508), and the DOE's NEPA implementing regulations (10 CFR Part 1021). These regulations require that NNSA consider the potential environmental impacts of its proposed action and the reasonable alternatives before making a decision about whether to remove the sewer line. NNSA has prepared this Supplemental Final EA to:

- Amend the purpose and need addressed in DOE/EA-1947 for this proposed action to include the removal of the 24-inch sewer line;
- Describe the proposed action and the no-action alternatives associated with sewer line abandonment;

[1] The sewer line for this project includes approximately 900 feet of above-ground pipe, much of which is elevated on concrete piers, and approximately 1,840 feet of below ground pipe. The proposed project includes the removal of above-ground facilities, including pipe, bridging, and piers, and the abandonment in-place of the underground pipe. For the purposes of this Supplemental Final EA, unless otherwise specified, removal of the sewer pipe includes both removal of the above ground section and abandonment of the underground section.

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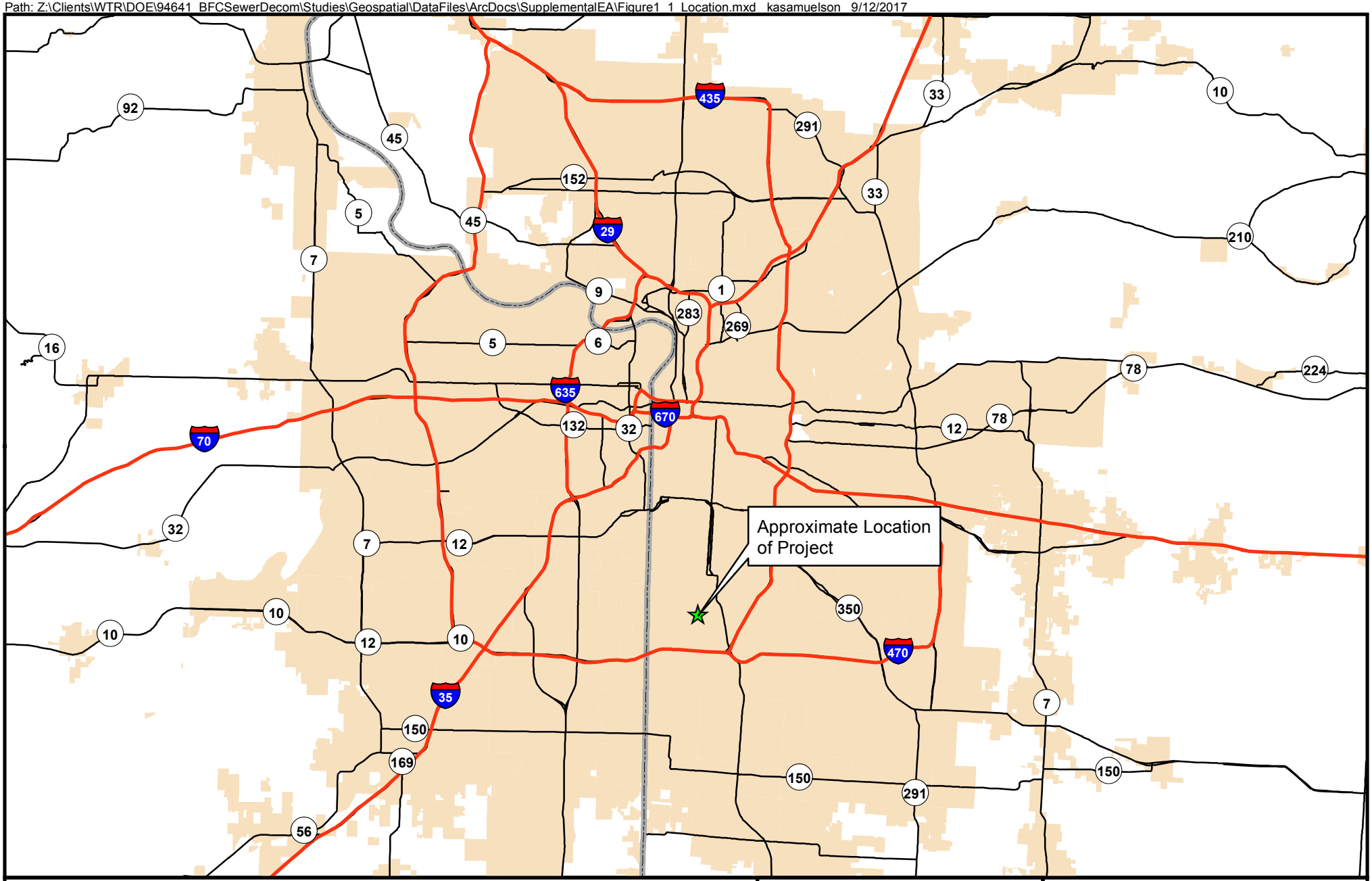


Approximate Location of Project

Kansas City Metro Area

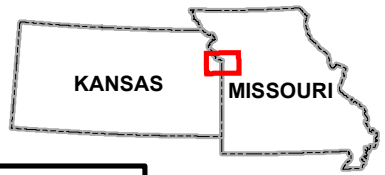
State Boundary

Interstate

Highway

NORTH

0 3 6 Miles



Locator Map

Figure 1-1
Project Location
Supplemental Environmental Assessment
Transfer of the Kansas City Plant

Source: NAIP Missouri 2016 Aerial Photography, NTAD, ESRI, NHD, Jackson County

Issued: 9/12/2017

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NNSA Kansas City Plant

GSA/DOE Property Boundary

Approximate Location of Project

Railroad

Road

Kansas City Metro Area

State Boundary

NORTH

0 500 1,000

Feet

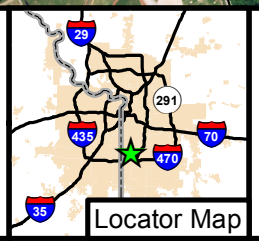

Figure 1-2
Location of Sewer Line on Bannister Federal Complex
Supplemental Environmental Assessment
Transfer of the Kansas City Plant

Source: NAIP Missouri 2016 Aerial Photography, NTAD, ESRI, NHD, Jackson County

Issued: 9/12/2017

Figure 1-3: Aboveground Sewer Line North of BFC Property

- Describe the affected environment of the sewer line area;
- Assess any additional potential direct and indirect environmental impacts of the amended proposed action, specific to sewer line removal and abandonment; and
- Assess the cumulative impacts of the amended proposed action with past, present, and other reasonably foreseeable actions.

This Supplemental Final EA will provide NNSA with the information needed to make an informed decision with regard to the impact to the environment about the removal of the sewer line, which runs from the BFC to the north of the property located within the city limits of Kansas City, Missouri.

1.1 Purpose and Need for Agency Action

The purpose and need for the Project stated in Chapter 1 of DOE/EA-1947 remains unchanged. The purpose and need for agency action is to reduce NNSA's operational footprint and reduce operational and maintenance costs in an environmentally safe and fiscally responsible manner. The proposed action is to transfer the Kansas City Plant (KCP), in whole or in part, to one or more entities for a use that is different from its current use. NNSA believes the transfer of this property would benefit NNSA and the local economic area.

1.2 KCP Transfer

The NNSA, which was established in March 2000 as a semi-autonomous agency of the DOE, is the Federal agency responsible for maintaining and enhancing the safety, security, reliability, and performance of the U.S. nuclear weapons stockpile. NNSA operations in Kansas City involve manufacturing or procurement of a wide array of sophisticated nonnuclear mechanical, electronic, and engineered material components for national defense systems. These components comprise about 85 percent of the components of a nuclear weapon.

KCP, located at the BFC, is within the city limits of Kansas City, Missouri, about 8 miles south of the city center (see Figures 1-1 and 1-2). The approximately 300-acre BFC is a compact, highly developed site owned by NNSA and the General Services Administration (GSA). NNSA currently owns the portion of the BFC known as KCP, consisting of about 122 acres and 38 buildings. GSA owns the remainder of the site, consisting of about 175 acres and 14 buildings. Major highways (Interstate Highway 435 [I-435] and I-49/U.S. Highway 71) and auxiliary and smaller secondary streets provide access. There are no residences or agricultural activities or farmlands on the BFC. There was a daycare facility located on GSA property. The adjoining properties to KCP and the BFC are mostly residential with isolated commercial tracts, except along the eastern and northern sides, which have been designated for public and

recreational uses. The site is currently zoned for manufacturing (Chapter 88, Section 88-140 of the Code of Ordinances of Kansas City, Missouri).

The transfer of the KCP, in whole or in part, to one or more entities for a use that is different from its current use was analyzed in DOE/EA-1947. This proposed action alone was found to have no impact on the environment. However, DOE/EA-1947 concluded any future transferee(s) would use the property for mixed use (industrial, warehouse, and office), which could result in environmental impacts. At the time of DOE/EA-1947, NNSA did not know if the property transfer would be as a single unit or in parcels. The potential environmental impacts were expected to be the same whether the transfer occurred as a single unit or in parcels. The 2016 supplement to the FONSI confirmed that transfer was to be made to a single recipient.

1.3 Overview of NEPA Activities to Date

On April 21, 2008, NNSA and GSA issued the *Environmental Assessment for the Modernization of Facilities and Infrastructure for the Non-Nuclear Production Activities Conducted at the Kansas City Plant* (DOE/EA-1592; GSA and NNSA 2008). On April 29, 2008, NNSA and GSA issued a FONSI for their proposal to construct the new Kansas City National Security Campus (KCNSC) about 8 miles south of the BFC to house NNSA KCP operations (73 Federal Register [FR] 23244). It was determined that the new facility would replace the old KCP and reduce the environmental footprint of KCP operations, including improved energy efficiency, lower emissions, and a reduction in waste generation. Construction began on the new KCNSC in 2010, and NNSA relocated to the new KCNSC in 2013. NNSA realized that the BFC KCP property would be available for transfer once the move was completed and required decommissioning activities concluded.

NNSA began development of an Environmental Impact Statement (EIS) for the Disposition of the Bannister Federal Complex, Kansas City, Missouri (DOE/EIS-0475) (BFC EIS) to analyze the impacts of transferring of the entire BFC, with GSA as a cooperating agency. The Notice of Intent (NOI) to prepare the BFC EIS was published in the Federal Register (FR) on January 23, 2012 (77 FR 3259). NNSA decided to prepare an EA addressing transfer of KCP property rather than an EIS because the scope of the BFC EIS was impacted by the following items since the issuance of the NOI:

- NNSA issued a Notice of Availability (NOA) on October 11, 2011, to determine interest in the property. Development consistent with mixed use (industrial, warehouse, and office) was the only feasible future use identified during this process. For this reason, the focus of analysis in the NEPA review would be limited to those possible future uses consistent with mixed use

(industrial, warehouse, and office). This determination reduced the number of alternatives that would be considered in the EA compared with those that were going to be considered in the BFC EIS, as well as the potential environmental impacts associated with the alternatives.

- On August 24, 2012, the Missouri Department of Natural Resources (MoDNR) and the U.S. Environmental Protection Agency (EPA) issued final modifications for the existing Missouri Hazardous Waste Management Facility (MHWMF) Part I Permit and the existing Hazardous and Solid Waste Amendment (HSWA) Part II Permit. The modified permits added the GSA as a permittee and expanded coverage to encompass the entire BFC. These permit modifications allowed better coordination of environmental investigations between Federal and State agencies and facilitated a better coordinated implementation of any necessary corrective actions. As a result of the permit modifications, NNSA and GSA were required to conduct further environmental investigation, monitoring, risk assessment, and cleanup of the BFC. Because of the permit modifications, there was less uncertainty related to the regulatory framework and drivers for cleanup of the BFC.
- NNSA review of comments received during scoping of the EIS, and work on the preliminary draft EIS, led to the conclusion that an EA was the appropriate document to inform NNSA decision makers of the potential environmental impacts of the proposed action.

For these reasons, NNSA determined that an EA was the appropriate NEPA document to evaluate the proposed action of transferring the KCP property to one or more entities for a use that is different from its current use. Due to the more uncertain timing of the transfer of the GSA-owned property, they did not participate in the EA as a cooperating agency. An NOI was published on November 30, 2012, to inform the public of the transition from completing an EIS to an EA. An internal scoping process was used that considered public scoping comments previously received on the NOI for the BFC EIS. An informational meeting was held on December 11, 2012, to provide information on the scope of the EA and the new proposed action. NNSA notified potentially interested local, State, and Federal agencies. A notice was published in the Kansas City Star as well. The draft EA was published on February 12, 2013. A 30-day public comment period followed its publication. Local, State, and Federal agencies were notified of the availability of the draft EA via an NOA posted on various DOE websites, a postcard mailing, and a newspaper advertisement in the Kansas City Star.

A public meeting was held on March 5, 2013, to provide information on the draft EA and received written and oral comments on the draft EA. The meeting was advertised in the Kansas City Star. A court reporter recorded and transcribed all oral comments. Five individuals provided oral comments at the public meeting. The comment period for the draft EA closed on March 14, 2013. NNSA considered all

comments received, including two comment documents that were received after March 14, 2013. In addition to oral comments received at the public meeting, NNSA received a total of 11 comment documents (via hand-in at the public meeting and email). NNSA identified a total of 73 comments from the public meeting and comment documents. The Transfer of the Kansas City Plant, Kansas City, Missouri, Final EA was published in May 2013. Responses to comments received were provided in Appendix B of DOE/EA-1947. A FONSI was issued on May 1, 2013.

Following release of the FONSI, the decision was made to transfer all the BFC property, including areas under custody and control of GSA. As a result of this decision, a draft Revised FONSI was released on June 29, 2016, and provided for public comment. NNSA responded to public comments as part of a Final Revised FONSI issued on August 30, 2016, for the changes to the transfer action.

1.4 Scope of this Supplemental Final Environmental Assessment

This Supplemental Final EA:

- Describes the purpose and need for agency action and provides background information on the KCP transfer activities with the addition of the sewer line removal (Chapter 1);
- Describes the proposed action and the no-action alternative as amended to include alternative actions associated with the removal of the 24-inch sewer line (Chapter 2);
- Analyzes the potential additional direct and indirect environmental impacts of the proposed action and no-action alternative for the sewer line (Chapter 3);
- Identifies and characterizes cumulative impacts that could result from the additional sewer line proposed action in relation to past, present, and other reasonably foreseeable actions described in the EA (Chapter 4); and
- Discusses applicable regulatory requirements related to the potential removal of the sewer line (Chapter 5).

1.5 Public Involvement

NNSA informed a variety of local, State, and Federal agencies of the amendment to the May 2013 Final EA via letters on August 1, 2017. The letters informed the recipients of the Supplemental Final EA that would be required to include the removal of the sewer line in the Project. The letters requested input from the agencies on issues or concerns related to land use, aesthetics, water quality, wetlands, and other resources in the Project area. Comments were requested to be sent by August 31, 2017. Comments received are included in Appendix B of this Supplemental Final EA.

2.0 DESCRIPTION OF ALTERNATIVES

This section presents the proposed action and no-action alternatives that NNSA analyzed in this Supplemental Final EA for the removal of the sewer line. Sections 2.1 and 2.2 discuss the proposed action and alternatives and Section 2.3 presents the no-action alternative. To provide information and context to decision makers and other document reviewers relative to a FONSI and/or mitigation measures, this Supplemental Final EA analyzes only potential environmental impacts associated with removal and abandonment of the sewer line. Impacts related to the transfer of the KCP are discussed in DOE/EA-1947 and remain unchanged by the sewer line project. The sewer line is in the northeast portion of the BFC, where no buildings currently exist and outside the area considered in DOE/EA-1947.

For this Supplemental Final EA, the removal and abandonment of the sewer line was analyzed as if occurring concurrent with the analytical scenario described in DOE/EA-1947. Because the sewer line would remain in use while the KCP remained with NNSA, removal would occur following site transfer, potentially while existing KCP buildings are being demolished or while new facilities are being constructed on the site.

2.1 Proposed Action – Sewer Line Removal and Abandonment

DOE/EA-1947 is supplemented to consider the complete removal of the above ground portion of the sewer line and abandonment in place of the underground section of the 24-inch sewer line that extends north of the BFC from Liberty Drive to the 85th Street in Kansas City, Missouri. Removal of the sewer line may have an impact on the environment and is analyzed in this Supplemental Final EA.

Complete sewer line removal would include both the removal of approximately 900 feet of above ground, 24-inch cast iron pipe, a support trestle comprised of concrete piers of up to 25 feet in height, concrete bridging between the piers upon which the pipe is resting, abandonment and sealing of approximately 1,840 feet of underground 24-inch cast pipe (approximately 650 feet located in a tunnel), and sealing of three manholes (MH), including MH 35, MH 39, and MH 40 (Appendix A). A concrete wall and supporting wing walls are located at the transition of the above ground to below ground pipeline and will generally remain in place, pending discussions with the adjacent Union Pacific Railroad (UPRR), but would be permanently sealed. The above ground section of sewer line is located in an easement while the below ground section is located within the UPRR right-of-way.

The first activities for removal would be to develop access to the line for demolition equipment and clearing:

- from the current Government property, following the trestle to MH 40.
- from the Kansas City Transit Authority (KCATA) Parking Lot at 85th Street and Prospect Avenue, followings the trail to MH 35.
- using the same access point as Route 2 but cutting across Stoneycreek Farms to reach MH 39.

All of these access routes would likely require tree clearing, development of temporary access road, and development of access across an unnamed tributary and along the entire length of the pipeline, both above and below ground sections.

Demolition would occur in three phases:

- clearing and access
- demolitions
- restoration

Complete demolition would take approximately one year to complete. Site work would typically include a crew of three to five workers and associated equipment.

Access development would result in disturbance to surface soils. Appropriate erosion control measures would be implemented prior to any earth disturbing activities to protect surface soils and manage stormwater runoff. Cleared material could be mulched to provide ground cover for temporary soil protection and stabilization or removed to a yard waste facility.

Once access is available, demolition equipment including excavation equipment (track hoe or excavator), cranes, pipe cutting and removal, and jackhammering and other concrete removal equipment, would be moved to the site. Pipe would be removed in sections and placed on trucks for removal to recycling or approved disposal sites. Concrete trestle sections between support piers and bridging would also be removed and trucked off-site for appropriate disposal. Concrete support piers would be removed, with structures excavated approximately six feet below ground level, jackhammered off and backfilled.

Below ground facilities would be abandoned in place. Access manholes would be knocked down to approximately 3 feet below ground. The remaining manhole structure would be filled with grout and backfill placed over the top. The underground portions of the pipe itself would also be filled with grout, with any exposed pipe grouted shut. Grouting would be accomplished using concrete pump trucks. Any exposed areas of pipe, including MH 35, MH 39, and MH 40 would also be filled with grout. The site

would be cleaned of all clearing and demolition debris. Any disturbed areas would be revegetated as directed by permits and agreements for Project demolition and property transfer.

2.2 Action Alternative – Partial Sewer Line Removal and Abandonment

NNSA considered partial removal and abandonment of the sewer line as a potential alternative to complete removal of the sewer line or the no-action alternative. Under the partial removal alternative, the underground section of the sewer line would be abandoned in place as previously discussed. However, the overhead section would only be partially removed. Pipe and some associated hardware would be removed but concrete piers and trestle bridging supporting the pipeline would be left in place. It was determined the impacts associated with only pipe removal would be essentially the same as those occurring from complete pipe removal as Project impacts are primarily a result of activities to provide equipment access to the pipeline. Once access has been developed, additional impacts from pier removal would be minimal. Additionally, retention of piers, several over 20 feet tall, create future maintenance and safety issues for which NNSA would retain responsibility or would need to be transferred to the new property owner[2] following KCP transfer. As no real benefits were identified for partial removal and additional, ongoing issues and concerns would be created, this alternative was dropped from further consideration.

2.3 No-Action Alternative

The no-action alternative considered in this supplemental EA assumes NNSA would abandon the sewer line when it is no longer in use, but it would not be removed. If left in place, the sewer line would experience normal deterioration, creating on-going and future maintenance, safety, and liability responsibilities for either NNSA or the future property owner. As a result, because the no-action alterative would not assist NNSA in meeting the purpose and need for the Project, it was eliminated from further consideration.

[2] Anticipated to be the Kansas City Parks Department, which has indicated it would require complete removal of the above-ground facilities as a condition of property transfer.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

The EA for the KCP transfer presented a detailed discussion of the affected environment and the environmental impacts associated with the proposed action and no-action alternative. The discussion in the EA remains valid. This chapter describes the affected environment of the areas containing the sewer line and associated environmental impacts from sewer line removal and the no-action alternative. Only the additional potentially affected environmental resources are discussed. Several environmental resource areas analyzed in the EA for the transfer of the KCP are not anticipated to be further impacted by the addition of the sewer line removal in this Supplemental EA and are not further discussed.

3.1 Land Use

3.1.1 Site Description

The complete site description for Land Use Resources can be found in DOE/EA-1947 in Section 3.1.1.1, Site Description, on pages 3-1 through 3-3. The site remains largely unchanged since the publication of DOE/EA-1947 in May 2013.

The 24-inch sewer line extends north of the BFC from Liberty Drive to 85th Street (Figure 1-2, Figure 1-3). The sewer line includes both above and below ground facilities. The southern section, closest to the BFC, is above ground. The remaining below ground facilities further north are to be abandoned in place, with pipe and manholes sealed to prevent access. Land use around the sewer line is primarily undeveloped, with open, undeveloped grassland/lawn areas of the KCP located to the south. Areas surrounding the pipeline are wooded with the exception of a partially cleared transmission line right-of-way which crosses the pipeline. The Legacy East Residential area occurs to the west, outside the area of the Project, and individual residences and associated outbuildings are present north of the transmission line right-of-way. The pipeline is partially paralleled to the west by the Trolley Park Trail and to the east by UPRR rail lines. Legacy East Park occupies lands west and adjacent to the BFC property near the pipeline.

3.1.2 Land Transfer Regulatory Requirements

The complete land transfer regulatory requirements for Land Use Resources were presented in DOE/EA-1947, Section 3.1.1.2, Land Transfer Regulatory Requirements, on pages 3-3 through 3-4. No updates or changes to these requirements have been identified.

3.1.3 Environmental Impacts from the Proposed Action

The environmental impacts to Land Use Resources resulting from the transfer of the KCP presented in DOE/EA-1947 in Section 3.1.2, Environmental Impacts from the Proposed Action, on pages 3-4 through 3-5 remain unchanged. The following additional impacts to land use would result from the Proposed Action.

Removal of the above ground portion of the sewer line would result in ground disturbance to approximately 2.92 acres along the sewer line and areas immediately adjacent. Surface disturbance would be limited to the above ground section of line as the below ground facilities are to be abandoned in place. Approximately 2.92 acres of trees located adjacent to the sewer line will need to be cleared to access and remove the sewer line. Euclid Avenue on the south and Prospect Avenue at the north end could provide access to the line. Additional access would need to be developed through the wooded undeveloped areas along the line for equipment to access all areas of the site. Short, temporary delays in traffic on Euclid and Prospect Avenues may occur when equipment is moving to and from the site prior to and after removal activities have taken place. No long-term adverse impacts to land use are anticipated due to the removal of the sewer line. Following removal activities, the area would be revegetated, the existing easement could be released, and the land available for future, non-utility use.

3.1.4 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, the sewer line would be left in place. NNSA could be required to continue to provide site security and maintenance of the line and continue to hold an easement for its presence. Land use would not change from sewer line occupancy.

3.2 Aesthetics

3.2.1 Affected Environment

A discussion of Aesthetics of the Project area, including visual resources and noise emission sources, can be found in the DOE/EA-1947 in Section 3.2.1, Affected Environment, on page 3-5. The visual resources and noise emission sources at the site remain largely unchanged since the publication of DOE/EA-1947 in May 2013.

The sewer line area forms an island of generally undeveloped woodland in an otherwise urban landscape. The area is heavily wooded, presenting a more rural viewscape but also obscuring views of the sewer line, transmission line right-of-way, and adjacent residences and rail lines. A raised rail line is adjacent to the sewer line which contributes to the primary source of noise along the pipeline. Traffic along Prospect

Avenue and 85th Street to the north contribute noise to the area. No noise is emitted from the sewer line itself. The Trolley Park Trail and Legacy East Park provide potential public access and viewing locations of the line, although the heavily wooded nature of the area limits the viewshed.

3.2.2 Environmental Impacts from the Proposed Action

3.2.2.1 Visual

Views of the sewer line are restricted to the areas immediately surrounding the line due to the raised rail line to the east and lack of public access, wooded area surrounding the pipeline, and limited access points from which to observe the area. A small strip of trees would need to be removed to provide equipment access and to safely remove the sewer line. Tree removal would be minimal compared to the wooded area through which the pipeline is located. This cleared area would be revegetated after removal of the sewer line is complete, reducing contrast with adjacent areas. Due to these factors, removal of the sewer line will not significantly alter or adversely affect the viewshed of the area.

