# Appendix E: Hazardous, Toxic and Radioactive Waste Phase I ESA Documentation Report

Mississippi River, Dubuque County Iowa CAP Section 14 Emergency Streambank Protection

## **Dubuque Forced Sewer Main**

**Feasibility Phase** 

**Prepared By:** 

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> Doc Version: Final Feasibility Report July 2021

### **EXECUTIVE SUMMARY**

#### 1. BACKGROUND

This report documents the Phase I Hazardous, Toxic, and Radioactive Waste (HTRW) Environmental Site Assessment (ESA) for the parcels included in the City of Dubuque Forced Sanitary Main Section 14 Project located in Dubuque, Iowa, in accordance with Engineering Regulation (ER) 1165-2-132, HTRW Guidance for Civil Works Projects, and ER 405-1-12, Real Estate Handbook.

This Phase I ESA is being conducted to determine if there is any risk of HTRW concerns with a proposed erosion control project along a stretch of sanitary sewer that parallels the Mississippi River.

#### 2. CONCLUSIONS

This report has revealed no evidence of Recognized Environmental Conditions that could potentially affect the Study Area. The assessment was performed in conformance with scope and limitations of the American Standards for Testing of Materials Standard E 1527-13.

#### 3. RECOMMENDATIONS

No additional assessment or further investigation is recommended.

#### 4. LIMITATIONS

No ESA can wholly eliminate uncertainty regarding the existence for recognized environmental conditions concerning a property. This assessment is intended to reduce, but not eliminate, uncertainty regarding the existence of recognized environmental conditions in connection with a property with reasonable limits of time and cost. Continuing the Environmental Due Diligence Audit process beyond this Phase I ESA to a Phase II ESA may reduce uncertainty, or reveal unidentified environmental liabilities. If any previously unaddressed recognized environmental condition should arise, this Phase I ESA will be revisited.

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#### 1. GENERAL

**1.1. Guidance and Policy.** The United States Army Corps of Engineers (Corps) Engineering Regulation (ER) providing guidance for the conduct of Civil Works Planning Studies is contained in ER 1105-2-100, *Planning Guidance*. The policies and authorities outlined in ER 1165-2-132, *Hazardous, Toxic, and Radioactive Waste (HTRW) Guidance for Civil Works Projects,* and ER 405-1-12, *Real Estate Handbook,* were developed to facilitate the early identification and appropriate consideration of HTRW issues in all of the various phases of a water resources study or project. American Society for Testing and Materials (ASTM) Standard E1527-13 provides a comprehensive guide for conducting Phase I Environmental Site Assessments (ESA). These references provide information on what considerations are to be factored into project planning and implementation. The Corps' policy is to avoid construction of Civil Works projects.

#### 2. INTRODUCTION

**2.1. Purpose and Scope.** This HTRW inquiry is required in order to minimize and prevent Federal liability under the Comprehensive Environmental Response, Compensation and Liability Act and to reduce any threats to project workers and avoid costly delays associated with environmental abatement activities. Appendix E-A contains a list of acronyms used in this report.

Phase I ESAs use only practically reviewable information. This investigation and assessment of the property is guided by the level appropriate for the type of property, information developed in the course of the assessment, project requirements, regulatory agency requirements, and potential risks. The screening methods used to prepare the Phase I ESA have been selected based on the location, physical setting, surrounding land uses, and particular nature of the Study Area. Intrusive field sampling and lab analyses are not used for the Phase I ESA, but are reserved for the Phase II ESA when required.

**2.2. Limiting Conditions and Methodologies Used.** The techniques used to assess HTRW contamination within and adjacent to the Study Area consisted of review of aerial photographs and topographic maps, conducting interviews and site visits. Also, a search of federal and state environmental databases was conducted. The scope of inquiry was limited to investigating onsite HTRW potential within the project boundaries as well as offsite HTRW potential within a reasonable distance (according to ASTM standards) from the project. This Phase I ESA was completed by the Corps' Rock Island District (MVR) Environmental Engineering Section (CEMVR-EC-DN).

