



# Proposed Plan Fact Sheet Former Guterl Specialty Steel Site Lockport, New York

**U.S. ARMY CORPS OF ENGINEERS  
Buffalo District  
July 2021**

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## **Formerly Utilized Sites Remedial Action Program**

The Formerly Utilized Sites Remedial Action Program (FUSRAP) was initiated in 1974 to identify, investigate, and if necessary, clean up or control sites throughout the United States contaminated as a result of Manhattan Engineer District or early Atomic Energy Commission (AEC) activities. When implementing FUSRAP, the U.S. Army Corps of Engineers follows the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).



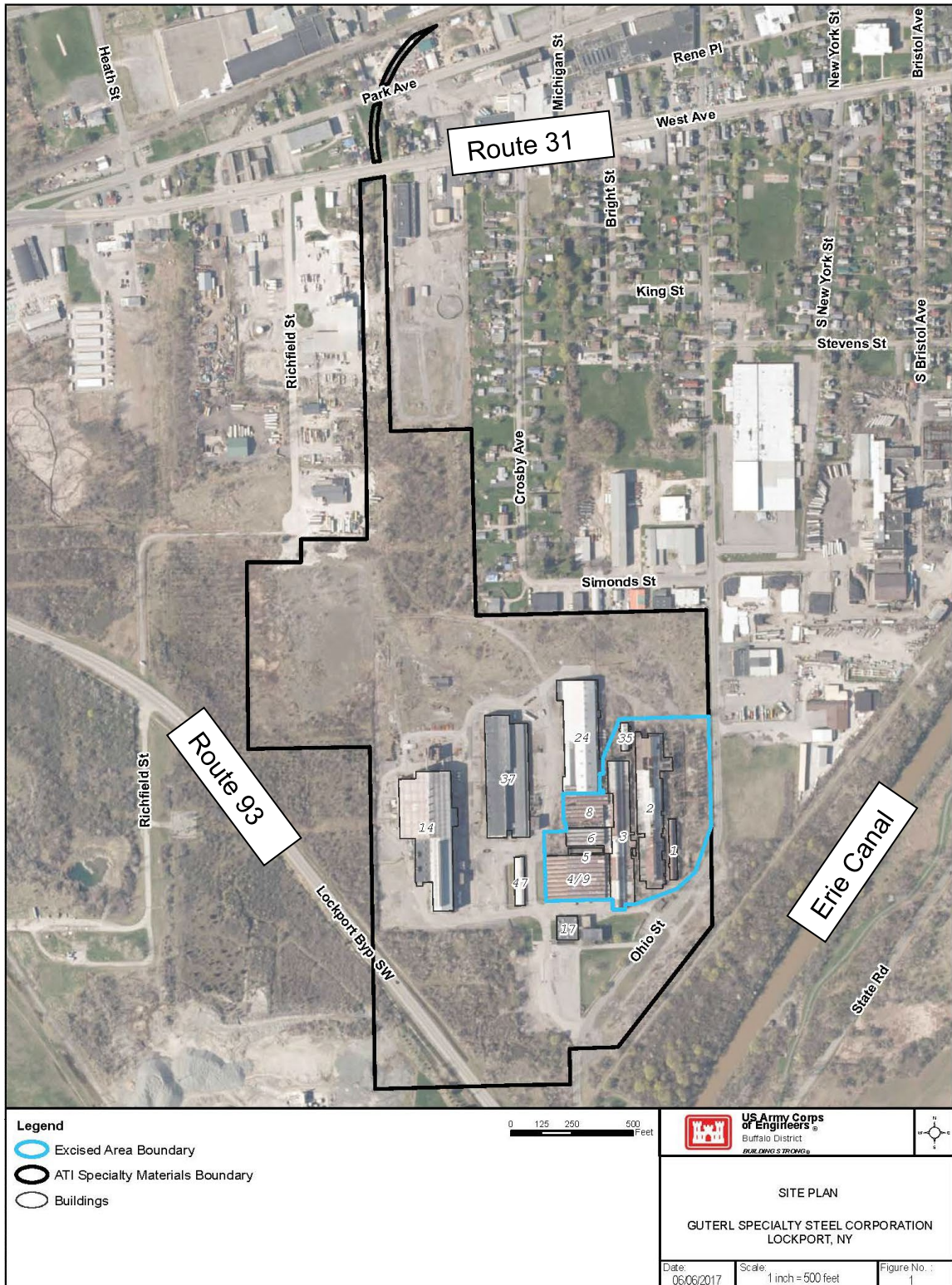
*Aerial view of the Guterl Site (looking southwest)*

## **Site Description**

The Former Guterl Specialty Steel Corporation Site is located 20 miles northeast of Buffalo, New York, in Lockport, Niagara County, New York.