3.2.2.2 Noise

The intermittent and temporary noise impacts discussed in DOE/EA-1947, Section 3.2.2.2, Noise, would largely be the same with the addition of the sewer removal project. Sewer line removal activities would temporarily increase noise in the Project area, particularly in the vicinity of the pipeline. It is anticipated that a variety of construction equipment, such as excavators, short-haul trucks, front-end loaders, bulldozers, and backhoes would be used for pipeline removal and produce noise during demolition activities (Table 3-1). During removal activities, construction crews would travel to and from the site, resulting in a minimal and temporary increase in traffic noise on surrounding roads. The nearest residence is approximately 500 feet away from the sewer line. Sound levels at this residence may be increased during daylight, working hours but would return to current levels at off-work hours and following completion of demolition. Demolition is anticipated to last up to one year, but would occur in phases with noise levels varying between and within phases. Following completion of demolition, no additional increases in noise from the Project would be experienced.

Table 3-1: Typical Noise Emission from Heavy Equipment (A-weighted decibels)

Equipment	Typical noise level 50 feet from source	Typical noise level 500 feet from source
Backhoe	78	58
Crane	81	61
Dump truck	76	76

Equipment	Typical noise level 50 feet from source	Typical noise level 500 feet from source
Bulldozer	82	62
Excavator	81	61
Front-end loader	79	59
Jackhammer	90	70

Source: FHWA, 2012

It is anticipated that truck traffic associated with the removal of the sewer line would constitute less than 1 percent of the total traffic on Bannister Road (see Section 3.8 of the EA for more detail on transportation resources) and other local roadways. Noise attributable to these trucks to the surrounding areas would be indistinguishable from current ambient levels.

3.2.3 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, NNSA would leave the sewer line in place and no demolition activity and associated noise would occur. Continued post-closure operations at the KCP would not result in changes to the viewshed and would have no adverse impacts. Ambient noise near the sewer line would remain at current levels as no demolition of the sewer line would occur.

3.3 Air Quality

3.3.1 Affected Environment

The Air Quality of the Project area is discussed in detail in DOE/EA-1947, Section 3.3.1, Affected Environment, on page 3-8. The air quality at the site remains essentially the same as presented in the EA.

The KCP is in metropolitan Kansas City, which is in attainment for all criteria pollutants except sulfur dioxide, for which a portion of the city has been in non-attainment from 2013 through 2017 (EPA, 2017). The area that has been designated as non-attainment is in the northeastern portion of the city, bounded between the Missouri River and I-70 on the north and south and between I-435 and State Line Road on the east and west, which is outside the Study Area. The nearest Prevention of Significant Deterioration Class I area is Hercules Glades Wilderness Area, about 179 miles to the southeast. The KCP and its vicinity are in a Class II area.

3.3.2 Environmental Impacts from the Proposed Action

The Project would create additional, temporary changes in air emissions, beyond those discussed in DOE/EA-1947, Section 3.3.2.

The use of heavy equipment during sewer line removal would generate engine exhaust containing air pollutants associated with diesel combustion. Similar air emissions would be generated from construction workers commuting in their personal vehicles. Emissions from heavy-equipment use would be minimal (only 2 to 3 pieces of equipment operating on site regularly), short-term (during working hours over the demolition period), sporadic, and localized. 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. Diesel fumes from construction vehicles will produce sulfur dioxide, which could affect local air quality during certain meteorological conditions. As discussed above, these instances are limited in time and areas of effect.

Removal of the sewer line could generate an increase in dust from disturbed soils and demolition rubble. Earthwork would be restricted to the area immediately surrounding the sewer line and access roads. Increases in dust concentrations could be noticeable on the site and in the immediate vicinity, and ambient concentrations of particulate matter could rise in the short term. However, control measures for lowering dust (i.e., covers and water or chemical dust suppressants) would minimize these emissions. Pipeline demolition would occur outside any identified solid waste management unit (SWMU). Dust control measures could be part of any city-issued or other construction permits. Once sewer line removal activities are completed, dust emissions from the Project site would cease.

3.3.3 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, NNSA would not remove the sewer line. No additional air emissions from demolition equipment and activities would occur.

3.4 Geology and Soils

3.4.1 Affected Environment

A discussion of the Geology and Soil Resources of the Project area, including geology, seismicity, soils, soil contamination, underground storage tanks, and former wastewater lagoons, can be found in DOE/EA-1947 in Section 3.4.1, Affected Environment, on page 3-11 through 3-19. The geology and soil resources at the site remain the same as presented in the EA.

The elevation near the sewer line is approximately 785 feet above mean sea level. The area south and immediately north of the sewer line are generally flat. South of the sewer line slopes upward to approximately 790 to 800 feet above mean sea level. North of the sewer line slopes down to approximately 780 feet above mean sea level. The areas east and west of the sewer line slope upwards to

over 800 feet above mean sea level. The Natural Resources Conservation Service Soil Survey Geographic Database (NRCS SSURGO) digital data indicates one soil map unit is present near the sewer line. This soil unit, Sarpy fine sand, 0 to 2 percent slopes, frequently flooded, is included on local and national hydric soil lists. The underground portion of the sewer line is up to approximately 37 feet below ground surface.

The start of the sewer line is located near SWMU Site 34, which is the sanitary sewer pump station. This site does not have ongoing corrective actions associated with it. The nearest contaminated soil is located approximately 300 feet south of the sewer line. This area is contaminated with total petroleum hydrocarbon (TPH).

3.4.2 Environmental Impacts from the Proposed Action

Removal of the sewer line would require the use of heavy machinery (for example, bulldozers, excavators, and backhoes); such activities would disturb soil in and around the sewer line. However, surface soil at the site consists primarily of fill and reworked material; likely as a result of previous sewer line construction and construction of adjacent rail grade facilities. Undisturbed, native soils are rare or nonexistent. Therefore, there would be little, if any, impacts to native soils. Removal of the sewer line would be limited to the above ground portion of the line. Concrete support piers would be removed to approximately 6 feet below ground surface and covered, resulting in only small areas of shallow excavation. Manholes would be removed to approximately 3 feet below ground surface and covered. Below ground facilities are to be abandoned in place, with pipe and manholes sealed to prevent access. Soil disturbance would be limited to above ground portions of the sewer line and manhole accesses, with minimal soil disturbance required to access and seal pipes and manholes on the below ground portion. With the use of best management practices for soil erosion control, the demolition activities would have only minimal, temporary disturbance to soils and no disturbance to geologic resources. No excavation of below ground pipe would occur. Activities also would not impact prime farmland since the KCP contains no prime farmlands and all activities would occur on previously disturbed land.

3.4.3 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, the NNSA would not remove the sewer line. No demolition related disturbance to soils and geology would occur.

3.5 Water Resources

A discussion of water resources in the Project area was included in DOE/EA-1947 in Section 3.5.1, Affected Environment, on page 3-20 to 3-36. The water resources at the site remain unchanged since the publication of the EA.

3.5.1 Affected Environment

3.5.1.1 Surface Water

The area of the sewer pipeline contains one unnamed, ephemeral tributary to the Blue River. According to the MoDNR, this tributary is designated as a Class C water (may cease flow but maintains permanent pools to support aquatic life) in the Missouri Use Designation Data Set and at 10 Code of State Regulations (CSR) 20-7.031, Table H for the following uses:

- Warm water habitat for protection and propagation of fish, shellfish, and wildlife
- Human health protection
- Irrigation
- Livestock and wildlife protection
- Secondary contact recreation
- Category B whole body recreation

Other surface water features in the area include ponds and wetlands, as presented on National Wetland Inventory (NWI) maps. Wetland delineation surveys of the construction area did not identify any wetlands or other surface water resources within the construction area.

3.5.1.1.1 Water Use

Section 3.5.1.1 of DOE/EA-1947 provides a discussion of water use in the Project area. There have been no changes to the existing water use discussion in DOE/EA-1947.

3.5.1.1.2 Stormwater

Section 3.5.1.2 of DOE/EA-1947 discusses stormwater in the Project area. There have been no changes to the stormwater discussion in DOE/EA-1947.

3.5.1.2 Groundwater

3.5.1.2.1 Regional Characteristics and Quality

Section 3.5.1.2.1 of DOE/EA-1947 provides a discussion of regional groundwater characteristics and quality in the Project area. The discussion in the EA remains applicable to the sewer line area.

3.5.1.2.2 Groundwater Use

Section 3.5.1.2.2 of DOE/EA-1947 discusses groundwater use in the Project area. The MoDNR identified 240 groundwater wells within 0.5 mile of the sewer line. However, none of these wells are located within the demolition area for the sewer line.

3.5.1.3 Floodplains and Wetlands

3.5.1.3.1 Floodplains

Section 3.5.1.3.1 of DOE/EA-1947 discusses floodplains in the Project area. The sewer line is located within 100-year floodplain of the unnamed tributary north of the sewer line.

3.5.1.3.2 Wetlands

Section 3.5.1.3.2 of DOE/EA-1947 discusses wetlands in the Project area.

A wetland delineation of the area surrounding the sewer line was completed on April 18, 2017, by Burns & McDonnell Engineering Company, Inc., (Burns & McDonnell) in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual* and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region – Version 2.0*. The report (Appendix C) investigated existing data sources and included a field survey that recorded and evaluated vegetation, soil conditions, and hydrologic indicators for sample plots with potential wetlands characteristics.

The field survey found one stream and no wetlands in the wetland survey area (Figure A-4 of the wetland study, Appendix C). Stream 1 (S-1) is an unnamed tribuary to the Blue River. During the site visit, the stream appeared to be intermittent with water within the stream banks. Vegetation along the stream was comprised of garlic mustard, bush honeysuckle, and silver maple (*Acer saccharinum*). The stream averaged approximately 12 feet wide and 0.5 foot deep at the ordinary high water mark (OHWM). The substrate of S-1 consisted of silt, cobbles, and pebbles.

3.5.2 Environmental Impacts from the Proposed Action

3.5.2.1 Surface Water

Section 3.5.2.1 of DOE/EA-1947 discusses the potential environmental impacts from the Proposed Action related to surface water resources. The following presents the additional surface water impacts from the sewer line removal.

Based on this wetland survey, it was determined that the Project appeared to qualify for authorization under Section 404 Nationwide Permit (NWP) 33 for temporary construction, access, and dewatering, without the need for a formal Pre-Construction Notification (PCN). Sewer line demolition would require development of equipment access across a small unnamed tributary crossed by the sewer line. Additionally, one or two of the support piers for the above ground portion of the line are located within this drainage. Equipment would be required to work in the stream to remove these piers to below grade, resulting in disturbance to the streambed. While the streambed substrate is mostly pebble and cobble, any excavation has the potential to disturb silt and other fine materials. Demolition activities for pier removal would likely be conducted when this area of the stream is dry to enable better construction access and reduce potential disturbance to surface waters. NNSA would be required to obtain a permit from the USACE for any work within the stream. Appropriate best management practices will be utilized to protect water quality. After the Project is complete, the stream bed and bank will be returned to pre-existing contours and will be revegetated as appropriate.

Activities that involve land disturbance of more than 1 acre require an application to the MoDNR for a stormwater discharge permit [10 CSR 20-6.200(3)]. It is anticipated that development of equipment access to the line and vegetation clearing would disturb approximately 2.92 acres. The MoDNR can permit such activities under a general permit or require the applicant to apply for an individual operating permit [10 CSR 20-6.200(7)]. In either case, the permit would require the applicant to develop plans and implement measures to keep contaminants and sediment out of runoff to protect the Blue River during land-disturbing actions. In addition, demolition actions would be performed in compliance with the MHWMF Part I Permit. Permitting requirements and the involvement of the MoDNR in oversight of demolition activities would minimize the potential for adverse impacts to surface waters from stormwater runoff.

Water use during demolition would primarily be for dust suppression and workforce needs. Water would likely come from the distribution system that already serves the site, and water use would be minor in comparison with the quantities currently used at the site and water service capacity. Any water use would

be limited to the short, temporary demolition and restoration period. Removal of the sewer line would not significantly change the water use estimates presented in DOE/EA-1947.

3.5.2.2 Groundwater Use

Section 3.5.2.2 of DOE/EA-1947 discusses potential environmental impacts from the Proposed Action related to groundwater use resources. There would be no adverse impacts to groundwater from demolition activities. Because connections to the municipal water supply already serve the property, there would be no need to develop and use local groundwater for water needs during removal of the sewer line.

Demolition activities would typically only involve above ground activities, resulting in only surface disturbance. Removal of support piers below grade would require shallow excavations but only a few feet deep. These would not intercept or impact ground water (estimated to be 15 feet below the ground surface). Following excavations to cut piers below grade, excavations would be backfilled.

3.5.2.3 Floodplains and Wetlands

The sewer line area is within the floodplain of the unnamed tributary north of the sewer line. NNSA expects that the existing BFC flood protection system would remain in place and be maintained during demolition activities. However, these facilities provide minimal if any protection to the demolition area. Care would need to be taken during demolition to monitor rainfall and water levels and remove or secure equipment and materials in the event of a flooding episode. Demolition of the sewer line would remove material from within the floodplain in the form of concrete support piers and cleared trees (which may be replaced). No additional fill or excavation within the floodplain is anticipated resulting in a likely net increase, albeit minimal, in the floodplain storage volume. Removal of above ground piers would also reduce obstruction to flood flows and flood debris that could accumulate around piers, impeding water flow during flood events. Following completion of demolition, the floodplain would experience these beneficial impacts. Any adverse impacts associated with demolition from equipment and material in the floodplain would be removed.

One stream is crossed by the sewer line, extending under the adjacent railroad bed through a concrete box culvert, eventually draining into the Blue River. There are no wetlands that would be affected by demolition. There are, however, several jurisdictional wetlands associated with stormwater or snowmelt drainage patterns on GSA property along the northern and northeastern boundaries of the BFC, and possibly other areas near the former landfill that would need to be protected against stormwater runoff from disturbed areas during construction. Any land-disturbing actions that could potentially result in

runoff carrying eroded soil or other material to these wetlands would be subject to MoDNR stormwater discharge permitting requirements and the associated controls to protect down-gradient areas.

3.5.3 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, the NNSA would not remove the sewer line. No additional impacts to floodplains and wetlands would occur.

3.6 Biological Resources

3.6.1 Affected Environment

Section 3.6.1 of DOE/EA-1947 provides a discussion of biological resources in the Project area. The following provides additional discussion of those resources found along the sewer line.

3.6.1.1 Flora

A portion of the sewer line is located within an easement on Kansas City Parks Department property. During a meeting on January 24, 2017, the Kansas City, Missouri (KCMO) Parks Department requested a tree survey be conducted in the area of the Project located across KCMO Parks property. On June 2, 2017, a tree survey of the portion of the Project located on Kansas City Parks Department property was conducted (Appendix D). The tree survey encompassed approximately 1.0 acre. All trees 4 inches and greater in diameter at breast height (dbh) were surveyed. The location of each tree trunk was recorded using a sub-meter-accurate global positioning system (GPS) unit.

The condition of each tree was evaluated during the site visit. A tree was rated good if it was healthy and vigorous with no apparent signs of insect, disease, or injury. A tree was rated fair if it was considered of average health for the area, but may show minor insect, disease, or structural problems. A tree was rated in poor condition if it was in a general state of decline and showed major insect, structural, or disease injury. A tree was rated as dead or dying if death was imminent within 5 years.

A total of 90 trees were surveyed with 12 rated in good condition, 67 rated as fair, 10 rated as poor, and one tree rated as dying. The three most abundant species were American elm, boxelder and silver maple. Average dbh of all surveyed trees was 9 inches.

3.6.1.2 Fauna

Section 3.6.1.2 of DOE/EA-1947 provides a discussion of fauna in the Project area. Fauna within the sewer line area would be generally the same as those discussed in the EA.

3.6.1.3 Aquatic Species

Section 3.6.1.3 of DOE/EA-1947 provides a discussion of aquatic species in the Project area.

3.6.1.4 Special-Status Species

Section 3.6.1.4 of DOE/EA-1947 provides a discussion of special-status species in the Project area. The following summarizes additional investigations for special-status species in the sewer line area.

A protected species habitat assessment of the sewer line area was completed to determine if areas that would be disturbed during removal of the sewer line include potential habitat for species protected under the Endangered Species Act (ESA), Bald and Golden Eagle Protection Act (BGEPA), Migratory Bird Treaty Act (MBTA), and Section 4.111 of the Wildlife Code of Missouri. The habitat assessment included an area approximately 2.92 acres in size and encompassed the existing elevated 24-inch-diameter sewer line and a 100-foot-wide corridor for equipment access, along with a 25-foot wide access corridor along the underground section. The habitat survey corridor crosses an unnamed intermittent tributary to the Blue River. It was largely composed of wooded areas. Typical vegetation (in addition to the trees noted above) in the survey area included box elder (*Acer negundo*), garlic mustard (*Alliaria petiolata*), and bush honeysuckle (*Lonicera maackii*).

Available information on special-status species for Jackson County was obtained from the U.S. Fish and Wildlife Service (USFWS) and the Missouri Department of Conservation (MDC) Natural Heritage Program. According to the USFWS and MDC Natural Heritage Program, five state- and/or Federally protected species are known or likely to occur in Jackson County (Table 3-2). No critical habitats are located within or adjacent to the proposed Project Survey Area.

Table 3-2: Protected Species Known or Likely to Occur in Jackson County

Common Name	Scientific Name	State Status	Federal Status
Bald eagle	*Haliaeetus leucocephalus*	Protected	Protected
Gray bat	*Myotis grisescens*	Endangered	Endangered
Indiana bat	*Myotis sodalis*	Endangered	Endangered
Northern long-eared bat	*Myotis septentrionalis*	Not Listed	Threatened
Peregrine falcon	*Falco peregrinus*	Endangered	Not Listed

Source: U.S. Fish and Wildlife Service IPaC, 2017; Missouri Department of Conservation, 2017

Gray bats, Indiana bats, and northern long-eared bats hibernate in caves in winter. During the spring, summer, and fall, Indiana bats and northern long-eared bats forage and roost in upland forests and

woodland stream corridors where snags and tree species with exfoliating bark are present. In the summer, gray bats roost in caves and forage for insects in upland forests and along woodland stream corridors. The survey area does not contain any caves that could be used by gray bats, Indiana bats, or northern long-eared bats. Tree clearing for this Project would occur after October 1 and before March 31 to avoid impacts to protected bat species. Based on the location of the Project within the city limits of Kansas City, absence of quality woodland habitat, lack of caves in the Project vicinity, and the implemented October 1 to March 31 tree clearing restriction, it has been concluded that the proposed Project would have no effect on the gray bat, Indiana bat, or northern long-eared bat.

Bald eagles are protected under the BGEPA and the peregrine falcon is protected under the MBTA. Bald eagles are known to nest and roost in tall trees and snags along the Missouri River, and peregrine falcons are known to nest on tall buildings in the Kansas City metropolitan area. No bald eagles, peregrine falcons, or raptor stick nests were observed within the vicinity of the habitat survey corridor during site visits that occurred on April 18 and June 2, 2017. The Project is not anticipated to affect bald eagles or peregrine falcons in Jackson County.

Letters were sent to USFWS and MDC on June 27, 2017, requesting concurrence with the findings of the protected species habitat survey described above. USFWS directed NNSA to the Information, Planning, and Conservation (IPaC) system to determine protected species in the Project area. These species are listed in Table 3-2 above and the IPaC report is in Appendix E. MDC responded by letter on July 12, 2017, with a Natural Heritage Review Report which stated there were no wildlife preserves, no designated wilderness areas or critical habitats, and no federally-listed species within the Project area or in the public land survey section or sections adjacent. The report also stated that no state-listed species or state-ranked species and/or natural communities were within the Project area.

3.6.2 Environmental Impacts from the Proposed Action

Section 3.6.2 of DOE/EA-1947 discussed potential environmental impacts from the Proposed Action related to biological resources. Discussion on the additional impacts associated with sewer line removal are provided below.

Removal of the sewer line will potentially require approximately 2.92 acres of tree clearing to enable equipment access to the site and for safe demolition of the facilities. The tree survey completed for the Kansas City Parks Department identified tree species in the area to help the Kansas City Parks Department determine which trees to protect during Project execution. Where possible, trees that could become a valuable part of future forest areas could be identified and a tree protection zone could then be

established to protect these trees during Project execution. Prior to construction, a plan for tree clearing and restoration would be developed and concurred with by the Kansas City Parks Department.

Based on the protected species habitat assessment completed for the sewer line area and mitigation measures to be taken (i.e. seasonal tree clearing, clearing and restoration plan), it is anticipated that removal of the sewer line would not adversely impact flora and fauna or any of the Federally or state-listed threatened and endangered species.

3.6.3 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, NNSA would not remove the sewer line. No additional impacts to flora, fauna, and special-status resources.

3.7 Cultural Resources

Section 3.7 of DOE/EA-1947 provides a detailed discussion of Cultural Resources in the Project area.

3.7.1 Affected Environment

Section 3.7.1 of the EA provides a discussion of the affected environment related to Cultural Resources for the BFC. The following summarizes the additional cultural resources and investigations associated with the sewer line.

NEPA requires consideration of important historic, cultural, and natural aspects of our national heritage. Important aspects of our national heritage that may be present in the Project Area must also be considered under Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the implementing regulations, 36 CFR 800. This act requires Federal agencies to "take into account" the "effect" that an undertaking would have on "historic properties." The identification of potential historic (National Register of Historic Places [NRHP]-eligible) properties was conducted for historic-age archaeological sites, buildings, structures, objects, and districts found within the Project Area.

Section 106 defines "historic properties" as any prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the NRHP. The Federal agency must involve the State Historic Preservation Office (SHPO) and other consulting parties in the Section 106 process. The NHPA mandates that agencies perform the following actions:

- Initiate the Section 106 process by first determining whether the undertaking may affect historic properties. If so, the agency must identify the appropriate SHPO/Tribal Historic Preservation Office (THPO) to consult with during the process. It should also plan to involve the public and

identify other potential consulting parties. This process was completed during the original EA development process in 2013.

- Identify historic properties that may be affected by a project, including those either listed in the NRHP or determined through a consensus process to be eligible for listing in the NRHP. The Bannister Federal Complex/Kansas City Plant was determined eligible for the NRHP by the SHPO. Current investigation efforts sought to determine whether additional contributing features or previously unrecorded archaeological resources existed within the sewer line Project footprint.
- Assess adverse effects including the nature and extent of the expected effects on the qualities of the property that resulted in its historic property status.
- Resolve adverse effects by considering measures to avoid, minimize, or mitigate those effects.

Assessments of cultural resources, including historic-age non-archaeological resources and archaeological sites, subject to impacts of the proposed Project are discussed below.

3.7.2 Environmental Impacts from the Proposed Action

3.7.2.1 Historic-Age Non-Archaeological Resources

The proposed Project includes removal of an approximately 900-foot-long section of elevated sewer pipeline. The line was likely associated with wastewater disposal at the NRHP-listed BFC/KCP and includes a cast iron pipe and associated concrete supports that range in height along the length of the resource. The pipe is clearly visible on 1948, 1962, 1969, and 1970 aerial photographs (NETR var.), confirming possible associations with World War II-era operations at the facility. The resource was not included in the 2011 NRHP nomination for the property and was not evaluated in previous historic documentation efforts associated with the decommissioning of the facility (Burns & McDonnell, 2010; Millstein and Warfield, 2011, 2012).

Though the resource dates to the period of significance for the facility, it was not associated with wartime or subsequent industrial production efforts under NRHP Criterion A, nor does it exhibit distinctive design characteristics under NRHP Criterion C. Additionally, there is no evidence that it was designed by Albert Kahn, the master architect associated with the facility. Furthermore, the existing wastewater treatment building connected to the resource (Building #98; Millstein and Warfield, 2011) was constructed in 1988 and does not contribute to the NRHP district. As intensive documentation of the historically significant buildings and structures associated with the BFC was conducted to mitigate its transfer, and this resource was not identified during those thorough research and documentation efforts (Millstein and Warfield, 2011 and 2012), it does not appear to contribute to the NRHP district or to qualify for individual NRHP

inclusion. There are no other buildings or structures immediately adjacent to the resource that would be directly or otherwise adversely impacted by removal of the structure. The SHPO concurred that the sewer line was not eligible for NRHP inclusion and did not contribute to the NRHP-listed BFC in response to a SHPO consultation memorandum (Appendix F). As a result, no further consideration of impacts to non-archaeological historic resources is anticipated under Section 106 is anticipated in connection with the proposed Project.