#### 3. STUDY AREA DESCRIPTION

The Study Area is along the right descending bank of Pool 12 of the Mississippi River, Section 31, in Township 89 North, Range 3 East. The Study area consists of a section of the Dubuque

Forced Sewer Main that runs directly adjacent to the Mississippi River on the western bank. The land is owned by Pacific Canadian Railroad with easements to the city of Dubuque, Parcels 1131501006, 1131501007, and 1131501008. Due to extended periods of high water, the shoreline developed significant areas of erosion over time. There are six key locations where the 42-inch concrete sanitary forced sewer main is exposed. Exposure of the 42-inch sewer main ranges from approximately 20 to 30 feet of pipe length at each key location and up to the full 42 inches of pipe diameter. There are approximately 180 feet of exposed sewer main with surrounding areas having 400 feet of protection an inch or less thick. In total there are an estimated 580 feet of exposed or nearly exposed sewer main. Originally, all areas were constructed with 24-inch minimum riprap cover to protect the sewer main.

The Study Area is bound to the east by the Mississippi River, and to the south is Mines of Spain Park consisting of a gravel parking lot, wooded floodplain and the Julian Dubuque Drive turnaround. To the west are two sets of railroad tracks owned by Pacific Canadian Railroad, a wooded bluff, baseball fields, and the Dubuque Wastewater Treatment Plant. North of the Study Area is the wooded bluff shoreline and railroad tracks leading towards the southern end of the City of Dubuque. Scattered residences are located on the bluff above the Study area.

#### 4. USER PROVIDED INFORMATION

**4.1 Title Records.** Chain of title information will be researched by the U.S. Army Corps of Engineers Rock Island District (CEMVR) Real Estate Division (RE).

**4.2 Environmental Liens or Activity and Use Limitations.** Martha Cox (RE), did not indicate any specialized knowledge indicative of environmental liens and Activity and Use limitations.

**4.3 Specialized Knowledge.** Martha Cox, did not indicate any specialized knowledge indicative of potential or actual Recognized Environmental Conditions (RECs), Controlled RECs (CRECs) or Historic RECs (HRECs) observed.

**4.4. Commonly Known or Reasonably Ascertainable Information.** Martha Cox did not provide any commonly known or reasonable ascertainable information that would be indicative of potential or actual RECs.

**4.5. Valuation Reduction for Environmental Issues.** Martha Cox indicated there is no information that indicates any valuation reduction on the subject site.

**4.6.** Indicators of Contamination at the Site. Martha Cox did not provide any information that would be indicative of contamination at the Study Area.

#### 5. RECORDS REVIEW

The purpose of a records review is to obtain and review records that will help identify recognized environmental conditions concerning the property. Some of the records reviewed pertain not just to the property, but also to properties within an approximate minimum search distance, in order to help assess the likelihood of problems from migrating hazardous substance or petroleum products. Factors considered in determining the approximate minimum search distance include the density of the setting, the distance that the hazardous substances or petroleum products are likely to migrate based on local geologic or hydrogeologic conditions, and other reasonable factors. This records review included reports from various federal and state databases, maps, and air photos. Appendix E-C contains a printout of results of the database search.

**5.1. EnviroMapper.** EnviroMapper, created by the Environmental Protection Agency, is a database warehouse implemented in the Oracle Relational Database Management System and is available through the Internet for public access. It has the ability to retrieve information from several environmental databases, such as Toxic Release Inventory System, Hazardous Waste, Brownfields, Air Emissions and Water Discharges.

An EnviroMapper database query for a 1/2 mile radius was conducted on May 18, 2021. One wastewater discharge site, hazardous generator and permitted air pollution discharger, all from the City of Dubuque Waste Water Treatment Plant, was identified. No other sites of concern were within the search radius. Appendix E-C contains a printout of results of the database search.