The approximately 70-acre site is bordered by New York State Route 31 and residential and commercial properties to the north, Ohio Street and the Erie Canal to the east and south, and New York State Route 93 to the west (Figure 1 next page). The Guterl Site is comprised of two areas:

- The 60.6-acre Allegheny Technologies Incorporated (ATI) Specialty Materials (formerly Allegheny Ludlum Corporation) property includes four buildings that were constructed after the termination of AEC activities. ATI Specialty Materials currently operates an active specialty steel manufacturing facility in the southwest portion of this property. An 8.6-acre inactive hazardous waste disposal site, owned by ATI Specialty Materials, is located in the northwest corner of the site. The disposal site ceased operations as a waste disposal area in 1981. This area is listed as a New York State Department of Environmental Conservation (NYSDEC) inactive hazardous waste site.
- The 9-acre Excised Area, owned by Guterl Specialty Steel, includes nine buildings located in the southeast corner of the site that were used by the AEC to roll uranium metal. These buildings are currently abandoned and a chain link security fence surrounds the dormant buildings.



## **Site History**

Between 1948 and 1956, the New York Operations Office of the AEC managed contracts with Simonds Saw and Steel, a previous owner of the property, to roll uranium steel billets into rods. The uranium metal billets were received from off-site sources via rail car and were shipped back off-site via rail car after rolling to contract specifications. Records indicate that Simonds Saw and Steel processed between 25 million and 35 million pounds of natural uranium metal and approximately 30,000 to 40,000 pounds of thorium metal between 1948 and 1956.

The U.S. Department of Energy declared the Guterl Site eligible for FUSRAP in 2000.

## **Corps of Engineers Investigations and Reports**

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

The Corps of Engineers released a preliminary assessment/site inspection (PA/SI) for the Guterl Site in 2001. The purpose of the assessment was to review information to determine if the site posed a potential threat to human health or the environment, or if there was a need for further action by the Corps of Engineers under FUSRAP. The PA/SI concluded that there was no immediate threat to human health or the environment at the Guterl Site; however, because of the potential for the FUSRAP-related contaminants to pose a threat to human health and the environment in the future, it was recommended that the Guterl Site proceed to the remedial investigation (RI) phase to further characterize radioactive residuals associated with past activities.

### ***Remedial Investigation***

The RI for the site was completed in August 2010. Activities performed during the RI field data collection consisted of sampling and analysis of soil, sediment, surface water, groundwater, and building materials. Sampled media were analyzed for FUSRAP-eligible radionuclides (uranium, radium, and thorium). The RI concluded that:

- There are currently no imminent threats to human health or the environment due to FUSRAP-related materials on the Guterl Site.
- The RI confirmed the presence of, and added new information about, the nature and extent of thorium and uranium contamination at the Guterl Site.
- Soil and groundwater contamination were documented above RI screening levels within the Guterl Site boundary. (Screening levels are established by the U.S. Nuclear Regulatory Commission or U.S. Environmental Protection Agency [USEPA] to assist in defining the nature and extent of contamination.)
- Some degree of FUSRAP-related material was detected above background in the Excised Area including all the buildings, the soil, and the utility surface water/sediments. The most heavily contaminated buildings in the Excised Area are Buildings 6 and 8, primary buildings used for receiving, heating, rolling, packaging, and shipping uranium metal.
- Shallow bedrock groundwater on the Guterl Site is impacted by FUSRAP-related materials.
- Surface water and sediment samples collected from the Erie Canal did not indicate FUSRAP-related impacts.
- Based on the results of a human health risk assessment and screening level ecological risk assessment conducted as part of the RI, action is necessary to protect public health from unacceptable risks posed by FUSRAP-related constituents in site soils and groundwater.

### ***Environmental Monitoring***

Since 2012, the Corps of Engineers has conducted routine monitoring of the following environmental media to monitor conditions at the Guterl Site and to support the development of potential groundwater remedial alternatives in the FS.

- Groundwater underlying the Guterl Site
- Groundwater seeps into the Erie Canal
- Surface waters of the Erie Canal

Uranium concentrations in the shallow bedrock groundwater underlying the Guterl Site continue to exceed the allowable drinking water level set by the USEPA (i.e., maximum contaminant level or MCL). However, since groundwater underlying the site is not a current source of potable water, there is no current risk to human health.