3.7.2.2 Archaeological Resources

The proposed Project crosses alluvial landforms in Blue River valley and spans an unnamed tributary to the Blue River. Though surveys were conducted as part of the original Project, review of information available on the MoDNR Archaeology Viewer indicated the proposed approximately 2.9-acre direct area of potential effects (APE) has not been surveyed for archaeological resources. There is a previously recorded multicomponent site (23JA314) immediately to the west of the APE on the north side of the tributary channel. In addition, three archaeological sites have been recorded on alluvial landforms (23JA91/304, 23JA442, and 23JA454) within this section of the Blue River valley and within a 1-mile Study Area. As a result, the APE was assessed as having a potential for surface and deeply buried cultural resources.

The Missouri SHPO concurred that the APE had a moderate to high potential to contain cultural materials. An archaeological survey of the proposed APE was conducted on August 2, 2017. Archaeologists conducted pedestrian survey of the APE supplemented with shovel testing at 15 to 20 meter intervals. While there is potential for deeply buried cultural materials in APE, no deep testing measures were deemed necessary because the Project does not involve deep impacts. No artifacts, features, or archaeological sites were identified during the survey. A report summarizing the survey and its findings was submitted to the Missouri SHPO on August 7, 2017 (Appendix F).

3.7.3 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, NNSA would not remove the sewer line. No additional impacts to cultural resources would occur under the no-action alternative.

3.8 Infrastructure

The complete description for Infrastructure Resources can be found in DOE/EA-1947 in Section 3.8.1, Affected environment, on pages 3-47 through 3-51. The site infrastructure remains largely unchanged from the discussion in DOE/EA-1947. The following discusses the additional infrastructure associated with the sewer line.

3.8.1 Affected Environment

Additional infrastructure in the sewer line area include the sewer line itself and electricity transmission facilities. The sewer line is part of the overall KCP sanitary sewer system. The sanitary sewer system at the KCP consists of collection sumps and related piping. The main sanitary sewer line carrying wastewater from the site is dedicated to the BFC and travels about a mile before it intersects a Kansas City sewer main. KCP discharges sanitary and treated industrial wastewaters to the sanitary sewer system under a city permit (NNSA, 2008). Process wastewater discharges are not allowed to flow to the storm sewer system. KCP wastewater represents a very small portion (see Section 3.8.1.1.4 and Table 3-9 in EA) of the wastewater routinely treated at the Blue River Wastewater Treatment Facility.

Kansas City Power & Light (KCPL) owns, operates and maintains a utility corridor that crosses the KCP sewer line. This approximately 250-foot wide right-of way contains four electricity transmission lines. Each line consists of wooden H-frame structures supporting current carrying conductors.

3.8.2 Environmental Impacts from the Proposed Action

3.8.2.1 Utilities

Removal of the sewer line will require minimal electricity, gas, and water. Removal would occur during demolition and renovation of the overall site following completion of the transfer. Demolition would take approximately one year during which time utility impacts from electricity and water use would decrease significantly compared to current conditions (see Table 3-9 in DOE/EA-1947). Demolition activities would be self-sufficient and would not connect to exiting utilities, using generators and other systems to meet the minimal construction needs for power, water, and sewer. Construction personnel would use portable restrooms. All utility systems feeding the sewer line have been disconnected and blocked.

Removal of the existing sewer line would require construction of a new and upgraded line to provide connection to the existing Kansas City sewer system and would be the responsibility of the new property owner. At this time, the location of any such new facilities has not been identified or designed. Any new connection developed would be consistent with the requirements of Kansas City for sanitary sewer connection. Facilities developed would be designed to accommodate the anticipated volume of effluent from the transferred KCP. Additional facility construction would require a variety of permits and approvals for construction. The new or temporary sewer line and connection would need to be in-place prior to decommissioning and demolition of the existing sewer line.

NNSA would coordinate demolition activities with KCPL for access and demolition activities within the electricity transmission right-of-way. Clearance would be maintained between electric lines and demolition equipment for safe removal of the line.

Development of new sewer line facilities and coordination with KCPL for work around existing electricity transmission lines would protect existing utility systems and provide for continued, uninterrupted service. Demolition activities would have no impacts on utilities.

3.8.2.2 Transportation

Demolition would take approximately one year. NNSA estimates there would be an average of 5 to 10 trucks per day traveling to and from the site and hauling debris away from the sewer line area, in addition to trips by demolition crew personnel. This represents a minimal increase in trucks and vehicles per day over current traffic levels. Movement of workers and equipment to and from the site would be minimal compared to current conditions because the demolition workforce would be small in comparison to the workforce and traffic on local roadways. Movement of material and equipment to the from the site would use local roads appropriate for this type of traffic. Demolition traffic would not contribute to accelerated deterioration of local roadways. Demolition activities would not impact regional and local traffic flow or transportation infrastructure.

3.8.3 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, NNSA would not remove the sewer line. No impacts to utility and transportation infrastructure would occur. The sewer line would remain in place. As long as it remains in service, it would receive regular maintenance. However, once service is ceased, maintenance would also cease and it would continue to deteriorate over time, likely leading to safety concerns from its proximity to Kansas City Park Department facilities and associated public access to the pipeline.

3.9 Socioeconomics

3.9.1 Affected Environment

A discussion of Socioeconomics in the Project region can be found in DOE/EA-1947 in Section 3.9.1, Affected environment, on pages 3-55 through 3-57. The socioeconomics of the site remains largely unchanged from those discussed in DOE/EA-1947.

3.9.2 Environmental Impacts from the Proposed Action

Demolition would take approximately one year and would require a typical work crew of 3 to 5 workers. These jobs would easily come from within the existing labor force and local contracting capacity. While

the demolition would create employment opportunities, it would not create any additional positions for permanent or temporary employment. Demolition of the sewer line would have no additional impact on the socioeconomics of the area or region beyond those discussed in DOE/EA-1947.

3.9.3 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, NNSA would not remove the sewer line. No additional changes in or impacts to the socioeconomic conditions and activity in the area would occur.

3.10 Waste Management

3.10.1 Affected Environment

The complete description for Waste Management Resources can be found in DOE/EA-1947 in Section 3.10.1, Affected Environment, on pages 3-59 through 3-61. The site remains largely unchanged since the publication of the EA. Management of wastewater at the KCP, including sanitary sewage and industrial wastewater, is addressed in Section 3.8.1.1.4 of DOE/EA-1947.

3.10.2 Environmental Impacts from the Proposed Action

Removal of the sewer line would take approximately one year and generate perhaps 100 truckloads of waste, depending on how the sewer line cast iron pipe and concrete trestle material is demolished and recovered. Sampling of pipeline material did not indicate any hazardous levels of any contaminants. As a result, demolition material would likely be recycled or disposed of in sanitary or special material landfills. No hazardous waste is anticipated to be encountered or generated for disposal during demolition, but if this does occur, it will be disposed of in accordance with applicable regulations.

Demolition wastes would be managed consistent with guidance in MoDNR technical bulletin "Managing Construction and Demolition Waste" (MoDNR, 2017). Per the MoDNR, all the waste generated from the demolition of the structures must be recycled, reused, or taken for proper disposal at a permitted landfill or transfer station. The waste must not be stockpiled at an alternate site for separation at a later time. Should any asbestos-containing or other contaminated material be identified and determined to be non-friable, which would not require a registered asbestos contractor for removal, it would be taken to a permitted landfill or transfer station for disposal. The landfill or transfer station would require prior notification before disposal. No waste may be buried onsite except for certified clean fill. Certified clean fill includes uncontaminated soil, rock, sand, gravel, asphaltic concrete and unpainted concrete, cinder blocks, and brick. Clean fill must not contain protruding metals or demolition debris. In regard to managing any nonhazardous contaminated soil excavated at the site, the soil must be properly disposed of

at a permitted facility or they could consider making a proposal to beneficially reuse the soil (solid waste) per 10 CSR 80-2.020(9)(B). Any soil deemed hazardous waste would fall under the oversight of MoDNR's Hazardous Waste Program. However, no soil contamination concerns have been identified in the demolition area.

If it is determined that any hazardous waste would be generated from demolition, it would likely be disposed at a hazardous waste landfill. Any such material recovered and requiring disposal would be insignificant compared with the more than 2 million tons of waste that was managed in hazardous waste landfills or surface impoundments across the United States in 2009 (EPA, 2010).

Nonhazardous waste would be disposed of at a local permitted sanitary landfill such as the Johnson County [Kansas] Landfill or, if available, a local landfill permitted solely for construction-type debris. No adverse impacts are anticipated as a result of demolition activities.

3.10.3 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, NNSA would not remove the sewer line. No demolition would occur and no demolition or waste material be generated.

3.11 Human Health and Safety

3.11.1 Affected Environment

A discussion of Human Health and Safety is provided in DOE/EA-1947 in Section 3.11.1, Affected Environment, on pages 3-65 through 3-66. The site remains largely unchanged from that discussed in the Final EA. Testing of pipeline facilities did not identify any potential contamination that would create concerns for human health and safety.

3.11.2 Environmental Impacts from the Proposed Action

See Section 3.11.2 for environmental impacts of the Proposed Action related to human health and safety.

Demolition and removal of the sewer line would take approximately 12 months and require a typical crew of three to five workers. In 2010, the Bureau of Labor Statistics (BLS) reported a total case incidence rate of 2.9 per year per 100 full-time workers and a day away, restricted, or transferred case incidence rate of 1.3 (BLS, 2012b).

NNSA assessed potential occupational impacts during the removal of the sewer line based on a 12-month demolition timeframe. Sewer line demolition activities would result in less than one total recordable case

and less than one day away, restricted, or transferred cases based on these Bureau of Labor Statistics, the limited work force, and short duration of construction.

No hazardous waste is anticipated to be encountered or generated by sewer line demolition. Any hazardous waste would be handled in compliance with applicable regulatory requirements, permit restriction, and best management practices. These measures would minimize hazards for worker safety. A National Emission Standards for Hazardous Air Pollutants Notification of Demolition would need to be filed with the City of Kansas City, Missouri, prior to any demolition activities. Demolition waste would typically include paint, sealants, and coatings residue (chips and scrapings) and demolition debris (concrete, metal/steel). Testing of materials for sewer line demolition did not identify any human health concerns.

3.11.3 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, NNSA would not remove the sewer line. No workers would perform demolition activities or potentially be exposed to hazardous activities or materials. Retention of the sewer line in-place would lead to its deterioration over time, potentially creating public safety concerns.

3.12 Environmental Justice

3.12.1 Affected Environment

On February 11, 1994, the President of the United States issued Executive Order 12898, "Federal Action to Address Environmental Justice in Minority and Low-Income Populations," to focus the attention of Federal agencies on human health and environmental conditions in minority and low-income communities. Environmental justice analyses identify disproportionate placement of high and adverse environmental or health impacts from proposed Federal actions on minority or low-income populations and identify alternatives that could mitigate such impacts. A discussion of Environmental Justice can be found in the EA in Section 3.12.1, Affected environment, on pages 3-68 through 3-70. The site and surrounding demographics remain largely unchanged since the publication of DOE/EA-1947.

3.12.2 Environmental Impacts from the Proposed Action

Under the Proposed Action, NNSA would remove the above ground portion of the 24-inch sewer line. During demolition, remediation, or construction-related activities, NNSA anticipates that environmental, health, and occupational safety impacts would be minimal, temporary, and confined to the KCP property. Therefore, there would not be disproportionately high and adverse human health effects or environmental impacts to minority or low-income populations.

3.12.3 Environmental Impacts from the No-Action Alternative

Under the no-action alternative, NNSA would not remove the sewer line. Retention of the sewer line in-place would lead to its deterioration over time, potentially creating public safety concerns. As noted in DOE/EA-1947, Sec. 3.12.1, Jackson County, where the KCP is located, has the most census tracts containing minority and low-income populations in the four-county metro Kansas City area. As such, minority and low-income populations could be disproportionately impacted by sewer line abandonment due to any impacts to public safety affecting these communities.

3.13 Intentional Destructive Acts

DOE considers intentional destructive acts (i.e., acts of sabotage or terrorism) in all its EAs and EISs. After review of the types of facilities that could be constructed by a new owner of the property, it was determined that the likelihood of such acts for the proposed action would be low because the types of operations and potential hazards would be similar to many other facilities. It is possible that random acts of theft or vandalism could happen as in any other location. However, the act of removing the sewer line would not offer any particularly attractive targets of opportunity for terrorists or saboteurs to inflict adverse impacts to human life, heath, or safety. Removal of the above ground portion of the sewer line and proper abandonment of the below ground portion would remove the opportunity for future sabotage or vandalism to these facilities.

4.0 CUMULATIVE IMPACTS

4.1 Introduction

Section 4.1 of the EA provides an introduction and overview of cumulative impacts. This discussion has not changed since DOE/EA-1947.

4.2 Current and Reasonably Foreseeable Actions

Section 4.2 of DOE/EA-1947 provides a discussion of current and reasonably foreseeable actions in the Project area. Kansas City, Missouri, is a mixed-use community with industrial activities, offices, parks and recreation, and residential areas. The activities associated with such mixed use produce impacts across all resource areas assessed in this Supplemental Final EA. The Supplemental Final EA accounts for these impacts in the affected environment descriptions for the removal of the 24-inch sewer line in the northern portion of the BFC. The Supplemental Final EA assumes that such uses would continue into the future, producing additional impacts across the various resources in the region. For example, roads will be repaired as required, jobs will be gained and lost, and community services (e.g., hospitals, education, and police) will continue to provide needed services to the region.

In addition to these ongoing impacts within the region, NNSA reviewed information on past, present, and reasonably foreseeable future projects and actions in DOE/EA-1947 that could result in impacts over the same period and in the same general location as the KCP. To determine cumulative impacts from past, present, and reasonably foreseeable projects, NNSA conducted online research and consulted with local officials to account for any significant changes that might occur in the region. NNSA focused, in particular, on reasonably foreseeable projects on and around the KCP, because projects with a closer proximity to the KCP would contribute more to cumulative impacts than projects farther away. Through this process, NNSA identified three current or reasonably foreseeable actions in the region that could contribute to cumulative impacts in conjunction with the proposed action in DOE/EA-1947. An additional project, construction of a new sewer line for the BFC, has also been identified as a project that could contribute to cumulative impacts. The following sections describe these actions.

4.2.1 Kansas City National Security Campus

Since the publication of the EA in May 2013, the NNSA has completed the move to the new KCNSC. The facility is operated by Honeywell Federal Manufacturing & Technologies (NNSA, 2017). Section 4.2.1 of DOE/EA-1947 provides a description of the new KCNSC and the associated cumulative impacts.

4.2.2 New GSA Leased Spaces

Since the publication of the EA in May 2013, the GSA has relocated employees from the BFC to Two Pershing Square, an office building located at 2300 Main Street in Kansas City, Missouri (Kansas City Star, 2013). Section 4.2.2 of DOE/EA-1947 provides a description of the new GSA leased spaces and the associated cumulative impacts.

4.2.3 Transfer of GSA Property at the BFC

In September 2014, CenterPoint Properties was selected to lead the pre-transfer process and transfer agreement for the BFC and identified efficiencies gained by jointly transferring excess GSA property with excess NNSA property at the BFC. From 2014 to 2016, CenterPoint performed site analysis and environmental review of the site, then developed a plan for demolishing obsolete facilities at the BFC. Regulatory requirements, initial zoning approvals, and community outreach also occurred during this time. Section 4.2.3 of DOE/EA-1947 and the 2016 supplement to the FONSI provides a description of the transfer of GSA property at the BFC and associated cumulative impacts.

4.3 New Sewer Line Construction

Decommissioning and demolition of the existing BFC sewer line connection to the Kansas City sewer system would require construction of a new sewer pipeline and connection to the Kansas City sewer system. Currently, no plan, design, or location for any new or additional facilities have been developed. Any new sewer line constructed would be of new, modern materials and facilities designed to accommodate the capacity needs of the BFC and the capacity limitations of the existing Kansas City sewer system. The new line would be constructed by the new owner of the BFC and would be a private project but subject to a variety of regulatory and permitting requirements. The new line would require approvals, permits, and compliance with any associated requirements.

Construction of new pipeline facilities would likely result in construction activities typical of pipeline construction. These would include earth disturbance and excavation for placement of pipe, construction of manholes, staging and laydown yards, and connection facilities to the existing sewer system. Erosion and sedimentation controls would likely be implemented prior to construction and maintained during construction. Disturbed areas would be restored following completion of construction.

Construction of the pipeline would likely be similar in nature to the demolition, requiring similar equipment and crew make-up and be completed within several months. As with demolition, new pipeline construction would be expected to have minimal if any impacts to natural and socioeconomic resources.

4.4 Potential Cumulative Impacts

Section 4.3.1 of DOE/EA-1947 provides a discussion of potential cumulative impacts of the Proposed Action. The removal of the sewer line introduces several previously unstudied impacts (Table 4.1).

Table 4-1: Additional Impacts related to the Removal of the Sewer Line

Resource	Impact
Land Use	2.9 acres of trees to be removed. Temporary disturbance to woodland and undeveloped areas adjacent to site. Potential for slight, temporary traffic impacts.
Aesthetics	Slight alteration of viewshed in immediate vicinity. Temporary increases in noise associated with demolition equipment.
Air Quality	Temporary increase in emissions from demolition equipment and fugitive dust.
Geology and soils	Soil disturbance during site access development and demolition activities.
Water resources	Potential for stormwater runoff.
Biological resources	2.9 acres of trees to be removed, which is wildlife habitat.
Cultural resources	No impacts to non-archaeological historic resources is anticipated. The SHPO concurred that the sewer line was not eligible for NRHP inclusion and did not contribute to the NRHP-listed BFC
Infrastructure	Slight, temporary increase in traffic on nearby roads.
Socioeconomics	Small, short-term beneficial economic impacts.
Waste management	Potential for a relatively small contribution to landfills, transfer stations, or recycling facilities.
Human health and safety	Small, temporary opportunities for accidents and injuries to demolition workers and minimal potential for exposure to hazardous materials
Environmental justice	No disproportionately high or adverse human health effects or environmental impacts to minority or low-income populations.
Intentional destructive acts	Low likelihood of intentional destructive acts

As described in Chapter 3 of this Supplemental Final EA and shown in Table 4-1, the addition of the removal of the above ground facilities associated with the 24-inch sewer line in the northern portion of the KCP would create minimal additional environmental impacts, both associated with the removal and when considered as part of the overall Proposed Action. The impacts represent a small percentage of the overall Project impact. Therefore, it was determined that the removal of the sewer line would not significantly contribute to cumulative environmental impacts in the Project area.

5.0 REGULATORY REQUIREMENTS

Chapter 5 of the EA provides a discussion of regulatory requirements associated with the Proposed Action. The following summarizes additional regulatory requirements and permitting that would be necessary for sewer line removal.

5.1 Regulatory Agencies

Federal and State laws and local ordinances are the bases for the environmental, safety, and health requirements for BFC facilities and operations. In addition to DOE, the EPA, U.S. Department of Transportation, and the U.S. Department of Labor are responsible for implementing Federal environmental, safety, and health statutes. The implementation direction can be statutory or by Executive Order. The EPA has delegated permitting and enforcement for the *Clean Air Act*, *Clean Water Act*, and RCRA to MoDNR; however, EPA retains oversight of such State programs.

The *Clean Air Act*, *Clean Water Act*, and the Resource Conservation and Recovery Act (RCRA) have the greatest effect on the BFC, which maintains related permits. Other regulations that affect the BFC are those adopted under the *Federal Insecticide, Fungicide and Rodenticide Act* (7 United States Code [U.S.C.] §§ 136 *et seq*.), which regulates use of pesticides, and the *Toxic Substances Control Act of 1976*, which regulates the management of contamination from release to the environment of polychlorinated biphenyls (PCBs). In addition, Section 120(h) of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) imposes requirements on all transfers of Federal property to non-Federal entities to protect of human health and the environment after the transfer.

State agencies operate under their own statutory authorities to establish and enforce environmental, health, and safety laws. MoDNR administers environmental regulatory programs that affect BFC facilities and operations and is responsible for the protection and improvement of Missouri land, air, water, and recreation resources. Most State environmental regulations are in Title 10 of the *Missouri Code of State Regulations*. In addition, the City of Kansas City administers the Industrial Wastewater Pretreatment permitting program.

5.2 Federal, State, and Local Environmental Statutes and Regulations

Table 5-1 lists major Federal statutes, regulations, and Executive Orders that deal with control, remediation, and regulation of the environment and worker safety. Table 5-2 lists major State and local statutes, regulations, and orders that deal with these issues. NNSA and GSA are committed to comply fully with applicable local, State, and Federal environmental statutes, regulatory requirements, and Executive Orders.

Table 5-1: Major Federal Environmental Laws

Environmental Regulation	Requirements
Clean Air Act	Enacted in 1970, the *Clean Air Act* provides air quality standards for criteria pollutants, control technology standards for hazardous air pollutants and new sources, a construction permit program, regulations on ozone-depleting substances, Section 112(r) emergency release regulations, and operating permit requirements. Missouri has an EPA-approved program administered by MoDNR.
Clean Water Act	The 1972 amendments establish the National Pollutant Discharge Elimination System to control pollutants discharged to Waters of the United States from a point source. EPA establishes technology-based effluent limitations and requires permits for discharges. Missouri has an approved program administered by MoDNR. The Act contains requirements for oil spill control and prevention. The City of Kansas City administers the Industrial Wastewater Pretreatment permitting program.
Comprehensive Environmental Response, Compensation, and Liability Act	Enacted in 1980, CERCLA establishes a liability, compensation, and cleanup program for past hazardous waste activities and imposes requirements on all transfers of Federal property owned by the United States to non-Federal entities. KCP would comply with the transfer requirements listed in CERCLA 120(h).
Superfund Amendments and Reauthorization Act	Enacted in 1986, this Act increased State involvement in the CERCLA program and increased program focus on human health problems posed by hazardous waste sites. The 1986 Act created the Emergency Planning and Community Right-to-Know program and requires reporting of hazardous chemical usage and release.
Toxic Substances and Control Act	Enacted in 1976, this Act establishes procedures for reporting the use and manufacture of specific new and existing chemicals. It establishes certain prohibitions and regulates the manufacture, processing, distribution, use, disposal, storage, and marking and labeling of PCBs and items that contain PCBs.
Federal Insecticide, Fungicide and Rodenticide Act	Enacted in 1947, this Act creates a State-administered program to regulate pesticide and herbicide application.
Resource Conservation and Recovery Act	Enacted in 1976, RCRA regulates the generation, storage, handling, treatment, and disposal of hazardous wastes. Of particular interest at the KCP are the requirements for cleanup of environmental contamination from solid waste management units and the associated groundwater monitoring requirements.
Community Environmental Response Facilitation Act of 1992	This Act amends CERCLA to establish a process for the identification, before termination, of Federal activities on property that does not contain contamination. It requires prompt identification of parcels that will not require remediation to facilitate the transfer of such property for economic redevelopment.
Federal Facilities Compliance Act (Public Law 102-386)	This Act waives sovereign immunity for Federal facilities under RCRA, including the KCP, and requires development of plans and agreements with States for the management of specific waste streams.
Pollution Prevention Act of 1990	This Act establishes the Federal Government's preference for source reduction followed by recycling rather than treatment or disposal of waste or pollutants.
Noise Control Act of 1972	This Act requires facilities to maintain noise levels that do not jeopardize public health and safety.

Environmental Regulation	Requirements
National Environmental Policy Act of 1969	Enacted in 1970, NEPA establishes a national policy that requires consideration of environmental impacts in Federal decision making. A Federal agency considering an action that could impact the human environment must prepare an environmental assessment. If such assessment determines that impacts could be significant, the agency must prepare a more detailed analysis in the form of an environmental impact statement.
Endangered Species Act of 1973	The *Endangered Species Act of 1973* prohibits Federal actions that might harm a Federally listed endangered species or designated critical habitat, unless a special exemption is granted. Consultation with the U.S. Fish and Wildlife Service of the U.S. Department of the Interior is necessary if a proposed action is likely to affect a listed species or critical habitat (50 CFR Part 17). Preparation of a biological assessment of potential effects on listed species is also necessary for Federal actions that are "major construction activities."
National Historic Preservation Act of 1966	The NHPA requires consultation with State Historic Preservation Offices and other interested parties to ensure protection of archaeological or historical properties of significance.
Occupational Safety and Health Act of 1970	DOE, through 10 CFR Part 851, exercises its jurisdiction over worker safety and health programs at KCP by substantially adopting *Occupational Safety and Health Act of 1970* establishes standards to enhance safe, healthy working conditions in places of employment throughout the United States. While DOE and EPA each have a mandate to reduce exposure to toxic substances, the Administration's jurisdiction is limited to safety and health conditions in the workplace environment. In general, under the Act, each employer must furnish all employees a place of employment that is free of recognized hazards that are likely to cause death or serious physical harm. Employees have a duty to comply with the occupational safety and health standards and all related rules, regulations, and orders.

