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**REVISION 0**

# **FUSRAP COMMUNITY INVOLVEMENT PLAN FOR THE IOWA ARMY AMMUNITION PLANT**

**MIDDLETOWN, IOWA**

**APRIL 12, 2019**

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**U.S. Army Corps of Engineers  
St. Louis District Office  
Formerly Utilized Sites Remedial Action Program**

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*prepared by*

U.S. Army Corps of Engineers, St. Louis District Office  
Formerly Utilized Sites Remedial Action Program

*with assistance from*

Leidos, Inc.  
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**ACRONYMS AND ABBREVIATIONS**

AEC	Atomic Energy Commission
ATSDR	Agency for Toxic Substances and Disease Registry
BAECP	Burlington Atomic Energy Commission Plant
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIP	community involvement plan
DERP	Defense Environmental Restoration Program
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DU	depleted uranium
EPA	U.S. Environmental Protection Agency
FS	firing site
FSA	Firing Sites Area
FUSRAP	Formerly Utilized Sites Remedial Action Program
FUSRAP OU-8 RD/RAWP	<i>Remedial Design/Remedial Action Work Plan, Iowa Army Ammunition Plant, Operable Unit 8, Depleted Uranium Contaminated Soil and Structure Remediation</i>
FUSRAP RD/RAWD	<i>Iowa Army Ammunition Plant Line 1 and West Burn Pads Area South of the Road FUSRAP Remedial Design/Remedial Action Work Description</i>
FUSRAP ROD	<i>FUSRAP Record of Decision for the Iowa Army Ammunition Plant</i>
IAAAP	Iowa Army Ammunition Plant
IAAAP CIP	<i>Community Involvement Plan, Iowa Army Ammunition Plant, Middletown, Iowa</i>
IAAAP CIP Addendum	<i>Community Involvement Plan Addendum, Iowa Army Ammunition Plant: Formerly Utilized Sites Remedial Action Program, Federal Facilities Agreement Areas</i>
IAAAP CRP	<i>Community Relations Plan for Iowa Army Ammunition Plant (Public Involvement and Response Plan)</i>
IAAAP CRP Update	<i>Iowa Army Ammunition Plant Community Relations Plan Update</i>
IAAAP FFA	<i>Iowa Army Ammunition Plant Federal Facility Agreement Under CERCLA Section 120</i>
IAAAP FUSRAP CIP	<i>FUSRAP Community Involvement Plan for the Iowa Army Ammunition Plant</i>
IC	institutional control
IDA	Inert Disposal Area
IRP	Installation Restoration Program
LAP	load, assemble, and pack
LUC	land use control
MMRP	Military Munitions Response Program
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
OU	operable unit
PA	preliminary assessment
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyls
PP	proposed plan
RA	remedial action
RAB	Restoration Advisory Board



## **ACRONYMS AND ABBREVIATIONS (Continued)**

RACR	remedial action completion report
RD	remedial design
RDX	cyclotrimethylenetrinitramine
RG	remediation goal
RI	remedial investigation
ROD	record of decision
SARA	Superfund Amendments and Reauthorization Act
SI	site inspection
USACE	U.S. Army Corps of Engineers
WBPS	West Burn Pads Area South of the Road

## UNIT ABBREVIATIONS

Both English and metric units are used in this report. The units used in a specific situation are based on common unit usage or regulatory language (e.g., depths are given in feet, and areas are given in square meters). Units included in the following list are not defined at first use in this report.

kg	kilogram(s)
m <sup>2</sup>	square meter(s)

## 1.0 INTRODUCTION

The public has a right to know about and to be actively involved in decisions that affect the community in which they live. This *FUSRAP Community Involvement Plan for the Iowa Army Ammunition Plant* (IAAAP FUSRAP CIP) outlines the community involvement work that the U.S. Army Corps of Engineers (USACE), St. Louis District, encourages throughout a cleanup process called the Formerly Utilized Sites Remedial Action Program (FUSRAP) at the Iowa Army Ammunition Plant (IAAAP) in Middletown, Iowa (Figure 1-1). USACE prepared this IAAAP FUSRAP CIP to inform the community of accomplishments under FUSRAP, to involve the community, and to communicate plans for continued support of community involvement in the FUSRAP environmental response activities at IAAAP. USACE will develop these activities, outlined in this document, to ensure that residents are regularly informed and provided opportunities to be involved.

The role of community involvement in decision-making was established by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 and strengthened in the Superfund Amendments and Reauthorization Act (SARA) of 1986. The CERCLA process, as implemented by the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), requires specific community involvement activities to provide opportunities for members of affected communities to become active participants in the CERCLA cleanup process and to provide input in the decisions that affect their communities. The technical and procedural steps in the decision-making process and the community involvement activities required by CERCLA guidance or addressed in the NCP apply equally at federal facilities using CERCLA cleanup authority. This IAAAP FUSRAP CIP applies to activities conducted at the seven areas at IAAAP that have been identified as FUSRAP areas of responsibility: Line 1, Firing Sites Area (FSA), West Burn Pads Area South of the Road (WBPS), Warehouse 3-01, and Yard G, Yard C, and Yard L (Warehouses L-1, L-2, and L-3). These designated IAAAP FUSRAP areas are shown on Figure 1-2.

Ensuring protectiveness of human health and the environment at IAAAP depends on cooperation between federal and state agencies and the public. The primary IAAAP regulators/stakeholders include the U.S. Environmental Protection Agency (EPA), the State of Iowa Departments of Public Health and Natural Resources, IAAAP (U.S. Army), and local residents.

The objectives for this IAAAP FUSRAP CIP follow:

- Identify the areas at IAAAP that are within the scope of FUSRAP.
- Provide information about current cleanup plans as addressed in the 2006 *Iowa Army Ammunition Plant Federal Facility Agreement Under CERCLA Section 120* (IAAAP FFA) (EPA et al. 2006) and the cleanup methods underway in this program as they comply with the requirements of CERCLA.
- Summarize the findings of the 2018 FUSRAP IAAAP Community Survey.
- Establish avenues for sharing knowledge and encouraging community participation regarding the FUSRAP environmental restoration activities that are underway and that are planned.
- Outline specific community relations strategies for addressing these objectives.

## **1.1 FUSRAP AT IAAAP**

The FUSRAP was initiated by the U.S. Atomic Energy Commission (AEC) in 1974 to identify, remediate, or otherwise control sites where residual radioactivity remains from operations conducted for the AEC during the early years of the nation's atomic energy program. The FUSRAP continued under the successor agencies to the AEC until 1997, when the U.S. Congress transferred responsibility for management of the FUSRAP from the U.S. Department of Energy (DOE) to the USACE as part of the Energy and Water Development Appropriations Act of 1998. The FUSRAP provides funding and authorization to address areas of contamination associated with past AEC activity. The USACE, St. Louis District, is the lead agency responsible for implementing cleanup activities at the IAAAP under the FUSRAP.

From 1947 to 1975, the AEC conducted weapons assembly operations on portions of the IAAAP as a tenant at the site. During the AEC operations at the IAAAP, these sites were commonly called the Burlington Atomic Energy Commission Plant (BAECP). Although these sites were cleaned up to guidelines that were in effect at the time, more stringent standards have been established since. The AEC identified a need to re-examine the former AEC areas used in the early 1970s to evaluate potential risks to human health and the environment where levels of radioactive contamination might exceed the new standards. In March 2000, after performing historical research investigating AEC activities at the IAAAP, the DOE provided the USACE with a determination that the portions of the IAAAP used by the AEC may contain contamination resulting from AEC activities and, thus, warranted additional investigation under the FUSRAP. These seven areas identified as FUSRAP areas are Line 1, the FSA, the WBPS, Warehouse 3-01, Yard G, Yard C, and Yard L.

## **1.2 HOW THIS COMMUNITY INVOLVEMENT PLAN IS ASSOCIATED WITH THE DEFENSE ENVIRONMENTAL RESTORATION PROGRAM COMMUNITY INVOLVEMENT PLAN**

This IAAAP FUSRAP CIP is an update to previous community relations plans and public involvement plans.

In 1991, the IAAAP's first public involvement plan, the *Community Relations Plan for Iowa Army Ammunition Plant (Public Involvement and Response Plan)* (IAAAP CRP) (USACE 1991) was developed based on public interviews conducted in 1989 and 1990.

In 2001, the IAAAP CRP (USACE 1991) was updated and renamed the *Iowa Army Ammunition Plant Community Relations Plan Update* (IAAAP CRP Update) (IAAAP 2001) to reflect updated the EPA terminology.

In 2011, USACE, St. Louis District, added the *Community Involvement Plan Addendum, Iowa Army Ammunition Plant: Formerly Utilized Sites Remedial Action Program, Federal Facilities Agreement Areas* (IAAAP CIP Addendum) (USACE 2011a) to the existing IAAAP CRP Update (IAAAP 2001). This IAAAP CIP Addendum did not replace the IAAAP CRP Update; however, the addendum was added to address only the FUSRAP portion of the IAAAP, and focused on the community concerns about investigation and cleanup at FUSRAP areas. In addition to ensuring the local community is regularly informed about and involved in the FUSRAP cleanup process, the IAAAP CIP Addendum (USACE 2011a) was also initially developed to show compliance with community outreach and involvement requirements of the laws and regulations governing the FUSRAP cleanup performed specifically under the 2006 IAAAP FFA (EPA et al. 2006).