Groundwater seeps reaching the walls of the Erie Canal have shown uranium levels slightly exceeding the MCL. These seeps are inaccessible and the uranium is significantly diluted when mixed with canal water. Uranium concentrations in surface water in the Erie Canal are indistinguishable from uranium concentrations measured upstream of the site.

### ***Feasibility Study***

The FS presents the identification, development, and detailed analysis of remedial alternatives to address FUSRAP-related constituents of concern (thorium-232 and uranium in soil and buildings, and uranium in groundwater) on the Guterl Site. Applicable or relevant and appropriate requirements (ARARs), remedial action objectives (RAOs), and preliminary remediation goals were established before the alternatives were developed and are outlined below and on the next page.

#### Applicable or relevant and appropriate requirements

The district identified the following federal regulations as ARARs for the Guterl Site”

- Title 10 Code of the Federal Regulations (CFR) Part 20, Subpart E: Section 20.1402: *Radiological Criteria for Unrestricted Use*
- Title 40 CFR 141, Subpart G: Section 141.66: *Maximum Contaminant Levels (MCLs) for Radionuclides*

#### Remedial Action Objectives

The RAOs in the feasibility study address soil, building materials and contents, and groundwater. They provide for long-term protection of human health and the environment and are based on the media of concern, contaminants of concern, exposure routes, and receptors identified for the site. They define an acceptable contaminant concentration for the long-term protection of receptors. The RAOs for the Guterl Site developed in the feasibility are:

- Prevent exposure to uranium and thorium-232 in soil and buildings; and uranium in groundwater; such that a construction worker does not receive a total effective dose exceeding 25 millirem/year above background from all pathways.
- Prevent human ingestion of groundwater that exceeds the uranium maximum contaminant level of 30 micrograms/liter.

#### Preliminary Remediation Goals

Preliminary remediation goals are contaminant concentration goals for various media (e.g., soil, groundwater) that are considered protective of human health and the environment, based on the anticipated future land use of the site which has been determined to be industrial use. The

preliminary remediation goals comply with all ARARs and serve as a target during the initial development, analysis, and selection of cleanup alternatives. Preliminary remediation goals for soil were developed based on the two endpoints below and are outlined in full in the proposed plan.

- Protection of direct soil exposures to the critical group (a construction worker) for the reasonable future land use (industrial setting).
- Protection of groundwater via the removal of the uranium soil sources, plume capture via extraction wells augmented with an *in situ* rubblized trench, to allow attenuation of uranium groundwater concentrations to the USEPA maximum contaminant level for the protection of drinking water.

### Remedial Alternatives

The following remedial alternatives were developed in the feasibility study and evaluated using the criteria outlined in the NCP.

- *Site-Wide Alternative 1*: No Action
- *Site-Wide Alternative 2*: Dismantlement and Off-Site Disposal of Buildings 1, 2, 3, 4/9, 5, 6, 8, 24, and 35; Complete Soil Removal to the Soil Preliminary Remediation Goal - Groundwater and Off-Site Disposal; Monitored Natural Attenuation with Environmental Monitoring
- *Site-Wide Alternative 3*: Dismantlement and Off-Site Disposal of Buildings 1, 2, 3, 4/9, 5, 6, 8, 24 and 35; Complete Soil Removal to the Soil Preliminary Remediation Goal - Groundwater and Off-Site Disposal; Groundwater Recovery Using Extraction Wells and a Rubblized Trench with *Ex Situ* Treatment, with Environmental Monitoring
- *Site-Wide Alternative 4*: Decontamination of Building 1; Dismantlement and Off-Site Disposal of Buildings 2, 3, 4/9, 5, 6, 8, and 24; Complete Soil Removal to the Soil Preliminary Remediation Goal –Construction Worker and Off-Site Disposal; Monitored Natural Attenuation with Environmental Monitoring

Table 1 on the next page compares the four remedial alternatives for the Guterl Site based on seven of the nine evaluation criteria outlined in the NCP. The remaining two NCP criteria, state and community acceptance, will be evaluated based on comments received on the proposed plan. Responses to comments received will be provided in the record of decision, which will identify the selected remedy to be implemented for the site.