**5.2. Cleanups in My Community.** Cleanups in My Community, created by the US Environmental Protection Agency (EPA), is a database warehouse implemented in the Oracle Relational Database Management System and is available through the Internet for public access. It is a mapping and listing tool that shows sites where pollution is being or has been cleaned up throughout the United States. It maps, lists, and provides cleanup progress profiles for sites, facilities, and properties that have been contaminated by hazardous materials and are being, or have been, cleaned up under USEPA's Superfund, RCRA and/or Brownfields cleanup programs and Federal facilities that have been contaminated by hazardous materials and are being, or have been, cleaned up under USEPA's Superfund and/or RCRA cleanup programs.

A 'Cleanups in My Community' database query was conducted on May 18, 2021. No cleanups were identified within a 1 mile radius of the Site. Appendix E-C contains a printout of results of the database search.

**5.3. Iowa Department of Natural Resources (IA DNR) Leaking Underground Storage Tank (LUST) Database.** The IA DNR LUST Section is responsible for the regulation of underground storage tank systems used for the storage of regulated substances, primarily petroleum products. Staff in the section work with the owners of sites on the detection, prevention and correction of releases of products from underground tanks.

A database query conducted May 18, 2021 indicated one LUST site within 1 mile of the Study Area. LUST Incident Number 9LTP01, Dubuque Water Control Plant, was granted a No Further Action Classification by the IA DNR on January 30, 2017. Appendix E-C summarizes the details and results of the database search (as part of IA DNR Facility Explorer results).

**5.4. IA DNR Contaminated Sites Database.** The Contaminated Sites Section of IA DNR deals with a range of situations that involve contamination caused by a release of hazardous materials or hazardous waste products. The database contains all sites historically and currently involved in the IA DNR and USEPA Region 7 remediation programs.

A database query conducted May 18, 2021 indicated one Contaminated Site within 1 mile of the Study Area. Koch Sulfur Products Site is located approximately 500 feet west of the Study Area. The IA DNR granted a No Further Action classification to the Koch Sulfur Products Sie on April 25, 2000. Appendix E-C summarizes the details and results of the database search (as part of IA DNR Facility Explorer results).

**5.5. IA DNR Facility Explorer.** The Facility Explorer application brings together core environmental information in one place for easy access by IA DNR staff and the public. Environmental information collected in the application includes animal feeding facilities, USTs, wastewater outfalls, solid waste facilities, confinements, Tier II chemical storage facilities and solid waste land applications.

A database query conducted May 18, 2021, indicated several facilities within ½ mile of the Study Area. Two wastewater discharges are located south of the Study Area, one Contaminated Site Facility is located west of the Study Area, a wastewater treatment plant is located west of the Study Area, and a LUST site is located west of the Study Area. Appendix E-C summarizes the details and results of the database search.

**5.6. Physical Setting Sources.** The United States Geological Survey (USGS) topographical maps from 2018 were used for records review. Surface elevation for the Study Area ranges from 590 to 610 feet above mean sea level (NAD 1983). The Study Area is the shoreline of the Mississippi River at the toe of limestone/dolomite bluffs which rise over 200 feet above the river. To the east of the Study Area is Pool 12 of the Mississippi River, and to the south is the floodplain and terrace system of Catfish Creek, which enters the Mississippi River from the west. The Study Area vicinity is dominated by invasive and scrub trees, and railroad and sanitary sewer infrastructure.

See Appendix E-D for topographic maps of the Study Area.

**5.7. Historical Use Information.** Based on aerial photos and interviews, the Study Area and immediate vicinity has been utilized for railroad transportation for over a century. As such shoreline erosion control and enhancement has been conducted over the same time period. Due to the limited amount of suable space bet ween the shoreline and bluff, no residential, commercial or industrial development besides the railroad and forced main has occurred within the Study Area. Commercial and industrial development has occurred over time to the southwest of the Study Area, and residential development has occurred to the west, albite at the top of the bluff. The sanitary sewer forced main has been in lace for well over 3 decades.