Table 5-2: Major State and Local Environmental Laws, Regulations, and other Potentially Applicable Requirements Environmental Law and Regulation

Environmental Law and Regulation	Requirements
Missouri Revised Statutes, Chapter 653, Air Conservation – Title 10 Code of State Regulations (CSR) Division 10, Chapters 1–6	Establishes the State program implementing the *Clean Air Act*. Requires permits to construct, modify, or operate an air contaminant source, and adopts the primary National Emission Standards for Hazardous Air Pollutants for State enforcement.
Missouri Revised Statutes, Chapters 640 and 644, Clean Water Law – Title 10 CSR Division 20, Chapters 1–15	Establishes the State Program implementing the *Clean Water Act*. Requires permits for discharges to State waters, establishes water quality standards, and regulates storage tanks.
Missouri Revised Statutes, Chapter 260 Environmental Control, Chapter 260.353-430 Missouri Hazardous Waste Management Law, Chapter 260.200-260.345 Missouri Solid Waste Management Law – Title 10 CSR Division 25, Chapters 1–19; 10 CSR Division 24 Chapters 1–5 and 10 CSR Division 10 CSR Division 100 Chapters 1–5	Establishes for Missouri a program that incorporates the requirements of CERCLA, RCRA, *Federal Facilities Compliance Act*, and *Toxic Substances and Control Act*. Regulates aspects of storage tanks. Requires permits for hazardous waste storage and disposal facilities and remediation of contaminated sites.

Environmental Law and Regulation	Requirements
Missouri Revised Statutes, Chapter 640, Department of Natural Resources, 10 CSR Division 60, Chapters 1-16	Establishes a State program that incorporates the requirements of the *Safe Drinking Water Act.*
Missouri Revised Statutes, Sections 260.1000 to 260.1039 (*Missouri Uniform Environmental Covenants Act*)	Creates a standard for the development and application of environmental covenants that increases their reliability when used as part of the cleanup of contaminated sites.
Missouri Revised Statutes, Sections 253.408 to 253.412 (*State Historic Preservation Act*)	Authorizes MoDNR to administer the *National Historic Preservation Act of 1966*.
Code of Ordinances of Kansas City, Missouri; Chapter 88	Contains regulations for land development and use.
Code of Ordinances of Kansas City, Missouri; Section 60-130 to 60-147	Outlines requirements for industrial/sanitary wastewater permit.

5.3 NNSA Transfer Requirements

Section 5.3 of DOE/EA-1947 provides a discussion of NNSA transfer requirements. Removal of the sewer line would not change the requirements for NNSA transfer.

5.4 Environmental Permits

Section 5.4 of DOE/EA-1947 provides a description of required environmental permits for NNSA transfer of the KCP. Permits and actions required for the sewer line removal are included in Table 5-3.

Table 5-3: Required Permits

Permit	Agency
Section 404 Permit	U.S. Army Corps of Engineers
Section 401 Water Quality Certification	Missouri Department of Natural Resources
Land Disturbance Permit	Missouri Department of Natural Resources
Site Disturbance Permit	City of Kansas City, Missouri
Floodplain Development Permit	Kansas City Floodplain Administrator
Sewer Abandonment Permit	Kansas City Water Services Department
Access Agreement	Kansas City Area Transit Authority
Permit for work in transmission line easement	Kansas City Power and Light
Park land access agreement	Kansas City Parks Department

5.5 Consultations

Section 5.5 of DOE/EA-1947 provides a description of consultations for NNSA transfer of the KCP. Consultations required for the sewer line removal are:

- Ecological resources, threatened and endangered species, USFWS

- Ecological resources, threatened and endangered species, MoDNR
- Cultural resources, MoDNR SHPO

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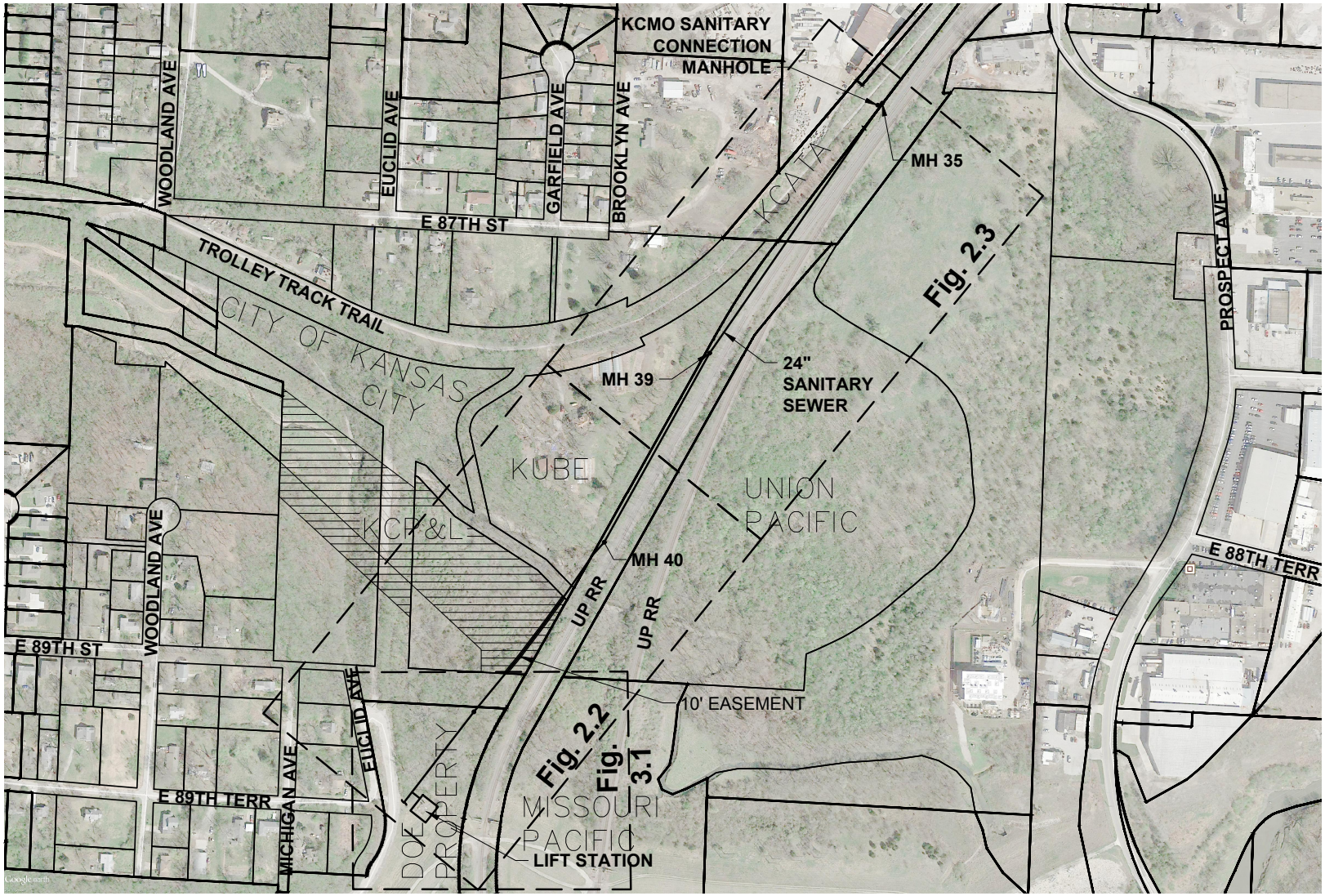
APPENDIX A – DETAILED MAPS OF PROJECT



PLAN

0 300' 600'

SCALE IN FEET

N

BURNS McDONNELL	BFC SAN SEWER DECOMMISSIONING
date JAN 26, 2017	PROJECT OVERVIEW MAP
designed R. HAUCK	project 4275
	contract
	Figure 2.1

PLAN

0 100' 200'

SCALE IN FEET

BURNS McDONNELL

date JAN 26, 2017

designed R. HAUCK

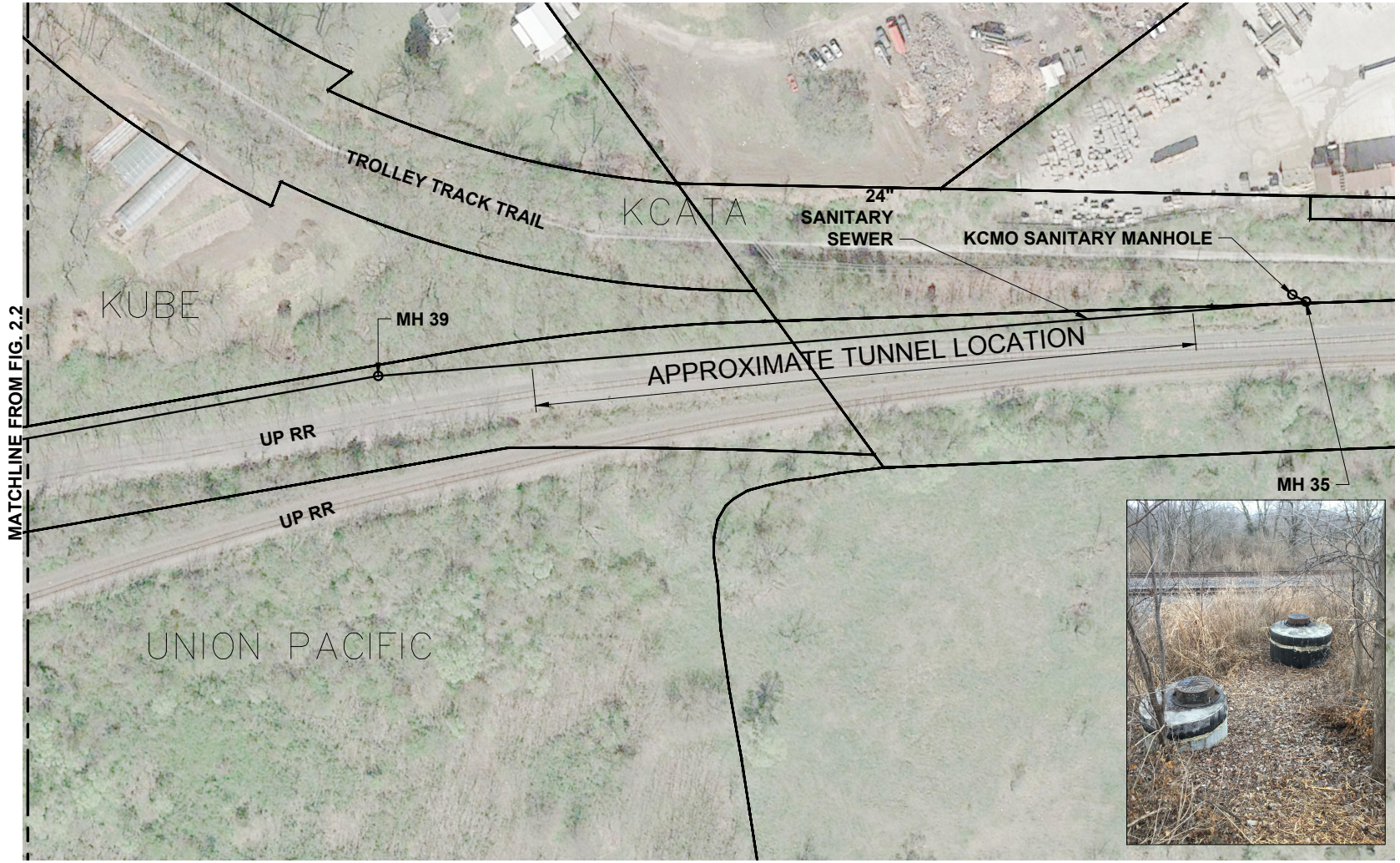
BFC SAN SEWER DECOMMISSIONING

SOUTH SECTION OVERVIEW

project 4275

contract

Figure 2.2



PLAN

0 100' 200'

SCALE IN FEET

BURNS McDONNELL

date JAN 26, 2017

designed R. HAUCK

BFC SAN SEWER DECOMMISSIONING

NORTH SECTION OVERVIEW

project 4275

contract

Figure 2.3

APPENDIX B – AGENCY CORRESPONDENCE

August 1, 2017

«Full_Name»
«Company»
«Add1»
«Add2»
«City»

Re: U.S. Department of Energy, National Nuclear Security Administration
Supplemental Environmental Assessment for the Transfer of the Kansas City Plant
Burns & McDonnell Project #94641

Dear «Sir» «Last»,

The Bannister Federal Complex (BFC) is in the process of being transferred from the National Nuclear Security Administration (NNSA) to a private developer. On behalf of the NNSA, Burns & McDonnell is preparing a Supplemental Environmental Assessment (Supplemental EA) for the removal of a 24-inch sewer line that extends north of the BFC from Liberty Drive to 85th Street (see attached location map and photo of the existing facilities), which was not studied in the EA for the Transfer of the Kansas City Plant in May 2013. The Supplemental EA is being prepared for the NNSA in accordance with National Environmental Policy Act (NEPA) requirements.

The sewer line includes both above and below ground facilities. The southern section, closest to the BFC, are above ground and are to be removed as part of the land transfer of this property. The remaining below ground facilities further north are to be abandoned in place, with pipe and manholes sealed to prevent access.

At this time, Burns & McDonnell is requesting your input to identify any issues or concerns your agency might have with respect to the proposed project. We are specifically asking for information on natural or social resources that should be considered in the Supplemental EA. Input from your agency on any of the following resources in the project area will assist us in identifying potential impacts of the project:

- Land Use
- Aesthetics
- Water quality and wetlands
- Soils and geology
- Wildlife, vegetation and fisheries, including threatened and endangered species
- Socioeconomics (population, employment, growth, development)
- Hazardous materials sites
- Cultural resources (historic and archaeological sites, cemeteries)

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O 303-721-9292 \ **F** 303-721-0563 \ burnsmcd.com

- Transportation and roads (airport and roadway expansions, construction, operations and maintenance)

We would also appreciate any comments or information on additional issues or concerns you feel would help the study team identify and understand the resources within the study area.

Please send your comments to me at:

sthornh@burnsmcd.com

-or-

Stephen G. Thornhill
Burns & McDonnell
9400 Ward Parkway
Kansas City, MO 64114

If you have any questions regarding the project or need additional information, please contact me at (816) 822-3851. We would appreciate your response by August 31, 2017. Thank you for your time and assistance in providing this information.

Sincerely,

Stephen G. Thornhill
Project Manager

Attachments

Agency Contact List
Supplemental EA
Transfer of the Kansas City Plant
August 2017

Sir	First	Last	Suffix	Full Name	Company	Add1	Add2	City
Mr.	Roy	Blunt		Mr. Roy Blunt	Missouri U.S. Senate	260 Russell Senate Office Building		Washington, D.C. 20510
Ms.	Claire	McCaskill		Ms. Claire McCaskill	Missouri U.S. Senate	503 Hart Senate Office Building		Washington, D.C. 20510
Mr.	Emmanuel	Cleaver	, II	Mr. Emmanuel Cleaver, II	U.S. House of Representatives, Missouri	2335 Rayburn HOB		Washington, D.C. 20515
Mr.	Sam	Graves		Mr. Sam Graves	U.S. House of Representatives, Missouri	1135 Longworth HOB		Washington, D.C. 20515
Ms.	Vicky	Hartzler		Ms. Vicky Hartzler	U.S. House of Representatives, Missouri	2235 Rayburn HOB		Washington, D.C. 20515
Mr.	Joe	Cothern		Mr. Joe Cothern	U.S. Environmental Protection Agency	11201 Renner Blvd.		Lenexa, KS 66219
Ms.	Karen	Herrington		Ms. Karen Herrington	Field Supervisor, U.S. Fish and Wildlife Service	Columbia Fish and Wildlife Conservation Office	101 Park DeVille, Dr. Suite A	Columbia MO, 65203
Mr.	Michael	Reynolds		Mr. Michael Reynolds	Acting Director, National Park Service	1849 C Street NW		Washington, DC 20240
Mr.	Jerry	Prewett		Mr. Jerry Prewett	Division Director, Geological Survey, Missouri Department of Natural Resources	111 Fairgrounds Road		Rolla, MO 65402-0250
Ms.	Sara	Parker Pauley		Ms. Sara Parker Pauley	Director of the Missouri Department of Conservation	2901 W. Truman Blvd.		Jefferson City , MO 65109
Ms.	Judith	Deel		Ms. Judith Deel	Missouri State Historic Preservation Office	P.O. Box 176		Jefferson City, MO 65102
Mr.	Sly	James		Mr. Sly James	Mayor, Kansas City, Missouri	29th Floor City Hall	414 E. 12th St.	Kansas City, MO 64106
Ms.	Carol	Comer		Ms. Carol Comer	MoDNR Department Director	P.O. Box 176		Jefferson City, MO 65102
Colonel	Douglas	Guttormsen		Colonel Douglas Guttormsen	Commander and District Engineer, Army Corps of Engineers, Kansas City District	601 E. 12th Street		Kansas City, MO 64106
Mr.	J.R.	Flores		Mr. J.R. Flores	NRCS State Conservationist	601 Business Loop 70 W STE 250		Columbia, MO 65203-2546
Mr.	Jeffrey	Williams		Mr. Jeffrey Williams	Director, City Planning and Development	414 E. 12th Street	City Hall, 15th Floor	Kansas City, MO 64106
Dr.	Randall	Williams		Dr. Randall Williams	Director, Missouri Department of Health	912 Wildwood		Jefferson City, MO 65102-0570
					U.S. Department of Energy	Freedom of Information Act Reading Room	1000 Independence Avenue SW, 1G-033	Washington, DC 20585-0001

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NNSA Kansas City Plant

GSA/DOE Property Boundary

Approximate Location of Project

Railroad

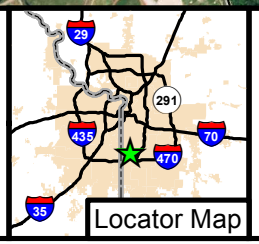
Road

Kansas City Metro Area

State Boundary

NORTH

0 500 1,000 Feet



Project Location
Supplemental Environmental Assessment
Transfer of the
Kansas City Plant

Source: NAIP Missouri 2016 Aerial Photography, NTAD, ESRI, NHD, Jackson County

Issued: 6/20/2017

National Nuclear Security Administration Supplemental EA for the Transfer of the Kansas City Plant	BURNS McDONNELL	Sewer Line

Missouri Department of NATURAL RESOURCES
dnr.mo.gov
Eric R. Greitens, Governor
Carol S. Comer, Director

August 24, 2017

Mr. Stephen G. Thornhill
Burns & McDonnell
9400 Ward Parkway
Kansas City, MO 64114

Dear Mr. Thornhill:

The Missouri Department of Natural Resources appreciates the opportunity to review the materials for the proposed transfer of the Kansas City Plant, Burns & McDonnell Project #94641. The Department offers the following comments for consideration.

Project Location
The Environmental Assessment study area is located in Kansas City in Jackson County, Missouri. The removal of a sewer line north of the Bannister Federal Complex from Liberty Drive to 85th Street is the primary focus of this project. The following geographic descriptions apply to the approximate location of the study area.

Geographic Coordinates:
364424 E, 4314007N

Public Land Survey System:
S21 T48N R33W

8-Digit Hydrologic Unit Code:
Lower Missouri-Crooked (10300101)

Ecological Drainage Unit:
Central Plains/Blackwater/Lamine

Hazardous Waste
It appears the sewer line has been a part of the Bannister Federal Complex infrastructure since it was built in the early 1940's. Please research and provide information in the upcoming Supplemental Environmental Assessment of the types of contaminants that may have been discharged to the sewer line as well as any possible leaks from the line.

Based on historic aerial photos, it is believed there is an abandoned landfill east of the Union Pacific Railroad line north of the DOE/NNSA property. Flooding of nearby Boone Creek in the

area may have moved contamination into the area of the sewer line. This abandoned landfill may have historically extended north to 85th street. Please research and address this possibility in the upcoming Supplemental Environmental Assessment.

Solid Waste

The Department's technical bulletin "Managing Construction and Demolition Waste" provides information for any type of construction work. The bulletin and can be found on the Department's web site at http://dnr.mo.gov/pubs/pub2045.htm.

The Department's technical bulletin "Managing Solid Waste Encountered during Excavation Activities" has also been developed to assist project planners. It provides general disposal requirements for any solid waste encountered as a result of road construction. The bulletin can be found on the Department's web site at http://dnr.mo.gov/pubs/pub2192.htm.

Water Protection

Geospatial Data

Geospatial data published by the Department addressing designated uses, sensitive waters, geology, and other watershed information included in this review, is available on the Missouri Spatial Data Information Service website at http://msdis.missouri.edu/. Additional geospatial resources available from the department can be found at http://dnr.mo.gov/gis/.

Permitting Obligations

Clean Water Act Sections 401 and 404:

Any project that has the potential to result in the discharge of fill or dredged material into a jurisdictional water of the United States may require Clean Water Act Section 404 Permit Authorization from the U.S. Army Corps of Engineers (USACE), and Section 401 Water Quality Certification from the Department of Natural Resources. The 401 Certification is a certification by the state that the project will not violate water quality standards. More information about the Section 404 Permit Program, including Clean Water Act jurisdiction, is available at https://www.epa.gov/cwa-404/section-404-permit-program. More information about state 401 Water Quality Certification can be found at http://dnr.mo.gov/env/wpp/401/.

If discharge into water has occurred, or will occur, the National Nuclear Security Administration or its contractors should immediately contact the USACE Kansas City District at 816-389-3990, and the Department's Operating Permits Section at 573-522-4502 for more information. The National Nuclear Security Administration and its contractors may wish to consult with the department and the USACE prior to project initiation to ensure alternative plans are in place should such a discharge occur.

Mitigation

An alternatives analysis would need to be submitted prior to any impacts to jurisdictional waters as part of the avoidance and minimization measures that precede mitigating unavoidable impacts.

Mitigation for wetlands should be in conformance with the *State of Missouri Aquatic Resources Mitigation Guidelines*, https://dnr.mo.gov/env/wpp/401/docs/mitigation_guidelines.pdf, while mitigation for streams should be in conformance with the *Missouri Stream Mitigation Method*, http://www.mvm.usace.army.mil/Portals/51/docs/regulatory/May_2013_Missouri_Stream_Mitigation_Method.pdf.

Any mitigation plans must be in conformance with the *Compensatory Mitigation for Losses of Aquatic Resources,* https://www.epa.gov/cwa-404/compensatory-mitigation. This rule establishes a hierarchy for mitigation, with the purchase of credits from a mitigation bank at the top of that hierarchy. The rule also emphasizes in-kind and in-watershed mitigation; to go outside the watershed may result in a higher credit purchase calculation. The applicant should receive mitigation plan approval from the Department prior to certification.

Land Disturbance

Acquisition of a Section 401 Certification should not be interpreted to mean that the requirements for other permits are replaced or superseded, including Clean Water Act Section 402 National Pollutant Discharge Elimination System Permits. Work disturbing an area of one acre or more requires issuance of a land disturbance permit prior to any earth work. Disturbance to valuable resource waters, including springs, sinkholes and losing streams, could require additional conditions or a site-specific permit.

Information and application for online land disturbance permits are located at http://www.dnr.mo.gov/env/wpp/epermit/help.htm. Questions regarding permit requirements may be directed to the Department's Kansas City Regional Office at 816-251-0700.

Best Management Practices (BMPs)

In all cases, BMPs should be utilized during project activities to limit the amount of sediment and other pollutants entering waters of the state, and to protect the water's chemical, physical, and biological characteristics. These practices include, but are not limited to, conducting work during low flow conditions whenever possible, keeping heavy equipment out of the water, and taking all necessary precautions to avoid the release of fuel or other waste products to streams and other waters. In addition, the Department encourages the preservation of existing riparian or buffer areas around each water resource to limit the amount of sediments or other pollutants entering the water. Any stream banks, riparian corridors, lake shores, or wetlands denuded of vegetation should be stabilized and re-vegetated as soon as is practicable.

Designated Uses

Water Bodies with Specific Designated Uses:

Water bodies are assigned specific designated uses according to State of Missouri Water Quality regulations at 10 CSR 20-7.031(2). These waters are protected by numeric water quality criteria outlined in 10 CSR 20-7.031(5) and Table A, as well as general water quality criteria outlined at 10 CSR 20-7.031(4).