Table 1: Comparative Analysis Table

<b>NCP Evaluation Criteria</b>	<b>Site-Wide Alternative 1</b>	<b>Site-Wide Alternative 2</b>	<b>Site-Wide Alternative 3</b>	<b>Site-Wide Alternative 4</b>
<b><i>Threshold Criteria</i></b>				
Overall Protection of Human Health and the Environment	Not Protective	Protective	Protective	Protective
Compliance with ARARs	Not Compliant	Compliant	Compliant	Compliant
<b><i>Balancing Criteria</i></b>				
Long-Term Effectiveness and Permanence	Low	High	High	Moderate
Reduction in Toxicity, Mobility, and Volume Through Treatment	Low	Low	Moderate	Low
Short-term Effectiveness	High	Moderate	Moderate	Moderate
Implementability	High	Moderate	Low	High
<b><i>Cost</i></b>				
Capital Cost (non-discounted)	\$0	\$180.9 M	\$189.3 M	\$104.4 M
Present Worth Operations and Maintenance Cost	\$0	\$5.2 M	\$16.3 M	\$5.2 M
Total Present Worth Cost	\$0	\$186.1 M	\$205.6 M	\$109.7 M

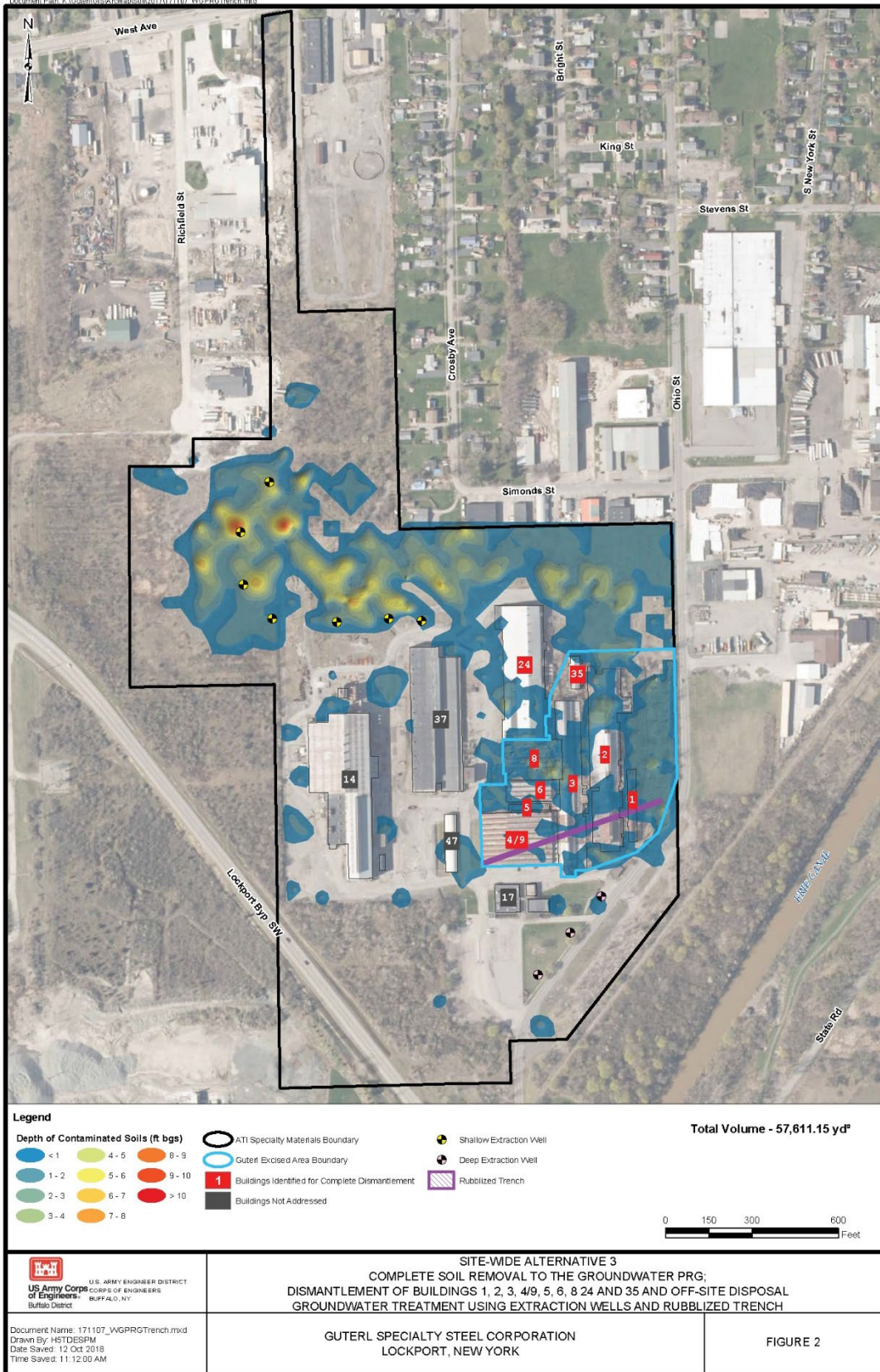
Note: High represents a favorable rating for the specific criteria whereas Low represents the least favorable rating.