In 2017, the U.S. Army issued the *Community Involvement Plan, Iowa Army Ammunition Plant, Middletown, Iowa* (IAAAP CIP) (CH2M HILL 2017) as a revision to the IAAAP CRP Update (IAAAP 2001). The IAAAP CIP was intended to outline specific community involvement strategies for sharing knowledge and encouraging community participation regarding hazardous waste restoration activities conducted by the U.S. Army at IAAAP pursuant to the Defense Environmental Restoration Program (DERP). DERP activities include actions taken under the Installation Restoration Program (IRP) and the Military Munitions Response Program (MMRP). The IAAAP CIP, as updated, describes the communities surrounding the IAAAP and the community involvement activities that have been implemented to respond to concerns and to facilitate public input to the decision-making process.

The USACE, St. Louis District, is publishing this IAAAP FUSRAP CIP as a revision to the IAAAP CIP Addendum (USACE 2011a). Although this IAAAP FUSRAP CIP shares some of the same elements referenced in the IAAAP CIP (CH2M HILL 2017), this IAAAP FUSRAP CIP is intended to focus specifically on community involvement for the work conducted by USACE at IAAAP under FUSRAP. FUSRAP activities do not fall under DERP, IRP, or MMRP.

### **1.3 COORDINATION OF COMMUNITY INVOLVEMENT ACTIVITIES AT IAAAP**

Response actions at IAAAP conducted by the USACE, St. Louis District, under the FUSRAP are separate from actions taken by the U.S. Army under the DERP. The FUSRAP actions also reference different authorities and require separate funding. The regulations that govern each program are also different. Although FUSRAP response actions are separate from DERP response actions, many of the community involvement goals and objectives are similar for the two programs. In 2017, the IAAAP CIP (CH2M HILL 2017) was published by the U.S. Army to update specific community involvement strategies regarding hazardous waste restoration activities pursuant to DERP at IAAAP. DERP activities include actions taken under the IRP and the MMRP. With this understanding, this IAAAP FUSRAP CIP includes contents from the IAAAP CIP (CH2M HILL 2017), because descriptions of IAAAP history, past and ongoing community activities, community concerns, and past and present community outreach strategies are relevant for this plan, and their inclusion offers convenience to the reader and provides completeness of this document.

This IAAAP FUSRAP CIP addresses information relevant to the work being done under FUSRAP and details the community concerns as they relate to FUSRAP efforts at IAAAP. This IAAAP FUSRAP CIP also describes communication objectives and highlights potential community involvement activities specific to the FUSRAP.

### **1.4 CERCLA PROCESS**

USACE is remediating the IAAAP FUSRAP areas within the framework of CERCLA and the NCP. The CERCLA remedial action (RA) process is made up of specific steps, with activities that must be performed at each step to ensure a thorough cleanup process. The actions taken at a site are recorded to identify where hazardous substances are located, to determine the potential threat they pose, and to take appropriate cleanup measures. The process includes site identification, preliminary assessment (PA)/site inspection (SI), remedial investigation (RI), feasibility study, proposed plan (PP), record of decision (ROD), remedial design (RD)/RA, five-year review, site closeout, and long-term management.

The CERCLA remediation process is illustrated on Figure 1-3. The following sections contain an overview of these steps.

#### **1.4.1 Site Identification**

For a new site to be added to FUSRAP, the DOE first performs historical research to determine if the site is eligible. The DOE provides the results of this research, along with geographical boundaries of historical activities and the potential contaminants at the site, to the USACE. The DOE maintains the Considered Sites Database to provide information to the public about sites formerly used in the nation's nuclear weapons and early atomic energy programs that had the potential for residual radioactive contamination.

#### **1.4.2 Preliminary Assessment/Site Inspection**

Site investigations typically begin with a PA and/or an SI to distinguish between sites that pose little or no threat to human health or the environment and sites that may pose a threat and require further investigation. This stage involves a review of historical documents and a visual inspection of the site. If the PA results in a recommendation for further investigation, an SI is performed. During the SI, samples (such as water and soil) are collected to confirm or deny the presence of potentially hazardous substances.

#### **1.4.3 Remedial Investigation**

Based on the results of the PA/SI, further investigation may be warranted. The RI identifies the type of contaminants present at or near the site, assesses the nature and extent of contamination, and characterizes the potential risks to public health and the environment.

#### **1.4.4 Feasibility Study**

If the results of an RI indicate that cleanup of a site is needed to address human health or ecological risk, then a feasibility study is conducted. The feasibility study evaluates various remedial technologies and proposed cleanup alternatives in comparison to nine criteria (e.g., effectiveness, short- and long-term impacts, cost, implementability).

#### **1.4.5 Proposed Plan**

The PP summarizes cleanup alternatives and provides rationale for the preferred alternative. The public has an opportunity to comment on the PP during a formal public comment period. Site information is compiled in an administrative record file and is placed in an information repository established at a convenient location, such as a local library, for public review. A notice of availability is published in a major local newspaper to announce the public comment period. Public comments on the PP may be written and introduced at a public meeting, mailed to the lead agency, or stated during a public meeting. The public comments received during this public comment period are reviewed, and the responses are recorded in a document called a responsiveness summary.

#### **1.4.6 Record of Decision**

At the end of the public comment period, an appropriate remedial alternative to protect human health and the environment is chosen. The ROD is the final document that describes the selected cleanup alternative. As the primary decision document, the ROD gives the reasons for RA, describes the selected remedy, and justifies the action selected. Public comments, responses to

public comments, and any new information are detailed in a section of the ROD known as the responsiveness summary.

#### **1.4.7 Remedial Design/Remedial Action**

The RD and RA involve designing, developing, and implementing the cleanup method(s) described in the ROD. The RD includes preparing technical drawings and engineering specifications for the RA, which is the construction or implementation phase of the physical cleanup of the site. RAs are followed by verification or confirmation sampling and/or surveys to verify that the site meets ROD goals.

The current status of the RAs at the IAAAP FUSRAP areas is discussed in greater detail in Section 3.0.

#### **1.4.8 Five-Year Reviews**

Section 121 of CERCLA, as amended by SARA, requires that RAs that result in any hazardous substances, pollutants, or contaminants remaining at the site be subject to a five-year review. The NCP defines this to mean contamination left at levels that do not allow for unlimited use and unrestricted exposure. Following initiation of an RA, each site is reviewed at least every five years to evaluate the performance of an RA remedy and to determine if the remedy continues to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in five-year review reports. In addition, five-year review reports identify issues found during the review, if any, and recommendations to address them. If, after a five-year review, further action or modification of the RA at a site is necessary in accordance with CERCLA Section 104 or Section 106, the lead agency or responsible party for the site shall implement the additional or modified action.

#### **1.4.9 Site Closeout**

The term “closeout” means that cleanup actions at the areas required by the *FUSRAP Record of Decision for the Iowa Army Ammunition Plant* (FUSRAP ROD) (USACE 2011b) are complete and fully protective of human health and the environment. USACE will take the necessary steps to close out sites and prepare them for appropriate future use. Areas disturbed by removal actions will be restored “in kind.” This means excavated areas will be restored with soil, concrete/asphalt, or vegetation to restore customary use of the property. USACE is responsible for all response actions at FUSRAP areas until two years after closeout. Beginning two years after closeout, the DOE assumes responsibilities, including long-term monitoring, operation and maintenance, and enforcing institutional controls (ICs). A published notice to the public is made regarding site closeout in accordance with the provisions of CERCLA, NCP, and USACE procedures.

Prior to site closeout, USACE will prepare a remedial action completion report (RACR) to document achievement of the ROD remedial action objectives and to demonstrate achievement of the remediation goals (RGs). Currently, the USACE is preparing the RACR for WBPS.

#### **1.4.10 Long-Term Management**

Long-term management of FUSRAP areas is conducted after all remediation activities are completed. An approved long-term management plan or land use control (LUC) implementation plan will identify responsibilities for long-term care. These responsibilities may include security, inspections, and engineering controls, or may also establish ICs, like fencing and signage, which are protective of public health and the environment. At the federal level, responsibility for the

LUCs is split between USACE and the DOE. The DOE will be responsible for implementing the program two years after USACE completes the site remedy. Until that time, USACE will be responsible for site stewardship.

## **1.5 OUTLINE OF THIS COMMUNITY INVOLVEMENT PLAN**

This IAAAP FUSRAP CIP focuses on only FUSRAP activities at IAAAP. This IAAAP FUSRAP CIP is organized into Sections 1.0 through 5.0 with Appendices A through G.