See Appendix E-E for aerial photos. No RECs were identified in the air photos.

No Sanborn Fire Insurance Maps were found for the Study Area and immediate surrounding properties.

#### 6. SITE RECONNAISSANCE

**6.1. Methodology and Limiting Conditions.** A site visit was conducted by USACE representative Steve Gustafson (CEMVR-EC-DN) on October 16, 2021. A reconnaissance study was performed with visual inspection of surrounding properties. Site visit photos are contained in Appendix E-G.

6.2. General Site Setting. Mississippi River shoreline.

**6.3.** Interior Observations. There are no interior structures.

**6.4. Exterior Observations.** The following is a list of exterior items or features that were looked for during the site visit: bankline, shrubs/trees, adjacent railroad tracks, riprapped bank with sanitary sewer infrastructure.

The following exterior observations were made:

- No indications of hazardous materials storage areas.
- No indications of refuse or illegal dumping.

No indications of RECs were observed in the Site Reconnaissance phase.

#### 7. INTERVIEWS

• Date: May 18, 2021

Name: Tom Berger, Director, Dubuque County Emergency Management Agency

Topic: Discussed knowledge of Study Area history, environmental issues, spills, cleanups, environmental liens and activity and use limitations (AUL's). Mr. Berger did not identify any concerns.

• Date: June 7, 2021

Name: Steve Sampson Brown, Project Manager, City of Dubuque, Iowa.

Topic: Discussed knowledge of Study Area history, environmental issues, spills, cleanups, environmental liens and activity and use limitations (AULs). Mrs. Cox did not identify any concerns. Mr. Sampson Brown indicated the possibility of soil contamination from past railroad activities.

See Appendix E-F for interview discussion.

#### 8. EVALUATION

**8.1 Documentation.** No documentation was excluded from the Phase I ESA.

**8.2 Findings.** The database searches indicated contamination associated with releases southwest of the Study Area. However, these releases have been rectified and granted No Further Action classification according to the IA DNR. A set of railroad tracks are present adjacent to the Study Area.

**8.3 Opinion.** As the documented releases are classified as No Further Action by the state regulatory agency, there are no concerns remaining for those facilities in respect to the Study Area. While there are railroad tracks adjacent to the Study Area, there are no documented releases or spills in the Study Area. No CRECs, HRECs or RECs are present in the Study Area. However, it is recommended that any soil materials removed from the Study Area be screened for contaminants prior to determine final disposition of said materials.

**8.4 Additional Investigation.** No additional investigation is warranted.

8.5 Data Gaps. No data gaps were identified.

**8.6 Conclusion.** CEMVR-EC-DN has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-13 for the Study Area [Parcels 1131501006, 1131501007, 1131501008, Section 31, in Township 89 North, Range 3 East, Dubuque County, Iowa]. Any exceptions to, or deletions from, this practice are described in Section 9 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the Study Area.

#### 9. DEVIATIONS AND LIMITATIONS

No ESA can wholly eliminate uncertainty regarding the existence for recognized environmental conditions concerning a property. This assessment is intended to reduce, but not eliminate, uncertainty regarding the existence of recognized environmental conditions in connection with a property with reasonable limits of time and cost. Continuing the Environmental Due Diligence Audit process beyond this Phase I ESA to a Phase II ESA may reduce uncertainty, or reveal unidentified environmental liabilities. If any previously unaddressed recognized environmental condition should arise, this Phase I ESA will be revisited. The findings of this report are valid as of the date of the report.

#### **10. REFERENCES**

- U. S. Army Corps of Engineers, Rock Island District, ER 1165-2-132, Hazardous, Toxic, and Radioactive Waste Guidance for Civil Works Projects, 26 June 1992.
- ASTM E 1527-13, Standard Practice for Environmental Site Assessments: Phase Me Environmental Site Assessment Process.
- ASTM E 1528-14, Standard Practice for Environmental Site Assessments: Transaction Screen Process.