The project area passes through the watersheds of an unnamed stream (WBID 3960) and Blue River (WBID 419), which drain toward the Missouri River (WBID 356). The unnamed stream is a Class C stream, which is defined as a stream that may cease flow in dry periods, but maintains permanent pools which support aquatic life. The Blue and Missouri Rivers are Class P streams, which are defined as streams that maintain permanent flow even in drought periods. These streams are assigned the following specific designated uses in the Missouri Use Designation Dataset and at 10 CSR 20-7.031 Table H and specified in the following table:

- Protection and propagation of fish, shellfish and wildlife – warm water habitat (WWH)
- Drinking Water Supply (DWS)
- Human health protection (HHP)
- Industrial (IND)
- Irrigation (IRR)
- Livestock and wildlife protection (LWP)
- Secondary contact recreation (SCR)
- Whole body contact recreation – Category A/B

Water Body	WBID	Class	WWH	DWS	HHP	IND	IRR	LWP	SCR	WBC
N/A	3960	C	X		X		X	X	X	B
Blue River	419	P	X		X			X	X	A
Missouri River	356	P	X	X	X	X	X	X	X	B

Water Bodies without Specific Designated Uses:
Water bodies that are not assigned specific designated uses are still protected at all times by general water quality criteria outlined at 10 CSR 20-7.031(4), and are subject to the acute toxicity criteria of Tables A and B, as well as whole effluent toxicity conditions. There are two tributaries within the vicinity of the project area that do not have specific designated uses.

According to the National Wetlands Inventory, there are four freshwater ponds totaling about 5 acres, 1.5 acres of freshwater emergent wetlands, 6 acres of riverine wetlands, and 11 acres of freshwater forested/shrub wetland within the proposed project area. As such, the potential exists for wetlands, ponds, and the aforementioned tributaries and headwaters to be impacted, depending on their proximity to land disturbance activities. In all cases, take care to avoid such impacts through alternatives analysis before compensatory mitigation is considered. If wetlands, ponds, headwaters, or tributaries are not directly impacted but are near any land disturbance, take care to protect water quality. While these water bodies are not assigned specific designated uses, they are protected by Missouri's general water quality criteria.

Sensitive Waters

Table F, Metropolitan No-Discharge Streams:

Within the proposed project area, Blue River is a metropolitan no-discharge stream. Care should be taken to maintain compliance with 10 CSR 20-7.031(7) for any land disturbance activities that are within this stream's watershed. Discharge to metropolitan no-discharge streams is prohibited, except as specifically permitted at 10 CSR 20-7.031(7). These exceptions include uncontaminated cooling water, permitted stormwater discharges in compliance with permit conditions, and excess wet-weather bypasses not interfering with designated uses.

303(d) Impaired and 305(b) Threatened Waters:

Within the proposed project area, Blue River has been listed as impaired due to *E. coli*. Waters assessed by the Department as threatened or impaired could potentially be impacted by this project. Project personnel should ensure that any activities related to the project do not cause an increase in the pollutants impairing these waters nor re-suspend any pollutants that might be bound to sediment. Additional information can be found at http://dnr.mo.gov/env/wpp/waterquality/303d/303d.htm, or by contacting the Department's Water Protection Program at 573-751-1300.

Waters with Approved Total Maximum Daily Loads (TMDL):

Within the proposed project area, Blue River has an approved TMDL for *Chlordane*. Approximately 233 TMDLs or TMDL alternatives have been approved by the U.S. Environmental Protection Agency for streams, rivers, and lakes throughout the state of Missouri. Care should be taken to ensure that the impairments are not made worse by this project's activities. The Department staff may require extra protections when developing permits or certifications in order to comply with TMDL load and wasteload allocations. Additional information can be found at http://www.dnr.mo.gov/env/wpp/tmdl/index.html, or by contacting the Department's Water Protection Program at 573-751-1300.

Watershed Conditions

Certified Wells:

There are 240 wells within 0.5 miles of the proposed project, of which 121 are abandoned, 115 are monitoring wells, 2 are reconstruction wells, and 2 are heat pumps. Wells can also act as conduits of pollutants to groundwater resources. Abandoned wells should be plugged prior to any land disturbance, and care should be taken to utilize appropriate BMPs to protect any currently operating wells. For more information on locating and plugging wells, please visit the Department's Wellhead Protection Section webpage at https://dnr.mo.gov/geology/geosrv/wellhd/, or contact the Department's Geological Survey Program directly at 800-361-4827.

Public Drinking Water:

All work associated with this project should take into consideration the protection of both surface and groundwater public drinking water supplies, implementing appropriate BMPs as necessary.

In the event that public drinking water sources or infrastructure, such as reservoirs, water supply wells, surface water supply intakes, or treatment systems, have the potential to be impacted by suspended solids or other pollutants as a result of this project, the owners or operators of the affected drinking water system should be notified prior to the onset of work. For additional information regarding source water protection, please contact Mr. Ken Tomlin of the Department's Public Drinking Water Branch at 573-526-0269.

Conservation Opportunity Areas (COAs):
The Swope Parkway terrestrial COA is close to the proposed project area. It is listed as having limestone glades and woodlands, educational opportunities, and captures Swope Park. Both terrestrial and aquatic COAs are identified by the Missouri Department of Conservation and its conservation partners as priority areas that support and conserve viable populations of wildlife and the ecological systems on which they depend. Designated COAs are located statewide and may consist of a combination of public and private resources. Please contact the Missouri Department of Conservation at 573-751-4115 for more information.

Natural Areas:
Blue River Glades Natural Area is close to the proposed project area. Missouri Natural Areas are designated by the interagency Missouri Natural Areas Committee with the goal to protect and manage sites that represent the character, diversity and ecological processes of the state's native landscapes. Designated Natural Areas are located statewide and may consist of a combination of public and private resources. Please contact the Missouri Department of Conservation at 573-751-4115, or the Department of Natural Resources at 800-361-4827 for more information.

Geology
The 87th Street landfill, which operated from 1958 to 1971 and fills a former limestone quarry, lies just outside to the southeast edge of the project area (to the southeast of the railroad tracks). Therefore, caution should be used to prevent possible exposure to leachate or landfill derived emanations.

The project area is underlain by Pennsylvanian-age limestone of the Swope Formation. There are no recorded sinkholes or losing stream segments in the project area. However, due to the near surface 60- to 80-foot-thick limestone, the project area lies in an area where there may be some solution weathering along joints of fractures. Therefore, there is only a minor potential for sinkhole collapse in the project area.

The southern end (the valley bottom portion) of the project area lies within a zone that has a potential for liquefaction in the case of a significant earthquake. The remainder of the project area is not classified as having liquefaction, landslide, or collapse potential in the case of a significant earthquake.

The project area does not lie within a former mining district and there are no recorded mines

near the project area. Therefore, there is no collapse potential due to former mining activities in the area.

We appreciate the opportunity to provide comments for the proposed transfer of the Kansas City Plant, Burns & McDonnell Project #94641. If you have any questions or need clarification, please contact me or Ms. Missy Newman at 573-751-3195. The address for correspondence is Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102. Thank you.

Sincerely,

DEPARTMENT OF NATURAL RESOURCES

Dru Buntin

Dru Buntin
Deputy Director

DB/man

United States Department of Agriculture

USDA

NRCS Natural Resources Conservation Service

3915 Oakland Avenue, Suite 103, St. Joseph, MO. 64506

August 17, 2017

Mr. Stephen G. Thornhill
Burns & McDonnell
9400 Ward Parkway
Kansas City, MO 64114

Dear Mr. Thornhill

This letter is in response to your environmental effects request letter dated August 1, 2017. Your letter was addressed to J.R. Flores Missouri NRCS State Conservationist. The following comments pertain to the proposed project involving the removal and abandonment of the Bannister Federal Complex sewer line in Jackson County, Missouri. I have reviewed the proposed project and offer the following information for consideration in your environmental report:

1. Background Information-In 1981, the U.S. Congress passed the Farmland Protection Policy Act (FPPA) which directs USDA through NRCS to provide technical assistance to Federal agencies, and State and local governments or organizations that desire to develop programs or policies to limit the conversion of productive farmlands to non-agricultural uses.

2. The Goal of FPPA- is to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of important farmland to nonagricultural uses. More information can be found at http://www.nrcs.usda.gov/wps/portal/nrcs/detail/?ss=16&navtype=SUBNAVIGATION&cid=nrcs143_008275&navid=100170180000000&pnavid=100000000000000&position=Welcome.Html&ttype=detail&pname=Farmland%20Protection%20Policy%20Act%20%7C%20NRCS
As the web site explains, if areas are considered already in urban use, or are on existing right of way purchased before August 4th, 1984, than FPPA does not apply.
You can obtain site specific acres of prime farmland, and farmland of statewide importance by utilizing the Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/app/

3. Review of the Proposed Project-Areas where distribution facilities or lines are constructed within road and highway right of ways, are determined "previously converted" to non-agricultural uses. Areas where the poles and guy wires are installed in cultivated fields and pastures will have only a minor impact on the conversion of important farmlands. Generally, buried cables and pipelines will not cause the conversion of important farmlands. **If areas can no longer be farmed due to new construction, or restricted access, they are subject to FPPA and a form AD-1006 should be completed.** If final construction does not eliminate any land from agricultural crop production, then FPPA does not apply.

3915 Oakland Avenue, Suite 103, St. Joseph, MO. 64506

4. The NRCS County Hydric soil lists can be obtained at the county NRCS field office, and on the Web Soil Survey. Hydric soils are soils that show properties of long term saturation, and have a high probability of being classified as a wetland. The Hydric soil list is also on line at the NRCS Web Soil Survey. If needed, site specific wetland determinations for non agricultural purposes can be requested from the U.S. Army Corps of Engineers, or from private consulting firms.

5. Erosion Considerations-If your project includes trenching, or construction activity that would destroy grass or vegetative cover, we recommend special attention be given to areas subject to soil erosion caused by rain and water flow. Even though most trenches are narrow, soil erosion can still be a significant hazard on slopes greater than 2 percent. Vegetation should be promptly reestablished on disturbed areas. The Missouri NRCS Critical Area Planting standard can be accessed on the electronic field office tech guide at http://www.nrcs.usda.gov/technical/efotg/

6. Conservation Structures- such as: terraces, diversions, underground drain tiles, grassed waterways: If the project construction causes any damage to soil and water conservation practices or structures, they should be promptly repaired.

7. Soil chemical and physical properties based on the county soil survey can be accessed on Web Soil Survey. This would include soils data regarding saturated hydraulic conductivity, and soil particle size distribution. The soil survey is a general planning tool and should not be substituted for site specific soil investigations.

8. Endangered Species- There may be endangered plant and animal species in the project area. Some species may fall under state, and or, federal protection. If you have not already done so, I recommend that you contact the Missouri Department of Conservation regarding specific threatened and endangered species in the project area. MDC can be contacted at 2901 W. Truman Blvd, P.O Box 180, Jefferson City, MO. 65102, phone- 573-751-4115.

If you have any questions, please call me at 816-232-6555 ext. 5786.

Sincerely,

David K. Kacirek

David K. Kacirek
Area Resource Soil Scientist

cc: Grover DePriest, Area Conservationist, St. Joseph, MO
Jorge L. Lugo-Camacho, State Soil Scientist, Columbia, MO
Jason Saunders, District Conservationist, Blue Springs, MO

Recd 8/2/17
dlw
J.L. 08/2/17
To: David Kacirek

BURNS McDONNELL

August 1, 2017

Mr. J.R. Flores
NRCS State Conservationist
601 Business Loop 70 W STE 250
Columbia, MO 65203-2546

Re: U.S. Department of Energy, National Nuclear Security Administration
Supplemental Environmental Assessment for the Transfer of the Kansas City Plant
Burns & McDonnell Project #94641

Dear Mr. Flores,

The Bannister Federal Complex (BFC) is in the process of being transferred from the National Nuclear Security Administration (NNSA) to a private developer. On behalf of the NNSA, Burns & McDonnell is preparing a Supplemental Environmental Assessment (Supplemental EA) for the removal of a 24-inch sewer line that extends north of the BFC from Liberty Drive to 85th Street (see attached location map and photo of the existing facilities), which was not studied in the EA for the Transfer of the Kansas City Plant in May 2013. The Supplemental EA is being prepared for the NNSA in accordance with National Environmental Policy Act (NEPA) requirements.

The sewer line includes both above and below ground facilities. The southern section, closest to the BFC, are above ground and are to be removed as part of the land transfer of this property. The remaining below ground facilities further north are to be abandoned in place, with pipe and manholes sealed to prevent access.

At this time, Burns & McDonnell is requesting your input to identify any issues or concerns your agency might have with respect to the proposed project. We are specifically asking for information on natural or social resources that should be considered in the Supplemental EA. Input from your agency on any of the following resources in the project area will assist us in identifying potential impacts of the project:

- Land Use
- Aesthetics
- Water quality and wetlands
- Soils and geology
- Wildlife, vegetation and fisheries, including threatened and endangered species
- Socioeconomics (population, employment, growth, development)
- Hazardous materials sites
- Cultural resources (historic and archaeological sites, cemeteries)
- Transportation and roads (airport and roadway expansions, construction, operations and maintenance)

9400 Ward Parkway \ Kansas City, MO 64114
O 816-333-9400 \ F 816-333-3690 \ burnsmcd.com

We would also appreciate any comments or information on additional issues or concerns you feel would help the study team identify and understand the resources within the study area.

Please send your comments to me at:

sthornh@burnsmcd.com

-or-

Stephen G. Thornhill
Burns & McDonnell
9400 Ward Parkway
Kansas City, MO 64114

If you have any questions regarding the project or need additional information, please contact me at (816) 822-3851. We would appreciate your response by August 31, 2017. Thank you for your time and assistance in providing this information.

Sincerely,

Stephen G. Thornhill
Project Manager

Attachments

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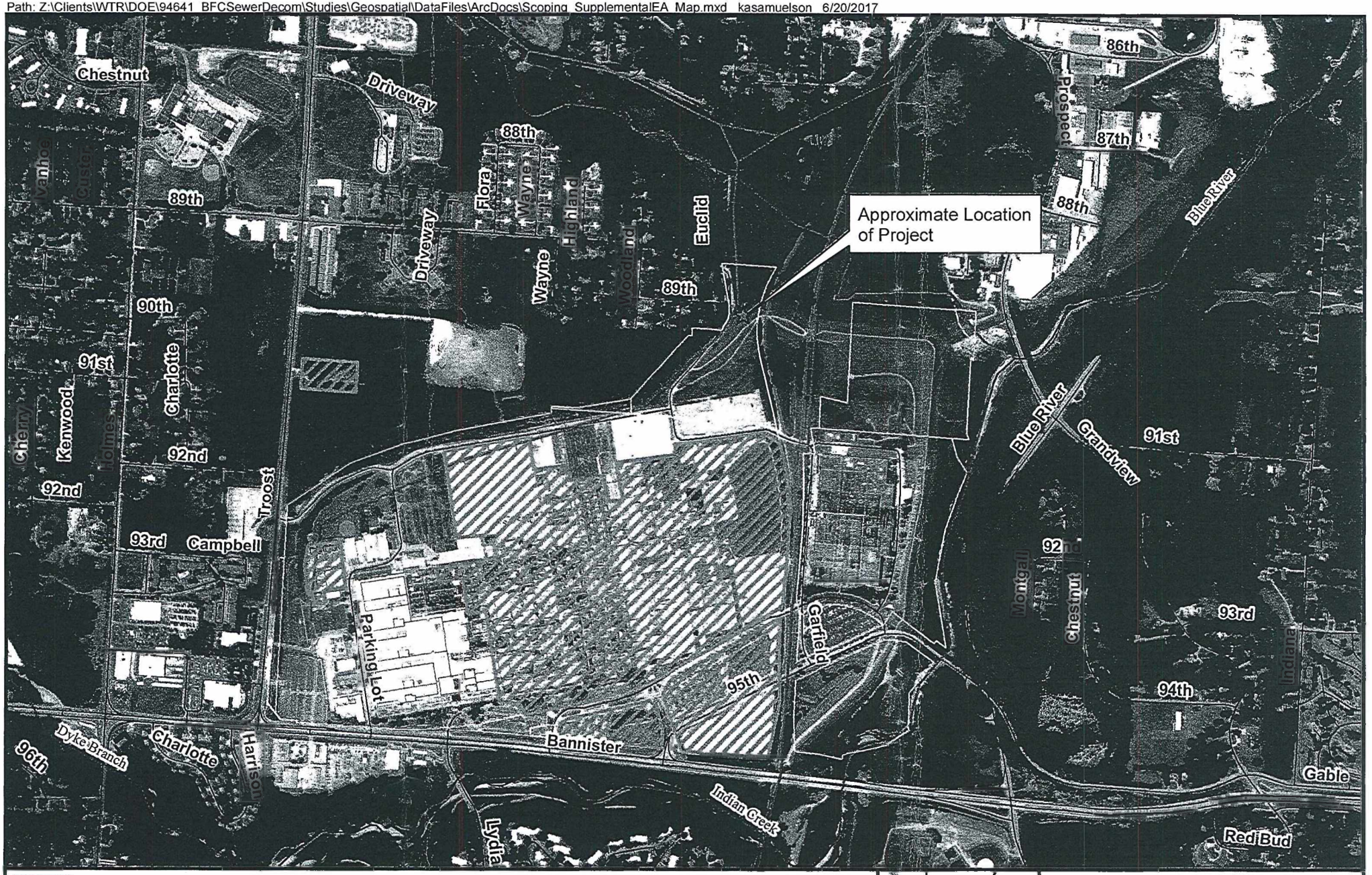


NNSA Kansas City Plant

GSA/DOE Property Boundary

Approximate Location of Project

Railroad

Road

Kansas City Metro Area

State Boundary

NORTH

0 500 1,000 Feet

Project Location
Supplemental Environmental Assessment
Transfer of the Kansas City Plant

Source: NAIP Missouri 2016 Aerial Photography, NTAD, ESRI, NHD, Jackson County

Issued: 6/20/2017

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, KANSAS CITY DISTRICT
635 FEDERAL BUILDING
601 E. 12TH STREET
KANSAS CITY, MISSOURI 64106-2824

August 17, 2017

Regulatory Branch
(NWK-2010-12)

Mr. Stephen Thornbill
Burns and McDonnell
9400 Ward Parkway
Kansas City, Missouri 64106

Dear Mr. Thornbill:

This is in response to a letter you submitted on behalf of the U.S. Department of Energy, National Nuclear Security Administration for Department of the Army (DA) comments. The project is Burns and McDonnel Project #94641. It was received on August 3, 2017. The project is located in Section 21, Township 48 North, Range 33 West, Jackson County, Missouri.

The Corps of Engineers has jurisdiction over all waters of the United States. Discharges of dredged or fill material in waters of the United States, including wetlands, require prior authorization from the Corps under Section 404 of the Clean Water Act (Title 33 United States Code Section 1344). The implementing regulation for this Act is found at Title 33 Code of Federal Regulations Parts 320-332.

Should the proposed improvements require the discharge of dredged or fill material in any waters of the United States, including wetlands, a DA permit may be required. However, if the proposed improvements do not require the discharge of dredged or fill material in any waters of the United States, including wetlands, a DA permit will not be required.

Federal regulations require that a DA permit be issued by the Corps of Engineers prior to the initiation of any construction on the portion of a proposed activity which is within the Corps' regulatory jurisdiction.

Enclosed is a copy of our brochure entitled "Activities Requiring Permits."

We are interested in your thoughts and opinions concerning your experience with the Kansas City District, Corps of Engineers Regulatory Program. Please feel free to complete our Customer Service Survey form on our website at: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey. You may also call and request a paper copy of the survey which you may complete and return to us by mail or fax.

If you have any questions concerning this matter, please feel free to contact Mr. Matthew Sailor at (816) 389-3739 or by email at matthew.c.sailor@usace.army.mil. Please reference Regulatory File No. NWK-2010-00012 in all comments and/or inquiries relating to this project.

Enclosure

Activities Requiring Permits

Contractors	Builders	Planners
Excavators	Engineers	Homeowners
Consultants	Landowners	Farmers

The Corps of Engineers is charged with the responsibility for protecting the public interest in waters of the United States. This is accomplished through a Department of the Army permit program. Under this program, most activities involving work in waters of the United States, including wetlands, require authorization from the Corps of Engineers. Individuals, companies, corporations, Federal and State agencies, and local governments planning construction activities in a stream, river, lake or wetland should contact the Kansas City District, U.S. Army Corps of Engineers, **BEFORE ANY WORK IS BEGUN**.

Why?

Because your proposed work may be subject to one or both of the following Federal Acts:

Section 10 of the Rivers and Harbors Act of 1899 regulates any work or structure in, over, or under navigable waters of the United States. This includes such items as boat docks, boat ramps, powerlines, excavation, filling, etc.

Section 404 of the Clean Water Act regulates the discharge of dredged or fill material in all waters of the United States, including rivers, streams, lakes and wetlands. This includes work such as site development fills, causeways or road fills, dams and dikes, artificial islands, bank stabilization (riprap, seawalls and breakwaters) levees, landfills, fish attractors, mechanized clearing of wetlands, and certain types of excavation activities, etc.

Be Sure Before you Start Construction

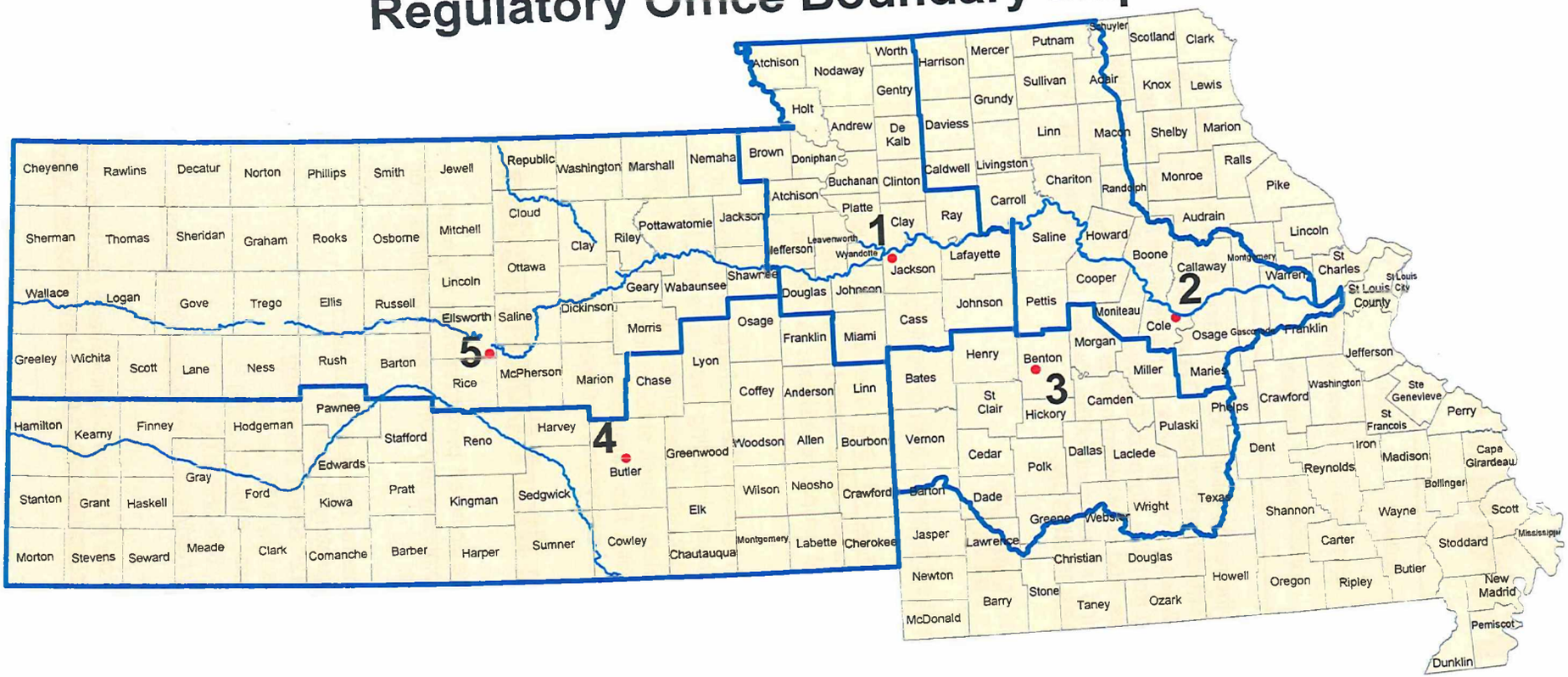
Department of the Army permits must be obtained prior to starting any work within the Corps' jurisdiction. Persons planning any construction activities in or near any water body should write or call:

Corps of Engineers, Kansas City District
Regulatory Branch
601 East 12th Street, Room 402
Kansas City, MO 64106
Telephone: 816-389-3990
FAX: 816-389-2032
http://www.nwk.usace.army.mil/Missions/RegulatoryBranch.aspx

A map of the Kansas City District, Regulatory Program Service Areas can be found at:
http://www.nwk.usace.army.mil/Portals/29/docs/regulatory/2016-01-21_NWK_Boundary_Map.pdf

US Army Corps of Engineers ®
Kansas City District

Regulatory Office Boundary Map



1—Kansas City Regulatory Office
601 East 12th Street
Kansas City, MO 64106
Tel: 816-389-3990
FAX: 816-389-2032

2—Missouri State Regulatory Office
515 East High Street, #202
Jefferson City, MO 65101
Tel: 573-634-2248
FAX: 573-634-7960

3—Truman Regulatory Satellite Office
15837 Truman Road
Warsaw, MO 65355
Tel: 660-438-6697
FAX: 660-438-6909

4—Kansas State Regulatory Office
2710 NE Shady Creek Access Road
El Dorado, KS 67042
Tel: 316-322-8247
FAX: 316-322-8259

5—Kanopolis Regulatory Satellite Office
107 Riverside Drive
Marquette, KS 67464
Tel: 785-546-2130
FAX: 785-546-2050

US Army Corps of Engineers
Kansas City District

REGULATORY PROGRAM SERVICE AREAS
January 2016

APPENDIX C – WETLAND STUDY

BURNS McDONNELL

September 11, 2017

Brian Donahue
Regulatory Project Manager
U.S. Army Corps of Engineers – Kansas City District
601 East 12th Street, Room 402
Kansas City, Missouri 64106

Re: Bannister Federal Complex Sewer Decommissioning Project Wetland Delineation
U.S. Department of Energy National Nuclear Security Administration
Burns & McDonnell Project No. 94641

Dear Mr. Donahue:

Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) was retained by the Department of Energy (DOE) National Nuclear Security Administration (NNSA) to provide wetland delineation services for the Bannister Federal Complex (BFC) Sewer Decommissioning Project in Jackson County, Missouri (Figure A-1, Appendix A). The following sections provide information on the Project and summarize the completed wetland delineation.