- Section 1.0 Contains a brief overview of how this IAAAP FUSRAP CIP relates to FUSRAP activities and the environmental regulatory process and how it differs from existing IAAAP CIP (CH2M HILL 2017).
- Section 2.0 Contains a site description and history of IAAAP, and relevant IAAAP restoration information as it relates to FUSRAP.
- Section 3.0 Describes the IAAAP community itself, its history of concerns, community interview findings, and USACE responses to these needs.
- Section 4.0 Identifies the community involvement program and the activities that have supported FUSRAP.
- Section 5.0 Lists the references and resource materials used in the development and preparation of this IAAAP FUSRAP CIP.
- Figures Contains the figures discussed in Sections 1 and 2, which show the location of IAAAP, the location of the FUSRAP areas, and the steps to the CERCLA process.
- Appendix A IAAAP RAB Members, USACE Contacts, Army Contacts, Regulatory Contacts, Federal Elected Officials, State Elected Officials, and Local Officials
- Appendix B Survey and Survey Findings
- Appendix C IAAAP Examples of Outreach
- Appendix D IAAAP Environmental Restoration Newsletter
- Appendix E Media Contacts
- Appendix F Public Meeting Locations
- Appendix G Example of Community Involvement Media Notice



## **2.0 SITE DESCRIPTION AND HISTORY**

IAAAP is a government-owned, contractor-operated military industrial installation under the jurisdiction of the U.S. Army Joint Munitions Command, headquartered in Rock Island, Illinois. The installation's primary mission since 1941 has been to load, assemble, and pack (LAP) ammunition items, including projectiles, mortar rounds, warheads, demolition charges, and munitions components (such as fuses, primers, and boosters) for the U.S. Department of Defense (DOD). From 1947 to 1975, portions of the IAAAP facility were under AEC control for research, development, and production of materials and components as part of the early U.S. atomic program.

The following sections provide additional information describing the locations, history, and mission of FUSRAP-related processes at IAAAP.

### **2.1 IAAAP LOCATION AND SURROUNDING AREA**

IAAAP is located in southeastern Iowa in the southern portion of Des Moines County, which borders Lee County to the south and Henry County to the west. IAAAP is located adjacent to the cities of Middletown, Burlington, and West Burlington, Iowa, and is approximately 8 miles west of the Mississippi River. Burlington, with a population of 25,436, is the largest city in Des Moines County. The IAAAP site location, relative to the surrounding landmarks, is shown on Figure 1-1.

IAAAP covers 19,000 acres, of which approximately one-third of IAAAP property is occupied by active or formerly active munitions production or storage facilities. The remaining property is generally either forested (30,350,000 m<sup>2</sup> [7,500 acres]) or leased for agricultural use (31,160,000 m<sup>2</sup> [7,700 acres]).

IAAAP is located near U.S. Highway 34, which runs east-west through Iowa from Illinois to Nebraska. The Great River (MacArthur) Bridge on Highway 34 in Burlington spans the Mississippi River, connecting southeastern Iowa with west-central Illinois. U.S. Route 61, which runs north-south on the western side of the Mississippi River, is accessible to the east in Burlington. Regional transportation needs are met by air, bus, and rail transportation services. The Southeast Iowa Regional (Burlington) Airport, southwest of the city, provides freight and passenger services; the Burlington Northern/Santa Fe Railroad and Amtrak provide rail services; and Burlington Trailways and Burlington Urban Service provide regional and local bus transportation, respectively.

### **2.2 IAAAP HISTORY**

IAAAP was established in July 1941 as the Iowa Ordnance Plant, with the U.S. Army changing the name of the facility to the Iowa Army Ammunition Plant in the early 1960s. The installation's primary mission since 1941 has been to LAP ammunition items. The plant was operated by Day & Zimmermann Corporation from 1941 to 1946 and by the U.S. government from 1946 to 1951. The plant was operated by the Mason & Hanger Corporation from 1951 to 1998, and is currently operated by a civilian contractor, American Ordinance, LLC, on behalf of the U.S. Army Joint Munitions Command.

From 1947 to 1975, portions of IAAAP were used by the AEC for research, development, and production of materials and components as part of the early U.S. atomic program. The AEC-operated portions of the plant were commonly called BAECP. Based on IAAAP project history reports, the first nuclear weapon assembly operations are believed to have begun in 1949.

Throughout the remaining years of AEC control, the IAAAP tested, assembled, conducted surveillance on, and disassembled a wide variety of nuclear weapons. BAECF closed in July 1975, and control of the former BAECF areas reverted to the U.S. Army.

## 2.3 HISTORY OF CONTAMINATION

Past munitions production at IAAAP has resulted in contamination of soil and ground water and discharges of waste water containing explosives to surface water. The primary contaminants at IAAAP are explosives, metals, and volatile organic compounds, which are found in soils, ground water, and surface water at the site. The primary source of these contaminants is historically accepted operating practices during which explosives-contaminated waste water and sludge were discharged to uncontrolled lagoons and impoundments on the IAAAP property. Additional sources of contamination included open burning of explosives materials and munitions and landfilling of waste material. These former disposal practices are no longer acceptable under current, more stringent environmental regulations.

Additionally, between 1965 and 1973, a series of specialized tests called hydro-shots were conducted exclusively at the Firing Site (FS)-12 Area (i.e., FS-9, FS-10, FS-11, and FS-12) in the FSA. A hydro-shot was a diagnostic operation that used depleted uranium (DU) as a surrogate for weapons-grade material and was a quality-control technique for measuring the performance of plastic-bonded explosives produced at IAAAP. Approximately 4,000 kg (8,820 pounds) of DU were associated with 701 hydro-shots used at the FS-12 Area (ATSDR 2003).

### What is depleted uranium (DU)?

DU is the material left after most of the radioactive uranium-235 is removed from uranium ore for nuclear power and weapons.

DU is used for enhanced tank armor shielding, and as weights to balance aircraft. It is both a toxic chemical and radiation health hazard when inside the body (EPA 2018).



*This fragment of DU was found at FS-12.*

## 2.4 DESIGNATION OF OPERABLE UNITS

For management purposes, the environmental cleanup at IAAAP is divided into nine operable units (OUs) based upon common locations, contaminants, or media (such as soil or ground water). The FUSRAP areas at IAAAP are included in two OUs: the soil OU (i.e., OU-1) and the FUSRAP-specific OU (i.e., OU-8), see Figure 1-2.

In 2008, it was determined that the soil in two of the FUSRAP areas (i.e., Line 1 and WBPS) was specifically covered in the existing U.S. Army RODs for OU-1. As a result, Line 1 and WBPS were remediated by FUSRAP, under the authority of the U.S. Army Soil RODs, and described as part of OU-1.

The remaining FUSRAP areas are defined as part of OU-8. The OU-8 areas include the Line 1 (structures only), Warehouse 3-01 (building interiors), the FSA (soil and structures), Yard C

(soil and structures), Yard G (soil and structures), and Yard L (soil in areas surrounding Warehouses L-37-1, L-37-2, and L-37-3).

## **2.5 SUMMARY OF FUSRAP REMEDIAL ACTIONS TO DATE**

The 2006 IAAAP FFA between the USACE, St. Louis District, the EPA Region 7, the DOE, and the State of Iowa was developed to address FUSRAP investigatory and cleanup work at IAAAP (EPA et al. 2006). The 2006 IAAAP FFA states that USACE shall respond to all releases and threats of releases of hazardous substances, pollutants, or contaminants, except for ground-water and surface-water contamination, at the seven areas associated with previous AEC activity at IAAAP (EPA et al. 2006). The purpose of the 2006 FFA is to ensure that environmental impacts associated with past AEC activities at IAAAP are investigated and appropriate RA(s) are taken to protect public health and the environment.

The 2006 IAAAP FFA describes the process by which USACE will investigate and address any remaining radioactive or hazardous substances from the former AEC activities at IAAAP and defines the roles and responsibilities of the signatory parties. Other parties who signed the agreement are the State of Iowa, whose role includes consultation in the development and selection of RAs and the identification of appropriate state environmental laws, and the DOE, which will provide long-term stewardship, operation, and maintenance reviews.

FUSRAP is generally responsible for all contaminants, chemical or radiological, in former AEC areas. The 2006 IAAAP FFA, however, explicitly excludes ground-water and surface-water contamination from the scope of FUSRAP response, noting that ground water and surface water will be addressed pursuant to the U.S. Army's 1990 IAAAP FFA (U.S. Army and EPA 1990). The scope of FUSRAP response is also limited at the FSA to addressing only the presence of DU from past testing operations conducted by the AEC.

### **2.5.1 Remedial Actions at FUSRAP Line 1 and West Burn Pads Area South of the Road (Operable Unit 1)**

Soil at OU-1 with concentrations of contaminants above RGs was excavated based on the delineation of contaminated material as presented in the *Iowa Army Ammunition Plant Line 1 and West Burn Pads Area South of the Road FUSRAP Remedial Design/Remedial Action Work Description* (FUSRAP RD/RAWD) (USACE 2008) and supplemental design documents (USACE 2011c, 2012, 2013; SEC 2014). Contaminated soil above soil RGs included explosives, metals, polychlorinated biphenyls (PCBs), and polycyclic aromatic hydrocarbons (PAHs). Excavated soil was transported to the Inert Disposal Area (IDA) for treatment (as required) and disposal, or to an EPA-approved, off-site, permitted, commercial waste treatment and disposal facility.

The RA activities at Line 1 and WBPS began in Oct. of 2008. For explosives contaminants of concern, the residual soil concentrations at all Line 1 excavations met the RGs except for cyclotrimethylenetrinitramine (RDX) at six excavation areas where the soil is inaccessible because the buildings or other structures are still in place. For PAH contaminants of concern, the risk-based RGs were not met at 14 areas because the soil was inaccessible, and/or continuing sources of contamination associated with structures were still in place near the excavation. The verification results at WBPS indicated that RGs for all contaminants of concern were met at all excavation areas.