#### **11. SIGNATURES AND QUALIFICATIONS**

We declare that to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history and setting of the subject property. We have developed and performed the all appropriate inquires in conformance with the standards and practices set forth in 40 CFR Part 312.

CEMVR-EC-DN representative Steve Gustafson, P.G., was responsible for the preparation of this Phase I Environmental Site Assessment.

Prepared by \_\_\_\_\_

Date\_\_\_\_\_

CEMVR-EC-DN representative Kara Mitvalsky, P.E., conducted review activities for this Phase I Environmental Site Assessment.

Reviewed by\_\_\_\_\_

Date\_\_\_\_\_

# **APPENDIX E-A**

Acronyms

AST	Aboveground Storage Tank
ASTM	American Society for Testing and Materials
CEMVR	Corps of Engineers, Mississippi Valley Division, Rock Island District
ED-DN	Engineering Division - Environmental Engineering Section
USEPA	Environmental Protection Agency
ER	Engineering Regulation
HTRW	Hazardous, Toxic, and Radioactive Waste
IA DNR	Iowa Department of Natural Resources
IL EPA	Illinois Environmental Protection Agency
LUST	Leaking Underground Storage Tanks
REC	Recognized Environmental Conditions
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
TRIS	Toxic Release Inventory System
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey

### **APPENDIX E-B**

# Site Vicinity Map



# **APPENDIX E-C**

# **Environmental Database Searches**



![](_page_16_Figure_1.jpeg)

![](_page_17_Picture_0.jpeg)

![](_page_17_Figure_1.jpeg)

#### Cleanups In My Community Map

![](_page_18_Figure_1.jpeg)

Facility ID	Facility Name	Address	Programs
311116633	Apc Dubuque	1300 Inland Ln Dubuque, IA 52003	Air-Minor-31-01-038 Wastewater-NPDES General Permit #1-3 - Storm Water-NoExp379
<u>310201531</u>	City Of Dubuque Water & Resource Recovery Center	795 JULIEN DUBUQUE DR Dubuque, IA 52003	Air-Minor-31-01-035 Emergency Response-Spills-092710-MAW-1520 Hazardous Waste-RCRA-IAD984599662 Solid Waste-Recycling and Processing-31-SDP-11-01 Solid Waste-Recycling and Processing-31-SDP-05-92 Emergency Response-Risk Management Plan-100000134428 Wastewater-NPDES General Permit #1-3 - Storm Water-18314 Wastewater-NPDES Wastewater Treatment Operating Permit-3126001
<u>310449688</u>	Dubuque Wastewater Treatment Plant	795 JULIAN DUBUQUE DR Dubuque, IA 52001	Underground Storage Tank-Leaking UST-9LTP01 Underground Storage Tank-UST-198607137 Underground Storage Tank-UST-198607145
<u>310443375</u>	Former Ludwig Property	1545 SOUTH GRANDVIEW Dubuque, IA 52001	Underground Storage Tank-Leaking UST-8LTX02 Underground Storage Tank-UST-198606651
310483713	Sisters Of Charity Bvm	1100 CARMEL DRIVE Dubuque, IA 52003	Underground Storage Tank-UST-198602081

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E-C-3

# **APPENDIX E-D**

**Topographic Maps** 

![](_page_20_Picture_0.jpeg)

1955 Topographic Map, Dubuque South Quadrangle 7.5 Minute Series, Contour interval 10 feet Image Courtesy of USGS

![](_page_21_Figure_0.jpeg)

2018 Topographic Map, Dubuque South Quadrangle 7.5 Minute Series, Contour interval 10 feet Image Courtesy of USGS

## **APPENDIX E-E**

**Aerial Photos** 

![](_page_23_Figure_0.jpeg)