INTRODUCTION

The BFC is in the process of being transferred from the NNSA to a private developer, and the current aerial, 24-foot-diameter sewer line that runs north of the BFC will need to be removed. The NNSA retained Burns & McDonnell to complete a wetland delineation of areas that would be disturbed during removal of the sewer line.

The Project has the potential to impact wetlands or other waterbodies that may be under the jurisdiction of the U.S. Army Corps of Engineers (USACE) as designated by Section 404 of the Clean Water Act. Burns & McDonnell conducted a wetland delineation for the Project to evaluate for the presence of wetlands and other waterbodies, including streams, drainages, and ponds. The delineation was conducted within a 100-foot-wide corridor where equipment will access the site (Survey Area). The Survey Area encompasses totaled 1.87 acres.

METHODS

Methods used for the review of existing data and the wetland delineation are described below.

Existing Data Review

Burns & McDonnell reviewed available background information for the Project prior to conducting a site visit. This available background information included U.S. Geological Survey USGS 7.5-minute topographic map (Grandview 1964 quadrangle), U.S. Fish & Wildlife Service (USFWS) National Wetland Inventory (NWI) maps, National Agriculture Imagery Program (NAIP) aerial photography (2015), U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) 2008 Soil Survey Geographic (SSURGO) digital data for Jackson County, Missouri, and Federal Emergency Management Agency (FEMA) floodplain data for

9400 Ward Parkway \ Kansas City, MO 64114
O 816-333-9400 \ F 816-333-3690 \ burnsmcd.com

Kansas City, Missouri. Maps generated from this available data are included as Figures A-2 and A-3 in Appendix A.

Wetland presence based only on NWI maps cannot be assumed to be an accurate assessment of potentially occurring jurisdictional wetlands. Wetland identification criteria differ between the USFWS and the USACE. As a result, wetlands shown on a NWI map may not be under the jurisdiction of the USACE, and all USACE-jurisdictional wetlands are not always included on NWI maps. Therefore, a field visit was conducted to identify any wetlands or other waterbodies that may be present.

Wetland Delineation Field Survey

A wetland delineation of the Project was conducted on April 18, 2017, in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual* (1987 Manual) and the 2010 *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region – Version 2.0* (Regional Supplement). Sample plots were established at multiple locations and Wetland Determination Data Forms from the Regional Supplement were completed to characterize the Survey Area (Appendix B). Vegetation, soil conditions, and hydrologic indicators were recorded at each of these sample plots. Locations of sample plots and other identified features were surveyed using a sub-meter accurate global positioning system (GPS) unit. Natural color photographs were taken onsite and are included in Appendix C (Photographs C-1 and C-2).

RESULTS

The following sections describe the results of the existing data review and the completed wetland delineation.

Existing Data Review

The existing USGS topographic maps were reviewed to familiarize Burns & McDonnell wetland personnel with the topography and potential locations of wetlands and other waterbodies (Figure A-2). The USGS topographic maps indicate the Survey Area crosses one stream.

The NWI data indicates no NWI wetlands were within the Survey Area (Figure A-2). One NWI palustrine emergent (PEM) wetland is located south of the Survey Area.

The 2015 aerial photograph indicates the Survey Area is largely wooded (Figure A-3). A transmission line corridor also crosses the Survey Area.

The NRCS SSURGO digital data indicates one soil map unit is present in the Survey Area (Figure A-3). This soil unit, Sarpy fine sand, 0 to 2 percent slopes, frequently flooded, is included on local and national hydric soil lists.

The FEMA FIRM indicates a large portion of the Survey Area is located within 100-year floodplain (Figure A-2).

Wetland Delineation Field Survey
On April 18, 2017, Gordon Shaw, a wetland scientist, and Christa Wisniewski, a GPS specialist, both with Burns & McDonnell, conducted a wetland delineation of the Survey Area. The location of each sample plot and identified water features were recorded with GPS. Descriptions of the land cover and delineated waterbodies are discussed below.

Vegetation. The Survey Area was largely composed of wooded areas. Typical vegetation in the upland portions of the Survey Area included box elder (*Acer negundo),* garlic mustard (*Alliaria petiolata*), and bush honeysuckle (*Lonicera maackii*).

Soils. Typical upland soils were dark gray (10YR 3/2) to dark brown (10YR 3/3), and ranged in texture from clay to silty clay.

Hydrology. Hydrology in the Survey Area has been influenced by the adjacent the railroad berm, which is outside of the Survey Area. The main source for hydrology within the Survey Area is precipitation.

Delineated Areas
One stream and no wetlands were identified during the wetland delineation. Stream 1 (S-1) is an unnamed tribuary to the Blue River. Approximately 110 linear feet of S-1 were delineated, flowing in a southeasterly direction through the Survey Area (Figure A-4; Photographs C-1 and C-2). During the site visit, the stream appeared to be intermittent with water within the stream banks. Vegetation along the stream was comprised of garlic mustard, bush honeysuckle, and silver maple (*Acer saccharinum*). The stream averaged approximately 12 feet wide and 0.5 foot deep at the ordinary high water mark (OHWM). The substrate of S-1 consisted of silt, cobbles, and pebbles.

SUMMARY

Burns & McDonnell conducted a wetland delineation of the Survey Area to identify wetlands and other waterbodies. One stream and no wetlands were identified.

On behalf of the DOE NNSA, Burns & McDonnell respectfully requests the USACE provide a preliminary jurisdictional determination for the Project. If you have questions regarding the findings in this wetland delineation report, please contact Gordon Shaw at 816-822-3581 or gwshaw@burnsmcd.com. Your attention to this matter is appreciated.

Sincerely,

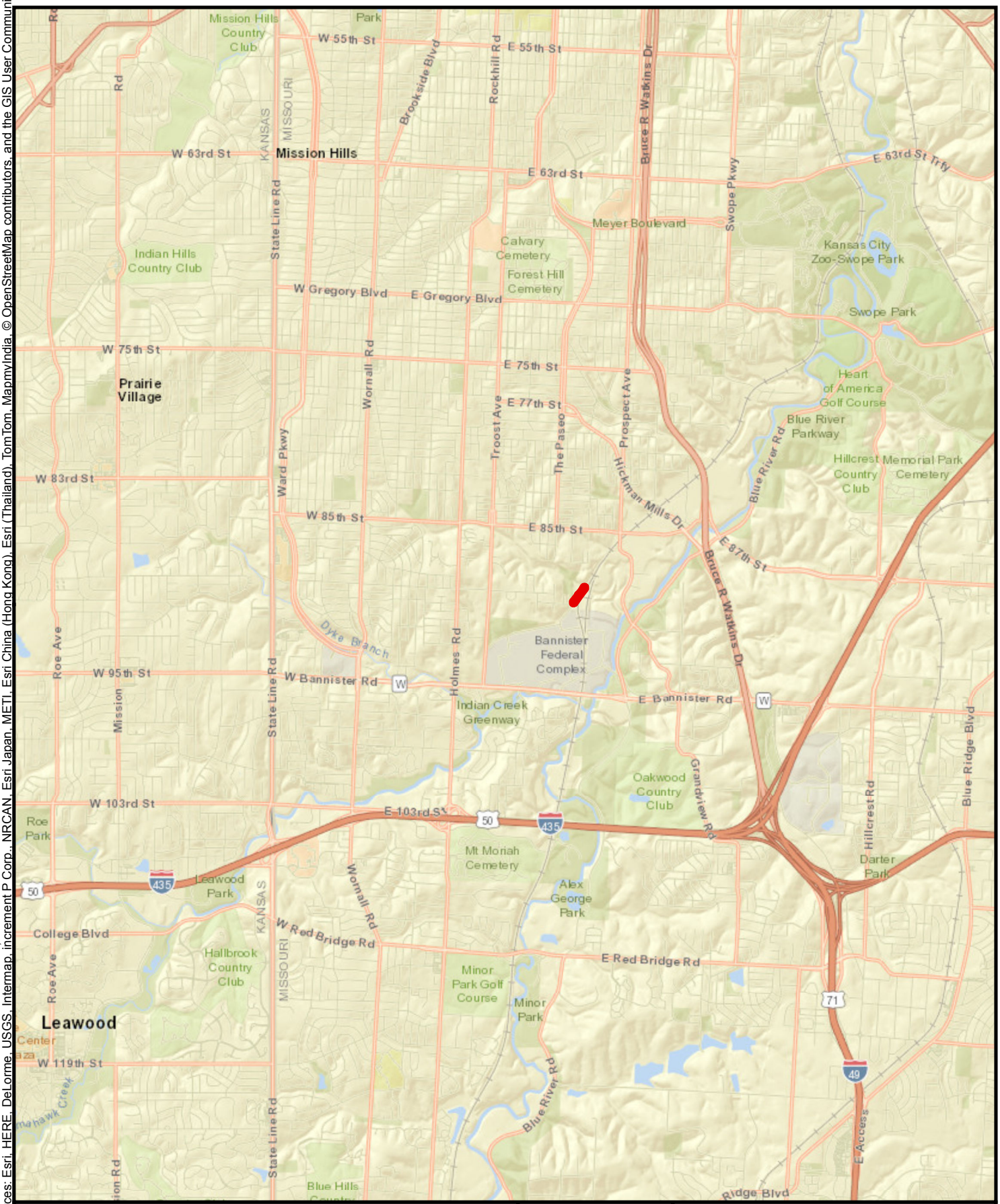
Gordon W. Shaw, PWS, ENV SP
Senior Wetland Specialist

Attachments:

Appendix A - Figures
Appendix B - Routine Wetland Determination Data Forms, Midwest Region
Appendix C - Site Photographs

cc: Cathy Karney, NNSA
Al Guarino, NNSA
Sybil Chandler, NNSA
Joe Adcock, Honeywell FM&T
Randy Hamilton, Honeywell FM&T
Roland Hauck Burns & McDonnell
Myrl Wear, Honeywell FM&T FES

APPENDIX A - FIGURES



Path: Z:\Clients\WTRIDOE\94641_BFCSewerDecom\Studies\GeospatialDataFiles\ArcDocs\FigureA-1.mxd cfwisniewski 5/1/2017

Source: Esri, and Burns & McDonnell Engineering Company, Inc.

Issued: 5/1/2017

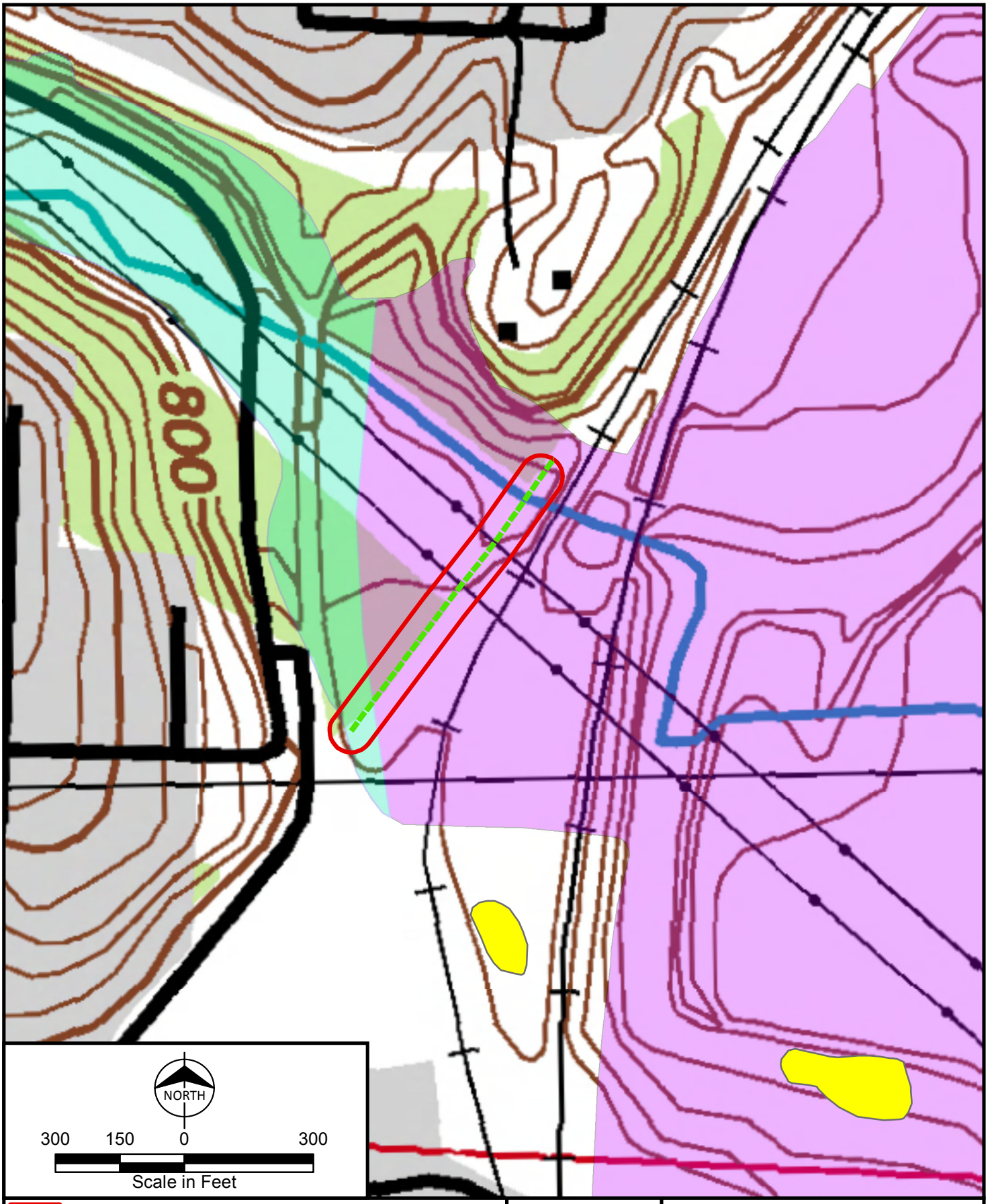


Figure A-2
NWI Wetland, FEMA Floodplain, and USGS Topographic Map
BFC Sewer Decommissioning
DOE/NNSA
Jackson County, MO

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Service Layer Credits:

Source: Esri, and Burns & McDonnell Engineering Company, Inc.

Issued: 5/1/2017

Soil Map Unit	Soil Unit Name
10141	– Snead-Rock outcrop complex, 14 to 30 percent slopes
10143	– Snead-Urban land complex, 9 to 30 percent slopes
66010	– Sarpy fine sand, 0 to 2 percent slopes, frequently flooded*

*Indicates Hydric Soil

Survey Area
Alignment
Soil Map Unit

NORTH

150 75 0 150

Scale in Feet

BURNS McDONNELL

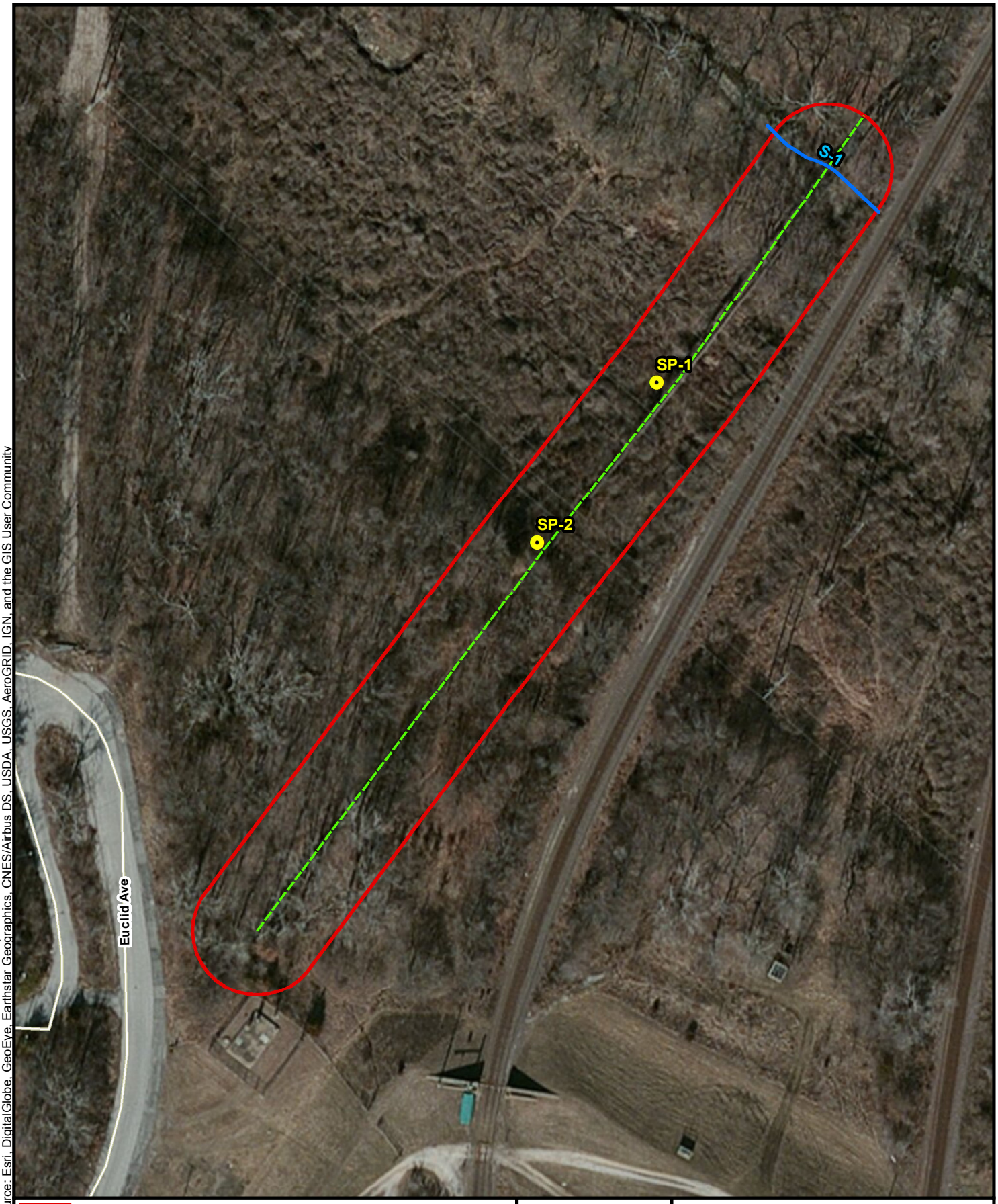
Figure A-3
NRCS Soils and Aerial Map
BFC Sewer Decommissioning
DOE/NNSA
Jackson County, MO

Path: Z:\Clients\WTRIDOE\94641_BFCSewerDecom\Studies\Geospatial\DataFiles\ArcDocs\FigureA-3.mxd cfwisniewski 4/28/2017

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Source: Esri, and Burns & McDonnell Engineering Company, Inc.

Issued: 4/28/2017



Survey Area
Alignment
Sample Plot (SP)
Stream (S)

NORTH

100 50 0 100
Scale in Feet

BURNS McDONNELL

Figure A-4
Location Map of Wetlands
and Other Water Resources
BFC Sewer Decommissioning
DOE/NNSA
Jackson County, MO

Source: Esri, and Burns & McDonnell Engineering Company, Inc.

Issued: 4/28/2017

APPENDIX B - ROUTINE WETLAND DELINEATION FORMS, MIDWEST REGION

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: BFC Sewer Decommissioning City/County: Jackson County Sampling Date: 4/18/2017

Applicant/Owner: DOE/NNSA State: MO Sampling Point: SP-1

Investigator(s): G. Shaw; C. Wisniewski Section, Township, Range: S21, T48N, R33W

Landform (hillslope, terrace, etc.) riparian corridor Local relief (concave, convex, none): none Slope (%): 1 %

Subregion (LRR): M Lat: 38.965981 Long: -94.563823 Datum: NAD83

Soil Map Unit Name: Sarpy fine sand, 0 to 2 percent slopes, frequently flooded NWI Classification: NA

Are climate/hydrologic conditions on the site typical for this time of year? ☐ Yes ☒ No (If no, explain in Remarks)

	Vegetation	Soil	Hydrology
Significantly Disturbed?	☐	☐	☐
Naturally Problematic?	☐	☐	☐

Are "Normal Circumstances" present? ☒ Yes ☐ No

(If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	☒	☐
Hydric Soil Present?	☐	☒
Wetland Hydrology Present?	☐	☒
Is the Sampled Area within a Wetland?	☐	☒

Remarks: Upland confirmation plot.

While hydrophytic vegetation is present, hydric soil and wetland hydrology are absent. The site fails to indicate the presence of a wetland.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	40 %	Y	FAC
2. *Sambucus nigra*	5 %	N	FAC
3.	%		
4.	%		
5.	%		
	45 %	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1.	%		
2.	%		
3.	%		
4.	%		
5.	%		
	0 %	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Alliaria petiolata*	25 %	Y	FAC
2. *Lysimachia nummularia*	20 %	Y	FACW
3. *Urtica dioica*	15 %	N	FACW
4. *Oxypolis rigidior*	10 %	N	OBL
5. *Galium aparine*	5 %	N	FACU
6. *Impatiens capensis*	5 %	N	FACW
7. *Persicaria pensylvanica*	5 %	N	FACW
8. *Allium canadense*	2 %	N	FACU
9. *Ranunculus abortivus*	2 %	N	FACW
	89 %	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	10 %	Y	FACW
2.	%		
3.	%		
	10 %	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	%	x 1 =	0
FACW species	%	x 2 =	0
FAC species	%	x 3 =	0
FACU species	%	x 4 =	0
UPL species	%	x 5 =	0
Column Totals:	0 %	(A)	0 (B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is >50%

☐ Prevalence Index is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? ☒ Yes ☐ No

Remarks (Include photo numbers here or on a separate sheet): Attached.

SOIL Sampling Point: SP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]		
0-20	10YR 3/2	100					silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF 12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____ Depth (inches): _____

Hydric Soil Present?

☐ Yes ☒ No

Remarks: No hydric soil indicator is present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

	Yes	No	Depth (inches)
Surface Water present?	☐	☒	
Water Table present?	☐	☒	
Saturation Present? (includes capillary fringe)	☐	☒	
Wetland Hydrology Present?	☐	☒	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, etc.), if available:

Remarks: No wetland hydrology indicators are present.

View of upland Sample Plot (SP)-1, facing northeast.