## **2.5.2 Remedial Actions at the FUSRAP Firing Sites Area (Operable Unit 8)**

The remedial activities conducted at OU-8 are described in the *Remedial Design/Remedial Action Work Plan, Iowa Army Ammunition Plant, Operable Unit 8, Depleted Uranium Contaminated Soil and Structure Remediation* (FUSRAP OU-8 RD/RAWP) (USACE 2013). Work began under the FUSRAP OU-8 RD/RAWP in the summer of 2013. DU-contaminated soil at the FSA is excavated, sorted, and stockpiled for later disposal off-site.

Remediation activities at the following OU-8 areas have been completed: Line 1 Structures; the FS-1 and FS-2 Area; and the FS-3, FS-4, and FS-5 Area. Remediation activities are anticipated to be complete at the FS-6, FS-7, FS-8, and FS-15 Area once verification sampling is performed to verify no contamination remains above the DU RG. Investigation and remediation activities at the FS-12 Area are ongoing.

## **2.6 REMAINING ACTIONS AT IAAAP UNDER FUSRAP**

### **2.6.1 Remaining Actions Required at FUSRAP Line 1 and West Burn Pads Area South of the Road (Operable Unit 1)**

In the areas at Line 1 where the soil is inaccessible, the soil will remain in place until the soil becomes accessible, at which time the soil will be remediated. In the areas where the potential source of contamination (e.g., asphalt, tar roofing material) is still present, remediation of these areas is deferred until after the potential source material is removed to allow for a more effective RA.

### **2.6.2 Remaining Actions Required at the FUSRAP Firing Sites Area (Operable Unit 8)**

Investigation and remediation activities at the FS-12 Area are ongoing. Existing installation-wide ICs identified in the FUSRAP ROD (USACE 2011b) include continued industrial land use supported by use restrictions and out grants administered by the U.S. Army as part of its land management responsibilities (USACE 2011c). The IAAAP procedures currently in place provide the necessary site controls to protect plant workers, contractors, and other site visitors from residual contamination at OU-8.

### **3.0 FUSRAP COMMUNITY INVOLVEMENT PROGRAM**

To continue an interactive relationship with the community through public involvement, USACE has sought public input to guide the FUSRAP cleanup process at IAAAP. This section contains information from local historical and present-day agencies and from the IAAAP stakeholder community so environmental justice concerns can be better understood and everyone can participate in the cleanup process. The primary IAAAP regulators/stakeholders include the EPA, State of Iowa Departments of Public Health and Natural Resources, IAAAP (U.S. Army), and local residents. Section 3.0 includes descriptions of the community itself, its history of concerns, and a summary of the 2018 community survey method and results.

#### **3.1 COMMUNITY PROFILE**

IAAAP is located in Des Moines County in southeastern Iowa, west of Burlington. IAAAP's work force is dominated by residents of Middletown, Danville, New London, Mount Pleasant, West Burlington, Burlington, and Fort Madison. Some workers commute to IAAAP from Illinois and Missouri. Due to its continuity of operations and consistently large payroll, the site has developed support from many business and community leaders. Also, because it has been operational since World War II, numerous current and former workers residing in local communities have developed and maintained loyalty to and identification with the installation. Table 3-1 provides detailed demographic and economic data for the communities of Middletown, Burlington, West Burlington, Danville, New London, Mount Pleasant, and Fort Madison.

The greater Burlington area has a variety of businesses, including manufacturers of spark plugs, satellite dishes, and construction equipment; healthcare and social services; and food products. Since 2009, greater Burlington has received more than \$300 million in new economic development, which has contributed to the creation of more than 1,300 new jobs. Manufacturing is the area's largest business type, accounting for more than 20 percent of the area's work force. IAAAP is the greater Burlington area's second largest employer, with 800 employees (Greater Burlington Partnership 2016).

Regional agricultural crops include corn, soybeans, and pasture grasses. Beef and dairy cattle, hogs, and poultry are also raised on area farms.

Numerous newspapers serve Des Moines County, including dailies such as *The Des Moines Register* and *The Hawk Eye*, and weeklies such as *The Des Moines County News* and *The Mediapolis News*. Burlington radio stations include 1150 AM KCPS, 1490 AM KBUR, 89.9 FM KAYP, 93.5 FM KKMI, 103.1 FM KDMG, 105.5 KILJ, and 107.3 FM KGRS. Channel 26 KGCW, Channel 8 WQAD, Channel 6 KWQC, and Virtual Channel 18 KLJB serve the southeastern Iowa region. Regional television viewers have access to Mediacom Communications Company, which provides a large selection of channels including network stations in the Quad City area of Davenport and Bettendorf, Iowa; and Rock Island and Moline, Illinois. More detailed information about local news sources mentioned most frequently by participants during the community interviews is found in Section 3.6.

Medical facilities include the Great River Medical Center and Health Systems, Henry County Health Center, and Fort Madison Community Hospital.

Numerous public and private elementary schools exist throughout the county, including the kindergarten-through-12th-grade Danville Community School, along with six elementary, two middle, one junior high, and three high schools in the Burlington and West Burlington School Districts.

**Table 3-1. Demographic and Economic Profile**

Community	County	School District	Population		Median Age <sup>b</sup>	Median Household Income <sup>b</sup>	Median Home Value <sup>b</sup>	% Minority <sup>b</sup>	% Poverty <sup>b</sup>	% Speak a Language Other Than English <sup>b</sup>
			Census 2010 <sup>a</sup>	Estimate 2014 <sup>b</sup>						
Middletown	Des Moines	Danville and Burlington Community School Districts	318	302	40	\$52,917	\$102,500	9.3	9.6	2.2
Danville	Des Moines	Danville Community School District	934	989	38.9	\$50,781	\$111,900	4.3	5.8	3.4
Burlington	Des Moines	Burlington Community School District	25,663	25,559	39.9	\$37,223	\$83,300	14.7	19.2	2.9
West Burlington	Des Moines	West Burlington Independent School District	2,968	3,026	46.4	\$39,107	\$96,800	8.4	19.2	1.4
New London	Henry	New London Community School District	1,897	1,844	44.1	\$42,639	\$80,800	3.6	12.5	2.3
Mount Pleasant	Henry	Mount Pleasant Community School District	8,668	8,682	34.8	\$45,977	\$108,900	18.0	21.8	7.2
Fort Madison	Lee	Fort Madison Community School District	11,051	10,929	40.5	\$41,875	\$76,100	15.0	16.1	1.9
Des Moines County	N/A	N/A	40,325	40,055	41.7	\$42,146	\$144,800	11.2	15.5	4.3

<sup>a</sup> U.S. Census Bureau, "Census 2010 Demographic Profile" (USCB 2016a).<sup>b</sup> U.S. Census Bureau, "2010–2014 American Community Survey 5-Year Estimates" (USCB 2016b).

N/A = not applicable

Southeastern Community College, located in West Burlington, offers a comprehensive two-year program of studies including arts and sciences courses and vocational-technical training. Additional colleges and universities near Des Moines County include Iowa Wesleyan University, in Mount Pleasant, Iowa; Knox College, in Galesburg, Illinois; Western Illinois University, in Macomb, Illinois; and Monmouth College, in Monmouth, Illinois.

Quail, turkey, and deer hunting are popular regional activities. Local lakes and the Mississippi River offer fishing for catfish, crappie, and bass. The Des Moines County Conservation Board manages Starr's Cave Park and Preserve, a 200-acre area just outside of Burlington. Hiking, camping, fishing, and boating are all available at Geode State Park. The park, a 1,640-acre facility managed by the Iowa Department of Natural Resources, is located 15 miles west of Burlington.

Burlington is home to many parks and recreational facilities. Regional parks with picnic facilities include Crapo-Dankwardt Park, Perkins Park, Mosquito Park, Sunnyside Park, and Riverside Park. In addition, the county has two public golf courses, a miniature golf course, a roller skating rink, and several other recreational facilities. Community Field, which seats 3,500 people, is the home of the Burlington Bees, a Class A minor league professional baseball team.

### **3.2 HISTORY OF COMMUNITY CONCERNS**

This section provides a history of community concern about environmental contamination at IAAAP, specifically the FUSRAP areas, and summarizes documents that focused on community issues.

**1997.** The U.S. Army established a Restoration Advisory Board (RAB) to exchange input into ongoing environmental restoration projects, as well as to satisfy regulatory requirements. The RAB consists of representatives of the U.S. Army, the EPA, and the Iowa Department of Natural Resources, as well as community representatives from surrounding towns. It is co-chaired by a U.S. Army representative and a community member.

**2003.** The Agency for Toxic Substances and Disease Registry (ATSDR) conducted another health consultation based on the availability of additional radiological data. The report focused on potential releases to the environment because the ATSDR does not evaluate potential occupational exposures. As a result, the health consultation examined concerns expressed by family members of former employees and of some health professionals that employees may have been exposed to dust containing DU and that their family members could have been exposed to dust contaminated with beryllium that may have been carried home on workers' clothing. After analyzing the available data, the ATSDR concluded that no evidence indicated environmental releases of either beryllium or DU from activities conducted at IAAAP that would result in adverse human health effects to residents of the facility or those living outside the facility boundary, and that workers' street clothing worn home was not a potential source of beryllium exposure to family members (ATSDR 2003).