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## **APPENDIX E-F**

# **Questionnaire Forms**

Interview Date: 5/18/21 Name: Tom Berger Title: Director Company/Organization: Dubuque County Emergency Management Agency Status: Client/Owner Site Manager Occupant Government Official X Other NGO Partner

During what time period were you the site manager of the property? NA

What is the current use of the property? shoreline

Who are the occupants of the property? railroad

Do you have any other knowledge or experience with the property that may be pertinent to the environmental professional? Yes No

If yes describe:

Are you aware of any environmental cleanup liens against the property that are filed
or recorded under Federal, tribal, state or local law?
Yes
No
If yes describe:

Are you aware of any Activity and Use Limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry? Yes No If yes describe: Do you know the past uses and general history of the property? Yes No If yes describe:

Do you know of specific chemicals that are present or once were present at the property? Yes No If yes describe:

Do you know of spills or other chemical releases that have taken place at the property? Yes No If yes describe:

Do you know of any environmental cleanups that have taken place at the property? Yes No If yes describe:

Based on your knowledge and experience related to the property are there any indicators that point to the presence or likely presence of contamination at the property? Yes No If yes describe:

Interview Date: 6/7/2021 Name: Steve Sampson Brown Title: Project Manager Company/Organization: City of Dubuque Status: Client/Owner Site Manager X Occupant Government Official X Other NGO Partner

During what time period were you the site manager of the property?

2008 – Present Time.

What is the current use of the property?

Railroad tracks.

Who are the occupants of the property?

Canadian National and Canadian Pacific Railroads

Do you have any other knowledge or experience with the property that may be pertinent to the environmental professional?

### Yes

No

If yes describe: The railroad has operated on these lands for 100 years and the contaminates typically associated with a railroad may be present. The railroad also annually sprays herbicide onto vegetative growth adjacent to the tracks using a 2" fire hose mounted on a rail car.

There have been no land use changes to my knowledge since USACE acquisition N/A

Are you aware of any environmental cleanup liens against the property that are filed or recorded under Federal, tribal, state or local law?

Yes

No

If yes describe:

Are you aware of any Activity and Use Limitations, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry?

Yes <mark>No</mark>

If yes describe:

Do you know the past uses and general history of the property? Yes See info above regarding railroads. No If yes describe:

Do you know of specific chemicals that are present or once were present at the property?

Yes

No

If yes describe:

Do you know of spills or other chemical releases that have taken place at the property? Yes

No

If yes describe: In the 1990's there was a train derailment within the project area. The materials being carried by the train is unknown.

Do you know of any environmental cleanups that have taken place at the property? Yes

### No

If yes describe:

Based on your knowledge and experience related to the property are there any indicators that point to the presence or likely presence of contamination at the property?

### Yes

### No

If yes describe: The railroad has operated on these lands for 100 years and the contaminates typically associated with a railroad may be present.

## **APPENDIX E-G**

**Site Visit Photos** 

![](_page_41_Picture_0.jpeg)

Photograph 1: 10/16/20, Study Area South End, Looking Northwest

![](_page_42_Picture_0.jpeg)

Photograph 2: 10/16/20, Study Area, Mid-Section, Looking West

![](_page_43_Picture_0.jpeg)

Photograph 3: 10/16/20, Study Area, Mid-Section, Looking Southwest

![](_page_44_Picture_0.jpeg)

Photograph 4: 10/16/20, Study Area, Southern End, Looking North-Northwest

![](_page_45_Picture_0.jpeg)

Photograph 5: 10/16/20, Study Area, Southern End, Looking West

![](_page_46_Picture_0.jpeg)

Photograph 6: 10/16/20, Study Area, Exposed Forced Main, Looking South

![](_page_47_Picture_0.jpeg)

Photograph 7: 10/16/20, Study Area, Southern End, Looking South

![](_page_48_Picture_0.jpeg)

Photograph 8: 10/16/20, Study Area, Close Up of Riprap