View of upland SP-1, facing southwest.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: BFC Sewer Decommissioning City/County: Jackson County Sampling Date: 4/18/2017

Applicant/Owner: DOE/NNSA State: MO Sampling Point: SP-2

Investigator(s): G. Shaw; C. Wisniewski Section, Township, Range: S21, T48N, R33W

Landform (hillslope, terrace, etc.) ridge top Local relief (concave, convex, none): convex Slope (%): 0 %

Subregion (LRR): M Lat: 38.965648 Long: -94.564125 Datum: NAD83

Soil Map Unit Name: Sarpy fine sand, 0 to 2 percent slopes, frequently flooded NWI Classification: NA

Are climate/hydrologic conditions on the site typical for this time of year? ☐ Yes ☒ No (If no, explain in Remarks)

	Vegetation	Soil	Hydrology
Significantly Disturbed?	☐	☐	☐
Naturally Problematic?	☐	☐	☐

Are "Normal Circumstances" present? ☒ Yes ☐ No

(If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

	Yes	No
Hydrophytic Vegetation Present?	☐	☒
Hydric Soil Present?	☐	☒
Wetland Hydrology Present?	☐	☒
Is the Sampled Area within a Wetland?	☐	☒

Remarks: Upland confirmation plot.

While hydrophytic vegetation is present, hydric soil and wetland hydrology are absent. The site fails to indicate the presence of a wetland.

VEGETATION – Use scientific names of plants

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*	30 %	Y	FACU
2. *Juniperus virginiana*	20 %	Y	FACU
3. *Quercus rubra*	10 %	N	FACU
4.	%		
5.	%		
	60 %	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15')			
1. *Lonicera maackii*	80 %	Y	UPL
2. *Symphoricarpos orbiculatus*	5 %	N	FACU
3.	%		
4.	%		
5.	%		
	85 %	= Total Cover	
Herb Stratum (Plot size: 5')			
1. *Lonicera maackii*	20 %	Y	UPL
2. *Sanicula odorata*	20 %	Y	FAC
3.	%		
4.	%		
5.	%		
6.	%		
7.	%		
8.	%		
9.	%		
	40 %	= Total Cover	
Woody Vine Stratum (Plot size: 30')			
1. *Vitis riparia*	10 %	Y	FACW
2.	%		
3.	%		
	10 %	= Total Cover	

Dominance Test Worksheet:

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index Worksheet:

Total % Cover of:		Multiply by:	
OBL species	%	x 1 =	0
FACW species	%	x 2 =	0
FAC species	%	x 3 =	0
FACU species	%	x 4 =	0
UPL species	%	x 5 =	0
Column Totals:	0 %	(A)	0 (B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is >50%

☐ Prevalence Index is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (explain)

[1] Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Hydrophytic Vegetation Present? ☐ Yes ☒ No

Remarks (Include photo numbers here or on a separate sheet): Attached.

SOIL

Sampling Point: SP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					silty clay	
6-18	10YR 3/3	100					clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF 12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____ Depth (inches): _____

Hydric Soil Present?

☐ Yes ☒ No

Remarks: No hydric soil indicator is present.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

	Yes	No	Depth (inches)
Surface Water present?	☐	☒	
Water Table present?	☐	☒	
Saturation Present? (includes capillary fringe)	☐	☒	
Wetland Hydrology Present?	☐	☒	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections, etc.), if available:

Remarks: No wetland hydrology indicators are present.

View of upland Sample Plot (SP)-2, facing northeast.

View of upland SP-2, facing southwest.

APPENDIX C - SITE PHOTOGRAPHS

Photograph C-1: View of intermittent stream S-1, facing west.

Photograph C-2: View of intermittent stream S-1, facing east. A support structure for the overhead sewer line is visible in the left side of the photograph.

APPENDIX D – TREE SURVEY

June 19, 2017

Mr. Travis Kiefer, PE
Kansas City, Missouri Parks Department
4600 E. 63rd St.
Kansas City, MO 64130

Re: Tree Survey Report
BFC Sewer Decommissioning Project
DOE/NNSA
Burns & McDonnell Project No. 94641

Dear Mr. Kiefer:

Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) was retained by the Department of Energy (DOE) National Nuclear Security Administration (NNSA) to conduct a tree survey for the proposed Bannister Federal Complex (BFC) Sewer Decommissioning Project in Jackson County, Missouri (Project). The Project is located within the city of Kansas City, Missouri, approximately 0.45 miles south of East 85th Street and approximately 1 mile West of Highway 71 (Appendix A: Figure A-1). The BFC is in the process of being transferred from the NNSA to a private developer, and the existing, elevated, 24-inch-diameter sewer line that runs north of the BFC will need to be removed (Appendix A: Figure A-2).

A portion of the Project is located within an easement on Kansas City, Missouri (KCMO) Parks Department property. During a meeting on January 24, 2017, the KCMO Parks Department requested a tree survey be conducted in the area of the Project located on KCMO Parks property.

On June 2, 2017, Gordon Shaw, International Society of Arboriculture (ISA) Certified Arborist with Burns & McDonnell, conducted a tree survey of the portion of the Project located on KCMO Park property (Figure A-2). The tree survey encompassed approximately 1.0 acre. All trees 4 inches and greater in diameter at breast height (dbh) were surveyed. Each surveyed tree was identified to species and the dbh was measured to the nearest 2-inch-diameter class using a Biltmore stick or diameter tape. Tree height was estimated by visual observation. The location of each tree trunk was recorded using a sub-meter-accurate global positioning system (GPS) unit.

The condition of each tree was evaluated during the site visit. A tree was rated good if it was healthy and vigorous with no apparent signs of insect, disease, or injury. A tree was rated fair if it was considered of average health for the area, but may show minor insect, disease, or structural problems. A tree was rated in poor condition if it was in a general state of decline and showed major insect, structural, or disease injury. A tree was rated as dead or dying if death was imminent within 5 years.

A total of 90 trees were surveyed with 12 rated in good condition, 67 rated as fair, 10 rated as poor, and one tree rated as dying (Appendix B). The three most abundant species were American elm, boxelder and silver maple. Average dbh of all surveyed trees was 9 inches. Table 1 presents

a summary of the tree survey results. Complete results of all trees surveyed is included in Appendix B. Photographs taken during the site visit are included in Appendix C.

Table 1: Summary of Tree Survey

Common Name	Scientific Name	Number of Trees		Total
		4-18 inches dbh	> 18 inches dbh	
American basswood	*Tilia americana*	2	0	2
American elm	*Ulmus americana*	28	0	28
Black walnut	*Juglans nigra*	9	1	10
Boxelder	*Acer negundo*	22	0	22
Bur oak	*Quercus macrocarpa*	1	0	1
Common hackberry	*Celtis occidentalis*	1	0	1
Eastern red cedar	*Juniperus virginiana*	3	0	3
Green ash	*Fraxinus pennsylvanica*	3	1	4
Shingle oak	*Quercus imbricaria*	5	0	5
Silver maple	*Acer saccharinum*	7	7	14
	Total:	82	8	90

The results of this tree survey can be used to determine which trees to protect during Project execution. Where possible, trees that could become a valuable part of the future forest could be identified and a tree protection zone could then be established to protect these trees during Project execution.

If you have questions regarding this tree survey, please contact Gordon Shaw at gwshaw@burnsmcd.com or 816-822-3581.

Sincerely,

Gordon W. Shaw, ISA Certified Arborist
Senior Wetland Specialist

Attachments:
- Appendix A – Figures
- Appendix B – Complete Tree Survey Data
- Appendix C – Photographs

cc: Roland Hauck, Burns & McDonnell

APPENDIX A – FIGURES

Path: Z:\Clients\WTR\DOE\94641_BFCSewerDecom\Studies\Geospatial\DataFiles\ArcDocs\Figure1_Tree Survey.mxd gwshaw 6/19/2017

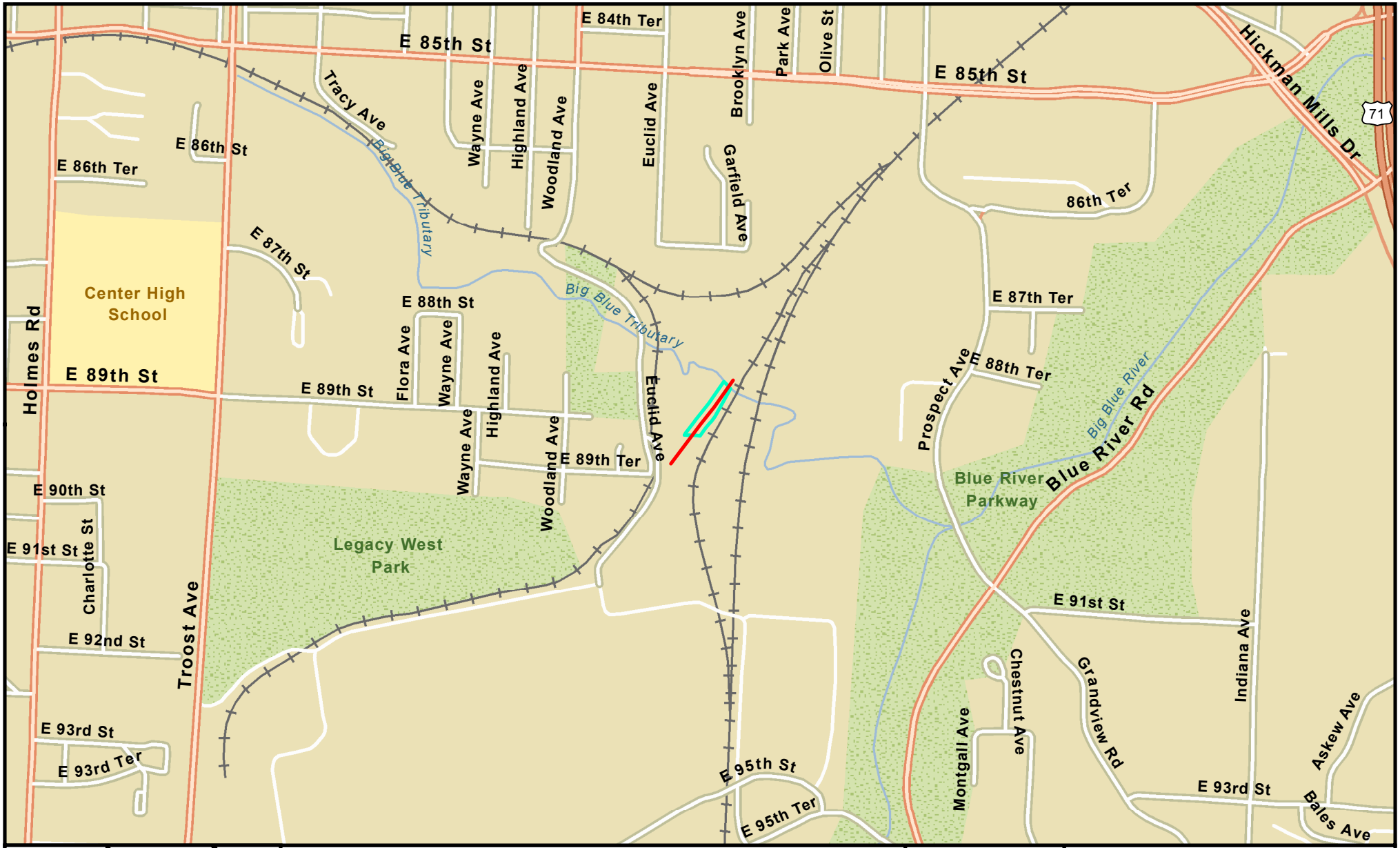


Figure A-1
Project Location Map
BFC Sewer Decommissioning
DOE/NNSA
Jackson County, MO

Source: Esri, Burns & McDonnell Engineering Company, Inc.

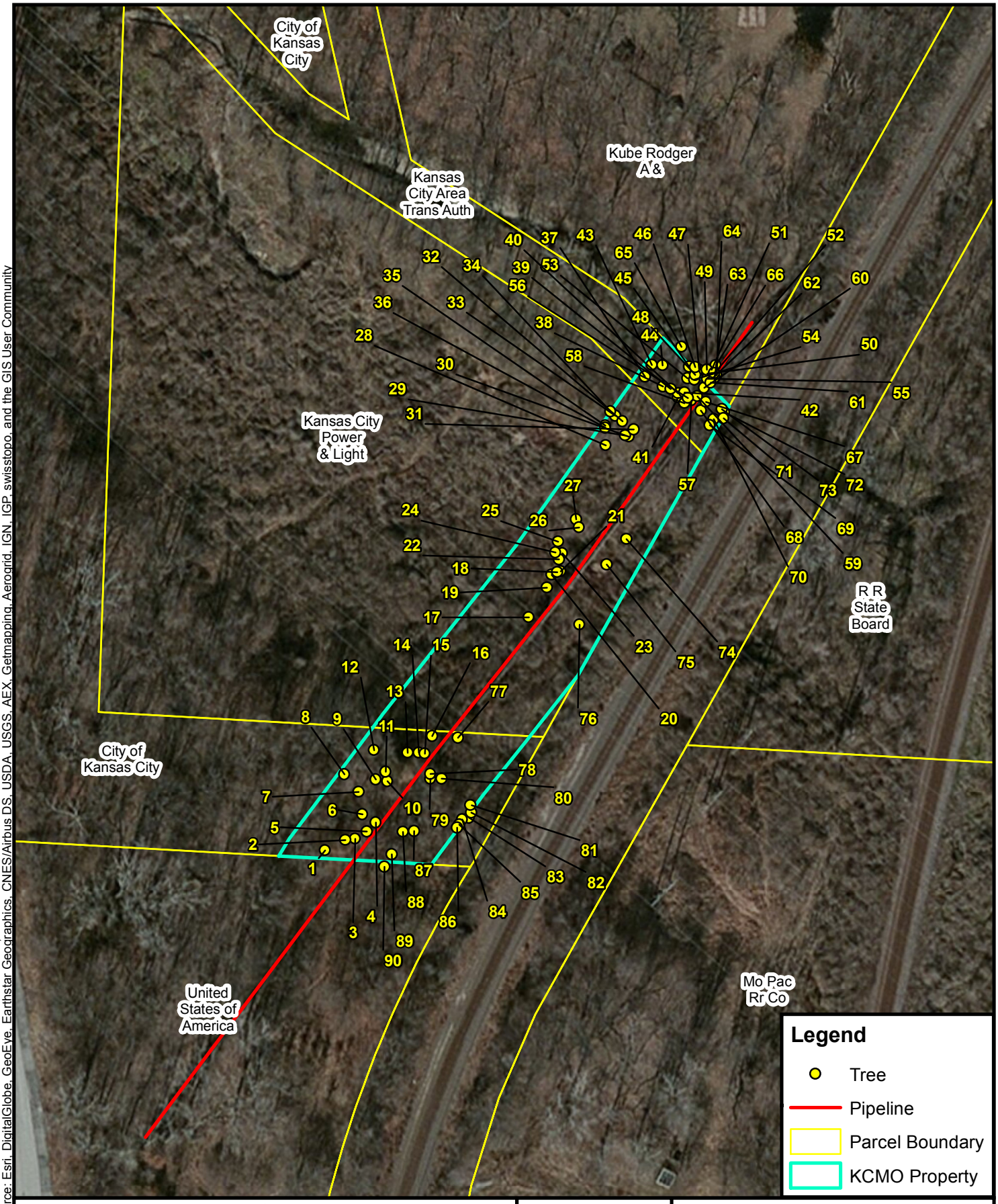


Figure A-2
Tree Survey
BFC Sewer Decommissioning
DOE/NNSA
Jackson County, MO

BURNS McDONNELL

Path: Z:\Clients\WTR\DOE\94641_BFCSewerDecom\Studies\GeospatialDataFiles\ArcDocs\Figure2_Tree Survey.mxd gwshaw 6/19/2017

Source: Esri, Burns & McDonnell Engineering Company, Inc

APPENDIX B – COMPLETE TREE SURVEY DATA

Complete Tree Survey Data

Tree Number	Scientific Name	Common Name	Diameter at Breast Height (inch)	Approximate Height (10 feet increments)	Condition	Comments
1	*Ulmus americana*	American Elm	4	20	Good	None
2	*Ulmus americana*	American Elm	10	30	Good	None
3	*Juniperus virginiana*	Eastern Red Cedar	6	30	Fair	None
4	*Quercus imbricaria*	Shingle Oak	12	50	Fair	None
5	*Juglans nigra*	Black Walnut	4	40	Good	None
6	*Juglans nigra*	Black Walnut	10	40	Good	None
7	*Ulmus americana*	American Elm	6	20	Fair	None
8	*Juglans nigra*	Black Walnut	18	50	Fair	None
9	*Ulmus americana*	American Elm	6	30	Fair	None
10	*Juglans nigra*	Black Walnut	10	50	Good	None
11	*Ulmus americana*	American Elm	8	40	Fair	Grape
12	*Juglans nigra*	Black Walnut	16	50	Good	Grape
13	*Juniperus virginiana*	Eastern Red Cedar	10	30	Poor	None
14	*Quercus imbricaria*	Shingle Oak	6	30	Fair	None
15	*Quercus macrocarpa*	Bur Oak	6	30	Good	None
16	*Juglans nigra*	Black Walnut	6	30	Good	2 Stems
17	*Juglans nigra*	Black Walnut	6	20	Fair	2 Stems
18	*Ulmus americana*	American Elm	6	20	Fair	None
19	*Acer negundo*	Boxelder	6	20	Fair	None
20	*Acer negundo*	Boxelder	6	20	Poor	3 Stems
21	*Acer negundo*	Boxelder	6	20	Poor	2 additional stems (6 inch, 4 inch)
22	*Acer negundo*	Boxelder	4	20	Fair	None
23	*Acer negundo*	Boxelder	4	20	Fair	None
24	*Acer negundo*	Boxelder	4	20	Fair	None
25	*Acer negundo*	Boxelder	4	20	Fair	None
26	*Acer negundo*	Boxelder	4	20	Poor	None
27	*Acer negundo*	Boxelder	6	20	Fair	None
28	*Acer negundo*	Boxelder	6	20	Fair	None
29	*Acer saccharinum*	Silver Maple	28	60	Fair	None
30	*Ulmus americana*	American Elm	14	50	Fair	None
31	*Ulmus americana*	American Elm	12	40	Fair	None
32	*Ulmus americana*	American Elm	6	30	Fair	None
33	*Ulmus americana*	American Elm	6	30	Poor	None
34	*Ulmus americana*	American Elm	6	30	Fair	None
35	*Acer negundo*	Boxelder	6	30	Fair	2 additional stems (6-inch, 4-inch)
36	*Acer negundo*	Boxelder	6	20	Fair	2 Stems (4 inch each)
37	*Ulmus americana*	American Elm	6	30	Poor	None
38	*Acer negundo*	Boxelder	10	20	Fair	None
39	*Acer saccharinum*	Silver Maple	14	40	Fair	None

Tree Number	Scientific Name	Common Name	Diameter at Breast Height (inch)	Approximate Height (10 feet increments)	Condition	Comments
40	*Ulmus americana*	American Elm	8	30	Fair	None
41	*Ulmus americana*	American Elm	8	40	Fair	None
42	*Ulmus americana*	American Elm	8	20	Fair	None
43	*Ulmus americana*	American Elm	6	20	Fair	None
44	*Ulmus americana*	American Elm	6	30	Fair	None
45	*Acer saccharinum*	Silver Maple	14	50	Fair	Also 10-inch Stem
46	*Acer saccharinum*	Silver Maple	20	60	Fair	Also 8-inch Stem
47	*Celits occidentalis*	Common Hackberry	6	40	Fair	None
48	*Ulmus americana*	American Elm	6	30	Fair	None
49	*Acer saccharinum*	Silver Maple	22	60	Fair	None
50	*Ulmus americana*	American Elm	6	30	Fair	None
51	*Acer saccharinum*	Silver Maple	12	50	Fair	None
52	*Acer saccharinum*	Silver Maple	18	60	Fair	None
53	*Ulmus americana*	American Elm	6	30	Good	None
54	*Ulmus americana*	American Elm	6	40	Fair	None
55	*Acer saccharinum*	Silver Maple	12	50	Good	None
56	*Acer negundo*	Boxelder	8	30	Fair	None
57	*Ulmus americana*	American Elm	8	40	Fair	None
58	*Acer negundo*	Boxelder	4	20	Poor	None
59	*Acer saccharinum*	Silver Maple	24	60	Fair	2 additional stems (20-inch, 16-inch)- Photo 4 & Photo 5
60	*Acer negundo*	Boxelder	6	30	Fair	None
61	*Acer saccharinum*	Silver Maple	20	60	Fair	16-inch Stem
62	*Acer saccharinum*	Silver Maple	8	40	Fair	None
63	*Ulmus americana*	American Elm	6	30	Fair	None
64	*Acer saccharinum*	Silver Maple	14	50	Fair	None
65	*Acer saccharinum*	Silver Maple	26	60	Poor	None
66	*Acer saccharinum*	Silver Maple	8	50	Fair	8-inch stem
67	*Acer negundo*	Boxelder	6	20	Poor	None
68	*Acer negundo*	Boxelder	12	40	Fair	None
69	*Fraxinus pennsylvanica*	Green Ash	20	40	Fair	DBH & Height Estimated From a Distance
70	*Ulmus americana*	American Elm	6	30	Fair	DBH & Height Estimated From a Distance
71	*Ulmus americana*	American Elm	8	30	Fair	None
72	*Ulmus americana*	American Elm	6	30	Fair	None
73	*Fraxinus pennsylvanica*	Green Ash	8	30	Fair	None
74	*Acer negundo*	Boxelder	4	20	Fair	None
75	*Acer negundo*	Boxelder	4	20	Fair	None
76	*Acer negundo*	Boxelder	4	20	Fair	2 additional stemas (4-inch, 6-inch)
77	*Juniperus virginiana*	Eastern Red Cedar	6	20	Fair	None
78	*Quercus imbricaria*	Shingle Oak	12	50	Fair	None

Tree Number	Scientific Name	Common Name	Diameter at Breast Height (inch)	Approximate Height (10 feet increments)	Condition	Comments
79	*Juglans nigra*	Black Walnut	12	50	Fair	None
80	*Quercus imbricaria*	Shingle Oak	6	30	Fair	None
81	*Acer negundo*	Boxelder	6	20	Poor	None
82	*Juglans nigra*	Black Walnut	8	40	Good	None
83	*Ulmus americana*	American Elm	8	40	Fair	None
84	*Ulmus americana*	American Elm	8	40	Fair	None
85	*Tilia americana*	American Basswood	12	40	Fair	None
86	*Tilia americana*	American Basswood	10	40	Fair	None
87	*Juglans nigra*	Black Walnut	14	40	Good	None
88	*Fraxinus pennsylvanica*	Green Ash	6	30	Fair	None
89	*Fraxinus pennsylvanica*	Green Ash	10	40	Dying	None
90	*Quercus imbricaria*	Shingle Oak	12	60	Fair	None

APPENDIX C – SITE PHOTOGRAPHS

Photograph C-1: One of the larger silver maple trees surveyed.

Photograph C-2: Trees near the sewer pipeline.

APPENDIX E – IPAC REPORT

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Missouri Ecological Services Field Office
101 Park Deville Drive
Suite A
Columbia, MO 65203-0057
Phone: (573) 234-2132 Fax: (573) 234-2181

In Reply Refer To: September 07, 2017
Consultation Code: 03E14000-2017-SLI-2524
Event Code: 03E14000-2017-E-05297
Project Name: Banister Federal Complex Sewer Decommissioning Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

This response has been generated by the Information, Planning, and Conservation (IPaC) system to provide information on natural resources that could be affected by your project. The U.S. Fish and Wildlife Service (Service) provides this response under the authority of the Endangered Species Act of 1973 (16 U.S.C. 1531-1543), the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d), the Migratory Bird Treaty Act (16 U.S.C. 703-712), and the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.).

Threatened and Endangered Species

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirement for obtaining a Technical Assistance Letter from the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. N**ote that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days.** The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

Consultation Technical Assistance

Refer to the Midwest Region S7 Technical Assistance website for step-by-step instructions for making species determinations and for specific guidance on the following types of projects: projects in developed areas, HUD, pipelines, buried utilities, telecommunications, and requests for a Conditional Letter of Map Revision (CLOMR) from FEMA.

Federally Listed Bat Species

Indiana bats, gray bats, and northern long-eared bats occur throughout Missouri and the information below may help in determining if your project may affect these species.

Gray bats - Gray bats roost in caves or mines year-round and use water features and forested riparian corridors for foraging and travel. If your project will impact caves, mines, associated riparian areas, or will involve tree removal around these features particularly within stream corridors, riparian areas, or associated upland woodlots gray bats could be affected.