**2009.** To gather information for the IAAAP CIP Addendum, the U.S. Army issued postcards and hard copies of community surveys. On Dec. 20, 2009, USACE, St. Louis District, published a newspaper ad in Burlington's *The Hawk Eye* (circulation about 20,000) requesting input from the community for a baseline understanding of attitudes and perceptions of past AEC operations and how best to address public interests and concerns. The 14-question survey sent to 23,600 people in the area included mailing 3,000 postcards to private homes within a 25-mile radius of Middletown and distributing 400 paper copies of the survey in public places.

**2011.** USACE issued the IAAAP CIP Addendum (USACE 2011a) to the IAAAP CRP Update (IAAAP 2001) that focused on the FUSRAP areas. This IAAAP CIP Addendum did not replace the IAAAP CRP Update, but rather was dedicated to community concerns about the FUSRAP areas and was simply added to the existing document.

The results of the 2009 community survey were presented in the IAAAP CIP Addendum. A total of 22 responses were received. While a majority of the participants were vaguely familiar with the environmental impact of past AEC activities and of the investigations and remediation currently underway at IAAAP, approximately 30 percent of the individuals said that they did not know anything about the cleanup. Additionally, the majority of the respondents (approximately 70 percent) said they had never spoken to anyone at IAAAP or with USACE about concerns and had not participated in community involvement activities for IAAAP. Interest in future community outreach activities was split among the responses; however, approximately 73 percent responded maybe (46 percent) or yes (27 percent). A greater percentage of respondents, 82 percent (50 percent maybe and 32 percent yes), indicated an interest in attending a public meeting about environmental cleanup at IAAAP (USACE 2011a). Newspaper communication appeared as the most successful communication tool; however, respondents also learned about the cleanup through friends or neighbors. Internet updates, mailings to the home, and newspaper coverage emerged as the preferred techniques for receiving future information. A majority of those surveyed preferred quarterly, rather than more frequent, information. A great majority of participants indicated an interest in reviewing the administrative record of past AEC activities and current cleanup. Preferences for reading the administrative record were evenly split between library hard copy and electronic copy (via Internet) (USACE 2011a).

The PP for FUSRAP areas of IAAAP was completed in 2011. USACE, St. Louis District, provided the public an opportunity to comment on the PP during a 30-day comment period. USACE, St. Louis District, published a notice of availability in a major local newspaper to announce the public comment period. USACE, St. Louis District, also hosted a public meeting and poster session in Burlington, Iowa, to present the preferred remedial alternative described in the PP. Public comments on the PP were accepted at the public meeting, as were written comments after the public meeting.

**2019.** USACE, St. Louis District, will publish the IAAAP FUSRAP CIP in 2019 as an update to the IAAAP CIP Addendum (USACE 2011a). This document will be available for public review in the IAAAP FUSRAP Administrative Record at the Burlington Public Library and online at <http://www.mvs.usace.army.mil/Missions/Centers-of-Expertise/Formerly-Utilized-Sites-Remedial-Action-Program/Iowa-FUSRAP-Administrative-Record/> (USACE 2018).

### **3.3 USACE COMMUNITY INVOLVEMENT APPROACH**

Effective communication between the USACE and the public (i.e., government officials, interest groups, area residents) encourages understanding and knowledge of FUSRAP activities, minimizing or avoiding rumors and misinformation.

The USACE has developed a community involvement program designed to involve the public in activities and decisions related to the cleanup of the IAAAP FUSRAP areas. This community involvement program attempts to include residents living near these sites in the decision-making process by taking the following actions:

- Providing opportunities for citizens to express comments and concerns and to provide input into technical decisions;



- Informing the public of planned or ongoing actions;
- Identifying and resolving conflicts; and
- Facilitating community involvement planning.

To accomplish these objectives, the USACE will develop activities to encourage community involvement. The USACE will also continue to participate, as appropriate, in site-wide IAAAP community activities described in the IAAAP FUSRAP CIP as updated.

### **3.4 SURVEY METHODOLOGY AND ONGOING SCOPE**

The 2018 IAAAP FUSRAP Survey reached out to key stakeholders including the U.S. Army, the EPA Region 7, U.S. Fish and Wildlife Service, Iowa Department of Natural Resources, and the local community. The local community includes residents, the IAAAP RAB, business owners, elected officials, interest groups, and members of the media who express an interest in environmental issues at IAAAP. These stakeholders include individuals from Middletown, Iowa; the surrounding area; and the nearby towns of Fort Madison, Burlington, West Burlington, and Danville. Appendix A contains a list of these contacts.

The survey was conducted within a short time frame. Therefore, a statistical approach to the survey design and analysis was not implemented. The purpose of this survey was to provide qualitative, rather than quantitative, data. This testing was intended only to identify issues that are important to this audience and provide a broader baseline understanding of attitudes and perceptions of past AEC operations and how best to address public interests and concerns.

USACE surveyed the community about their appraisal of activities at IAAAP from Sept. 26, 2018, to Oct. 24, 2018. The survey was composed of four open-ended questions, identified in Appendix B. In response to community input from the survey, the USACE will continue to support the U.S. Army's IAAAP community involvement program. The input indicates that the existing public meetings, communications with the local and regional media, and opportunities for the public to obtain information regarding environmental activities via the U.S. Army's inclusion of FUSRAP information in its outreach is satisfactory to respondents. Elements of the community involvement program were deemed dynamic, and they will be updated, as necessary, to ensure the continued effectiveness of the program. When necessary, because of timing or relevancy of FUSRAP milestones, USACE, St. Louis District, will provide separate community involvement outreach in parallel to that of the U.S. Army. Examples of outreach are contained in Appendix C.

### **3.5 SURVEY DISTRIBUTION VENUES AND COLLECTION TECHNIQUES**

The 2018 survey that precipitated this IAAAP FUSRAP CIP sought participation by sending out email survey requests on Sept. 26, 2018, for participation from 95 people from the Middletown, Fort Madison, Burlington, West Burlington, and Danville, Iowa, area. The 2018 survey was intended to re-establish what the community knows and is concerned or interested in learning about FUSRAP activities at the IAAAP. This survey was conducted from Sept. 26, 2018, to Oct. 24, 2018.

The mailing list for this survey included people who indicated an interest in the IAAAP previously. Their names and contact information were gathered during USACE, St. Louis District's five-year review report outreach, by the USACE, Louisville District, Public Affairs office in their work in community involvement, including public meetings, and with citizens surveyed in the IAAAP CIP (CH2M HILL 2017), and by USACE, St. Louis District, in the

IAAAP CIP Addendum (USACE 2011a) survey work. The survey mailing list includes some of the contacts from the contact list contained in Appendix A, including the following:

- IAAAP Commanding Officer;
- IAAAP RAB members identified by the RAB on July 19, 2018;
- EPA Region 7 Representative;
- Iowa Department of Natural Resources Representative; and
- Local officials representing Middletown, Fort Madison, Burlington, West Burlington, and Danville, Iowa.

Surveys were emailed directly to individual people from a direct point of contact, available via email, street address, and phone response. This technique was used to encourage trust and honest feedback. This approach also tends to make the request more personal and helps draw out more responses. The 2018 survey form and results are contained in Appendix B.

### **3.6 SURVEY RESPONSES AND ANALYSIS**

In general, those interviewed expressed interest in being kept informed about environmental restoration at IAAAP. The survey results were evenly split between those who indicated they knew something about the site and those who indicated they knew nothing; half of the respondents felt they knew a considerable amount because of their involvement with the RAB. One comment indicated an ongoing interest and insight into other people's responses, "I probably know more than many, but I am not an expert. I learn something new at every RAB meeting. There has been a decade's long effort in successfully cleaning contaminated sites. The money spent is enormous. The general public knows little of the ongoing effort. Let's face it, the subject can be rather dry. The public does respond to open houses and tours of the IAAAP. Perhaps efforts towards engaging the public along those lines and educating them along the way might be fruitful."

One respondent within the RAB community made a helpful observation and recommendation when she wrote, "Often, the acronyms overwhelm the uninitiated. A handy glossary should be provided with materials. Actually, recent printed materials have shown an improvement in this regard. Printed area maps and a plant map need to be put into a readable size. They simply cannot be read on a projected screen nor on a printed copy of a PowerPoint."

One health and safety concern was directly identified. That respondent was not aware of IAAAP's website (Appendix C), newsletter (Appendix D), or the RAB. He said, "I guess the only real question I would be interested in is an answer to is the chance of airborne contaminants as a result of the reclamation efforts. More of a concern than a curiosity."