Present Worth discount rate used is 3.5 percent.

M=million

### ***Proposed Plan***

The preferred alternative identified by the Corps of Engineers in the proposed plan is Site-Wide Alternative 3. The alternative includes dismantlement and off-site disposal of Buildings 1, 2, 3, 4/9, 5, 6, 8, 24 and 35; removal and off-site disposal of soil to the preliminary remediation goal for groundwater protection; and uranium groundwater plume recovery using extraction wells and an *in situ* rubble trench with *ex situ* treatment, environmental monitoring of groundwater plume attenuation (enhanced and natural). (See Figure 2 next page.)



### Buildings

The preferred alternative includes dismantlement and off-site disposal of Buildings 1, 2, 3, 4/9, 5, 6, 8, 24 and 35. (The dismantlement of Building 24 and the remediation of underlying soils would be conducted at the time of the site-wide remedial action with property owner permission to dismantle the building. If Building 24 is not available or authorized for dismantlement at the time of the site-wide remedial action, the inaccessible underlying soil and Building 24 would remain until it becomes available under a change of site conditions.) The building removal action would require approximately 40 weeks.

### Soil

All impacted soil exceeding the preliminary remediation goal for the protection of groundwater (11 milligrams/kilogram, or 7.5 picocuries/gram, of uranium) would be excavated and disposed in an off-site facility permitted to receive such materials. The estimated volume of soil removal for this alternative is 58,000 cubic yards. The excavations would be restored with clean backfill and reseeded. The soil remedial action for the preliminary remediation goal for groundwater would require approximately 58 weeks.

### Groundwater

Uranium in groundwater would be addressed through environmental monitoring of plume attenuation (enhanced and natural), and uranium groundwater plume recovery using a series of vertical extraction wells and an *in situ* rubblelized trench established along the southern Excised Area boundary to extract contaminated groundwater. The groundwater model predicts it would take approximately 30 years with groundwater recovery and treatment technologies under Site-Wide Alternative 3 for the uranium concentrations in groundwater to be reduced to the maximum contaminant level (30 micrograms/liter). The groundwater model predicts it would take approximately 30 years with groundwater recovery and treatment technologies under Site-Wide Alternative 3 for the uranium concentrations in groundwater to be reduced to the maximum contaminant level (30 micrograms/liter).

The actions including soil removal, building remediation, installing the uranium groundwater plume recovery system, groundwater treatment, and final documentation would require approximately 135 weeks (31 months). The entire remedial action including the groundwater remediation would take approximately 32 years and 7 months.

Site-Wide Alternative 3 complies with the identified ARARs and provides the best balance among the five balancing criteria (i.e., long-term effectiveness and permanence; reduction of toxicity, mobility, and volume through treatment; short-term effectiveness; implementability; and cost).

## **Site Status**

The public is encouraged to review and comment on all the alternatives presented in the proposed plan. The public comment period for the proposed plan begins July 12, 2021, and ends September 10, 2021.



Due to restrictions that are in place in regard to public gatherings, a virtual public meeting will be conducted on Thursday, July 29, 2021, at 7 p.m. Space is limited, so please email [fusrap@usace.army.mil](mailto:fusrap@usace.army.mil) by 4 p.m., Wednesday, July 28, 2021 to register for the meeting, and to let us know if you will be providing comments. The public meeting presentation is available on the website in the Public Presentations section. The virtual public meeting will be recorded so that oral comments received can be captured.

Written comments may be emailed to [fusrap@usace.army.mil](mailto:fusrap@usace.army.mil) or mailed before the close of the comment period to the address in the footer below.

The proposed plan and supporting documents are available in the Reports section on the website listed below. They are also available in the administrative record file for the Guterl Site on the website.

The preferred alternative may be modified based on any new information acquired during the designated public comment period. Responses to comments received will be provided in the record of decision, which will identify the selected remedy to be implemented.

The Corps of Engineers continues to monitor conditions at the Guterl Site and post annual environmental monitoring data reports to the Corps of Engineers' project website.

### **Administrative Record File**

The Corps of Engineers maintains an administrative record file, which contains documents that will form the basis for the selection of response actions at the Guterl Site.

The administrative record file is maintained on-line at the website listed below.

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