Indiana and northern long-eared bats - These species hibernate in caves or mines only during the winter. In Missouri the hibernation season is considered to be November 1 to March 31. During the active season in Missouri (April 1 to October 31) they roost in forest and woodland habitats. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags 5 inches diameter at breast height (dbh) for Indiana bat, and 3 inches dbh for northern long-eared bat, that have exfoliating bark, cracks, crevices, and/or hollows), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Tree species often include, but are not limited to, shellbark or shagbark hickory, white oak, cottonwood, and maple. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat and evaluated for use by bats. If your project will impact caves or mines or will involve clearing forest or woodland habitat containing suitable roosting habitat, Indiana bats or northern long-eared bats could be affected.

Examples of unsuitable habitat include:

- Individual trees that are greater than 1,000 feet from forested or wooded areas;
- Trees found in highly-developed urban areas (e.g., street trees, downtown areas);
- A pure stand of less than 3-inch dbh trees that are not mixed with larger trees; and
- A stand of eastern red cedar shrubby vegetation with no potential roost trees.

Using the IPaC Official Species List to Make No Effect and May Affect Determinations for Listed Species

1. If IPaC returns a result of “There are no listed species found within the vicinity of the project,” then project proponents can conclude the proposed activities will have **no effect** on any federally listed species under Service jurisdiction. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example "No Effect" document also can be found on the S7 Technical Assistance website.

2. If IPaC returns one or more federally listed, proposed, or candidate species as potentially present in the action area of the proposed project other than bats (see #3 below) then project proponents can conclude the proposed activities **may affect** those species. For assistance in determining if suitable habitat for listed, candidate, or proposed species occurs within your project area or if species may be affected by project activities, you can obtain Life History Information for Listed and Candidate Species through the S7 Technical Assistance website.

3. If IPac returns a result that one or more federally listed bat species (Indiana bat, northern long-eared bat, or gray bat) are potentially present in the action area of the proposed project, project proponents can conclude the proposed activities **may affect** these bat species **IF** one or more of the following activities are proposed:

a. Clearing or disturbing suitable roosting habitat, as defined above, at any time of year;
b. Any activity in or near the entrance to a cave or mine;
c. Mining, deep excavation, or underground work within 0.25 miles of a cave or mine;
d. Construction of one or more wind turbines; or
e. Demolition or reconstruction of human-made structures that are known to be used by bats based on observations of roosting bats, bats emerging at dusk, or guano deposits or stains.

If none of the above activities are proposed, project proponents can conclude the proposed activities will have **no effect** on listed bat species. Concurrence from the Service is not required for **No Effect** determinations. No further consultation or coordination is required. Attach this letter to the dated IPaC species list report for your records. An example "No Effect" document also can be found on the S7 Technical Assistance website.

If any of the above activities are proposed in areas where one or more bat species may be present, project proponents can conclude the proposed activities **may affect** one or more bat species. We recommend coordinating with the Service as early as possible during project planning. If your project will involve removal of over 5 acres of suitable forest or woodland habitat, we recommend you complete a Summer Habitat Assessment prior to contacting our office to expedite the consultation process. The Summer Habitat Assessment Form is available in Appendix A of the most recent version of the Range-wide Indiana Bat Summer Survey Guidelines.

Other Trust Resources and Activities

Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act

and the Migratory Bird Treaty Act. Should bald or golden eagles occur within or near the project area please contact our office for further coordination. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed voluntary guidelines for minimizing impacts.

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to guidelines developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service's Wind Energy Guidelines. In addition, please refer to the Service's Eagle Conservation Plan Guidance, which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

Next Steps

Should you determine that project activities **may affect** any federally listed species or trust resources described herein, please contact our office for further coordination. Letters with requests for consultation or correspondence about your project should include the Consultation Tracking Number in the header. Electronic submission is preferred.

If you have not already done so, please contact the Missouri Department of Conservation (Policy Coordination, P. O. Box 180, Jefferson City, MO 65102) for information concerning Missouri Natural Communities and Species of Conservation Concern.

We appreciate your concern for threatened and endangered species. Please feel free to contact our office with questions or for additional information.

Karen Herrington

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Missouri Ecological Services Field Office
101 Park Deville Drive
Suite A
Columbia, MO 65203-0057
(573) 234-2132

Project Summary

Consultation Code: 03E14000-2017-SLI-2524

Event Code: 03E14000-2017-E-05297

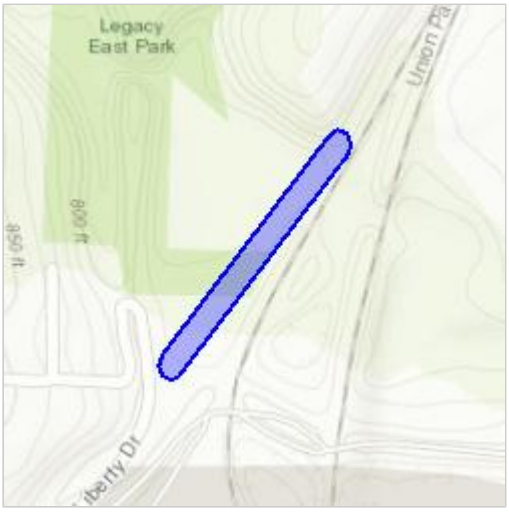
Project Name: Banister Federal Complex Sewer Decommissioning Project

Project Type: WASTEWATER PIPELINE

Project Description: The Banister Federal Complex is in the process of being transferred from the NNSA to a private developer and the existing, elevated, 24-inch-diameter sewer line that runs north of the Banister Federal Complex will be removed.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/38.965709294253216N94.5639830231994W



Counties: Jackson, MO

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

Mammals

NAME	STATUS
Gray Bat *Myotis grisescens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat *Myotis sodalis* There is a **final** critical habitat designated for this species. Your location is outside the designated critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

There are no critical habitats within your project area under this office's jurisdiction.

USFWS National Wildlife Refuges And Fish Hatcheries

Any activity proposed on National Wildlife Refuge lands must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuges or fish hatcheries within your project area.

Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

There are no wetlands within your project area.

APPENDIX F – CULTURAL MEMO

June 26, 2017

Ms. Judith Deel
Compliance Coordinator
Missouri Department of Natural Resources
State Historic Preservation Office
P.O. Box 176
Jefferson City, MO 65102

Re: Bannister Federal Complex Sewer Decommissioning Project; U.S. Department of Energy National Nuclear Security Administration
Burns & McDonnell Project No. 94641

Dear Ms. Deel:

The Department of Energy (DOE) National Nuclear Security Administration (NNSA) retained Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) to provide environmental compliance services for the proposed Bannister Federal Complex (BFC) Sewer Decommissioning Project in Jackson County, Missouri (Appendix A: Figure A-1). The BFC is in the process of being transferred from the NNSA to a private developer, and the existing, elevated, 24-inch-diameter sewer line that runs north of the BFC would be removed (Project) (Appendix A: Figure A-2). For the proposed Project, the aboveground portions of the pipeline would be removed down to the ground surface and the associated underground portion of the pipeline would be abandoned in place and filled with grout. The Project Area is 100 feet wide (50 feet on both sides of the pipeline).

The pipeline historically served the National Register of Historic Places (NRHP)-listed Kansas City Plant (KCP) within the BFC. The Main Manufacturing Building at the KCP was constructed in 1942 and used by Pratt and Whitney to manufacture airplane engines during World War II. After the war,

> "*the government used the facility as both a warehouse and a facility to house government operations. Under contract with the U.S. Navy, Westinghouse built jet engines in part of the facility from 1948 to 1961. The Bendix Corporation (now Honeywell Federal Manufacturing & Technologies) began producing electrical and mechanical weapon components for the U.S. Atomic Energy Commission (a predecessor agency to DOE/NNSA) in part of the Main Manufacturing Building in 1949 and expanded its use of the facilities after Westinghouse left. Since that time, the principal operation at KCP has been the manufacture of nonnuclear components for nuclear weapons, which involves metals and plastics machining, plastic fabrication, plating, microelectronics, and electrical and mechanical assembly*" (NNSA 2013).

9400 Ward Parkway \ Kansas City, MO 64114
O 816-333-9400 \ **F** 816-333-3690 \ burnsmcd.com

As part of its responsibilities under the National Environmental Policy Act (NEPA), the NNSA completed an Environmental Assessment (EA) and associated Finding of No Significant Impact (FONSI) to transfer the KCP to other, non-federal entities for undetermined uses. To fulfill the requirements of Section 106 of the National Historic Preservation Act (NHPA), the NNSA committed via a Memorandum of Agreement to produce an NRHP nomination and Historic American Engineering Record (HAER) report documenting the contributing features of the former KCP as a stipulation in the FONSI. Those actions were completed separately (Millstein and Warfield 2011 and 2012); however, the current Project is outside of the boundaries of the EA study area and was not included in the historic resource documentation efforts (Appendix A: Figure A-3). This memorandum seeks input from your office regarding whether additional documentation and assessment of historic-age archaeological and non-archaeological resources is required under Section 106 of the NHPA.

BACKGROUND REVIEW

A Burns & McDonnell archaeologist performed an initial desktop review, including an examination of the Missouri Department of Natural Resources (MDNR) Archaeology Viewer, to identify previously recorded archaeological sites, previously identified historic properties or historic-period resources, and previous cultural resources surveys performed within 1 mile of the proposed Project (Study Area) (Appendix A: Figure A-4). Based on the review, a total of five previously recorded archaeological sites were recorded within the Study Area (Table 1-1). Additionally, one architectural survey and 10 archaeological surveys have been performed within the Study Area (Table 1-2).

Table 1-1: Previously Recorded Archaeological Sites within the Study Area

Sites	Site Name	Site Description	Component	Year Recorded	NRHP Status
23JA91/304	Unknown	Habitation	Woodland Prehistoric	1986	Unknown
23JA314	Unknown	Habitation; Military	Multicomponent	1986	Undetermined
23JA442	Unknown	Habitation	Unknown Prehistoric	1993	Not Eligible
23JA454	Unknown	Unknown	Unknown	Unknown	Unknown
23JA1691	Grange	Cemetery	Historic	2010	Unknown

Source: Missouri SHPO

Table 1-2: Previously Recorded Archaeological and Architectural Surveys within the Study Area

Report Title	Missouri SHPO Survey ID	Report Author	Year Report Filed
Marlborough Village Historic Resources Inventory	JA-AS-085	Rosin Preservation	2016
Cultural Resources Survey of Proposed Sewer Construction in Kansas City, Missouri, Along the Blue River and Its Tributaries	JA-46	Evans, David R.	1981
Saving the Past for the Future and Interpreting it for the Present: Archaeological Planning for Selected Parks in Jackson County, Missouri	JA-66	Feagins, Jim D.	1984
Cultural Resources Survey of the Construction Right-of-Way for Flood Protection Structures Within and Adjacent to the Federal Complex, Kansas City, Jackson County, Missouri		Ziegler, Robert	1990
Addendum to Cultural Resources Survey of the Construction Right-of-Way for Flood Projection Structures Within and Adjacent to the Federal Complex, Kansas City, Jackson County, Missouri		Ziegler, Robert	1990
Addendum to Cultural Resources Evaluation of the Proposed Levee Corridor in the Dodson Industrial District, Jackson County, Missouri	JA-158	Denny, John	1993
Cultural Resources Investigations, Phase I Survey, Proposed Prospect Avenue Improvements Bridge 88-221 Replacement, Jackson County, Missouri	JA-128	Sturdevant, Craig	1994
Phase I Cultural Resource Survey Selective Site Consultants, Inc. Tower Project "T-Mobile USA, Inc. Highway 71 & Bannister Road Site No. A5C0297" Jackson County, Missouri	JA-377	Kelly, Mark W.	2006
Cultural Resource Assessment-Revised, GSA Kansas City Plant, Jackson County, Missouri	JA-395	Warner, Kathryn A.	2007

Report Title	Missouri SHPO Survey ID	Report Author	Year Report Filed
Cultural Resource Investigations, Phase I Cultural Resource Survey, Selective Site Consultants, Inc. Tower Project "T-Mobile USA, Inc. Highway 71 & Bannister Road A5C0297 Tower Site", Jackson County, Missouri	JA-396	Kelly, Mark W.	2007
Archaeological and Historic Records Review for a Proposed Union Pacific Railroad Company Monopole Telecommunications Tower, MO-Jackson-292.40, Jackson County, Missouri	JA-646	Cargill, Mary	2016

Source: Missouri SHPO

ARCHAEOLOGICAL RECOMMENDATIONS

The proposed Project crosses alluvial landforms in Blue River valley and spans an unnamed tributary to the Blue River. Based on the available information on the MDNR Archaeology Viewer, the proposed Project Area has not been surveyed for archaeological resources (Appendix A: Figure A-4). There is a previously recorded multicomponent site (23JA314) immediately to the west of the Project Area on the north side of the tributary channel. In addition, three archaeological sites have been recorded on alluvial landforms (23JA91/304, 23JA442, and 23JA454) within this section of the Blue River valley and within the Study Area. Therefore, the Project Area is considered to have potential for surface and deeply buried cultural resources.

The proposed Project would involve tree clearing, surface impacts from heavy machinery, and removal of the foundation supports to ground level for the elevated sewer pipeline within the Project Area. No deep impacts in undisturbed areas are anticipated. Given these factors, an intensive surface survey is recommended in association with the proposed Project under Section 106; however, no deep testing is warranted.

HISTORIC-AGE NON-ARCHAEOLGICAL RESOURCE RECOMMENDATIONS

The proposed Project includes removal of an approximately 788-foot-long section of elevated sewer pipeline. The line was likely associated with wastewater disposal at the NRHP-listed BFC and includes a cast iron pipe and associated concrete supports that range in height along the length of the resource (Appendix B). The pipe is clearly visible on 1948, 1962, 1969, and 1970 aerial photographs (NETR var.), confirming possible associations with World War II-era

operations at the facility. The resource was not included in the 2011 NRHP nomination for the property and was not evaluated in previous historic documentation efforts associated with the decommissioning of the facility (Burns & McDonnell 2010; Millstein and Warfield 2011 and 2012).

Though the resource dates to the period of significance for the facility, it was not associated with wartime or subsequent industrial production efforts under NRHP Criterion A, nor does it exhibit distinctive design characteristics under NRHP Criterion C. Additionally, there is no evidence that it was designed by Albert Kahn, the master architect associated with the facility. Furthermore, the existing wastewater treatment building connected to the resource (Building #98; Millstein and Warfield 2011) was constructed in 1988 and does not contribute to the NRHP district (Appendix A: Figure A-5). As intensive documentation of the historically significant buildings and structures associated with the BFC was conducted to mitigate its transfer, and this resource was not identified during those thorough research and documentation efforts (Millstein and Warfield 2011 and 2012), it does not appear to contribute to the NRHP district or to qualify for individual NRHP inclusion. There are no other buildings or structures immediately adjacent to the resource that would be directly or otherwise adversely impacted by removal of the structure. As a result, no further consideration of impacts to the elevated pipeline or non-archaeological resources is recommended in association with the proposed Project under Section 106.

SUMMARY CONCLUSIONS

The proposed decommissioning and dismantling of the historic-age sewer pipeline is an undertaking subject to Section 106 of the NHPA. Based on preliminary review of the Project Area, intensive surface survey for archaeological resources is recommended before Project commencement. Conversely, the pipeline itself does not appear to qualify for NRHP inclusion and no other buildings, structures, objects, etc. would be directly or otherwise adversely affected by the proposed Project. As a result, no further consideration of aboveground resources is recommended. We look forward to receiving your feedback on the recommended level of survey to satisfy the requirements of Section 106 for this Project.

Sincerely,

Brandy Harris
Senior Cultural Resources Specialist

Attachments:
Appendix A - Figures
Appendix B - Photographs

cc: Roland Hauck, Burns & McDonnell
Cathy Karney, NNSA
Al Guarino, NNSA
Sybil Chandler, NNSA
Joe Adcock, Honeywell FM&T
Randy Hamilton, Honeywell FM&T
Myrl Wear, Honeywell FM&T FES

REFERENCES

Burns & McDonnell
2010 *Missouri Department of Natural Resources State Historic Preservation Office Section 106 Project Information Form for NNSA Kansas City Plant.* Copy on file at MDNR.

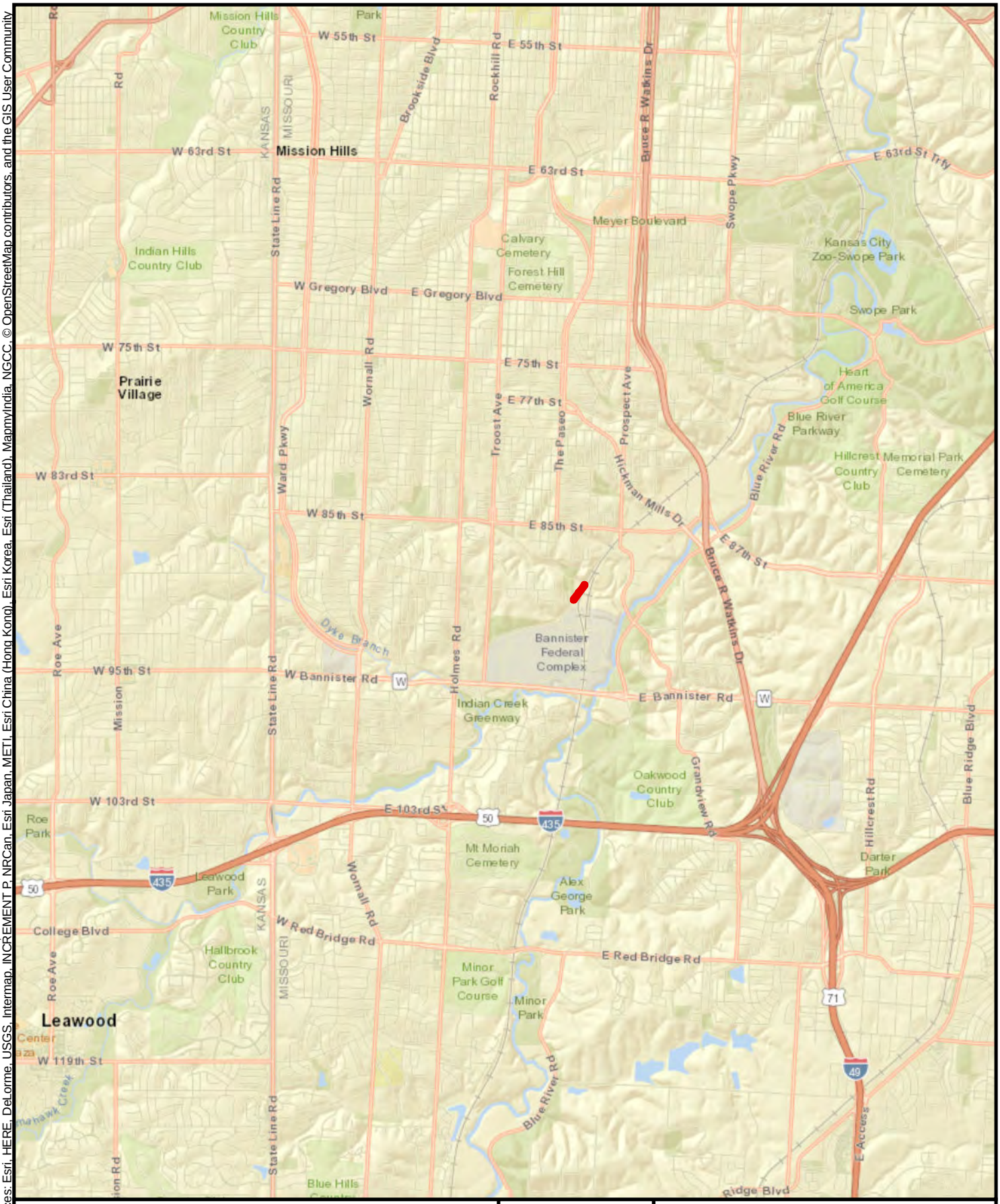
Millstein, Cydney and Mary Ann Warfield
2011 *National Register of Historic Places Registration Form, Pratt & Whitney Complex.* Copy on file at the National Park Service. Washington D.C.

2012 *Historic American Engineering Record, Pratt & Whitney Plant/Bannister Federal Complex/Kansas City Plant.* HAER No. MO-118. Copy on file at the National Park Service Midwest Regional Office. Omaha, Nebraska.

National Nuclear Security Administration (NNSA)
2013 *Finding of No Significant Impact; Environmental Assessment for the Transfer of the Kansas City Plant, Kansas City, Missouri.* DOE/EA-1947.

Nationwide Environmental Title Research (NETR)
Var. Aerial Photographs of Kansas City, MO. Electronic document. http://historicaerials.com/viewer, accessed June 7, 2017.

APPENDIX A - FIGURES



Path: Z:\Clients\WTR\DOE\94641_BFCSewerDecom\Studies\Geospatial\DataFiles\ArcDocs\FigureA-1_SHPO.mxd gacox 6/9/2017

Source: ESRI; Burns & McDonnell Engineering Company, Inc.

Issued: 6/9/2017

Sewer Pipe Alignment

NORTH

150 75 0 150

Scale in Feet

BURNS McDONNELL

Figure A-2
Sewer Pipe Location
BFC Sewer Decommissioning
DOE/NNSA
Jackson County, MO

Source: ESRI; Burns & McDonnell Engineering Company, Inc.

Issued: 6/1/2017

Project Area
2013 NEPA Study Area
(Bannister Federal Complex)

NORTH

0 1,000 2,000

Scale in Feet

BURNS McDONNELL

Figure A-3
Project in Relation to
2013 NEPA Study Area
BFC Sewer Decommissioning
DOE/NNSA
Jackson County, MO

Source: Esri, and Burns & McDonnell Engineering Company, Inc.

Issued: 6/9/2017

Path: Z:\Clients\WTR\DOE\94641_BFCSewerDecom\Studies\Geospatial\DataFiles\ArcDocs\FigureA-3_SHPO_Aerial.mxd gacox 6/9/2017

Service Layer Credits:

Figure A-4: Project Location and Previously Recorded Sites, Surveys, and Architectural Surveys
USGS Grandview Quad

Building #98

Sewer Pipe Alignment

Bannister Federal Complex

NORTH

0 300 600

Scale in Feet

BURNS McDONNELL

Figure A-5
Project in Relation to Bldg #98
BFC Sewer Decommissioning
DOE/NNSA
Jackson County, MO

Path: Z:\Clients\WTR\DOE\94641_BFCSewerDecom\Studies\Geospatial\DataFiles\ArcDocs\FigureA-5_Building98.mxd gacox 6/9/2017

Service Layer Credits:

Source: Esri, and Burns & McDonnell Engineering Company, Inc.

Issued: 6/9/2017

APPENDIX B - PHOTOGRAPHS

Photograph B-1: View of overhead sewer line. Camera facing northeast.

Photograph B-2: View of overhead sewer line. Camera facing southwest.

Photograph B-3: View of overhead sewer line. Camera facing northeast.

Photograph B-4: View of sewer line. Camera facing southeast.

Photograph B-5: View of sewer line. Camera facing northwest.

Photograph B-6: View of sewer line. Camera facing southwest.

Missouri Department of NATURAL RESOURCES
dnr.mo.gov
Eric R. Greitens, Governor
Carol S. Comer, Director

August 14, 2017

Stephen G. Thornhill
Burns & McDonnell
9400 Ward Parkway
Kansas City, Missouri 64114

Re: Bannister Federal Complex Sewer Decommissioning Project (NNSA) Jackson County, Missouri

Dear Mr. Thornhill:

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 information provided concerning the above referenced project. As there is a moderate to high potential for the presence of archaeological sites near and within the area of the proposed project, an archaeological survey, with deep testing as deemed appropriate, should be conducted. This survey should be completed prior to the initiation of project-related construction activities.

A list of independent archaeological contractors who can perform such services is available through the Department of Natural Resources at http://dnr.mo.gov/shpo/docs/archaeologyconsultants-2015.pdf Please note that any 36 CFR Part 61 qualified archaeologist may perform an archaeological survey. If you choose a contractor not on the list, please be certain to include his or her curriculum vitae in the report. We would appreciate **one (1) hard copy and one (1) pdf copy** of the archaeological survey report when it is finished so we may complete the review and comment process.

We also concur that the elevated, 24-inch-diameter sewer line that is scheduled to be removed is not eligible and does not contribute to the Pratt and Whitney Plant Complex (Bannister Federal Complex), a property listed in the National Register of Historic Places.

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 (**194-JA-13**) on all future correspondence or inquiries relating to this project.

Sincerely,

STATE HISTORIC PRESERVATION OFFICE

Toni M. Prawl

Toni M. Prawl, Ph.D.
Director and Deputy State
Historic Preservation Officer

TMP:jd

c Al Guarino, NNSA