Other respondents knew little or nothing about the environmental cleanup at the site, but nearly all indicated interest for receiving outreach materials. A preferred means of outreach material distribution was not agreed upon among respondents. The three top choices were public or RAB meetings, email (with three people requesting newsletters sent via email), and Facebook. Other responses evenly split preferences among newspaper, radio, and TV outreach. One respondent specifically requested online newspaper coverage, saying, "Our local newspaper is much diminished from just a few years ago. I am not even sure if a reporter is sent to RAB meetings anymore. One used to read about the RAB and meetings in our paper. The local radio station has increased their local news coverage, but I don't ever recall seeing a reporter from the local news station at a meeting. Both print and radio have increased an online presence. That is where the

future lies, it seems.” One respondent from Middletown said that the little he or she knew about IAAAP came from “what I’ve read in *The Hawk Eye* [Burlington’s newspaper] in the past.” That person requested an emailed newsletter and public meeting update.

A summary of 17 survey results received for each collection technique is presented in Table 3-2. A collection of survey results and all survey comments are included in Appendix B. The response rate of this survey (18 percent) is well within industry standards of 5 to 25 percent as defined by the National Research Council. This response rate is particularly remarkable given the timing of the survey during a national mid-term election when surveys are commonplace and known to produce “survey fatigue” among the general population.

**Table 3-2. Survey Participation Results**

<b>Participant Options</b>	<b>Survey Issuances</b>	<b>Reminders Sent</b>	<b>Survey Responses Received</b>
Survey: email-based	95	86	16
Paper surveys: received via email offer	95	0	1
Phone surveys: received via email offer	95	86	0
<b>TOTAL</b>	<b>95</b>	<b>172</b>	<b>17</b>

Keeping a pulse on community concerns is important to the ongoing success of the community involvement program. Given that this survey was distributed to a similar mailing list surveyed one year earlier for the IAAAP CIP (CH2M HILL 2017), many recipients may have mistaken this survey for the DERP survey. Some recipients may have felt they had their community involvement needs met and did not take the time to reply.

It should also be noted that the U.S. Army has had a successful outreach and community involvement program at IAAAP since 1997. Community outreach is in place and is likely to be easily found by interested parties. IAAAP has an active RAB, which USACE, St. Louis District, participates in, that meets quarterly and communicates via a website. This group was directly invited to participate in the survey because their knowledge and interests in IAAAP exceed the standard demographic of the community. However, they may have survey fatigue as well and did not see the need for additional feedback. This possible reaction speaks only to the adequacy of the existing outreach efforts by the U.S. Army and USACE, St. Louis District.

### **3.6.1 Community Interviews from the IAAAP Community Involvement Plan**

Results of the interviews from the IAAAP CIP (CH2M HILL 2017) are relevant to this analysis.

### **3.6.2 Key Community Concerns from the IAAAP Community Involvement Plan**

The survey results indicated community knowledge of and interest in information regarding the environmental contamination at the IAAAP. Overall, community interviewees (with the exception of RAB members) were generally aware of environmental contamination at IAAAP. They felt that community members are aware of environmental contamination at IAAAP, but they stated that employees or individuals with family members who were employees tended to have a greater interest. However, in spite of being aware of contamination at IAAAP, half of those interviewed were not aware that environmental investigation and remediation is occurring. Of the half who were more aware of environmental work at IAAAP, most were only vaguely aware that “something is going on.”

Survey responses indicated awareness of and interest in community involvement and outreach efforts. Most interviewees were not aware of the RAB and stated that meetings are not well publicized and are not held at times convenient for most working people in the community. Most respondents expressed interest in the U.S. Army increasing public awareness of the environmental investigation and restoration at IAAAP. Most participants were not aware an administrative record file is available, and only those who were involved with the RAB knew to contact the environmental restoration program office to request more about the IAAAP IRP.

### **3.6.3 Communication Needs Identified from the IAAAP Community Involvement Plan**

Those respondents indicated they would like to receive information in the following ways:

- **Community Meetings.** Interviewees suggested that more general updates provided with greater frequency would be better for the public, rather than expecting community members to attend RAB meetings.
- **Project Updates.** Most respondents indicated they would like to receive updates directly.
- **Newspapers.** Most respondents recommended the U.S. Army issue project updates periodically in the newspaper (primarily in *The Hawk Eye* and *Des Moines County News*). They also recommended local radio station KBUR and, to a lesser extent, network news stations based in Davenport and Moline. Several respondents also recommended that the U.S. Army try to get *The Hawk Eye* to send reporters to RAB meetings and publish articles on the status of site investigation and remediation.
- **Website.** Interviewees were unaware of the project website, which has recently been updated. They said the website address (<http://www.iaaaprestoration.com/>) should be better announced, possibly by mailing out a postcard or placing a large announcement in the paper to invite community members to the website address.

## **4.0 ONGOING COMMUNITY INVOLVEMENT PROGRAM**

In alliance with the U.S. Army and its community involvement program, USACE initiated a community outreach and education campaign in 2006 for the community surrounding IAAAP. Outreach and interaction with the community has been ongoing since that time. The initial community involvement efforts by USACE in outreach to the IAAAP public included a 2009 community survey conducted while preparing the first community involvement plan (CIP) for FUSRAP, which was published as the IAAAP CIP Addendum (USACE 2011a). In 2018, survey efforts were updated to create this stand-alone IAAAP FUSRAP CIP, guided by the input from the new community survey. The 2018 survey was intended to re-establish what the community knows and is concerned or interested in learning about FUSRAP activities at IAAAP. The 2018 IAAAP FUSRAP Survey was conducted from Sept. 26, 2018, to Oct. 24, 2018.

A CIP is the framework for ongoing communications between the public and the USACE personnel behind IAAAP FUSRAP work. Based on the information gathered in the 2018 IAAAP FUSRAP Survey, in addition to concerns identified in the IAAAP CIP (CH2M HILL 2017), the following activities and techniques will be used for enhancing communications with the communities around IAAAP.

### **4.1 COMMUNITY INVOLVEMENT DURING THE REMEDIAL PROCESS**

CERCLA guidance requires that community involvement activities be conducted throughout the steps of remedial process for each site. USACE, St. Louis District, FUSRAP leaders advocated early and meaningful community participation during the cleanup process. Working with the U.S. Army, the USACE, St. Louis District, FUSRAP continues to engage in the following activities to strengthen communications with interested stakeholders, members of the public, and other parties to provide the community with opportunities to be involved with the decision process at the IAAAP FUSRAP areas. RA sites have distinct phases, each with its own set of community involvement issues and activities. These phases were identified in Section 1.4 of this IAAAP FUSRAP CIP.

Community involvement outreach stems from the structures described in the following sections.

### **4.2 ADMINISTRATIVE RECORDS AND INFORMATION REPOSITORY FILE**

The IAAAP FUSRAP Administrative Record is a legal file containing any documents related to the IAAAP FUSRAP work or related site information, including documentation used to select the response action. Its purpose is to provide the public with access to site information, so they can be informed on the program.

The IAAAP FUSRAP Administrative Record for OU-8 is available in hard copy at the reference desk at the Burlington Public Library at 210 Court Street, Burlington, IA 52601, and online at <http://www.mvs.usace.army.mil/Missions/Centers-of-Expertise/Formerly-Utilized-Sites-Remedial-Action-Program/Iowa-FUSRAP-Administrative-Record/> (USACE 2018).

The IAAAP DERP Administrative Record contains many of the decision documents related to the FUSRAP OU-1 areas, Line 1 and WBPS. The IAAAP DERP Administrative Record is available online at the IAAAP website offered by the U.S. Army: <http://www.iaaaprestoration.com/>. This website provides information about the environmental restoration activities at the IAAAP, including RAB information, informational materials, fact sheets, and public notices. Also included are some of the FUSRAP documents and information materials specific to the FUSRAP areas in OU-1.

The U.S. Army updates the website quarterly with project status information, RAB meeting information, and links to new documents in the IAAAP DERP Administrative Record file as new information is available.

Additionally, the U.S. Army has established a public information repository at IAAAP, where environmental documents will be made available to the community before public meetings and public comment periods. The address of the information repository follows:

Iowa Army Ammunition Plant  
17571 DMC Highway 79  
Middletown, IA 52638-5000  
Phone: 319-753-7616

#### **4.3 PUBLISHED NOTICES**

Published notices in *The Hawk Eye* provide the public with information about FUSRAP milestones, events, and opportunities for participation. In addition, these public notices will be placed in *The Hawk Eye* before public meetings so that date, time, and location information may be publicized. Every effort will be made to encourage coverage by local media through emailed notifications of the event, as well as faxes and telephone calls to media offices. Media contacts are available in Appendix E.

#### **4.4 PUBLIC COMMENT PERIODS**

Public comment periods are formal opportunities for community members to provide input on restoration program documents and proposed decisions. They will be conducted in accordance with CERCLA provisions. Comment periods are typically 30 days, but may be extended up to 60 days in response to a timely request by one or more affected parties. USACE will consider public comments before making decisions regarding potential proposed RAs. A responsiveness summary will document the USACE's responses to public comments and will be made available to the public. USACE will provide appropriate news releases about FUSRAP to the local newspaper, television, and radio media.

#### **4.5 PUBLIC MEETINGS**

Public meetings provide an opportunity for information exchange among USACE, St. Louis District, personnel; other agencies; the media; and the public. Stakeholders have an opportunity to directly express concerns, ask questions, or provide comments. The opportunity for a public meeting is required during formal public comment periods. The USACE, St. Louis District, may conduct additional public meetings to update the community on the progress of the environmental restoration program and to solicit community input when significant milestones are reached. Appendix F identifies potential public meeting locations.

The format for the meeting may include an informal poster session at the beginning followed by a formal presentation, and then the floor may be open for a question/answer/comment period. USACE, St. Louis District, officials and technical representatives will receive comments made by the public at this meeting. Additional public meetings may be held as community needs and events dictate. Locations of public meetings will be announced in published public meeting notices.

## **4.6 PUBLIC MEETING TRANSCRIPTS**

Public comments will be used in the decision-making process, and questions and concerns will be addressed by USACE, St. Louis District. USACE, St. Louis District, will record minutes at public meetings when oral public comments are requested within a meeting format. A copy of public meeting minutes will be added to the FUSRAP Administrative Record. Public meeting minutes will be available for the public, and copies can be obtained upon request.

## **4.7 WEBPAGE EXPANSION**

Information about FUSRAP work will be added to the existing public access website for USACE (<https://www.mvs.usace.army.mil/Missions/Centers-of-Expertise/Formerly-Utilized-Sites-Remedial-Action-Program/>). FUSRAP-specific documents, news media releases, and other similar publications will be posted to that site as well.

## **4.8 NEWS MEDIA RELEASES**

Press releases for news media explain the status of the FUSRAP work and, as changes occur, the revised plans. Prepared statements will be released to local newspapers, radio, and television stations to announce publication of significant FUSRAP documents and to announce upcoming public meetings. Press releases will be placed in the IAAAP FUSRAP Administrative Record file at IAAAP at the Burlington Public Library and included on the USACE website at <http://www.mvs.usace.army.mil/Missions/Centers-of-Expertise/Formerly-Utilized-Sites-Remedial-Action-Program/Iowa-FUSRAP-Administrative-Record/> (USACE 2018). A list of media contacts is available in Appendix E. An example of a community involvement media notice is included in Appendix G.

## **4.9 RESTORATION ADVISORY BOARD**

IAAAP has established a RAB to keep the public informed and involved in its environmental restoration activities, as well as to provide opportunities for public involvement. The RAB enables the local community and representatives of government agencies to meet and exchange information about the IAAAP environmental restoration program. It also provides an opportunity to review progress and participate in dialogue with the decision makers. RAB members are provided a wide range of technical data regarding remediation actions, as well as independent technical assistance in interpreting the data, if necessary. RAB members are encouraged to provide input when choosing between different remediation technologies, and they also make recommendations regarding annual project and funding priorities.

The RAB enables the local community and representatives of government agencies to meet and exchange information about the IAAAP environmental restoration programs. These participants then have an opportunity to review progress, participate in dialogue, address concerns, and provide recommendations to the IAAAP commander. The RAB consists of 13 members who represent IAAAP, federal and state agencies, and the local communities. Appendix A contains a list of current RAB members. The RAB meets quarterly, and RAB meetings are open to the public. USACE, St. Louis District, regularly presents project statuses at the RAB meetings. RAB meeting agendas and *Restoration News*, the RAB's newsletter, can be found online at <http://www.iaaaprestoration.com/rab/>. RAB meeting minutes can be found in the IAAAP DERP Administrative Record file, online at <http://www.iaaaprestoration.com/adminrecord/>.

#### **4.10 MAILING LIST**

A mailing list of contacts and interested parties was initially created in support of the 2009 IAAAP FUSRAP Survey. It started in 2009 with 15 names gathered from survey communication. With the support of the U.S. Army, this mailing list, maintained and updated with new contact information gathered at public and RAB meetings, has grown. The USACE mailing list now includes nearly 100 names from the communities of Middletown, Burlington, West Burlington, Danville, New London, Mount Pleasant, and Fort Madison, Iowa. The U.S. Army also develops and maintains a mailing list of people interested in receiving updates and issues periodic fact sheets/newsletters providing an overview and status update on restoration activities at IAAAP. The two mailing lists will be shared as they are independently updated by USACE, St. Louis District, and the U.S. Army.

#### **4.11 COMMUNICATION TECHNIQUES AND ACTIONS**

Based on the results of community interviews and, as appropriate, on any future changes in community interest, additional communication techniques and actions may be implemented.

##### **4.11.1 Direct Contact with Stakeholders**

USACE, St. Louis District; the U.S. Army; the EPA; and the Iowa Department of Natural Resources points of contact are available to provide public information and address questions. Contact information for federal, state, and local officials can be found in Appendix A.

##### **4.11.2 Mailings**

USACE, St. Louis District, may issue informational materials, such as public notices, fact sheets, and news releases, as appropriate. USACE, St. Louis District, may develop and maintain a mailing list of people interested in receiving updates and may issue periodic fact sheets/newsletters providing an overview and status update on FUSRAP restoration activities at IAAAP.

##### **4.11.3 Project Website**

USACE, St. Louis District, established a website for IAAAP (<https://www.mvs.usace.army.mil/Missions/Centers-of-Expertise/Formerly-Utilized-Sites-Remedial-Action-Program/>) that provides information about the FUSRAP environmental restoration activities at IAAAP. Additionally, the U.S. Army established a website for the IAAAP ([www.iaaaprestoration.com](http://www.iaaaprestoration.com)) that provides information about the environmental restoration activities at IAAAP. The U.S. Army website includes involvement opportunity materials, fact sheets, and public notices. The U.S. Army updates the website quarterly with project status information, RAB meeting information, and links to documents in the IAAAP DERP Administrative Record file as new information is available and also provides a link to the USACE FUSRAP website.

##### **4.11.4 IAAAP Facebook**

In response to the 2017 community survey request, the U.S. Army established a Facebook presence for IAAAP at [www.facebook.com/IowaArmyAmmunitionPlant](https://www.facebook.com/IowaArmyAmmunitionPlant). The website is open to transmitting outward information about events at IAAAP and carefully controls what can be posted on the website, per the DOD Social Media User Agreement. The Facebook page includes a video of a RAB meeting that features an April 6, 2018, FUSRAP OU-8 Activities information session, RAB contact information, and notices of upcoming community involvement events, including RAB meetings.



#### **4.11.5 Restoration Advisory Board Newsletter**

The first edition of the RAB newsletter, *Restoration News*, which replaced *Restoration Pillar*, was published in Oct. 2016. An example of *Restoration News* is available in Appendix D. *Restoration News* may be produced quarterly before each RAB meeting in Jan., April, July, and Oct. The newsletter aims to keep the RAB and the public better informed, and improve communication between the IAAAP and the community. *Restoration News* is available online at <http://www.iaaprestoration.com/rab/>.

#### **4.11.6 Outreach to Local Officials**

USACE, St. Louis District, may provide briefings once or twice per year to town and/or county officials at regularly scheduled meetings.

#### **4.11.7 Expanded News Media Coverage**

The local newspaper is the primary way people receive information in the local communities. USACE, St. Louis District, may increase efforts to engage the local media at *The Hawk Eye* and generate interest in RAB meetings and other news stories about FUSRAP environmental restoration efforts at IAAAP.

#### **4.11.8 Earth Day Site Tours**

Public tours of the installation have been popularly received since the early 1990s. These specific activities create an excellent opportunity for the team to describe the site, the nature and extent of contamination, and the significant changes taking place. In addition, community events like the April 2018 site tour allowed more than 40 members of the public to see, according to the newsletter, “work being done under the Formerly Utilized Sites Remedial Action Program (FUSRAP).” Organizers reported receiving positive reviews in exit surveys with words of thanks for current information about the site’s cleanup efforts.

### **4.12 INFORMATION CONTACT**

For citizens who have concerns, questions, comments, or requests for information about IAAAP FUSRAP, the public may contact USACE as follows:

U.S. Army Corps of Engineers  
St. Louis District  
FUSRAP Project Office  
8945 Latty Ave.  
Berkeley, MO 63134-1024  
314-260-3905  
STLFUSRAP@usace.army.mil

### **4.13 REVISIONS OR FUTURE UPDATES TO THIS COMMUNITY INVOLVEMENT PLAN**

USACE created this IAAAP FUSRAP CIP as a “living” document that will be most effective if it is updated to account for the expansion of cleanup work at IAAAP and revised as site or community conditions change. USACE will continue to revise and update this IAAAP FUSRAP CIP as needed. Revisions to the plan will include an assessment of community involvement activities that may be appropriate for FUSRAP as it progresses and as the concerns of the

community change. A copy of any revised plans will be placed in the IAAAP FUSRAP Administrative Record File at the Burlington Public Library. The public may also read updates at <http://www.mvs.usace.army.mil/Missions/Centers-of-Expertise/Formerly-Utilized-SitesRemedial-Action-Program/Iowa-FUSRAP-Administrative-Record/> (USACE 2018).

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## **FIGURES**

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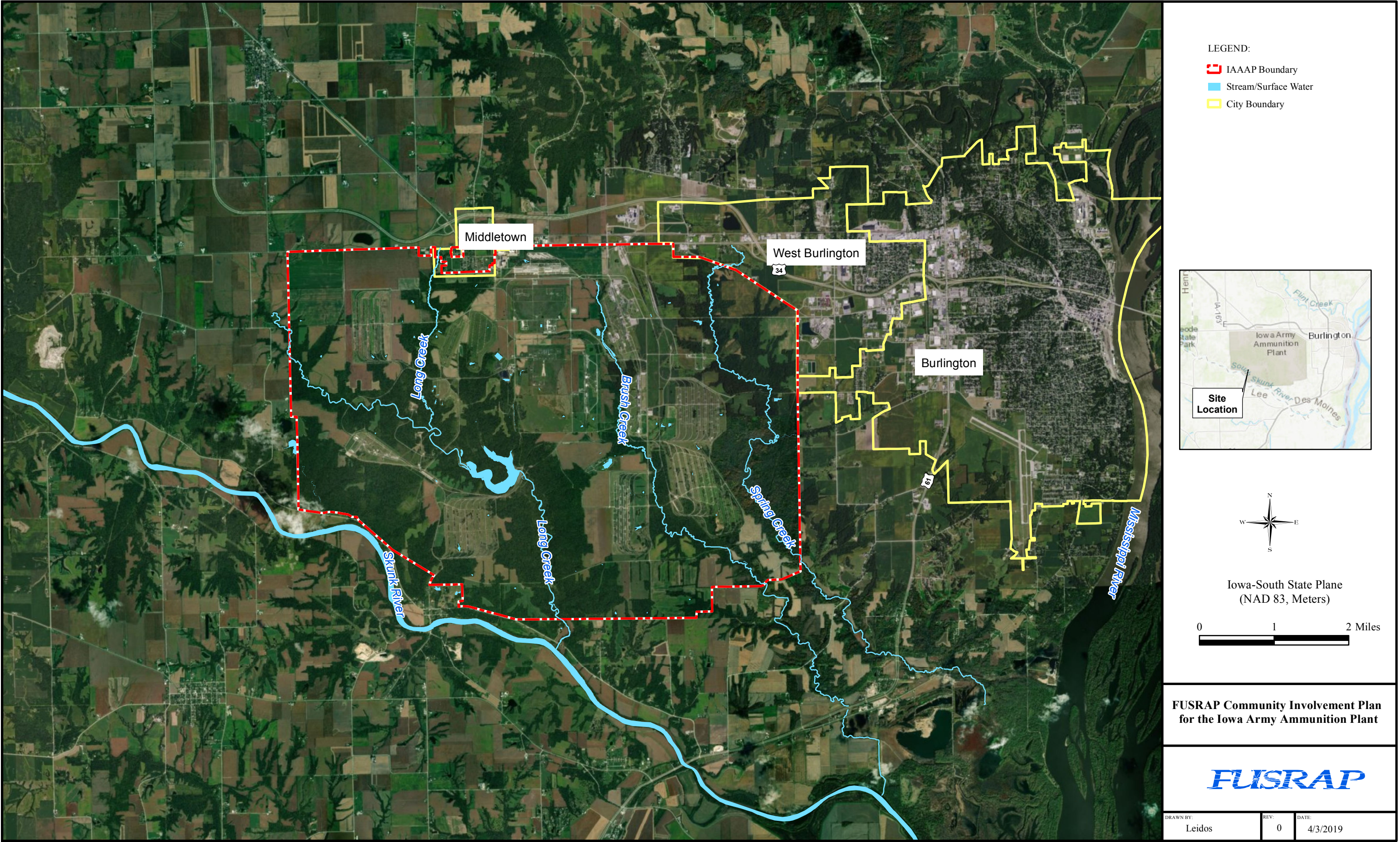


Figure 1-1. IAAAP Location Map



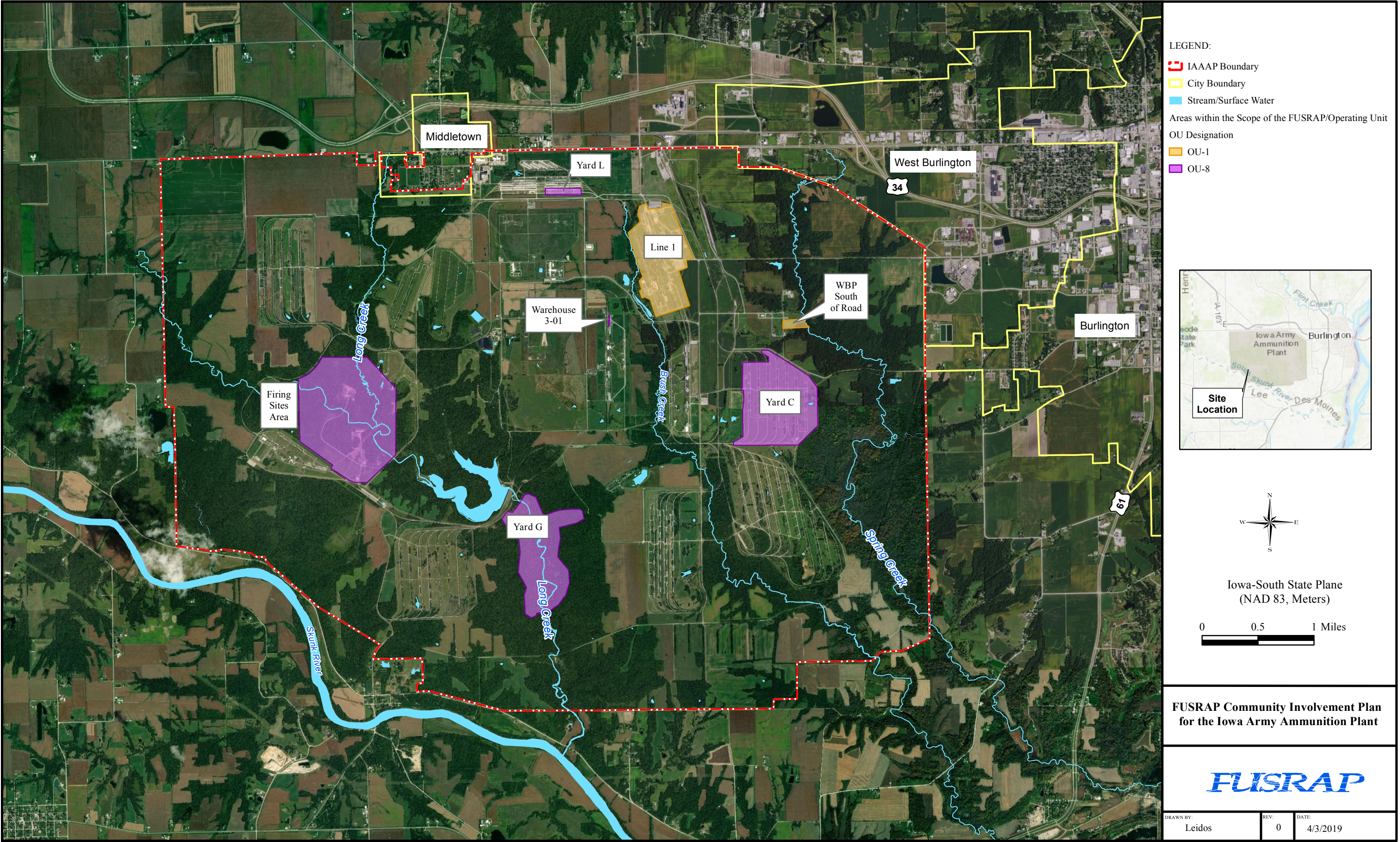
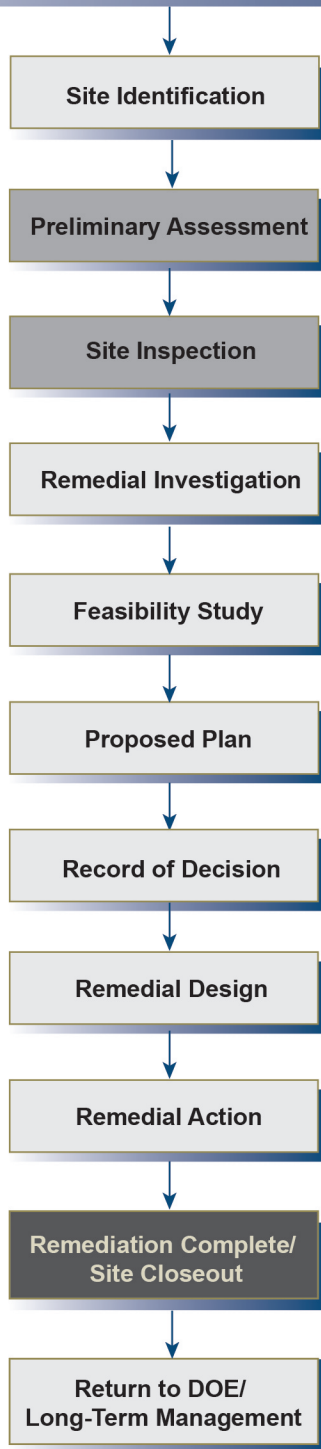


Figure 1-2. IAAAP FUSRAP Areas



# CERCLA Remediation Process



## LEGEND:

- May be conducted if site was contaminated by Manhattan Engineer District/Atomic Energy Commission operations
- Five-year review/long-term monitoring, operations, and maintenance

**FUSRAP Community Involvement Plan  
for the Iowa Army Ammunition Plant**

***FUSRAP***

DRAWN BY

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04/03/2019

**Figure 1-3. CERCLA Remediation Process**